

THE IMPACT OF THE FERST FOUNDATION FOR CHILDHOOD LITERACY
ON THE HOME LITERACY ENVIRONMENT

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The Impact of the Ferst Foundation for Childhood Literacy
on the Home Literacy Environment
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Abstract

This study examined if, among families whose children were enrolled in the Ferst Foundation for Childhood Literacy, there was a relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program. Participants were a stratified random sampling from the population of parents in the State of Georgia whose children were enrolled in the Ferst Foundation for Childhood Literacy program. Using a pilot-tested original survey instrument, 2,100 survey packets were mailed to participants. Valid returned surveys totaled 1,082. Valid surveys were analyzed to determine if a relationship existed between the home literacy environment and the number of years enrolled in the program. Pearson correlation revealed a correlation of positive direction but of small strength in the home literacy environment scores. Therefore, this study suggests that a positive relationship does exist between the home literacy environment and the years of enrollment in the Ferst Foundation for Childhood Literacy program. This dissertation contains an introduction, review of literature, methodology, results, discussion, references, and appendixes.

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Chapter 1: Introduction to the Study

A fundamental goal of the American society is to educate its children. This education begins in the home at birth with parents and/or caregivers as the first teachers. Research has shown that the literacy environment established in the home is directly related to future student academic success (Burgess, 2002a). Homes that have an extensive selection of reading and writing materials available to children promote their learning to read at an early age. The preschool years are a critical time when young children acquire skills that will ultimately transition to later reading success (Justice & Kaderavek, 2004). Research by Bennett, Weigel, and Martin (2002) indicated a positive relationship between parents' own literacy beliefs and subsequent activities that create an opportunity for young children to develop key literacy skills.

However, the magnitude of literacy problems many children face upon entering school and their lack of success with early reading skills indicate that many homes do not provide a literacy-rich environment in which the children can acquire emergent reading skills (Koger, 2005). Koger emphasized it is critical that parents be provided with literacy materials and taught ways to engage their children in activities that develop emergent literacy concepts. The Ferst Foundation for Childhood Literacy (FFCL) is one program trying to provide families with literacy materials needed to promote early literacy among preschool children.

This research study examined the home literacy environment of participating families enrolled in the FFCL. This first chapter of the dissertation introduces the study. It presents the problem statement, null hypothesis, background of the study, and

professional significance of the study. An overview of methodology and definition of terms are also presented. Chapter 1 is concluded with a summary.

Research Question

Among families whose children are enrolled in the FFCL, is there a relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program?

Null Hypothesis

Among families whose children are enrolled in the FFCL, there is no significant relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program.

Background of the Study

In 1996, country music legend Dolly Parton commenced the Imagination Library program in her home town of Sevier County, Tennessee (Imagination Library, 2007). She wanted to foster the love of reading among her county's preschool children and their families. To accomplish this, her aim was to insure that every child would receive books, regardless of the child's family income. Therefore, Dolly Parton started mailing free, hard-cover, age-appropriate books to every child under the age of 5 in her community through the Dollywood Foundation (Penguin Group [USA], 2007).

In 2001, Dolly Parton expanded her influence by offering other communities the opportunity to replicate her program. She established a process where community groups could bring the Imagination Library program to their area through a simple means. The community groups make books accessible to all preschool children in their areas by soliciting funds, paying for the books and mailings, promoting the program, registering

the children, and entering the information into the database (Imagination Library, 2007). From there the Dollywood Foundation takes over and manages the database system in order to deliver the books to the homes. Penguin Group (USA) is the supplier of all of the books for the program. The first book that all children receive after joining is *The Little Engine That Could* by Watty Piper. The last book children receive is *Look Out Kindergarten, Here I Come* by Nancy Carlson. A complete book list for 2007 is provided in Appendix A. As of August 2007, over 600 communities across 36 U.S. states, as well as Canada, had joined the Dollywood Foundation to give millions of books to preschool children.

Mrs. Robin Ferst Howser was inspired by Dolly Parton's Imagination library and contacted Parton for support in starting a program in Georgia. In 1999, Mrs. Howser established the Ferst Books Foundation. The foundation sent books obtained from Dolly Parton's Imagination Library to children, birth to 5 years of age, in Howser's home town of Madison, which is located in Morgan County. The program is currently titled the FFCL and continues to send books from Dolly Parton's Imagination Library in conjunction with an enhancement from a second literacy support initiative, Leap Into Books (Ferst Foundation for Childhood Literacy, 2004). As of October 2007, the FFCL serves 46 counties and 4 communities in Georgia (Appendix B). The FFCL hopes to serve all 159 Georgia counties in the future.

The FFCL's goal is to send books to every child in the State of Georgia who is between birth and 5 years of age. A children's book and parent resource newsletter is sent once a month to each child enrolled in the program. The early literacy intervention program cost is \$35 per child per year to keep the program operating at each site. Each

county or site manages the program through a community action team whose members are volunteers devoted to improving literacy. Each county handles the cost of the program through donations from various sources; school systems, local businesses, grants and private donations. These donations are solicited by the community action team members. Materials are sent at no cost to the children enrolled, and enrollment is not based on any socioeconomic factors. All children can enroll as long as they are living in a participating area and are between the ages of birth and 5 years of age (Franklin County Chamber of Commerce, 2006).

The foundation strives to improve early childhood learning for every child regardless of income, race, religion, or gender with the viewpoint that any child who cannot read is at risk (FFCL, 2004). The FFCL argues that the program cannot tackle all the concerns of early literacy; however, it can work to eliminate one of the reasons why parents do not read to their children. It can make quality books available in the home. These are books delivered not just once, but up to 60 times in the child's critical years of development between the ages of birth and 5 years of age (Franklin County Chamber of Commerce, 2006).

Professional Significance of the Study

It is hoped that this research study of the FFCL will contribute to the body of knowledge concerning early childhood literacy intervention programs and the home literacy environment. When educators, policymakers, and academic researchers are questioned about why children enter school at different stages of reading readiness, the answer usually involves some aspect of the home literacy environment (Burgess, Hecht, & Lonigan, 2002). Burgess et al. imply that a reliable positive relationship between the

home literacy environment and educational outcomes has been demonstrated through past research. The results of research have consistently found that homes with a literate home environment promote children's literacy and academic achievement. The National Reading Panel, a committee appointed by the United States Department of Education, found five broad areas that influence family literacy. Snow, Burns, and Griffin (1998) list these five areas as the following:

1. Value placed on literacy: Parents who read and encourage their children to read model that they value reading.
2. Press for achievement: Parental expectations for their children's achievement and providing instruction influences reading development.
3. Availability and instrumental use of reading materials: Homes rich in literacy materials are more likely to provide literacy experiences.
4. Reading with children: Parents can read to young children or listen to and assist older children with reading.
5. Opportunities for verbal Interaction: shared book reading and conversations provide language-rich environments for children.

Effective early intervention programs focus on one or more of the five areas identified by the National Reading Panel. While there has been much research on childhood literacy intervention programs in the United States and abroad, each program needs to be examined to know if and why a program is successful (Fagan, 2001). In order to design effective and long-lasting interventions, much more research on how interventions influence the home literacy environment is needed (Debaryshe, 1995). Research needs to define the term, family involvement, more precisely and examine the

scope of children's early care and education experiences (Gadsden & Ray, 2003). Only by examining interactive events between adults and children in more detail will researchers begin to understand the dynamics of the links between the home literacy environment and early literacy development (Reese & Cox, 1999). Studying early literacy intervention programs in the home will add to this body of knowledge.

As academic researchers continue to study literacy experiences, there will be a better understanding of environmental supports for the development of literacy. This understanding will help determine how much change it takes in environmental supports to stop the daunting cycle of underachievement that we as a nation are encountering today (Dickinson, McCabe, Anastasopoulos, Peisner-Feinberg, & Poe, 2003). Reading aloud to children has been identified as the single most important activity in helping young children toward reading success (National Institute for Literacy, 2003). Parents can be literacy role models for their children long before the children enter school by reading to them, reading themselves, and making literacy materials available in the home (Smith & Elish-Piper, 2002). However, some parents may not recognize the value of reading aloud and role modeling reading behaviors. Others do not have access to literacy rich materials. Families cannot be successful at making literacy learning experiences when there is an impoverished source of materials in the home (Fagan, 2001). The FFCL aims to make reading materials available to all children.

This research examined the FFCL and its contribution to early literacy learning experiences, specifically if there is a relationship between the home literacy environment and the years of enrollment in the program. The National Research Council (2001) recommended that "the next generation of research must examine more rigorously the

characteristics of programs that produce beneficial outcomes for all children (p. 19) and that the “research on programs for any population of children should examine such program variations as age groupings, adult-child ratios, curricula, class size, and program duration” (p. 20). This research on the FFCL followed the National Research Council recommendation and examined the length of time enrolled in the literacy program.

The need for this research was found in two previous studies conducted on the FFCL. *The Literacy Outcomes and the Household Literacy Environment: An Evaluation of the Dolly Parton’s Imagination Library Summary* (High/Scope Educational Research, 2003) explained that future studies concerning the Imagination Library program need to focus on an impact evaluation with a strong research design, including a baseline measure and use of a valid literacy measure. *The Family Connection Partnership Evaluation Results Report* (Trovillo, 2006) suggested that future studies on FFCL need to compare the effects of multiple-year participation. After reading the two previous studies, the researcher questioned if the length of time that the FFCL program provided literacy materials and parent resources to participants influenced literacy experiences in the homes of young children. It was hoped that the research study would provide data useful in answering the researcher’s question.

Definition of Terms

To clarify the terms that were used in this study, the following definitions were taken from current literature.

Childhood Literacy: Childhood literacy is the fostering of reading fundamentals in preschool children. It is focused on ensuring that all children enter school ready to read. Learning to read and write is critical for success in school and throughout a person’s life.

By starting early, childhood literacy supporters recognize learning to read begins before a child enters school (Hausner, 2000).

Early Intervention: Early intervention is an intervention plan or program that takes place before first grade or compensatory school age (Hausner, 2000).

Emergent Literacy: Emergent literacy is a endlessly emerging and evolving capability that results from one's experiences and experiments with language in literacy contexts. Emergent literacy focuses on the reading and writing development of children before they attain the conventional literacy skills and strategies. The highlights of a young child's progression toward conventional literacy include developing an understanding of concepts about print, the alphabetic principle, and a sense of story (Burgess, 2002a).

Family Literacy: For this study, family literacy is used as an explanatory concept. It is a way to describe how parents and children read and write together and alone during daily activities (Paratore, 2005).

Home Literacy Environment: The home literacy environment is the combination of any and all literacy activities that take place in the home. It has been found that the facets of the home literacy environment explain more adequately the relation between the home environment and educational and developmental outcomes than do social class measures (Burgess, 2002a).

Literacy: Literacy is the term that implies an interaction between societal demands and an individual's competencies for reading and writing (Hausner, 2000).

Parent(s): For this study, the term parent(s) is defined as any adult who has legal guardianship or primary care of the child. This means that the parent(s) can be mother, father, grandparent(s), aunt, uncle, or a nonfamily member.

Summary

In summary, educators, policymakers, and researchers recognize that the home literacy environment is a critical piece of the literacy puzzle. Research in the area of literacy development supports a strong link between the home environment and children's future school success (Zygouris-Coe, 2001). Programs such as the FFCL must seek ways to increase the home literacy environment practices of the families they serve. Chapter 1 introduced how this research study is believed to be of professional significance. Exploring and analyzing the correlation between the home literacy environment and the years of the FFCL program material usage is hoped to have added a deeper understanding of how to develop more effective early literacy intervention programs.

Chapter 2 is the review of literature. The chapter begins with a review of child development and learning theories. The review continues to build with the topics of literacy development skills and literacy in the United States. Additionally, there is discussion on the home literacy environment and early literacy programs. A review of the FFCL program is included. Chapter 2 concludes with a discussion of the survey research method for collecting quantitative data and a summary.

Chapter 2: A Review of Literature

This chapter is a review of the current literature pertaining to the research study. Home literacy practices and intervention programs that educators, academic researchers, and policymakers advocate are grounded in theoretical principles. These theories, along with scientific knowledge of early brain development, lead to the understanding of literacy, the home literacy environment, and the implementation of early literacy programs. This review of literature focuses on research in the following areas: child development and learning theories, brain development, literacy development skills, home literacy environment, early literacy programs, the FFCL, and survey research methods. The literature review presents the need for and approach to the research. Chapter 2 begins with the search process. The review of literature is then presented. The chapter concludes with a summary.

Search Process

In reviewing academic journal articles, dissertations, books, and Web sites, the main topics for the literature review started to emerge. The first step was to search the scientific literature. Primary searches were conducted on Liberty University's Journal Data base ERIC—EBSCOhost (Appendix C) and ProQuest dissertation and theses (Appendix D). A broad search of the research literature was conducted. The second step was to narrow the search. Once the found literature was surveyed and reviewed, subtopic categories were developed and further searches were conducted. A variety of topics that relate to the proposed research were written between 1997 and 2007. Most articles used for the review were taken from this time period. The third step was to read the material

found. After reviewing the literature carefully, it was decided that some material that was dated before 1997 needed to be included in the literature review due to their historical significance and impact on the field of literacy. The fourth step was reviewing the reference sections of selected articles obtained from the previous searches in order to locate additional information on selected topics. The searches yielded a vast amount of information on literacy; however, none of the searches yielded results on the FFCL or the Imagination Library.

Child Development and Learning Theories

Piaget, Vygotsky, Bruner, Ehri, and Dewey have shaped learning theories that influence pedagogy, early child development, family literacy, and parental involvement practices. The implications of these individuals and theories are important to the development of early literacy programs that hope to impact the home literacy environment. Each has had a powerful influence on leaders in education and the way educators think learning should take place.

Swiss psychologist Jean Piaget's cognitive constructivist theory became increasingly popular in the 1960s and provided a foundational basis for studying children's development and learning. Piaget (1926) believed that individuals construct very individualized personal reality based on previous knowledge and new experiences. For Piaget, the importance of the social context is to provide children with a means of testing the knowledge they have already constructed in past experiences. In addition, all knowledge is an interaction between the past and current environment and the individual (Tzuo, 2007). This line of thinking is known as the schema theory. A schema is defined as an abstract mental structure containing the generalized characteristics of the entity in

question. Such schema is built up as a result of various repeated experiences. Schema theory emphasizes the interaction between students' prior knowledge and the new concepts, skills, and practices they are being taught by people around them (Gholson & Craig, 2006). Based on these beliefs, it is believed that homes with rich literacy environments will help expand a child's schema and therefore their learning.

During his research, Piaget (1926) found many consistencies in the thought processes of children of similar ages. He concluded that mental development progresses in the course of very precise and definite stages and these stages occur in fixed sequences. These stages are sensory motor, preoperational, concrete operational, and formal operational. The sensory motor stage occurs when a child is at 0 to 2 years of age. It is characterized by feeling and using senses to find out about the world around them. Achievements and activities consist largely of coordinating sensory experiences and behaviors. Object permanence is an essential accomplishment during the sensory motor stage. The preoperational stage occurs when a child is 2 to 7 years of age. During this stage the child still relies on the senses but is able to also use language and words to represent concepts that are not visible. Individuals can correspond to reality through the use of symbols, including mental images, words, and signs. The concrete operational stage is between the ages of 7 to 11 years in a child's life. At this time the child is developing the important concepts of numbers, relationship, and process. Operational thinking allows individuals to mentally combine, separate, order, and transform experiences and activities. These operations are considered concrete because they are carried out only in the presence of the objects, people, and events being reflected on. The formal operational stage takes place in a person after 11 years of age. At this time the

child is able to think and process in more abstract terms. Individuals begin to think more like scientists, devising plans to solve their problems and systemically testing solutions to the problems. Research in the area of cognitive development suggests that each person's advancement to formal operations is a very gradual and rigid process that is based on content and experience (Cook-Cottone, 2004).

Russian psychologist Lev Vygotsky's social constructivist theory became popular in the 1980s (Tzuo, 2007). Vygotsky made an extremely important claim that a child's collaboration with the adult increases the child's abilities, inducing a transition to the next stage of cognitive development. This distinguished his views of child development from those of Piaget (Arievitch & Haenen, 2005). Vygotsky's theory emerged out of the societal and political context of the first decades of the 20th century. For Vygotsky, learning is an interactive and constructive activity, with both society and individuals playing essential roles in obtaining knowledge.

Vygotsky (1978) emphasized the importance of the educational and societal structure in the development of a person's thinking. He viewed all learning as an advancing development of thinking. According to this theory, the social context is the vital axis upon which development of thinking originates from the exterior of an individual. The exterior is the person's surroundings and experiences. Development arises from society as a power working inward on the person toward independent thought processes. Thus, culture is what shapes thinking and influences the way in which a person creates reality. Therefore, a child's reading development is affected in ways large and small by the culture of the family environment in which he or she is enmeshed.

When studying children's interactions, Vygotsky (1978) saw that children learned more efficiently when they were able to talk through a problem and help each other with the solution. He argued that learning is not a process that takes place in cognitive isolation, but within the framework of activities and social exchanges likely informed by the routine cultural surroundings. Secondly, Vygotsky suggested school learning is for the most part guided by the interaction between the conceptual domains of the child's home and the child's school. Thirdly, he claimed that regardless of a child's cultural background, the most successful school learning occurs when the learned beliefs and activities in the home are meaningfully connected to the beliefs and activities encountered in the formal school setting.

In addition, Vygotsky developed the concept of the zone of proximal development. This refers to the gap between what a child can achieve alone, by independent problem solving, and what the child can achieve through problem solving under the direction of an adult or a more capable peer. Chaiklin (2003) argued that the common idea of the zone of proximal development is that when an interaction between a more competent person and a less competent person takes place, the less competent person will become independently proficient. It is the idea that the strong will make the weak stronger through joint activities.

Sociocultural learning theories emphasize the social nature of literacy practices, which individuals attain through participation in particular situations. A theoretical foundation at the very core of much of the sociocultural literacy research is the influential work of Vygotsky (Meacham, 2001). The sociocultural view of development supports the idea that an individual's academic development occurs and is supported by the cultural

experience of the individual. Everyday interactions between the parent and child provide multiple opportunities for the child to observe, be introduced to, and participate in the social interactions of the culture in which they are emerged (Steiner & Mahn, 1996). It is for this reason that home activities centered on the development of early literacy skills are such powerful tools for a child's future academic success.

Jerome Bruner, an American cultural psychologist, based his work on Vygotsky. Bruner (1983) took Vygotsky's zone of proximal development a step further with the concept of scaffolding that he developed. He noted that scaffolding provides appropriate assistance to the child but does not intentionally make the task any easier for the child. Scaffolding always maintains a constant level of task complexity while still assisting the child by means of sequenced intervention steps. When parents read to and with their child from a book on the appropriate interest and ability level, they have an opportunity to capitalize on the child's zone of proximal development by scaffolding. Bruner believes that education must be viewed as a social and moral issue and not just academic structure. Only after the social and moral issues have been dealt with can it be approached in a technical light. He argues that mental growth is like ascending a staircase with spurts and rests. The sequence of development is constrained to age but is not clearly linked to it. The sequence can be either slowed down or accelerated by environmental factors. In sharp contrast to Piaget's stage theory, Bruner's work suggests that children, regardless of age, can learn any material as long as the information is presented correctly. Bruner's theory consists of five cultural pedagogical principles. The principles are interaction, externalization, educational institution, personal identity and self-worth, and narrative.

Korat (2001) took Bruners' cultural pedagogical principles and argued that they have implications for literacy in early childhood and the home literacy environment. The five principles and Korat's implications are as follow:

1. The interaction principle: Interaction among humans is what sets them apart from other animals on the earth. This interaction happens mainly through language that allows a person to create meaning in their world. The interaction principle is seen in the home through parent-child discussions. It pivots around daily routines such as signs, letters, invitations, mail, menus, and lists. Social interaction in the home nurtures literacy development.
2. The externalization principle: Individuals constantly clarify their own inner thoughts and improve upon them through interaction with people around them. This usually takes place when working cooperatively on a joint project and develops the person's thought processes. It is evident when parents ask questions and listen to their children. Children will clarify their own thoughts while having conversations with their parents.
3. The educational institution principle: Different societies tend to cultivate certain areas of knowledge more than others through formal educational institutions. What is central to the educational system at the time is valued more in the individuals within the society. A school system that supports early literacy endeavors will have a positive impact on the home literacy environment in its area of influence.

4. The personal identity and the principle of self-worth: True learning must involve development of cooperative learning communities with a goal toward individual independence. It must not be training for life but, rather, life itself. Learning plans include choice of subject areas that nurture individual identity and has meaning on a personal, family, community, or national level. A child's very early literacy experiences helps to shape the child's identity and self-worth in the community.
5. The narrative principle: Human life revolves around stories that are told and handed down. Individuals tell and listen to stories in every area of life. Reading to children frequently and the discussion that takes place before, during, and after reading time are significant to the development of literacy development. Reading and dialogue about the story nurtures genre, linguistic context, vocabulary, and syntax. It also cultivates positive expression of emotions and constructs social and moral decisions.

A sociocultural context that supports the development of early literacy is an every day environment, which is infused with various print materials. It is filled with but not limited to reading books, newspapers, and magazines. Writing and reading take place as normal daily behavior. The use of computers and other technology is often seen in this environment, and discourse with children is evident on a daily basis. According to cultural educational pedagogists, education for young children is “a matter of adapting the culture to their needs as human beings and, at the same time, adapting the young children to the culture in which they live” (Korat, 2001, p. 230).

Linnea C. Ehri constructed the theory of how a person progresses through the different phases of reading. She suggested that the flexible model is composed of four phases of reading development: pre-alphabetic, partial alphabetic, full alphabetic, and consolidated alphabetic. Ehri and McCormick (1998) wrote a paper discussing Ehri's phases of reading theory. At the pre-alphabetic phase a person has no concept of the alphabetic principle and will attempt to explain the unfamiliar visual forms of print to familiar oral language through visual clues found in the print. Those at the partial alphabetic phase have learned that letters and sounds are related to each other but are not able to make complete use of the letter-sound relationships. As individuals learn to use letter-sound relationships, they shift into the full alphabetic phase of reading. Even though they may never have seen the word in print before, they now know the sounds commonly associated with the letters. They can think about each of the letter sounds, and they can blend them together to pronounce the word. People at the consolidated alphabetic phase of reading are progressing toward increasingly efficient reading fluency. Ehri's theory offers an important generalization to education. Young children should first be introduced to letters and sounds in order to better understand the words they encounter with print (Pikulski & Chard, 2005). According to Ehri's phase theory, simply exposing children to print is not sufficient to move them into reading if they have not been taught some knowledge of the alphabetic system (Cardoso-Martins, Rodrigues, & Ehri, 2003). Ehri (2002) explained that she proposed a theory of phases instead of stages to suggest flexibility in reading development. Stages imply a strict progression and do not take into account the many different learning environments which children live. Beech (2005) argued that Ehri's contribution to the work on phases of reading development has been to

introduce greater flexibility as well as to break down and define the alphabetic phases more clearly so that reading development can be better understood.

In John Dewey's progressive theory, creating democracy is the aim of all education. According to Dewey (1916), "not only is social life identical with communication, but all communication (and hence all genuine social life) is educative" (p. 5). Learning is a social endeavor and revolves around experiences. In other words, learning is learner-centered and grounded in the ideas of continuity and interaction in a social context. Dewey argued that there was a distinct difference between freedom of will and freedom of intelligence. Freedom of will is defined as doing whatever one wants to do. Freedom of intelligence on the other hand is defined as knowledge constructed from purposes that are inherently worthwhile through observation and exercise of judgment in real-life situations. Therefore, Dewey's theory promoted that learning should be flexible enough to allow free engagement of play in order to nurture the child's individuality, yet rigid enough to let adults provide direction to advance the child's continuous academic development (Tzuo, 2007). This makes the parent's role in the child's early literacy development of utmost significance. What experiences are meaningful to the child's learning needs and development are decided together by the child and adult. Parents who are actively involved with their children's learning help them develop at a pace that fits the child's individually unique needs.

Because child development and learning are so complex, no one theory is sufficient to explain these phenomena. Early literacy program developers that seek to focus on the home literacy environment can turn to the work of Piaget, Vygotsky, Bruner, Ehri, and Dewey in order to include multiple child development and learning theories in

practice. These theorists and their theories have increased educators' understanding of the nature of children's physical, social, emotional, and cognitive growth. There have been profound changes to learning theory in the last generation. These changes "have been hastened by studies of normal and pathological growth, by analysis of the effects of different types of environments, by studies of the development of language and its impact on thought" (Bruner, 1983, p. 130). A general theme emerges from an analysis of these theories. Children develop and learn best in a positive home environment that is rich with literacy.

In conclusion, educators must develop early literacy programs that encompass practices that are grounded in theory and have been proven effective. To guide decisions about practice, one must understand the developmental changes that typically occur between the ages of birth and 5 years. One should understand variations in development that may occur and how best to support children's early development and learning. Collecting and analyzing relevant data, performing and circulating high-quality research, and identifying appropriate practices need to be grounded in theoretical issues to some extent (Chung & Higbee, 2005). Without a theoretical basis, early literacy program developers and practitioners will find it hard to expressive a clear professional goal, defend their work, and guard against public criticism.

The theories that Piaget, Vygotsky, Bruner, Ehri, and Dewey provide assist early learning program developers in several ways. First, it helps them understand reading behaviors and clarify the locus of difficulties children have in learning to read. Second, it helps them determine how to support families of preschool children and the home literacy

environment. Third, it provides developers with a foundation and reason for their program materials and activities.

Brain Development

Children's development of early literacy skills begins at birth and relies on a range of environmental stimuli and individual brain development (Gadsden & Ray, 2003). To understand a person's literacy development, one must first look at early brain development. Much of the current knowledge of the brain calls attention to the translation of early experiences into neuronal connections, which in turn may influence later literacy development (Klass, Needlman, & Zuckerman, 2003).

The brain is the only body organ incomplete at birth (Murray, 2003). Gadsden and Ray (2003) explained the tremendous growth process before birth. Within the brain area are millions of neurons connected to each other by synapses. These synapses and the pathways they form are what make up the wiring of the brain. The number amount and organization of these connections influence everything, from the ability to recognize letters of the alphabet to the maintenance of social and concept relationships. Neurons develop rapidly before birth. The fetus, by the 17th week of pregnancy, already has 1 billion brain cells, which is more than the average adult brain. These fetus brain cells are proliferating at a rate of 50,000 per second.

Once a child is born, the brain continues to develop. Klass et al. (2003) and Murray (2003) discussed this remarkable development. Babies are born with all their neurons formed and the distinct areas all in place. However, the connections between these neurons are in large part established and structured after birth. Brain growth occurs in the dendrites, which appear very much like the many branches on a tree. Brain

development consists of wiring and rewiring the branches or connections (also called synapses) between neurons. Synapses are the actual physical gaps between neurons through which nerve impulses must travel. Synaptic growth equally corresponds with the growth of dendrites that receive and process signals from other brain cells. If two neurons are synoptically coupled, and they are both electrically active at exactly the same time, then the connection between them gets stronger. However, if two neurons are synoptically coupled, but they are not electrically active at the same time, then those synapses are lost and the connections get weaker. The electric activity between the synapses is what transmits information throughout the brain. This is how a person's individual experience literally wires the person's brain.

The greatest growth of dendrites and synapses occurs during the first 5 years of person's life. By the age of 5, a child's brain weight is almost the same as an adult. All of the basic neurons are in place. Between birth and 8 months, the synapses are formed quickly. The brain synapses proliferate, forming and branching considerably in early childhood reaching a peak count by 3 years of age. Klass et al. (2003) explained that if neural connections are not used the connections are "pruned." After the child's first birthday, pruning of these branches occurs more quickly. Pruning occurs for about 12 years, but after that the brain maintains some flexibility for future learning. Brain plasticity for learning declines with age but does continue to have a presence. This is how adults continue to learn new skills even in older life. However, learning certain basic skills such as language becomes much more difficult with age.

Early childhood experiences, both positive and negative, have a dramatic effect on the formation of brain synapses (Porter, 2007). The brain is thought to operate on the

“use it” or “lose it” principle. Only those connections and pathways that are frequently used are retained and strengthened. The catch phrase in neuroscience is “cells that fire together, wire together” (Murray, 2003, p. 1). Thus, the child’s early experiences shape the child’s brain. Knowing that the synapses continue to branch out or are dramatically pruned by the child’s experience creates a never ending conflict in parenting and educating children. Both parents and educators struggle over the amount of formal learning to which young children should be exposed. There must be a balance between not pressuring children to the point of stress and exposing them to a multitude of experiences early in life.

Researchers and educators question the effect of genetics on brain development and early literacy. Which is most important to brain development, genetics or the environment? This is often referred to as the nature versus nurture debate. It is neither a new debate nor one that will be resolved in the near foreseeable future. Researcher Dolores Durkin (1966) explained the debate as one of two extremes.

One extreme point of view in this controversy would conceive of readiness as a single-factor phenomenon, unequivocally the result of genetic constitution. In this genotype concept, heredity dominates. Heredity determines what any individual is ready to do, to learn, to become. At the opposite extreme is the phenotype concept of readiness. Here, readiness is viewed as the product of learning; it is the result of interaction with an environment that includes, at various times, different combinations of opportunity and deprivation. (p. 2)

Byrne et al. (2006) conducted research pertaining to the genetic and environmental influences on a child’s early literacy. Their study used twins recruited

prior to the beginning of their entrance to formal school environments and followed for the first several years into school. This longitudinal project allowed the researchers to track changes that occurred in the children's literacy development. They found that genetics influenced phonological awareness, rapid naming, and verbal short-term memory. They also found that the home environment influenced vocabulary, print knowledge, and the higher-order language processes of morphological and syntactic control. These areas showed a low degree of genetic influence.

An individual's cognitive development is a combination of nature and nurture, genes, and environment (Murray, 2003). People cannot change genes they are born with or the genes they pass on to their children, but they can influence and change the environment in which they and their children live in on a day basis. Researchers and scientists are beginning to realize that the effect of environment on early experience is actually to change the structure of individual cells and neurons in the brain. There is mounting evidence that a person's early environmental experiences can dramatically alter the way the person's genes are expressed in their developing brain. Researchers now emphasizes that the key factor in determining the ease with which children will learn to read is related to the extent of children's interaction with their environment rather than intelligence (FFCL, 2004) Positive experiences which the young child has helps the brain develop in a healthy way. Reading is a positive experience that all children need and deserve (Lally, 1998).

Children have many experiences with spoken and written language early on in life and as they continue to grow and learn. These experiences or lack of them influence the developmental process in the brain. Reading aloud to young children serves a number of

important developmental purposes that take place in the brain. Reading to young children provides important language and picture-based stimulation. It acquaints them with the forms and pace of written language and leaves them with a good understanding of how books and stories are put together. This in turn provides them with positive associations and strong motivation around learning to read (Klass et al., 2003). Thus, research suggests that both genetic and environmental factors influence developing reading abilities in young children.

Literacy Development Skills

Young children need a wide variety of literacy development skills to become successful readers. A panel of reading experts determined that six specific early literacy skills become the building blocks for later reading and writing (Multnomah County Library, 2006). All six literacy development skills need to be introduced to children at a very young age, making the home literacy environment an essential key to later reading success in the child's life. The six skills are vocabulary, print motivation, print awareness, narrative skills, letter knowledge, and phonological awareness.

Vocabulary is the stock of words used or understood by a person. The process of acquiring vocabulary begins in infancy and continues throughout a person's entire life. Vocabulary development can be fostered by reading a variety of books to the child. It can be further developed by naming and discussing all the objects in the child's environment. This early knowledge of words and their meaning is one of the best predictors of later educational achievement in school (Kurdek & Sinclaire, 2001). Young children have a remarkable ability to learn and retain vocabulary. Research suggests that most children enter school with a vocabulary of between 3,000 and 5,000 words. Therefore, there is an

obvious connection between a child's early vocabulary development and later reading comprehension. It is obvious that to comprehend passages, children must understand the meaning of the words they read.

Nash and Snowling (2005) investigated the effects of two different methods of teaching vocabulary on vocabulary knowledge and reading comprehension. Twenty-four school children between the ages of 7 and 8 that had poor vocabulary took part in the study. Half the children were taught using only vocabulary definitions and the other half were taught using the same vocabulary in every day context. The context method of teaching showed greater posttest results on vocabulary knowledge and reading comprehension.

The operation of the Matthew effect is also likely to be an important factor in explaining the wider impact of poor vocabulary skills on a child's future educational success. The Matthew effect is a term derived from the Gospel according to Matthew 25:29 (New International Version): "For everyone who has will be given more and he will have abundance. Whoever does not have, even what he has will be taken from him." Stanovich (1994) explored the Matthew effect in regard to the area of reading achievement. Children that are exposed to a literacy-rich environment at a young age develop emergent literacy skills. These children have the preknowledge and confidence to develop as strong readers. This in turn promotes future success in school. On the other hand, children that lack a literacy-rich environment at a young age do not develop early emergent literacy skills. Lack of exposure and preknowledge of these children further delay the development of reading once in school. Thus, reading time at school is avoided or merely tolerated without any real cognitive participation. Taxing emotional side effects

begin to be related with school experiences for the child. These negative emotional feeling become a further obstacle to academic achievement. An abundant early vocabulary is the first building block to halt the negative consequences of the Matthew effect.

Print motivation is a person's interest in and enjoyment of the written language in the environment. Print motivation can be encouraged by keeping books accessible to the child and letting the child see significant others read for information and enjoyment. A child's emergent interest in books can be both a requirement and a result of shared parent-child book reading. Children who are read to from an early age demonstrate more interest in reading than children who do not have the opportunity of this experience (Kuo, Franke, Tegalado, & Alfon, 2004). Print is found on many items in the home from food labels to television guides. In the day-to-day process of family life, a child may see a parent read numerous items of print. By observing parents reading print, young children can become keenly aware of print and the functions it serves within the community structure.

Print awareness is a multifaceted skill that involves understanding that the written English language follows basic rules and is organized in a particular way. One example of this is the structure of print on a page and that print is read from left to right and top to bottom. It is knowing that words consist of letters and that spaces appear between words to form sentences. Print awareness is cultivated by pointing to each of the words as they are read to the child. There is a particular reason why children need to grasp print awareness early on in literacy development. The conventions of the written language on the page control where readers direct their most attention. Vocabulary and print

motivation is useless to a child if the child's eyes are traveling in the wrong direction when reading. This knowledge of print organization and structure is vitally important when learning to read and write (Hausner, 2000).

Narrative skill is being able to describe things and events in a organized way. A person with narrative skills is able to tell a story or recall an event with a developed beginning, middle, and ending. Narrative skills can be noticeably improved by having children tell sequentially what they have just done. According to Dickinson, McCabe, and Sprague (2003), the development of narrative ability in children is one of the lesser known oral language skills relevant to literacy. Nonetheless, to be able to read and write effectively, children must acquire strong narrative skills. These skills will blossom in children during the ages of 3 to 5 years, if stimulated.

Letter knowledge is being able to name the different letters and say the sounds that go with the letters. Among academic researchers, letter knowledge has always been advertised as having a high prediction of success in later learning to read. Learning letter names usually comes before letter sounds and makes learning the sounds much easier. The knowledge of letters provides the basic terminology needed to talk about the concept of words (Hausner, 2000). Letter knowledge can be developed by a variety of activities in the home. Some examples are pointing out and naming letters in alphabet books, picture books, or signs.

Molfese et al. (2006) conducted a study that focused on 57 nonreading children participating in a 1-year pre-kindergarten program for economically at-risk children. The study measured changes in the letter knowledge skills of the children at program entry and after 5 months in the program. The project researchers wanted to determine how the

development of letter knowledge skills changed over the course of the program and how changes in these skills were related to phonological processing, rhyming, and print knowledge. Children's letter knowledge was assessed at three points in the time frame. Surprisingly, 12 of the 57 children could name no letters at each of the three assessment times. Furthermore, 8 children could name only 2 or 3 letters by the third assessment. The remaining students could name 11 to 15 letters by the third assessment. When letter knowledge was compared to other cognitive skills assessed in the study, there was a high relationship. This study's findings supported the theory of codevelopment of several reading skills.

Phonological awareness and phonemic awareness are terms that are often used interchangeably (Sensenbaugh, 2000). However, different leaders in the field of reading have differing options on what the definitions should be. Burgess (2002a) used the words interchangeably and stated that phonological awareness, also called phonemic awareness, is the ability to manipulate the individual phonemes within words. Zeece (2006) argued that the definitions are not the same. She defined phonological awareness as the ability to deal explicitly and segmentally with sound units smaller than the syllable. She defined phonemic awareness as the ability to notice, think about, and work with the individual sounds in words. Morris and Leavey (2006) described phonological awareness as the ability to segment language into onset, rhyme, and syllable structure. Phonemic awareness is a subset of phonological awareness. Darling (2005) argued that phonological awareness improves a child's word reading, reading comprehension, and spelling.

Phonological awareness is considered to be the most complex of the six literacy development skills. Phonological awareness can be strengthened through playing word games. For example, making up silly words by changing the first sound of a word can enhance skills. It is important that the games have a sense of playfulness, are fun, and encourage children's curiosity. Engaging young children in literature-related activities that emphasize phonological awareness will support the development of later reading (Zeece, 2006). Spending only a few minutes daily engaging preschool-age children in fun activities that emphasize the sounds of words will go a long way in helping them become successful readers later in their academic environment (Sensenbaugh, 2000).

Sheela Shah (2000) investigated the relationships between phonological awareness, language-processing skills, and home environment in order to determine what factors predict young children's later reading ability. The study compared 45 kindergartners' home literacy environments with their performance on phoneme awareness, letter/sound knowledge, and a reading test. The factors were analyzed using a Stepwise Linear Regression to show important links between the three factors. The study found that home environment is related to children's performance on letter/sound knowledge and phonological awareness. Specifically, the amount of book exposure a child received in the home setting had a positive correlation to the other two factors.

The above research implies that all six literacy development skills (vocabulary, print motivation, print awareness, narrative skills, letter knowledge, and phonological awareness) are essential to the reading process. However, there are disagreements about whether skills are codeveloped or whether the development of one skill is needed for the development of subsequent skills (Molfese et al., 2006). The manners in which specific

skills are measured in different studies vary to some extent. This may account for some of the differences in findings, which in turn leads to the disagreements. Yet, it is clear that they all play a crucial role in the development of reading.

From the review of literature on literacy development skills, it is evident that adults who are attentive to young children's reading interest and who find reading an enjoyable activity for themselves, model to children that reading is a daily functional activity as well as one that can be used for entertainment. Adults model reading when they read food labels, newspapers, books, manuals, mail, signs, and emails. Children with adults in their lives that have daily experiences in literature gain an understanding that reading is essential to everyday life.

Literacy in the United States

Although reading development has been a key theme in early childhood education for more than three decades (Fantuzzo, Tighe, & Childs, 2000), the low literacy level of American children and adults is currently an enormous societal problem. Literacy is a socially constructed concept, and the definition varies according to each population's cultural and historical context (Center for Educational Research and Innovation, 1992). The Organization for Economic Co-operation and Development (2000) defined literacy as the ability to understand and employ printed information in daily activities, at home, at work, and in the community to achieve one's goals and to develop one's knowledge and potential. Greenberg, Dunleavy, and Kutner (2007) defined literacy as using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential. These definitions imply that literacy goes further than merely

decoding and comprehending text. A fundamental aspect of the both definitions is that literacy is related to attaining a individual goal and frequently reading for a purpose.

Until rather recent history, literacy in the United States was defined according to such measures as the ability to sign one's name and the number of grades completed in school (Roman, 2004). Today's definition of literacy is vastly different from early America's definition. At that time, people who could sign their names were deemed literate. Later in American history, anyone who had completed third grade was considered literate (Bracey, 2000). In the first half of the 20th century, education was a rarity in the United States (Laanan & Cox, 2006). In early American society, few people could read or write, and illiteracy was not viewed as a social problem. It was the norm. The prevailing thought at the time was that only those special individuals who had received schooling had the skills necessary to teach children how to read and write. Thus, parents were not encouraged to interfere with their child's education or early literacy development.

Once the United States became industrialized, education increased in importance. A large gap between literate and illiterate individuals developed with regard to income level, job security, and healthcare (Roman, 2004). In the 1960s, the civil rights movement encouraged government leaders to realize that education is important for every child in the United States, not just the elite. They wanted to bridge the learning gap. It was also during this time that educators brought forward the idea that parents are their children's first teachers. Thus, parents were encouraged to read with their children and take an active role in their children's education and literacy development. The development of family-literacy legislation began in the 1960s with the passage of the Elementary and

Secondary Education Act of 1965 (Laanan & Cox, 2006). This act established two foundation programs, Head Start and Title 1, both of which addressed the need to improve academic development of children from birth to age 5 and their families.

Literacy, which consists of far more than the ability to read, has become progressively more vital to individuals as our society becomes ever more dependent on rapidly advancing technology. “Globalization, technological change, and organizational development are shaping both the supply of, and the demand for higher levels of literacy skills in the information age” (Organization for Economic Co-Operation and Development, 2000, p. xiii). The United States today is seeing rapid technological advancement with opportunities for innovation and a new generation of worldwide knowledge. However, the benefits of this remarkable advancement are unevenly dispersed, leaving a large portion of the general population behind due to literacy issues (Roman, 2004). These illiterate adults in the United States experience poorer health outcomes, less financial security, and lower life expectancies compared to literate adults. People in the United States who are illiterate represent 75% of the unemployed, 33% of mothers receiving aid, 85% of juveniles who appear in court, and 60% of prison inmates (FFCL, 2004).

Kutner et al. (2007) presented results from the 2003 *National Assessment of Adult Literacy Survey*, which assessed the English literacy of adults in the United States. The survey is the primary instrument used to measure population literacy in the United States, which is funded by the U.S. Department of Education and administered by the Educational Testing Service. The survey tests people according to their performance on tasks relating to everyday life instead of their educational attainment (Greenberg et al.,

2007; Kutner et al.; Roman, 2004). The survey defined literacy as using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential. The assessment measured three types of literacy (prose, document, and quantitative) on a scale of 0 to 500 and was administered to more than 19,000 adults. Prose literacy is the knowledge and skills needed to search, comprehend, and use information from continuous text. Document literacy is the knowledge and skills needed to search, comprehend, and use information from noncontinuous text. Quantitative literacy is the knowledge and skills needed to identify and perform computations using numbers that are embedded in printed materials. The U.S. Department of Education reported the assessment results using four literacy levels: below basic, basic, intermediate, and proficient. The lowest level, below basic, includes those with minimal reading skills who cannot complete simple literacy tasks such as filling out an application, reading a food label, or reading a children's book.

The report concluded that 23% of adults in the United States are functioning at the lowest level of literacy. According to the report, a high percentage of adults with below-basic prose, document, and quantitative literacy lived in households with a total income below \$10,000. In 2003, adults with low literacy on all three scales were more likely to be unemployed or more likely to be in the labor force than adults with higher literacy levels.

According to the report, between the years of 1992 and 2003, there was a decline in the average prose literacy of adults between the ages of 25 and 39. The report also indicated that although there has been an increase in adults completing high school and an associate's or college degree, prose literacy declined for adults with a high school

diploma, and prose and document literacy declined for adults with some college or with higher levels of education.

The report also found that a higher percentage of parents with intermediate or proficient prose literacy read to their preschool children five or more times per week than parents with basic or below basic literacy. The children between the ages of 3 and 5 with parents who were proficient in prose literacy also knew the alphabet.

The 2003 *National Assessment of Adult Literacy Survey* reported by Greenberg et al. (2007) also assessed the English literacy of adults in prison. The assessment was conducted using the same scale as the previous study. The rate of incarceration in federal and state prisons in the United States increased from 332 per 100,000 adults in 1992 to 487 per 100,000 adults in 2003. The survey found that prison inmates had lower average prose, document, and quantitative literacy than adults not in prison. The report suggested that skills that are acquired through literacy learning are important tools for navigating everyday life in the United States. It concluded that adults with low literacy are more likely to be incarcerated than adults with higher levels of education.

Illiteracy for the individual has serious implications in the areas of poverty, unemployment, and health outcomes. As workers, literacy level has a serious effect on employment stability and income. Not only do illiterate adults have trouble with the application process, but their employment status is often jeopardized by changes in company policies and regulations (Roman, 2004). Literacy skills positively influence the probability of being in a high-skilled position and negatively influence the probability of being unemployed or in a low-skilled position (Organization for Economic Co-Operation and Development, 2000). A general shift in labor demand from lower skills to higher

levels of skills has led to increased unemployment among those with low literacy.

Although educational attainment of the general population has increased, the growth has not been fast enough to meet the demand. As consumers, adults with low literacy struggle to obtain health services, buy groceries, take medications, and pay bills—among numerous other daily tasks. Studies indicate that adults with literacy problems have poorer health, are more likely to take medications incorrectly or not at all, are less likely to have regular medical examinations, are more likely to work in hazardous occupations, have poor health habits, and are more likely to lack health insurance (Baker, Parker, Williams, Clark, & Nurss, 1997). Even when adjustments are made for other sociodemographic variables, individuals with below-basic literacy are more likely to be admitted to a hospital, have higher healthcare costs, and poorer overall health than those with adequate literacy (Baker et al., 2002). On the other hand, high literacy has been associated with better health outcome such as increased longevity and healthier habits and lifestyles.

Approximately 90 million Americans lack the ability to read adequately, and two thirds of children in the United States read below their grade level (Weitzman, Roy, Walls, & Tomlin, 2004). Studies show that the failure to read at grade level leads to frustration and low self-esteem (Doyle & Bramwell, 2006; Wilson, Martens, & Arya, 2005). This in turn may contribute to school drop-out, teenage pregnancy, substance abuse, and the cycle of poverty. It is estimated that the price tag of illiteracy in the United States is in the billions, resulting in healthcare costs, low productivity in the workplace, and strains on the welfare system (Baker et al., 1997). It has long been recognized that illiteracy is an intergenerational trend passed on from parent to child. Children whose

parents have trouble with literacy skills and education attainment are more likely to struggle with literacy skills and five times as likely to drop out of school as other children (Roman, 2004). Considering such drastic consequences, it is imperative to promote the development of early literacy among all children. The current societal emphasis on early literacy development is due in part to the fact that research has found reading skills to be associated with academic and occupational success as well as a general higher quality of life (Molfese, Molfese, & Modgline, 2002).

Home Literacy Environment

Family participation in literacy activities provides valuable developmental experiences for young children. Parents and the literacy environment they fashion in their homes are widely believed to play a key role in the development of children's reading and language skills. This early literacy development is a significant part of preparing children to achieve academically (Gadsden & Ray, 2003). The literacy skills acquired by children at home and at school affect their opportunities for further education, their transition from home to school to work, and eventually the jobs they will obtain (Organization for Economic Co-Operation and Development, 2000). For children to be successful during the academic years, they need parents that are active in their early academic development at home. Engaging young children in literacy activities at home is one way for parents and other family members to participate in their child's education at an early age (Trovillo, 2006). In addition to developing an interest in reading, children who are read to, told stories, and visit the library may start school better prepared to learn. Children whose home environments promote literacy as a source of entertainment are likely to be motivated to read. According to Darling (2005), children with richer

home literacy environments demonstrate higher levels of reading skills and knowledge when they enter kindergarten than do children with less literacy-rich environments.

Understanding how the home literacy environment affects the acquisition of children's later language and emergent literacy knowledge has become of increasing interest to educators and researchers (Weigel, Martin, & Bennett, 2005). The family is the child's first social experience. Within the family, the child learns the values and beliefs of the family along with the values, norms, and beliefs of the society that is the child's lived experience (Diffy, 2004). In this way the parent becomes the child's first teacher. There is no debate over the fact that parents and caregivers are their children's first teachers; thus, the home environment they provide plays a crucial role in that child's development. However, the home environment needs to encompass more than teaching the values and beliefs of the family and society. The home environment should also support the child's academic experience by providing an environment rich in literacy.

Two ground-breaking longitudinal studies concerning the home environment and its effects on literacy were conducted by Dolores Durkin. In 1957, while a member of the University of California faculty, Durkin engaged in a case study. By chance she encountered a preschool child who was already reading. This encounter provoked questions about the entire matter of readiness for learning to read. Durkin set out to answer her questions through longitudinal research. Her book, *Children Who Read Early* (Durkin, 1966), discussed the two studies in great detail.

The first study was designed to examine early reading achievement in a general way. With virtually no prior research to serve as a guideline, the first study was exploratory. There were three central questions.

How many children learn to read at home and, as a result, enter first grade already reading? What is the effect of this early ability on a child's future achievement in reading? What kinds of factors promote early reading, and do they have implications for school instruction? (Durkin, 1966, p. 13)

Durkin's (1966) findings were surprising for the time, for the common thought was that children should not learn to read before school. It was believed that children would learn to read wrong or become bored in school. Durkin, however, found that early readers (children that learned to read before starting school) performed better in school than nonearly readers (children that learned to read after starting school). According to her study, the average achievement level of early readers who had had either 5 or 6 years of school instruction in reading was significantly higher than the average achievement of equally bright classmates who had had 6 years of school instruction but were not early readers. When the families of the early readers were interviewed, it became clear that none of the subjects learned to read by themselves. The early readers had learned to read by asking questions about print. What became apparent was that there was a positive impact on emergent reading skills when a young child asked questions about print and when those questions were answered by a parent.

Durkin's (1966) second study tried to answer questions she formulated during the first study concerning children who do not read early. She wanted to know what kinds of factors, either within the family or about the child, fostered preschool reading. The second study found that early readers had adults in the home that read often. Older siblings that read to the preschool child were present in the families of 82% of the early readers. Parents of the early readers showed greater willingness to give early help to their

child pertaining to literacy development skills. They also showed fewer tendencies to believe that reading should be taught only by a trained person. Durkin concluded that preschool achievement in reading is the combined expression of the children, their parents, and the kinds of environment the parents provide.

Though Durkin (1966) conducted her research during a time of much controversy over how and to what extent parents should take part in the child's education, her research findings indicated the importance of parental involvement. The research found that

parents who spend time with their children; and who read to them; who answer their questions and their request for help; and who demonstrate in their own lives that reading is a rich source of relaxation, information, and contentment are often parents of successful early readers. (p. 136)

This new evidence Durkin (1966) provided on the importance of early literacy development and the environment in which it is fostered, prompted an abundance of research on the subject with the hope of applying what was discovered to improving reading. Later studies have continued to build upon the early research of Durkin. These studies discovered what factors in the home environment were related to acquiring successful reading habits. They have also helped to determine what value an environment that fosters reading has on children's emergent literacy and their reading achievement.

The relationship between the socioeconomic status and the home literacy environment to intelligence was studied by Molfese, Dilalla, and Bunce (1997). The population consisted of 121 children recruited at birth. Social-environmental measures, parental education, parental occupation, and family income were used to measure the

socioeconomic status. The *Home Observation for Measurement of the Environment* (HOME) was administered when the children were 3 years old. The *Stanford Binet Intelligence Scale* was administered when the children were 3, 4, and 5 years old. The *Wechsler* was administered when the children were 7 and 8 years old. The study found that the home environment was the single most important predictor of intelligence at all ages in which the test were administered. Therefore, regardless of the socioeconomic status of the family, children can develop and attain literacy achievement when parents establish a rich home literacy environment.

Senechal and Lefevre (2002) assessed the importance of parent storybook reading, parents teaching children language and emergent literacy skills, the relationship between early literacy experiences and reading acquisition, and the long-term influence of early home literacy achievement as measured by student performance at the end of third grade. The results of the study revealed clear links from home experiences through early literacy skills to reading. However, it was noted that a limitation of the study was that all subjects involved in the study were from similar middle-class socioeconomic backgrounds, which may have been a variable in the results.

Qiuyun Lin's (2003) research purpose was to increase the understanding of the relationship between parent involvement and children's early literacy. The longitudinal study sought to know what types of parenting practices are related to children's early literacy in reading, math, and general knowledge performance at the end of the kindergarten year. It also questioned how the relationship between parent involvement and early literacy varies for children from different racial/ethnic and income backgrounds. The research was longitudinal and involved 16,083 first-time

kindergarteners. It focused on three dimensions: involvement at home, including home literacy environment and home cognitive stimulation; involvement at school; and involvement outside of the home, including extracurricular activities and use of community resources. According to Lin's study, home literacy resources were significantly associated with kindergarteners' early literacy skills in all homes regardless of racial/ethnic or income background. An important finding for her study was that among all the parent involvement practices, the percentage of inconsistency was greater for minority children than for European-American children and for poor children than for the nonpoor children. The research indicates that greater parent involvement in children's learning positively affects the child's school performance, including higher academic achievement. It also indicates that children with richer home literacy environments demonstrate higher levels of reading knowledge and skills at kindergarten entry.

Stephenson (2004) focused her research on the effects of the home literacy environment, parents' beliefs, and children's achievement strategies on preliteracy skills. In her study the home literacy environment was set by three variables. The first variable was the number of books in the home. The second variable was parents' reports of their children being taught letter names, sounds, and to read words. The third variable was the parents' reports of their children being read to. The number of adult and children books that parents reported was in the home correlated significantly with parents' reports of their children being taught letter names and sounds and to read words. Parents' reports of their children being taught letter names and sounds and to read words correlated extensively with phonological sensitivity and letter knowledge. Parents' reports of their children being taught letter names and sounds and to read words was a strong predictor of

letter knowledge. Thus, the influence that parents reading to their children have on letter name knowledge appears to be captured by measuring teaching activities in the home. Although parents' reports of their children being taught literacy skills was found to be a better predictor of letter knowledge than children's print exposure, 90% of parents who reported their children were frequently taught literacy skills also reported that their children were read to at least once a day. Therefore, reading to children may be necessary to influence children's preliteracy skills.

Weigel et al. (2005) examined the associations of various components of the home literacy environment and preschool-aged children's literacy and language development. The study involved 85 families and was conducted in two phases. Phase one of the study examined the associations at one point in time. Phase two of the study explored the associations of the various home influences with children's literacy and language development 1 year later. The research findings indicated that preschool children exhibited greater print knowledge skills and stronger interest in reading and books when their parents read aloud to them, provided picture books in the home for their use, visited the library with them, and engaged in reciting rhymes, telling stories, drawing pictures, and playing games with them. Furthermore, these associations remained significant 1 year later. In the study, parental reading beliefs appeared to play a central role in children's literacy and language development. Parents who placed a strong value on their children's literacy and language development and who believed in the importance of their role in their children's development tended to more often engage their children in literacy and language-enhancing activities.

Roberts, Jurgens, and Burchinal (2005) examined how four specific measures of home literacy practices (shared book-reading frequency, maternal book-reading strategies, child's enjoyment of reading, and maternal sensitivity) and a global measure of the quality and responsiveness of the home environment during the preschool years predicted children's language and emergent literacy skills between the ages of 3 and 5 years. The researcher found modest correlations and only a few significant associations with children's language and literacy skills after controlling for important child and family background measures. The global measure of the overall quality and responsiveness of the home environment was the strongest and most consistent predictor of children's language and early literacy skills.

This growing body of research over the past 50 years since Durkin's groundbreaking research has documented the importance of the home environment, particularly the home literacy environment, to children's early literacy development. For instance, characteristics of the home and family, such as income, parent's literacy levels and literacy habits, and parent-child engagement in literacy activities have been found to be associated with children's literacy and language skills (Weigel et al., 2005). The home environment is particularly important in the development of such skills because children may have opportunities at home to

(a) become familiar with literacy materials, (b) observe the literacy activities of others, (c) independently explore literate behaviors, (d) engage in joint reading and writing activities with other people, and (e) benefit from the teaching strategies that family members use when engaging in joint literacy tasks.

(Debaryshe, Binder, & Buell, 2000, pp. 119-120)

Likewise, studies have shown that joint book reading, value of literacy, quality of the home literacy environment, and the overall supportiveness of the home environment are positively related to preschool children's emergent literacy abilities (Burgess, 2002a). Results from the Burgess et al. (2002) study suggested that the resources parents have at their disposal, the quality of literacy role models provided by parents, and the types of literacy and language activities in which parents and children engage are all related to children's literacy and language abilities. Furthermore, parents who express positive attitudes about reading and actively engage their children in literacy-enhancing activities are creating an atmosphere of enthusiasm for literacy and learning. Parents who express negative attitudes about reading and refrain from engaging children in literacy activities are creating an atmosphere of disinterest, or even disdain, for reading (Weigel et al., 2005).

Even with all this knowledge, numerous children are still not being read to at home. Approximately 61% of low-income families do not have a single piece of reading material suitable for a child in their home (FFCL, 2004). Using a national survey, Kuo et al. (2004) found that parents are reading to their young children less frequently than is optimal. The purpose of their survey was to examine the predictors and frequency of book-sharing activities in a nationally representative sample of families with young children. They found that only around 52% of young children are read to on a daily basis by a parent. The study suggests that lower than recommended levels of reading to young children is a widespread problem that transcends race/ethnicity and is not a problem only for low-income non-White children in the United States.

These patterns suggest that a universal strategy to promote daily reading is needed. The strategy must address low reading rates for all children, rather than an exclusively targeted approach that focuses only on low-income, non-White children, especially if early childhood reading rates are to increase substantially. In order to help parents across all race and ethnicity backgrounds, educators need to continue examining the kinds of activities parents engage in with children. They must then determine which literacy outcomes those activities influence (Burgess, 2002a).

As the above literature review of the home literacy environment points out, past research supports the belief that a rich home literacy environment has a positive effect on a child's literacy development. Recent studies have shown that children from home environments that provide ample opportunities to interact with print, which includes numerous books, trips to the library, reading and story-telling experiences, and word games, have higher emergent literacy skills when measured upon entrance into school than those who do not. The review also indicates that different aspects of the home literacy environment are associated with different components of children's literacy and language development, findings that become important as educators and policymakers look for specific ways to enhance children's literacy programs (Weigel et al., 2005). Knowing this, as the United States strives to be a nation of readers, should providing this type of environment to all preschool children be the goal of educators and policymakers? And if this is the goal, how do educators and policymakers meet it? Several programs have attempted to achieve this high aspiration through early literacy programs.

Early Literacy Programs

Early intervention is the most cost-effective strategy for producing higher reading results in today's schools (Troville, 2006). An extremely early introduction to books and participation in literacy-related activities with parents are seen as important factors in the preparation of children for school-based formal instruction (Burgess, 2002a). Parents engaging their children in storybook reading at least once each week is a practice that has been found to correlate highly with early reading achievement (Paratore, 2005). Knowing how to best focus efforts targeting enhancement of home literacy environments may eventually help to create better interventions that will produce lasting changes in children's early literacy development (Weigel et al., 2005).

Several studies have demonstrated that a modest literacy-promoting intervention can significantly enhance a young child's early literacy environment by increasing the frequency of parent-child book-sharing activities (Weitzman et al., 2004). Many programs focus on just mothers; however, Karther (2002) found that with a little encouragement and literacy materials fathers will also participate in literacy activities with their children. Karther's study focused on three questions. What about fathers whose early experiences with literacy and school were discouraging and who continue to struggle with low literacy skills? How do they view literacy experiences for their children? Do they engage in literacy activities with them as readily as other fathers? The data for the study were derived from case studies of families enrolled in an Even Start family literacy program. Each family in the study had two preschool-aged children. Data were analyzed using a phenomenological approach, and common themes and groupings were examined to determine similarities and differences. The study revealed several

insights on the attitudes and literacy practices of fathers with their preschool-age children.

Low-literate fathers had uncertainties about their role in their children's literacy development. They deferred much to their wives due to the fact they were unsure as to where to begin with helping their children. The fathers in the study were fully aware of their lack of achievement and low reading abilities. However, despite their own frustrations with learning to read, the fathers attempted to support their children's learning. The fathers valued the use of books; they just needed affirmation that their efforts were worthwhile. An important message that early childhood educators can acquire from the study is that, with a little encouragement and literacy materials, fathers will participate in literacy activities with their children. One more adult in the family reading to a child should strengthen the commitment to reading and lifelong literacy activities.

Numerous programs have emerged to address the literacy problem in the United States. The overall goal of any early intervention family literacy program is to empower parents as supporters of their young children's literacy development (Fagan, 2001). A quality program focuses on all members of the family and the interaction between them, not just the mother and child relationship. Effective family literacy programs are well-planned frameworks of learning and experiences. They reinforce positive attitudes about children and literacy learning. They are applicable to all aspects of a child's life, provide parents with a sense of ownership, inform parents how to access and utilize materials and resources, and encourage sensitivity to children's characteristics and needs. Intervention literacy programs are asking and trying to answer the following questions: Can what is

said and done change parental attitudes and beliefs? Can that in turn change parental behaviors in the home? And then, most important, can that evolve to change children's reading development?

Until recently, America's literacy problems have been addressed by remediation for nonliterate adults in the form of adult education and early childhood initiatives for children who are considered at risk for future school failure. Although these programs have seen some success, there is a great need for programs that reach all children and their families regardless of income or ethnic background (Zygouris-Coe, 2001). With the growing body of research that documents the importance of reading at home to preschool children, programs with an emphasis on the home literacy environment need to be vigorously promoted.

One such early literacy program is Reach Out and Read. Reach Out and Read is a clinic-based literacy program that began in 1989 with a team of pediatricians, children's librarians, and early childhood educators at Boston Medical Center (Feldman & Needlman, 1999). Reach Out and Read consists of guidance about the importance of reading to young children and the distribution of a developmentally and culturally appropriate book to the families at each well-child visit between 6 months and 5 years of age. Volunteers often read to children and model reading behaviors in clinic waiting rooms (Weitzman et al., 2004). The purpose of the program is "to foster a love of books and help lay the foundation for reading success in elementary school" (Needlman, Klass, & Zuckerman, 2002, p. 52).

The idea for the program emerged from observations made by clinic office staff. When office staff brought used children's books to the clinic waiting room, the books did

not stay long. Parents and children were taking the books home. Something that could have easily been seen as a problem turned into an early literacy program (Klass, 2002). A preliminary survey of the program suggested that parents who were given a book at a previous pediatric visit were more likely to report reading to their children than parents who were not given a book. The Reach Out and Read book distribution program has generated a sizeable record of empirical research, with published studies exploring the impact of the program on parent dispositions, parent behaviors, and child language outcomes (High/Scope Educational Research, 2003).

Feldman and Needlman (1999) reported that there are both immediate and long-term payoffs for the program. In the short term, the noise level is lower in clinic waiting rooms, the television is turned off, children and parents are calmer, and there is something positive to do during the long wait to see the doctor or nurse. In the long term, books and the love of reading and learning become a part of the lives of young children and their families. A doctor or other medical staff member being able to discuss with parents or caregivers the importance of reading aloud to children is an important message for all families, not just low-income or at-risk populations. The report concluded that the gift of books is a low-cost, yet important, step to surrounding children with literature.

Mendelsohn et al. (2001) sought to determine the effect of the clinic-based literacy intervention Reach Out and Read on the language development of preschool children. The participants of the study were 122 families enrolled at one of two inner-city pediatric clinics and consisted of intervention and comparison families. Intervention families reported reading together with their children 1 or more days per week. Intensity of the program (measured by total number of contacts by the program) was associated

with increased parent-child reading activities. The researchers concluded that Reach Out and Read is an important intervention that promotes parent literacy support and helps to provide language development in preschool children.

Weitzman et al. (2004) conducted a study to determine the relationship between the frequency of Reach Out and Read encounters that a family receives during well-child visits and a child's home literacy profile. It was a cross-sectional study conducted of 137 children ages 18 to 30 months who received pediatric well-child care at the Yale-New Haven Hospital Primary Care Center. The number of Reach Out and Read encounters was determined by medical records. The child's home literacy profile was obtained from both a waiting room interview and a home visit. The study concluded that a modest literacy intervention, such as Reach Out and Read, can have a significant impact on a child's home literacy environment.

Other early literacy intervention programs worth mentioning are Beginning With Books, Books for Babies/Friends of Libraries USA, First Books, and Literacy Empowerment Foundation. Below are summaries of the programs obtained from several Web sites. Research pertaining to the effectiveness of these programs was not found during the literature review process for this study.

Beginning With Books, located in Pittsburgh, Pennsylvania, distributes book packs through organizations that serve families with preschool children. It also provides parent counseling on reading and talking about books with their children. The program's core values are as follow: prevention is the key to breaking literacy cycle problems, the first 5 years of life are crucial to fostering literacy, most caregivers are eager to support

literacy, and the opportunity to own high-quality children's books foster enjoyable literacy experiences and the love of books (Beginning With Books, 2002).

Books for Babies program is based in Glastonbury, Connecticut. It is a national literacy program that acquaints parents of newborns with the important role they play in the development of their children. The program provides libraries, hospitals, churches, and other organizations with kits containing a board book for baby, baby's first library card, and brochures with reading tips (Books for Babies, 2002).

First Book was founded in 1992. It is a national nonprofit organization whose mission is to give children and their families the opportunity to read and provide children with their first, new books. Libraries, school-based programs, shelters for homeless and abused children, public housing programs, Head Start centers, and migrant worker camps can be supported by First Book. This program claims to have distributed more than 50 million books to children in over 1,300 communities across the United States (First Book, 2007).

Literacy Empowerment Foundation located in West Chester, Pennsylvania, assists educational programs by providing them with inexpensive children's books. The Reading Resource Project division of the foundation distributes books free of charge to literacy programs. The books come in sets of 100 and are leveled for pre-kindergarten through second grade. Literacy programs requesting the books must pay shipping cost for the book sets (Literacy Empowerment Foundation, 2005).

The review of literature on early literacy programs would not be complete without mentioning the federal government's program, Even Start, which has attempted to make strides at improving America's literacy crisis. It must be noted that this is not a program

that targets all children and their families. It is designed specifically for low-income families in the United States.

In 1988, Congress passed the reauthorization of the 1965 Elementary and Secondary Education Act and established the William F. Goodling Even Start Family Literacy Programs (Laanan & Cox, 2006). One of the assumptions underlying the family literacy model is that a child will benefit more from being in a family that participates in each family literacy service (early childhood education, adult education, parenting education, and parent-child literacy activities) than from simply participating in an early childhood program (St. Pierre, Ricciuti, & Rimdzius, 2005). Even Start projects are mandated to offer instructional activities for parents and children from low-income households. They are also required to build on existing community resources such as local adult and children education programs. According to the U.S. Department of Education (2007), the purpose of the Even Start Family Literacy Program is to break the cycle of poverty and low literacy. In order to accomplish this mission, the program supports three interrelated goals: help parents improve their literacy or basic educational skills, help parents become full partners in educating their children, and assist children in reaching their full potential as learners.

According to the *Third National Even Start Evaluation* (Ricciuti, St. Pierre, Lee, Parsad, & Rimdzius, 2004), the Even Start program is not showing a positive impact on improving America's literacy crisis. The study was conducted to appraise the effectiveness of Even Start grantees in 14 states that operated in the 1999-2000 and 2000-2001 school years. The purpose of the study was to present follow-up analyses on a previous study conducted in the 1990s that suggested that the Even Start program did not

have positive results. The 2004 study concluded that Even Start children and parents did not gain more than children and parents in the control group on a variety of literacy assessments and other measures at follow-up. The findings from these evaluations of the Even Start program have led educators and researchers to question the theoretical model underlying Even Start and other family literacy programs (St. Pierre et al., 2005).

Although Even Start as an intervention model has not shown promising effects when evaluated through research studies, it continues to generate substantial interest among educators and national, state, and local policymakers. As of this writing, the U.S. Department of Education is contemplating eliminating funding for this program, and the future of the program is uncertain (Laanan & Cox, 2006).

Ferst Foundation for Childhood Literacy

The FFCL is an early literacy program that reaches beyond the classroom setting to children from birth to their fifth birthday. This program provides one age-appropriate book per month (12 books per year) for each preschool child in a family, free of charge. In addition to the books, each child enrolled in the program receives a “Ferst” library card, a parent’s guide with tips for parents on how to read aloud with their children, and a coupon for a distinctive, adjustable bookcase. A newsletter is included in the book packet sent to the homes each month, which provides a book guide, child activity page, and opportunities for local community literacy announcements and sponsor acknowledgements. It also offers books written in Spanish mixed with the English language to help parents learn English (FFCL, 2004). Frequency of program use depends on how often the parents and children use the materials provided (Trovillo, 2006).

Morgan County was the first to participate in the FFCL program, starting in the year 2000. At the onset of the program, Morgan County targeted kindergarten readiness as the means of measuring program effectiveness. The percentage of children passing the Morgan County Primary Kindergarten readiness test was at 45% for the children enrolled in the FFCL program in the fall of 2001. After 3 years of the FFCL operating in Morgan County, the percentage of children passing the Morgan County Primary readiness test jumped to 80% for children enrolled in the FFCL program in the fall of 2003 (FFCL, 2004).

Two studies that included findings on the FFCL were conducted in 2003 and 2006. In 2003, the High/Scope Educational Research Foundation Research Department completed an evaluation of Dolly Parton's Imagination Library. In 2006, the Jasper County Family Connection carried out an evaluation of their Family Connection Partnership. Both studies reported results favoring the program.

An evaluation of Dolly Parton's Imagination Library was conducted by High/Scope Educational Research (2003). This research was significant for the Ferst Foundation because it included Morgan County, an "offspring" of the Imagination Library and the first FFCL site. The research goal was to better understand how the Imagination Library program was working in the target communities. A mail survey was given to a random sample of participating parents in three program site areas. The site areas were Sevier County, Tennessee; Sioux Fall, North Dakota; and Morgan County, Georgia. The key research questions addressed by the survey were as follow:

How do children feel about receiving the books? What are the effects of the IL on the quality of family time? What are the effects of the program on parent

awareness of their child's literacy skills? What are the literacy practices and resources that constitute household literacy environments of program participants? How do parents and children feel about the IL and its founder? What are the key predictors of parent reported outcomes for program children?

(High/Scope Educational Research, 2003, p. 2)

The report concluded that for 34% of study group households the Imagination Library program is a primary source of children's books. Of the sample, 83.8% reported that their children were excited each month on the arrival of the new book, with 12% stating that they read the book immediately after receiving it. Over half of the parents claimed that the participation in the program changed the way they spent time with their children in a positive way. It is important to note that the research did not describe how the program achieved the outcome or in what ways the parents changed how they spent time with their children. The study also reported that a large percentage of the families almost never visited a book store (35.3%) or library (46.3%). An important finding for the program was that across the sites between 82% and 89% of the respondents indicated that they had encouraged other people that they knew to sign up for the book program.

The Family Connection Partnership Evaluation Results Report's (Troville, 2006) purpose was to learn the impact of Jasper County's early learning programs on school readiness abilities of students in kindergarten and first grade. The four early learning programs utilized by the Jasper County Partnership were the FFCL for children ages birth to 5 and Animated Literacy, Leap Frog, and Bookworm Club for Head Start/pre-K students. The evaluation report focused on the first-grade class for the year 2005-2006 and compared the success of each program group, along with a control group, with

regards to school readiness. There were 161 students assessed in the fall of 2005 and the spring of 2006. FFCL graduates had received an average of eight books in the last year of their enrollment in the program. Head Start/pre-K students experienced the same curriculum in the Leap Frog program, Bookworm Book Club, and Animated Literacy. All students in the Head Start/pre-K program received a minimum of 180 hours of early intervention during the school year.

Trovillo (2006) reported that student participation in the FFCL produced more consistent high posttest scores overall than any other early learning program used by the Jasper County Family Connection Partnership. Students impacted the most by just one early learning program (students that only received Ferst Foundation services) were the high-risk students. “The Ferst Foundation for Childhood Literacy has such an impact because of the positive parent interaction that young learners need to succeed, but numbers are still low to determine its true impact” (p. 17).

The Jasper County Family Connection Partnership also looked at how multiple years in the FFCL program impacted the school readiness scores. Frequency of the program was calculated by the year of the student’s enrollment date. Students who started the program in 2003 had an average of 21 books received by the start of kindergarten, whereas students starting the program in 2004 had received an average of 12 books. Students who enrolled in the program in 2005 had only received an average of 2 books. The difference between the pretest and posttest scores showed no significant difference in the improvement of scores with increased frequency. However, it must be noted that the number of students in each group based on years of enrollment was so small that the analysis of data may not have been a valid measure for multiple-year effectiveness. More

research needs to be conducted to assess multiple-year effectiveness of the FFCL program.

Survey Research

Each year local educational initiatives designed to make a difference in the literacy level of children and adults in America are funded through government, foundation, and donated dollars. Educational leaders spend countless hours on the how, when, and where of program delivery. Program leaders provide a direct service to program participants and facilitate discussions with program partners (Gajda & Jewiss, 2004). However, leaders often avoid program evaluation. Program evaluation takes time, energy, resources, and know-how. Even if evaluation seems like an overwhelming task, organizations must tackle it. Given the planning, money, and work that go into the development and delivery of a program, organizations need the tools to document if the program is making a positive impact on participants.

One tool for documentation of program success is survey research. Surveys represent one of the most common types of quantitative, social science research (Colorado State University, 2002). In a survey research evaluation, the researcher decides on a population frame from the entire participating population and administers a questionnaire that addresses the evaluation needs.

According to Gajda and Jewiss (2004), surveys are a powerful means of collecting data about program quality and can be conducted in a wide range of formats, including mail surveys, group-administered questionnaires, drop-off surveys, face-to-face oral surveys, and phone surveys. Before conducting a survey research, one must decide on the appropriate format to use. The data gathered through well-designed surveys can be

used to make informed adjustments in the program and/or showcase the effectiveness of program services and activities. Surveys are grouped according to their focus and scope or according to the time frame for data collection (Ary, Jacobs, Razavieh, & Sorensen, 2006). A census survey covers the entire population of the group, whereas a sample survey only covers a portion of the group. A longitudinal survey is given to the same population at different points in time. A cross-sectional survey is given to a cross-section population at one point in time.

All survey formats require cautious preparation. The six basic steps involved in survey research are as follow:

Planning. Survey research begins with a question that the researcher believes can be answered most appropriately by means of the survey method. For example, “How do elementary teachers feel about retaining students?” and “What is the extent of tobacco use among the high school students in this district?” are questions that a survey could answer. The research question in survey research typically concerns the beliefs, preferences, attitudes, or other self-reported behaviors of the people (respondents) in the study. A literature review reveals what other researchers have learned about the question.

Defining the population. One of the first important steps is to define the population under study. To whom will you distribute the survey? The population may be quite large, or it may be rather limited. For instance, the population might be all elementary teachers in the United States or all elementary teachers in the state of Indiana. Or you might further restrict the population to “all first-year male elementary teachers in the state of Indiana.” Defining the population is essential

for identifying the appropriate subjects to select and for knowing to whom the results can be generalized. Once the population has been defined, the researcher must obtain or construct a complete list of all individuals in the population. This list, called the sampling frame, can be very difficult and time consuming to construct if such a list is not already available.

Sampling. Because researchers generally cannot survey an entire population, they select a sample from that population. It is very important to select a sample that will provide results similar to those that would have been obtained if the entire population had been surveyed. In other words, the sample must be representative of the population. The extent to which this happens depends on the ways subjects are selected. The sampling procedure that is most likely to yield a representative sample is some form of probability sampling. Probability sampling permits you to estimate how far sample results are likely to deviate from the population values.

Constructing the instrument. A major task in survey research is constructing the instrument that will be used to gather the data from the sample. Two basic types of data-gathering instruments are interviews and questionnaires.

Conducting the survey. Once the data-gathering instrument is prepared, it must be field tested to determine if it will provide the desired data. Also included in this step are training the users of the instrument, interviewing subjects or distributing questionnaires to them, and verifying the accuracy to the data gathered.

Processing the data. The last step includes coding the data, statistical analysis, interpreting the results, and reporting the findings. (Ary et al., 2006, p. 408)

Because of their low cost and easy implementation, mail surveys are used more frequently (Cui, 2003) for educational research than other survey formats. If the research question demands a broad or large group of subjects, the mail survey allows you to sample the population at a minimum cost.

Summary

In conclusion, reading success as an adult depends in part on the learning and development that occur in infancy and early childhood (High, Lagasse, Becker, Ahlgren, & Gardner, 2000). Literacy development is a critical part of that infant and early childhood learning. Early literacy development and learning to read is truly a complex and mystifying process. According to Burgess (2002a), that process depends on learning to decode individual words and having the knowledge of concepts and the world to comprehend the meaning of the text in which is read. Studies show that understanding how print is used, as well as having knowledge of letters, affects children's reading ability in primary grades (Darling, 2005). As children progress through school, reading success or difficulties will affect their level of participation in other learning activities. Students that have learning difficulties in early primary grades lose self-esteem in the area of academics. The personal cost of low self-esteem is compounded in the frustrations of parents and teachers. The cost multiplies as students need to repeat grades to keep up with their class or, worse, drop out due to frustration and lack of progress. Students that drop out of school often have children that struggle with early literacy development. The

learning gap is a repeated phenomenon that must be addressed immediately (Hausner, 2000).

Experts agree that parents play a crucial role in the development of emergent literacy, but many parents are unsure of how to help their children become ready to read. Often parents are not aware of what constitutes early literacy development (Michigan State University Extension, 2005). It is critical that parents learn the importance of emergent literacy concepts and ways to engage their children in activities that develop these skills. Early intervention materials and programs are an appropriate and valuable way to improve literacy development in children. This study sought to evaluate the impact of the FFCL on the home literacy environment. Specifically, the study examined whether length of time enrolled in the program influences the home literacy environment of participants.

Chapter 2 was a review of the literature for this study. Topics covered included child development and learning theories, brain development, literacy development skills, home literacy environment, early literacy programs, the FFCL, and survey research methods. Chapter 3 will discuss the methodology for the research. The research design, research question, and null hypothesis will be stated. The target population and sample will be identified. The instrument used to conduct the study and the data collection will be explored. Finally, the process that was used for data analysis will be discussed. Chapter 3 will conclude with a summary of the methodology.

Chapter 3: Methodology

The purpose of this study was to investigate if, among families whose children were enrolled in the FFCL, there was a relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program. The research design and procedures that were used in the study in order to answer the problem statement are described in this chapter. The rationale for all scientific procedures utilized in conducting this study will be presented. The chapter will explain in detail the research context, research design, research question, null hypothesis, population, sample, instrumentation, data collection, and data analysis. Chapter 3 will conclude with a summary.

A review of literature on theories, brain development, literacy skills, and the home literacy environment reveals the tremendous impact of the family environment on a child's academic achievement. The review of literature indicates that an appropriate home literacy environment has a positive correlation with children who achieve academically in the school setting. Children exposed to essential literacy experiences early learn to read with more ease than children not exposed to a rich literacy environment (Burgess et al., 2002). The FFCL's goal is to provide materials that will enrich the home literacy environment; however, the review of literature did not provide evidence that the home literacy environment increases with multiyear FFCL program enrollment (Trovillo, 2006). This research study was conducted to determine if there is a

correlation between a family's home literacy environment and the number of years the child has been enrolled in the FFCL program.

Research Context

The study encompassed subjects from all 46 counties and 4 communities in Georgia that the FFCL serves. Georgia is located on the southeast coast of the United States. The state has 159 counties, which are grouped into 12 geographical regions. Georgia's land size is 59,441 square miles, making it the 24th largest state. Farmland takes up 29% of the acres. According to the U.S. Census Bureau (2007), the 2006 population estimate was 9,363,941 with 7.6% being under 5 years of age. Georgia residents are predominantly White (66%), with a Black population of 29.1%. Hispanics make up 5.3%, Asians make up 2.1%, and Native American 0.3% of the state's population. The median household income for 2004 was \$42,679, and the number of people living below poverty was 13.7%. Statewide, the service-producing industry is the largest employment sector, contributing 65.4% of the state's jobs. In 2004, the annual unemployment rate average was 4.4%, and the index crime rate (crimes per 1,000) was 40.8.

Georgia spent an average of \$6,603 per student for public education each year between 2001 and 2005. Greene (2002) reported Georgia's graduation rate as being the lowest in the nation with only 54% of students completing high school. However, the Georgia Department of Education Director, Dana Tofig (2006), reported Georgia's high school graduation rate as 70.8%. On September 28, 2007, the Georgia Department of Education announced the 2006-2007 high school graduation rate to be at an all-time high of 72.3%. Tofig attributed this increase to a greater educator focus on raising the

graduation rate. Programs such as graduation coaches, virtual schools, and charter schools have been introduced. A new state curriculum and changes to the Career, Technical, and Agricultural Education programs have been implemented (Tofig, 2007). On the other hand, The Alliance For Excellent Education (2008) reported that the higher graduation rate for Georgia, which is calculated by the State Department, is misleading and that the actual rate could be as low as 56%. Graduation rates that are state-reported, federally reported, and independently reported vary greatly because of different calculation formulas used. The inflated graduation rate reported by the Georgia Department of Education could be due to a higher expectancy placed on states by the No Child Left Behind Act of 2002 to show an increase in graduation.

Research Design

This research was of a sample survey design. The survey, using correlation research, was conducted to analyze responses from parents whose children are enrolled in the FFCL program. Measured responses from these families provided a basis by which to determine any significant correlation between the home literacy environment and program usage. The population was the FFCL participants, the length in the program was the independent variable, and the home literacy environment was the dependent variable, operationalized by a scale survey. The survey was cross-sectional in nature. The FFCL was contacted about the possibility of a research study relating to the program. After numerous phone conversations and a face-to face meeting with FFCL personnel, an agreement on type of scale of research methodology was reached. Permission from the FFCL was obtained, and access to their enrollment database and mailing addresses was granted (Appendix E).

Research Question and Null Hypothesis

This research addressed the following question: Among families whose children are enrolled in the FFCL, is there a relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program?

To address the research question, the following null hypothesis was posed: Among families whose children are enrolled in the FFCL, there is no significant relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program.

Population and Sample

As of September 2007, there were 27,723 children enrolled in the FFCL program. The program serves 46 counties and 4 community sites in Georgia. All children in the FFCL program are between the ages of birth and 5 years. The subjects for the study were a stratified random sample of families whose children were enrolled in the program from participating counties and sites. A sample population was obtained using the FFCL database. For this study, an equal number of subjects (420) were surveyed from each enrollment category, totaling 2,100. Enrollment categories were based on the child's length of time in the program and not the age of the child. The subject groups were group 1 (0 to 11 months enrolled in the program), group 2 (12 to 23 months enrolled in the program), group 3 (24 to 35 months enrolled in the program), group 4 (36 to 47 months enrolled in the program), and group 5 (48 to 59 months enrolled in the program).

Instrumentation

Instrumentation used for this study was a scale type survey (Appendix F). It was administered to the sample group of parents whose children were enrolled in the program. The survey used for the research was developed by the researcher. The researcher developed a home literacy environment questionnaire adapted from *The Stony Brook Family Reading Survey* (Whitehurst, 1993), the *Get Ready to Read Home Literacy Environment Checklist* (National Center For Learning Disabilities, 2006), and the *Southwestern Oklahoma State University Reading Survey* (Burgess, 2002b) to fit the research problem statement needs. The researcher could not use any one of the previously designed surveys in their entirety due to a number of reasons. Two of the instruments address several constructs of literacy, whereas this study addressed only one construct. The literacy construct to be addressed was the home literacy environment. One of the previously designed instruments is a yes/no checklist, whereas this research required a scale-type method of data collection. The previously designed surveys were also longer in length than was needed for this research. Several questions for the questionnaire were taken directly from *The Stony Brook Family Reading Survey*; therefore, the Stony Brook Reading and Language Laboratory was contacted concerning copyright on the instrument (Appendix G). Validity of the questionnaire was determined by a panel made up of four reading specialists and nine early childhood teachers. Reliability was determined by administering a pilot survey and conducting a Cronbach alpha.

A total of 20 questions were chosen for the survey to determine the home literacy environment. The survey questions address the areas of home resources, parent/child activities, child activities, and parent activities. Keeping the survey to 20 questions

enabled subjects to complete it in less time and made it easier to manage. However, it still required the subjects to contemplate and reflect on personal choices of responses.

Although in general a longer test would have higher reliability, there is a point of diminishing returns. In this study it was necessary to have a high survey return rate in order to improve reliability.

In order to ensure validity of the survey and to gain insights into any necessary revisions needed, the initial concept of the survey was shared with a panel of four reading specialists and nine early childhood teachers. The panel was asked to complete the survey and answer the following questions:

1. How long did it take you to complete the survey?
2. Did the introduction to the survey provide sufficient background to adequately complete the survey? If not, explain.
3. Was the scale appropriate for each question? If not, which ones had problems? Explain.
4. Did you find the survey to be user friendly from the beginning to the end? If not, explain.
5. The construct to be surveyed is the home literacy environment. Does each question address the construct? Please list any questions that do not address the construct.
6. General comments

The panel was also asked to rate each question using a Likert scale as to the degree to which each question addressed the home literacy environment (“Likert scale,”

2007). The scale used was as follows: *strongly disagree*, *disagree*, *neither agree or disagree*, *agree*, and *strongly agree*.

The panel responded that it took between 5 and 7 minutes to complete the survey. They agreed that the survey's introduction provided sufficient background information, the scale was appropriate for each question, and the survey was user friendly. According to the panel's responses, all questions addressed the construct (the home literacy environment). Each question received a *strongly agree* or *agree* rating on the Likert scale. The panel suggested that the survey be formatted differently. They felt that the survey would be easier to read and complete if the survey was in a table format. The panel also suggested that the wording "Sesame Street" be taken out due to the program being dated. After the panel's suggestions, the survey was reformatted into a table and the wording "Sesame Street" was taken out. Changes were made and the survey was presented to the panel again. After an examination of the survey, the panel agreed that the instrument adequately represented the construct being measured.

The pilot survey for this study was approved by the Liberty University Internal Review Board on September 6, 2007 (Appendix H). To assess reliability of the survey, a pilot study was administered to a group of 100 FFCL participants, 20 from each enrollment group. The pilot survey packet consisted of the survey with a cover letter, addressed and postage-paid envelope in which to mail the survey back to the researcher, free children's book, and a postcard to mail back to the researcher for a chance to win a \$50 gift card.

A total of 52 surveys were returned. As shown in Table 1, of the 52 returned responses, 45 were considered completed and 7 were excluded due to one or more

answers not being completed. The reliability was assessed using Cronbach alpha. As indicated in Table 2, Cronbach alpha was .940. A summary item means (Table 3) was also conducted, which indicated a variance of .475. Using Cronbach alpha and the summary item means variance results from the pilot, the home literacy environment questionnaire showed to be a reliable instrument for this research study.

Table 1

Pilot Case Processing Summary

Cases	N	%
Valid	45	86.5
Excluded(a)	7	13.5
Total	52	100.0

(a) Listwise deletion based on all variables in the procedure.

Table 2

Pilot Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.940	.938	20

Table 3

Pilot Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum/Minimum	Variance	N of Items
Item Means	2.381	.578	3.333	2.756	5.769	.475	20

By means of a random chance drawing of the returned postcards, a \$50 gift card was given to one of the pilot survey participants. The winner was announced in the FFCL December newsletter, along with a thank you to all who participated in the pilot survey.

The panel's responses were used along with pilot study results to make necessary revisions to the formal survey. Minor necessary revisions were made to the survey and sent to Liberty University's Internal Review Board for approval. After gaining Internal Review Board change in protocol approval (Appendix I), the formal surveys were assembled. The formal surveys were then sent to a stratified random sample of FFCL participants in February.

Sources of possible error from instrumentation were sampling, noncoverage, nonresponse, and measurement error (Cui, 2003). Making sure that there was an adequate sample size at the time of the research was important to decrease sampling error. Noncoverage error could have been a problem but was not expected. A complete list of the research population was provided by the FFCL office in Madison, Georgia. Nonresponse error was a major concern for this research. Data was needed from the selected families. If subjects did not respond to the surveys, data could not have been collected. Ways to improve responses included handwritten addresses on all survey packet envelopes, an incentive in the form of a children's book, and a coupon for a chance to win a gift card. The book was mailed with each survey as an advance thank you to subjects completing the survey. The chance to win was in the form of a postcard that parents could mail separate from the survey. The FFCL office also took measures to increase the response rate of surveys. After the pilot survey, the FFCL included an article

in their monthly newsletter about the pilot survey and announced the winner of the gift card for the pilot phase of the study. In the FFCL January 2008 newsletter an article was written about the study and participants were encouraged to respond to the survey if they received one. A reminder of the survey was placed in the March 2008 FFCL newsletter to encourage a higher return rate. Measurement error could come from the respondents improperly completing survey questionnaires. To reduce measurement error, the following areas were considered: initial design considerations, cover page, directions, ordering of questions, navigational path, and page design. Careful planning and implementation was used to reduce instrumentation error to a minimum.

Data Collection

Evaluation data was collected by means of a scale survey, developed by the researcher, and mailed to a stratified random sample of subjects whose children were participants in the FFCL program. Surveys were color-coded according to how long a child had been enrolled in the program. The color code was as follows:

Group 1 - 0 to 11 months enrolled in the FFCL program – pink surveys

Group 2 - 12 to 23 months enrolled in the FFCL program – yellow surveys

Group 3 - 24 to 35 months enrolled in the FFCL program – green surveys

Group 4 - 36 to 47 months enrolled in the FFCL program – purple surveys

Group 5 - 48 to 59 months enrolled in the FFCL program – blue surveys

The color-coded surveys allowed the researcher to group subjects by their children's enrollment dates without risking confidentiality. Parents did not have to write their name nor the child's name on the survey. The surveys were completely anonymous. The FFCL office in Morgan County conducted a stratified random sampling of the

program participants. All enrolled families were first separated out into the five subgroups based on length of time enrolled in the program using the FFCL enrollment data base. Then a random sample of 420 families was taken from each enrollment subgroup. The FFCL office mailed survey packets, prepared by the researcher, using their bulk mailing system. The researcher paid for all materials and postage. Survey packets mailed to each selected family included the survey with a cover letter, addressed and postage-paid envelope in which to mail the survey back to the researcher, free children's book, and a postcard to mail back to the researcher for a chance to win a \$50 gift card. At the end of 6 weeks, the researcher conducted a random chance drawing of all postcards returned to determine the winner of the \$50 gift card.

The time schedule for data collection and revisions of the pilot surveys was estimated at 2 months. The time schedule for data collection of the formal surveys was estimated at 2 months with a budget of no more than \$7,000. A breakdown of the budgeted data collection cost is provided in Appendix J. The total time frame for the data collection was estimated at 4 months. However, the Christmas holiday season began immediately following the pilot survey data collection. There was a concern that the holiday would lower the response rate; therefore, the formal survey was delayed until early February. This changed the data collection time frame to a total of 7 months.

Data Analysis

Parent responses concerning their home literacy environments were reported in quantitative form. Responses from each question item were weighted from 0 to 4, giving a total of 80 possible points for each survey. All sample responses were grouped by the children's length of time in the FFCL program. The subject groups were group 1 (0 to 11

months enrolled in the program), group 2 (12 to 23 months enrolled in the program), group 3 (24 to 35 months enrolled in the program), group 4 (36 to 47 months enrolled in the program), and group 5 (48 to 59 months enrolled in the program). The surveys consisted of 20 item questions with 5 answer choices for each question. Each question's answer was weighted from 0 to 4. Survey totals could range from a minimum of 0 to a maximum of 80. Each subject that responded to the home literacy survey received a home literacy environment score based on a scale of 0 to 80.

A score of 0 to 19 indicated that the home literacy environment had none or few necessary supportive elements. A score of 20 to 39 indicated that the home literacy environment had some supportive elements. A score of 40 to 59 indicated that the home literacy environment had many supportive elements. A score of 60 to 80 indicated that the home literacy environment had most of the necessary supportive elements. The home literacy environment scale used for the survey was adapted from the *Get Ready to Read Home Literacy Environment Checklist* (National Center for Learning Disabilities, 2006). Permission to use the scale was granted by the National Center for Learning Disabilities (Appendix K).

Descriptive and inferential statistical procedures were used to analyze the data collected for this study. A test for normality of data (skewness and kurtosis) was performed to determine if the data collected came from a normal sample. A Pearson correlation was conducted to determine the direction and strength of the relationship. A one-way ANOVA was used to determine if there was a significant difference between the five groups. To understand the difference between the five groups, a chart illustrating trends in group means was constructed. An item analysis performed using SPSS 15.0

revealed further findings from the survey data. Survey participants' comments were recorded to supplement the additional findings. Data was presented using descriptive tables with an explanation of what the tables represent.

Summary

Chapter 3 explains how the study was conducted to address the research problem statement. Data collection and analysis was used to determine if, among families whose children were enrolled in the FFCL, there was a relationship between the home literacy environment and the years of enrollment in the program. Chapter 4 of the dissertation will present the results obtained from the methods described in this chapter. Chapter 5 of the dissertation will be a summary and discussion of the research.

Chapter 4: Results

The purpose of the study was to investigate if, among families whose children were enrolled in the FFCL, there was a relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program. This chapter is organized in order of the research question findings, additional findings, and a chapter summary.

The research survey portion of this study included mailing an equal number of 420 surveys to each sample group population of FFCL program participant families for a total of 2,100 surveys. All sample responses were grouped by the children's length of time in the FFCL program. The subject groups were group 1 (0 to 11 months enrolled in the FFCL program), group 2 (12 to 23 months enrolled in the FFCL program), group 3 (24 to 35 months enrolled in the FFCL program), group 4 (36 to 47 months enrolled in the FFCL program), and group 5 (48 to 59 months enrolled in the FFCL program).

The surveys consisted of 20 question items with five answer choices for each question. Each question's answer was weighted from 0 to 4. Survey totals could range from a minimum of 0 to a maximum of 80. Each subject that responded to the home literacy survey received a home literacy environment score based on a scale of 0 to 80. A score of 0 to 19 indicated that the home literacy environment had none or few necessary supportive elements. A score of 20 to 39 indicated that the home literacy environment had some supportive elements. A score of 40 to 59 indicated that the home literacy environment had many supportive elements. A score of 60 to 80 indicated that the home

literacy environment had most of the necessary supportive elements. Overall, 1,086 families completed some portion of the survey and returned it to the researcher.

Research Question Findings

Statistics of the study were collected using SPSS 15.0. Table 4 illustrates that missing data were treated using listwise deletion, giving a valid sample size of $n = 1082$. This study reflects the results from 1,082 valid surveys, which equals 51.52% of the total surveys mailed. A skewness and kurtosis test was conducted. A skewness score of +/- 2 would have indicated that the data was skewed. For this survey data, there was neither a positively skewed distribution nor a negatively skewed distribution. A higher kurtosis would have indicated more of the variance was due to infrequent extreme deviations. The table shows a low kurtosis, which means that the variance for this study was due to frequent modestly sized deviations. Skewness test for normality of the data relative to the sample revealed that the data collected came from a normal sample.

Table 4

Descriptive Statistics Skewness and Kurtosis

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Group	1085	2.9991	1.44933	.044	.074	-1.351	.148
Item1	1085	3.2507	.80348	-.804	.074	-.034	.148
Item2	1085	2.2940	1.20010	-.324	.074	-.663	.148
Item3	1085	3.0802	.93222	-.783	.074	.019	.148
Item4	1085	2.9069	1.00808	-.625	.074	-.310	.148
Item5	1085	2.0525	1.17320	-.140	.074	-.765	.148
Item6	1085	3.3816	.81274	-1.277	.074	1.358	.148
Item7	1085	.8184	.79507	.822	.074	.717	.148
Item8	1085	2.5539	1.11104	-.559	.074	-.250	.148
Item9	1085	3.1521	.97851	-1.214	.074	1.265	.148
Item10	1085	3.3309	.94411	-1.618	.074	2.483	.148
Item11	1085	3.2129	.94587	-1.137	.074	.741	.148
Item12	1085	1.9447	1.13835	.345	.074	-.580	.148
Item13	1085	2.4415	1.14837	-.232	.074	-.820	.148
Item14	1085	2.4728	1.11367	-.190	.074	-.676	.148
Item15	1084	1.9557	.92960	-.023	.074	-.368	.148
Item16	1084	3.4594	.80695	-1.569	.074	2.138	.148
Item17	1083	3.4284	.73668	-1.135	.074	.760	.149
Item18	1083	2.7839	1.16774	-.481	.074	-1.035	.149
Item19	1084	3.3542	.81535	-1.101	.074	.494	.148
Item20	1084	2.1900	.70668	.121	.074	.634	.148
FinalScore	1082	54.0638	9.80950	-.507	.074	.338	.149
Valid N (listwise)	1082						

A total of 420 surveys were sent to participating families in each of the five groups. Table 5 reveals how many valid surveys were analyzed per group. Valid survey return rate from group 1 was 52.6%, group 2 was 54.3%, and group 3 was 49.8%. Group 4 had the lowest valid survey return rate at 43.1%. Group 5 had the highest valid survey return rate at 57.9%.

Table 5

Valid Surveys Collected Per Group

Group	N
1.00	221
2.00	228
3.00	209
4.00	181
5.00	243

The Pearson correlation (Table 6) indicated the strength and direction of a linear relationship between variables. The study revealed a correlation of positive direction but of small strength in the home literacy environment scores as indicated with a .227 on the SPSS 15.0 table, thus rejecting the null hypothesis. The results of the Pearson correlation did display the presence of a positive linear relationship between the length of participation in the program and the home literacy score. However, the evidence of low strength in the linear relationship provided in the table suggested that more investigation of the relationship between the groups would be helpful.

Table 6

Pearson Correlations

		Group	FinalScore
Group	Pearson Correlation	1	.227(**)
	Sig. (2-tailed)		.000
	N	1085	1082
FinalScore	Pearson Correlation	.227(**)	1
	Sig. (2-tailed)	.000	
	N	1082	1082

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

The results of a one-way ANOVA test can be observed in Table 7. This was conducted to determine if there was a significant difference between the five groups. All groups were tested at once, not split. The F significant at the alpha level (p value) of .000, as reported in the last column of the SPSS 15.0 table, fell well below the required .05 alpha level. One can conclude that the differences found between the groups were significant and there was less than a 1 in 100 chance that the differences found were the result of sampling error, thus strengthening the findings of the study. However, even though the ANOVA revealed that at least one of the group means was significantly different from at least one other group mean, it did not reveal which groups were different and which were not.

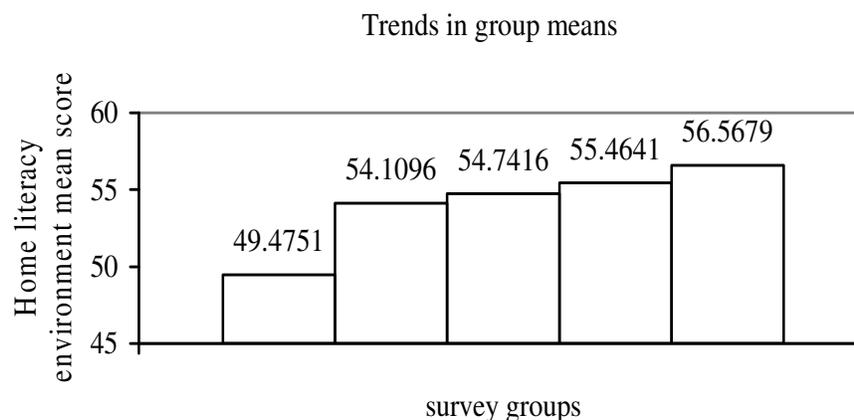
Table 7

ANOVA Final Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6628.534	4	1657.133	18.325	.000
Within Groups	97392.066	1077	90.429		
Total	104020.600	1081			

Figure 1 illustrates the trends in group means of the home literacy environment score. Each group had a mean score that was between 40 and 59, which indicated that the home literacy environment had many supportive elements. Each group illustrated a slight increase in the home literacy environment score the longer the child was in the FFCL program. The largest mean score increase (4.6345) was between group 1 and 2. Between group 1 and group 5 there was a 7.0928 home literacy environment mean score increase.

Figure 1. Trends in group means.



Additional Findings

An item analysis was also conducted that revealed additional findings for this study. Each group's mean score for each survey item was analyzed (Figure 2 & Table 8). The tables were produced to compare question item mean scores across the five groups.

Question items 1 through 9 were a reflection of adult involvement in the educational process. The involvement consisted of reading to the children, drawing, storytelling, participating in favorite activities, and the adults helping manage the literacy schedule of the children. Evidence of adult involvement was shown by the increase in scores in items 1 through 9, with the exception of item 4, for those who had been in the literacy program longer. Item 4 (how often do you or another adult in the house sing or say nursery rhymes to/with your child) mean score actually decreased .1317 points from group 1 to group 5. Item 2 (After reading to your child, do you participate in one or more of the following activities: drawing, singing, storytelling, acting it out?) had a low mean

score from all groups, yet did show a .5724 point gain from group 1 to group 5. Item 7 had the lowest mean for each group, which indicated that the average FFCL participating family that returned a survey never went to the library with their children. This may be related to the parents' own reading behaviors as it requires parents to take their children to the library.

Question items 10 and 11 were an indication of the children's interest in reading. In these questions, as the children were involved in the reading program, they showed a greater interest in reading after the initial group period in the program but additional increases were not noted after the second period.

Question items 12 through 14 were an indication of the adults' example for the children. In questions 12 and 13, the adults became more interested in reading themselves the longer the children were in the reading program. Question 14 responses indicated the adults did not notably change the behavior of reading for pleasure during the children's participation in the program.

Question item 15 revealed that the adults did not greatly increase the reading time to the children the longer the children were in the program. It also indicated that FFCL parents read to their children only 20 minutes or less a day.

Question item 16 was an indication that there is a response in the children's interest when adults read to the children. The score increased from an initial low and was highest after being in the program for 24 to 35 months. Question item 17 revealed that the adults seem to have about the same enjoyment when reading to their children regardless of how long they had been in the program.

Question item 18 revealed that adults changed the number of books they had in the home for reading pleasure as the children remained in the program. Question item 19 revealed that as the children remained in the program, the adults accumulated more picture books for their children. It demonstrated an increase of .7793 from group 1 to group 5.

Question item 20 revealed that there was a slight increase in the time spent watching television after the first year in the program. However, after that, no additional change appeared to have occurred.

Several question items stood out when analyzing the table. Items 1, 13, 18, and 19 indicated a contrast between parents' own reading behaviors and the literacy behaviors in which they engaged with their children. Most families had a lack of adult-level reading material in the home, including books, newspapers, and magazines. Adults also reported that their children did not often see them reading for pleasure.

Figure 2. Analysis clustered bar graph.

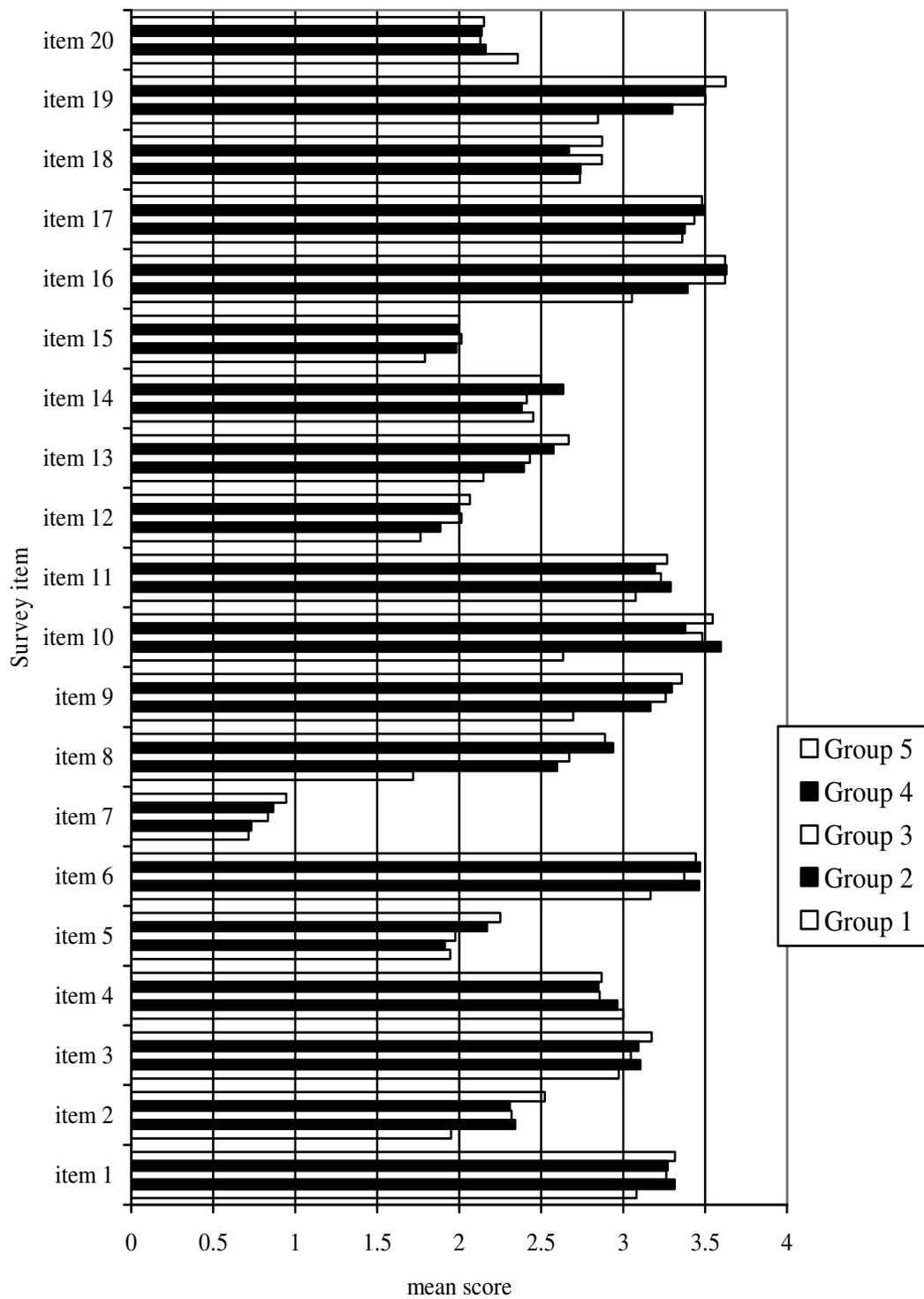


Table 8 *Item Analysis*

	Group 1	Group 2	Group 3	Group 4	Group 5
Item 20	2.3575	2.1623	2.1292	2.1381	2.1523
Item 19	2.8462	3.3026	3.5024	3.4972	3.6255
Item 18	2.7376	2.7412	2.8780	2.6685	2.8724
Item 17	3.3620	3.3772	3.4354	3.4972	3.4815
Item 16	3.0543	3.3947	3.6220	3.6298	3.6214
Item 15	1.7919	1.9825	2.0144	1.9890	2.0000
Item 14	2.4525	2.3816	2.4115	2.6354	2.4979
Item 13	2.1493	2.3947	2.4306	2.5746	2.6667
Item 12	1.7647	1.8860	2.0144	1.9890	2.0658
Item 11	3.0769	3.2895	3.2297	3.1934	3.2675
Item 10	2.6335	3.5965	3.4833	3.3812	3.5473
Item 9	2.6968	3.1667	3.2584	3.2983	3.3580
Item 8	1.7195	2.5965	2.6699	2.9392	2.8889
Item 7	.7149	.7325	.8325	.8674	.9465
Item 6	3.1674	3.4649	3.3732	3.4696	3.4444
Item 5	1.9457	1.9123	1.9761	2.1713	2.2510
Item 4	3.0000	2.9649	2.8565	2.8508	2.8683
Item 3	2.9729	3.1053	3.0478	3.0939	3.1728
Item 2	1.9502	2.3421	2.3206	2.3094	2.5226
Item 1	3.0814	3.3158	3.2632	3.2707	3.3169

Although there were no spaces for survey participants to write comments, some participants wrote in the margins of the survey. A running chart was designed to keep track of the statements. Table 9 records the comments. Seventeen comments were related to library use. As the last two rows indicate, 159 surveys had a note of thanks and 38 had a note indicating a love for the books and/or program.

Table 9

Survey Participants' Comments

Survey Group	Comments
1	My child is not old enough to go to the library and not old enough to sing.
1	She can not read so she does not enjoy reading
1	We only sing if we read in the afternoon
1	We love the Ferst Foundation! Thank you.
1	We do not go [to the library] because we have a huge personal library. She doesn't like to sit still anymore.
1	Will begin to go [to the library] now.
1	We read news online. I love to read but the kids keep me way too busy.
1	Too young [for library]
1	Do not read, he is in daycare
1	We make reading a family activity. We have 2 "story times" for both children per day.
1	Not old enough to go [to library].
1	Too young [for library].
1	Not old enough [for library].
1	Too little for it [library].
1	On and off all day [TV watching].
1	We have tried to [draw] she eats crayons.
1	For the past 3 months he's really been into books! I go to the store just to buy him books. I'd love to find more bilingual books. I think it is very important for his future – to speak both languages! - We do not go to the library because he is too young.
2	She does not like help [coloring]
2	She does not sit still long enough to like it [reading]
2	We love the books you [FFCL] send us each month! Thank you!
2	Only go in summer [to library].
2	We don't go [to library], it is like a library at our house.
2	Thanks for all that you [FFCL] do to make this literacy program a success. The kids look for their book to come in the mail every month. And the parent pages are invaluable. Thank you!

2	Summer only [library].
2	Rural too far away [from library]
2	He is not of age to enjoy participating in activities after reading yet.- He is not old enough for me to tell stories to him.
2	We have books for him because of you [FFCL]
3	We haven't gone [to the library] but we will now. – We love the Ferst Books! They are some of our favorites. We often do the study guides that come with the books or else use the guides as inspiration for a project etc. We do things together almost daily. We will start going to the library. Thanks for a wonderful program.
3	Thanks Ferst! We wait for the books each month.
3	Only in summer [library]
3	Sorry, we watch too much [TV]
3	Watch too much TV in daycare. – We love the Ferst. Thank you!
3	We have been a few time [library]
3	Thank you for a great program. Please keep sending the books.
4	Only see [adults reading] at grandparents' house.
5	Both children ask to be read to or make up own stories from their books. They have really enjoyed the books they get from the Ferst Foundation.
5	All [our children] are read to on a daily basis because of the Ferst Books we have. Thanks.
5	In the summer [library].
5	Don't have any nursery rhyme books.
5	We have more than 50 [books] because of the ones you [FFCL] send each month.
* all groups	159 surveys had a short note of thanks ex. Thank you, thanks
* all groups	38 surveys had a short positive note about love the books, love the Ferst Foundation, love the program, or love what you [FFCL] do.

Summary

This chapter detailed the results of the statistical analyses performed to answer the research question. A test for normality of data, skewness, and kurtosis was performed to determine if the data collected came from a normal sample. A Pearson correlation was conducted to determine the direction and strength of the relationship. The Pearson correlation revealed a correlation of positive direction but of small strength in the home literacy environment scores, thus rejecting the null hypothesis. A one-way ANOVA was

used, which determined there was a significant difference between the five groups. To understand the difference between the five enrollment groups, which was revealed through the ANOVA, a chart illustrating trends in group means was constructed. An item analysis, which was performed using SPSS 15.0, revealed further findings from the survey data. Survey participants' comments were recorded to supplement the additional findings. A summary and discussion of the results of these statistical analyses is presented in Chapter 5.

Chapter 5: Summary and Discussion

To assist the reader, chapter 5 will begin by restating the research question and null hypothesis. A review of the research methodology used to generate the data results will also be presented. A summary of the results will be provided followed by a discussion of the results. The discussion will be divided into five sections: interpretations of the findings, relationship of the current study to previous research, limitations of the study, implications, and suggestions for additional research.

Research Question

Among families whose children are enrolled in the FFCL, is there a relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program?

Null Hypothesis

Among families whose children are enrolled in the FFCL, there is no significant relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program.

Review of Methodology

As explained in chapter 3, the research methodology used sought to determine the correlation strength between two variables. The population was the FFCL participants. The length in the program was the independent variable and the home literacy environment, as measured by a scale survey, was the dependent variable.

The subjects for the study were a stratified random sample of families whose children were enrolled in the program from participating counties and sites in the State of

Georgia. A sample of subjects was obtained using the FFCL database. An equal number of subjects (420) from each enrollment group totaling 2,100 were surveyed. The subject groups were group 1 (0 to 11 months enrolled in the program), group 2 (12 to 23 months enrolled in the program), group 3 (24 to 35 months enrolled in the program), group 4 (36 to 47 months enrolled in the program), and group 5 (48 to 59 months enrolled in the program).

The home literacy environment for each subject was operationalized from a survey mailed to a stratified random sample of the population whose children were enrolled in the FFCL program. The survey was cross-sectional in nature. It was administered to the parents or caregivers of children enrolled in the program. Surveys were color-coded according to how long a child had been enrolled in the program. Survey packets mailed to each selected family included a survey with cover letter, addressed and postage-paid envelope in which to mail the survey back to the researcher, free children's book, and postcard to mail back to the researcher for a chance to win a \$50 gift card.

The surveys consisted of 20 item questions with 5 answer choices for each question. Each question's answer was weighted from 0 to 4. Survey totals could range from a minimum of 0 to a maximum of 80. Each subject that responded to the home literacy survey received a home literacy environment score of 0 to 80. A score of 0 to 19 indicated that the home literacy environment had none or few necessary supportive elements. A score of 20 to 39 indicated that the home literacy environment had some supportive elements. A score of 40 to 59 indicated that the home literacy environment had many supportive elements. A score of 60 to 80 indicated that the home literacy environment had most of the necessary supportive elements.

Summary of Results

This section is a summary of results reported in chapter 4. Statistics of the study were collected using SPSS 15.0. This study reflects the results from 1,082 valid surveys, which equals 51.52% of the total surveys mailed. Skewness test for normality of the data relative to the sample revealed that the data collected came from a normal sample. This indicated that survey results were generalizable to a population with similar demographics.

An equal number of 420 surveys were sent to participating families in each of the five groups. Valid survey return rate from group 1 was 52.6%, group 2 was 54.3%, and group 3 was 49.8%. Group 4 had the lowest valid survey return rate at 43.1%. Group 5 had the highest valid survey return rate at 57.9%.

The results of the Pearson correlation displayed the presence of a linear relationship between the length of participation in the program and the home literacy score, thus rejecting the null hypothesis. A one-way ANOVA test determined that there was a significant difference between the five groups. Each group had a mean score that was between 40 and 59, which indicated that the home literacy environment had many supportive elements. Each group illustrated a slight increase in the home literacy environment score the longer the child was in the FFCL program. The largest mean score increase (4.6345) was between group 1 and 2. Between group 1 and group 5 there was a 7.0928 home literacy environment mean score increase.

An item analysis was also conducted that revealed additional findings for this study. Each group's mean score for each survey item was analyzed. Although there were no spaces for survey participants to write comments, some participants wrote in the

margins of the survey. A running chart was designed to keep track of the statements. Seventeen comments were related to library use. Of the 1,086 returned surveys, 159 had a note of thanks and 38 had a note indicating a love for the books and/or program.

Interpretation of the Findings

Among families whose children were enrolled in the FFCL, this study explored the relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program. The main finding of this study was that there was a positive linear relationship between the length of participation in the program and the home literacy scores, thus rejecting the null hypothesis. The study found a small but statistically significant increase in the home literacy score from group 1 to group 5. This study suggests that a positive relationship exists between the home literacy environment and the years of enrollment in the FFCL program. The finding is quite significant considering that FFCL is such a simple and fairly inexpensive literacy program at \$35 per child per year.

The aim of this particular study was to investigate the total home literacy score; however, additional findings were discovered while completing statistical analysis of the data collected. A striking finding in this study was the contrast between parents' own reading behaviors and the literacy behaviors in which they engaged with their children. Parents reported on average reading to their children almost daily; yet, most families had a lack of adult-level reading material in the home, including books, newspapers, and magazines. Adults also reported that their children did not often see them reading for pleasure. Parents or other caregivers are the most influential people in the education of their children. Literacy begins at home. Children's literacy attitudes are shaped by

parents' and caregivers literacy attitudes (Zygouris-Coe, 2001). Therefore, if children do not see parents engaged in literary activities, then they will not view literacy as an important part of life. Although reading aloud to children is an important aspect of the home literacy environment, early intervention programs need to address and should include ways to improve the parents' own literacy habits.

The study found that few parents took their children to the library. The study did note a slight increase in families visiting the library as the years of enrollment increased. This may indicate that the longer the children were enrolled in the FFCL the more likely the parents believed that taking their children to the library would help their children's literacy development. This lack of library usage among families participating in the FFCL would be important to examine further.

Furthermore, the study found that the longer children were enrolled in the FFCL program the more books were available for children's use in the home. Materials in the home are crucial to the literacy develop of children. The availability of literacy-related materials at home affects the frequency of quality literacy interactions to which children are exposed. The frequency of parent-child book sharing also increased as the length of time in the program increased. However, the study found that longer enrollment times in the program did not increase the minutes per day of read-aloud time parents engaged in with their children after the second enrollment group.

Relationship of the Current Study to Previous Research

The Weitzman et al. (2004) study on the Reach Out and Read program concluded that a modest book intervention program can have a significant impact on a child's home literacy environment. The results of this current study indicated that the FFCL program

did have a positive influence on the home literacy environment, which was consistent with the Reach Out and Read study.

Numerous studies have found that parents, given knowledge and resources, can create supportive home literacy environments (Burgess et al., 2002; Debaryshe et al., 2000; Reese & Cox, 1999; Zygoris-Coe, 2001). Homes that have an extensive selection of reading and writing materials available to children promote their learning to read at an early age. The preschool years are a critical time when young children acquire skills that will ultimately transition to later reading success (Justice & Kaderavek, 2004). The FFCL argues that the program cannot tackle all the concerns of early literacy; however, it can work to eliminate one of the reasons parents do not read to their children. It can make quality books available in the home (Franklin County Chamber of Commerce, 2006). In this current study parents indicated that the longer the children were in the FFCL program the more picture books were in the home for the children to use. This finding is important in relation to the High/Scope Educational Research (2003) report that concluded that for 34% of study group households the Imagination Library program is a primary source of children's books.

The current study found that the reading behavior of the parents was lower than that in which they engaged with their children. This is consistent with Weitzman et al. (2004) that also found that parent reading behavior and materials were lower than the literacy behaviors in which they engaged with their children. This is also important in light of Baker et al. (1996) that found that parents' perspectives on literacy related to the experiences they made available to their children at home and to the way children responded to literacy experiences at school.

The item analysis of this current study indicated that parents did not regularly engage their children in narrative skill activities. Narrative skill is being able to describe things and events. A person with narrative skills is able to tell a story with a developed beginning, middle, and ending. Narrative skills can be improved by having children tell sequentially what they have just done. According to Dickinson, McCabe, and Sprague (2003), the development of narrative ability is one of the lesser known oral language skills relevant to literacy.

It is interesting to note that the time spent viewing television increased slightly instead of decreased with program enrollment. Most families indicated that their children watched television between 1 and 3 hours per day. This viewing time is consistent with other studies related to television viewing. Mendoza, Zimmerman, and Christakis (2007) found that 60% of preschool children in the United States watch television 2 or more hours per day. Jordan, Hersey, McDivitt, and Heitzler (2006) found that most children reported spending 3 hours per day watching television.

The High/Scope Educational Research (2003) study also reported that a large percentage of the surveyed families almost never visited a book store (35.3%) or library (46.3%). This current research found a low library use among FFCL survey participants.

The research question findings and additional findings of this current research extend recent studies' findings on the home literacy environment found during the literature review conducted by the researcher. It also adds to the body of knowledge concerning multiple-year effectiveness of early intervention programs such as the FFCL. The main finding of this study is consistent with previous research and supports the idea

that efforts aimed at improving young children's home literacy environment would benefit from implementing a book distribution intervention program.

Limitations of the Study

Considering the scope of this research, it is helpful to understand various limitations of the study. The findings of the present study must be interpreted with caution in light of five areas of limitation.

One limitation to the study was the possible inaccurate information given by parents or caregivers. The survey allowed only the perceptions and perspectives of the home literacy environment as given by the parents. Parent responses to the questionnaires may have been affected by difficulties in recalling frequencies of behaviors and times of occurrences. Parents may have also reported what they thought the researcher or the FFCL wished to hear. In this there exists potential bias; what the parents actually reported and what actually occurred in real life may not have matched. Therefore, the answers to the survey questions could have been affected by the emotions of the parents and what the parents wished to have occurred regarding home literacy environment.

Another limitation was the lack of family background information the FFCL had on its participants. The FFCL did not collect information on the socioeconomic status of the families. Therefore, there was no way to know if there was an equivalent distribution in socioeconomic variables among groups studied. Parents were also not required to give a phone number in order to sign up for the program. Therefore, there could not be a follow-up phone survey to determine reason for nonresponse to the mail surveys.

The third limitation was the absence of a baseline score. There was no baseline home literacy environment score for families that use the FFCL program through a

pretest before the families started receiving the program materials. This was a cross-sectional study, which did not allow for a baseline home literacy environment score before experiencing any FFCL materials and then assessing changes in scores over time.

The fourth limitation to this study was the lack of generalizations of the findings. Findings could be generalized only to families enrolled in the FFCL program in the State of Georgia and not the rest of the population.

The fifth limitation was the survey response rate. Some parents did not complete the survey and mail it back to the researcher. The researcher offered incentives for parents to complete the survey; however, the researcher could not guarantee a particular number of completed surveys.

Even given the limitations of these findings, the present results suggest that among families whose children were enrolled in the FFCL there was a positive relationship between the home literacy environment, measured by a scale survey, and the length of time enrolled in the program.

Implications

These conclusions are not intended to imply that the act of enrolling a child in FFCL program will achieve a thriving home literacy environment; however, the findings of this study suggest that a positive relationship exists between the home literacy environment and the years of enrollment in the FFCL program. Children who are read to from an early age demonstrate more interest in reading than children who lack this experience (Kuo et al., 2004). The literacy skills acquired by children at home and at school affect their opportunities for further education, their transition from home to school to work (Organization for Economic Co-Operation and Development, 2000).

Knowing how to focus efforts targeting the enhancement of home literacy environments may eventually help to create better early literacy programs that will produce lasting changes in children's lives. Children can develop and attain literacy achievement when parents establish a rich home literacy environment. When parents are given the resources and knowledge to help their children in emergent literacy endeavors, they become active and resourceful. There are several suggestions for educators and policymakers based on this study.

Fairly inexpensive book programs have the potential to elicit reading behavior changes in families with young children. The results of this study suggest a simple book distribution does make a difference in the home literacy environment.

Families with young children need books in their homes. For young children and parents to view reading as an enjoyable activity, they must have books in the home that are age-appropriate and interesting. Since few families report utilizing the public library, additional resources are necessary to help families create a library in their homes so they may engage in shared reading experiences.

Library awareness and what libraries offer needs to be promoted to families with young children. According to Darling (2005), children who are read to, told stories, and visit the local library may start school better prepared to learn. Housing literacy programs through the local library can be a useful strategy to build closer connections between families, neighborhoods, and the educational experience.

Parent training programs need to focus on the power of role modeling reading behaviors. While most parents understand that reading aloud with children is an important part of the home literacy environment, parents' own reading habits do not

express positive attitudes about literacy. Literacy skills such as reading novels, newspapers, and recipes and writing schedules, letters, and journals are everyday activities that children need to see modeled by adults.

Parent education on how to establish a prosperous home literacy environment requires additional information to reduce parent and children television viewing time. Tips on monitoring television viewing time needs to be made available to parents.

Suggestions for Additional Research

While this study adds to the existing literature about the relationship between the home literacy environment and years of enrollment in the FFCL program, the literature is still incomplete. There are many questions left unanswered. In order to design effective and long-lasting interventions, more research on how interventions influence the home literacy environment is needed (Debaryshe, 1995). Researchers will want to understand better what aspects of the program are responsible for this study's outcomes. It is hoped that future research will more closely examine potential ways to foster the home literacy environment in all families regardless of social economic factors. This section provides a series of recommended areas of future study. Suggestions for additional research related to home literacy environment practices were developed based on the discussion of the data collected from this study.

1. A longitudinal study concerning the impact of the FFCL on the home literacy environment would be of great importance. A time series design that followed children's families before entering the program until the end of the program would provide meaningful insight into long-term changes in the home literacy environment. This study would obtain a baseline

home literacy score for families before receiving program material. The study would also capture a home literacy environment score at the end of each year of enrollment and at the conclusion of the program. Following the subjects after school entry would also provide useful data.

2. A replication of the study with a much larger sample size might provide further insight into program effectiveness on the home literacy environment.
3. A study examining the relationship between multiple-year enrollment and emergent literacy development skills in young children would be beneficial.
4. A qualitative study examining the FFCL and its impact on the home literacy environment would give insight on participants' perceptions concerning the program.
5. A study is needed to explore the inconsistency between parents' reading behaviors for themselves and the behaviors that the same parents practice regarding their children's reading behavior.

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Appendix A: Imagination Library Book List

Dolly Parton's Imagination Library

2007 Book List

All of the following books are published by Penguin Group, Inc.

The first book each child receives is *The Little Engine That Could* (customized version). Children turning 5 in January, February, or March will receive *Look Out Kindergarten, Here I Come* (customized version).

After the first quarter of '07, the month they turn 5 children will receive *Miss Bindergarten Gets Ready for Kindergarten* (customized version)

Group 6 (Children born in 2002)

A Place Called Kindergarten
Eight Animals Play Ball
Fossie and the Fox
Turtle's Race With Beaver
Grandfather Buffalo
Groundhog Gets A Say
Invisible Moose
Jon Phillip Duck
Officer Buckle & Gloria
Owl Moon
Story About Ping
Why Mosquitoes Buzz in People's Ears?

Group 5 (Children born in 2003)

Aesop's Fables
Boom Chicka Rock
Cool Time Song
Coyote Raid in Cactus Canyon
Zinnia's Flower Garden
Eight Animals on the Town
Legend Of The Indian Paintbrush
Luke Goes To Bat
Rooster Can't Cock-A-Doodle-Do
Snowy Day
Take Care Good Knight

The House That Jack Built

Group 4 (Children born in 2004)

Big Brother, Little Brother
Big Sister, Little Sister
Bunny Money
Easy Street
Firefighters To The Rescue
Fluffy and Baron
Good Night Gorilla
Little Toot
Mr. Wishy Washy
Mrs. Wishy Washy
My Lucky Day
Tiger Can't Sleep
Tomie's Little Book of Poems

Group 3 (Children born in 2005)

I Love My Daddy Because
I Love My Mommy Because
Tommie's Three Bears
Llama, Llama Red Pajama
Little Loon and Papa
Max's ABC
Momma Will You?
My Very First Book of Shapes
Only You / Solo Tu
The Toddler's Potty Book / El Libro De Basinica Del Pequentio
The Wild Little Horse
Two is For Twins

Group 2 (Children born in 2006)

A Mud Pie For Mother
ABC Look At Me
Raindrop Plop!
Cookie's Week
Wake Up, Sleepy Bear!
Corduroy Goes To The Doctor
I Love You Sun, I Love You Moon
My Very First Book of Colors
Marcos Counts
Max's First Word
When The Elephants Walks

My Two Hands My Two Feet

Group 1 (Children born in 2007)

Giggles With Daddy
Mary Had A Little Lamb
Tomie Little
Mother Goose
Kisses For Mommy
Max's Ride
Where's My Nose?
Look Look!
Spot Goes To The Farm
Where's Spot
Lull-A-Bye Lil' One
Tomie's Baa Baa Black Sheep

Appendix B: Ferst Foundation for Childhood Literacy Site List

Georgia Counties Participating in the Ferst Foundation for Childhood Literacy

October, 2007

1. Athens – Clark
2. Baldwin
3. Butts
4. Calhoun
5. Carroll
6. Catoosa
7. Charlton
8. Chattooga
9. Colquitt
10. Coweta
11. Dade
12. Dawson
13. Effingham
14. Elbert
15. Fannin
16. Forsyth
17. Franklin
18. Gilmer
19. Glynn
20. Grady
21. Greene
22. Habersham
23. Hancock
24. Haralson
25. Harris
26. Hart
27. Heard
28. Henry
29. Jasper
30. Lamar
31. Lumpkin
32. McDuffie
33. McIntosh
34. Meriwether
35. Mitchell
36. Monroe
37. Morgan
38. Newton
39. Putnam
40. Seminole

41. Stephens
42. Taliaferro
43. Thomas
44. Walker
45. Warren
46. White

Georgia Communities Participating in the Ferst Foundation for Childhood Literacy

October, 2007

1. College Heights Early Childhood Learning Center
2. Kennedy Heard Start Center in Atlanta
3. John Hope Elementary School District in Atlanta
4. Pre-K at Campbell, Palmetto & Evoline C. West Elementary Schools in South Fulton
County

Appendix C: ERIC (EBSCOhost) Search

Topic	Number of articles (no limits)	Number of articles (peer reviewed)
Literacy	41737	2497
Literacy skills	2095	235
Literacy development skills	1	0
Brain development	401	23
Literacy and the United States	2437	162
Home literacy environment	45	11
Early literacy programs	40	2
Ferst Foundation for Childhood Literacy	0	0
Survey research	867	28
Child development theories	66	5
Learning theories	10515	347
Imagination library	0	0

Appendix D: ProQuest Dissertation and Theses Search

Topic	Number of articles Date range: last 10 years Document language: English Manuscript type: Doctoral dissertations	Number of articles Date range: last 10 years Document language: English Manuscript type: Doctoral dissertations Subject: Education
Literacy	6535	4155
Literacy skills	514	392
Literacy development skills	734	563
Brain development	26	14
Literacy and the United States	417	293
Home literacy environment	148	117
Early literacy programs	372	293
Ferst Foundation for Childhood Literacy	0	0
Survey research	803	318
Child development theories	1412	586
Learning theories	1003	640
Imagination library	0	0

Appendix E: Ferst Foundation Database Permission



Shauna von Hanstein, Executive Director
Tera Cochran, Program Manager

BOARD OF TRUSTEES

Robin Ferst, Chair
 Founder, Ferst Foundation for Childhood Literacy

Dr. Bill Rushing, Treasurer
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Dr. Stan DeJarnett, Secretary
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Danah C. Craft
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Margaret Quinlin
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Dr. Harry Beverly
 Retired Presbyterian Minister

Terry Blum
 Ga. Tech College of Management

Ann Cramer
 IBM Corporate Community Relations

Robert ("Bob") G. McCauley
 Holland & Knight LLP

Dan Rather
 Carter and Associates

Eric J. Tanenblatt
 McKenna Long & Aldridge, LLP

P.O. Box 1327
 Madison, GA 30650
 (706) 343-0177
 Fax No. (706) 343-9998
 www.ferstfoundation.org

October 2, 2007

Gina B. Thomason
gina@franklin.k12.ga.us

Dear Gina,

We are thrilled to be the subject of your dissertation. We are excited about the partnership that we have formed and, for your research purposes, we will grant access to the Ferst Foundation enrollment database.

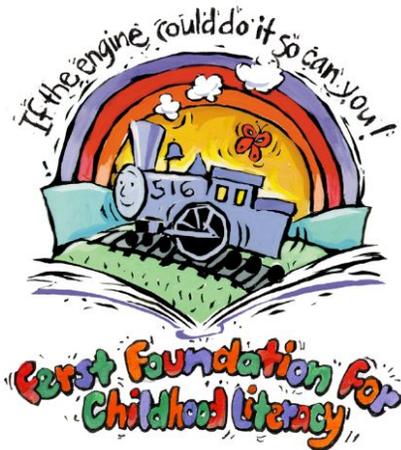
If you are interested in conducting phone surveys along with the mail surveys we would only ask for review and final approval of the phone survey script prior to allowing our parents to be contacted via telephone. Note that not all participating families have a home telephone number.

Again, we look forward to working together to obtain information which is sure to serve as a valuable evaluation tool for the Ferst Foundation. Thank you so much for considering us for your dissertation topic and do not hesitate to contact us if you need any additional assistance.

Sincerely,

Shauna von Hanstein

Your child gets a **FREE** book and you get a chance to **WIN** a \$50 gift card!



Simply fill out this survey and return it within one week in the envelope provided. Keep the book as a thank you. Also, send in the enclosed postcard for a chance to win a \$50 gift card.

Gina Thomason

Home Literacy Environment Questionnaire:

Doctoral Student: Gina B. Thomason

The purpose of the research project in which we are asking you to participate is to learn as much as possible about the home literacy environment and the Ferst Foundation for Childhood Literacy.

If you decide to participate, your part will include completing the following Home Literacy Environment Questionnaire. Your cooperation is completely voluntary. By completing this survey, you are giving your consent to participate in this study.

Place an X in the box that best answers the questions:	Never	Once or twice a month	Once or twice a week	Almost daily	Daily
1. How often do you or another family member read a picture book with your child?					
2. After reading to your child, do you participate in one or more of the following activities: drawing, singing, story retelling, acting it out?					
3. How often do you or another adult in the house sing or say the alphabet to/with your child?					
4. How often do you or another adult in the house sing or say nursery rhymes to/with your child?					
5. How often do you tell your child stories without using books?					
6. How often do you and your child spend time together doing favorite activities?					
7. How often do you go to the library with your child?					
8. How often do you help your child draw pictures and/or color?					
9. How often does your child watch educational programs on TV or DVD?					
10. How often does your child look at books by himself or herself?					
11. How often does your child play with educational games or toys?					
12. How often do you receive or buy newspapers and/or magazines?					
13. How often does your child see you or another adult in the house reading books for pleasure?					
14. How often does your child see you or another adult in the house reading magazines or the newspaper?					

Circle what best answers the questions:					
15. How many minutes did you or another family member read to your child yesterday?					
0	1-10	11-20	21-40	41+	
16. When your child is read to, how much does he/she enjoy it?					
not at all	a little	moderately	very much	loves it	
17. When you read to your child, how much do you enjoy it?					
Not at all	a little	moderately	very much	love it	
18. How many books do you have in the house that you or another adult read for pleasure?					
0	1-10	11-25	26-50	51+	
19. Approximately how many picture books do you have in your home for your child's use?					
0	1-10	11-25	26-50	51+	
20. How much time per day does your child watch TV?					
more than 5 hours	from 3 up to 5 hours	from 1 up to 3 hours	less than one hour	none	

Birthday of Child: _____ (mm/dd/yyyy)

Thank you for participating in this survey. **Please return the survey in the envelope provided.** Keep the book as a thank you.

Also, send in the enclosed postcard for a chance to win a \$50 gift card.

Appendix G: Stony Brook Reading and Language Laboratory Correspondence

I think that the appropriate citation would be:

Whitehurst, GJ. (1993). *Stony Brook Family Reading Survey*. Stony Brook, NY: published by the author.

Since you are using only some questions, you'll probably write something like --with questions adopted [or adapted or modified...] from the *Stony Brook Family Reading Survey* ...

The survey was never separately published, and is not 'a product' or 'for sale' by some publisher or commercial group; it is cited widely in the same way that you'll be using it. I don't think you have to be concerned about copyright, as long as you're giving proper scholarly citation credit as above.

Best,
Janet Fischel

Janet E. Fischel, Ph.D.
Professor of Pediatrics and Psychology
Director, Pediatric Medical Education
Director, Developmental & Behavioral Pediatrics
Director, SB Reading and Language Laboratory
Dept of Pediatrics - SUNY Stony Brook
Stony Brook, NY 11794-8111
Phone: Office:(631)444-2648 Lab:(631)632-7870 Fax: Office:(631) 444-2894
Lab:(631 632-7871

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Janet E. Fischel, Ph.D.

Thank you for sending me a copy of *The Stony Brook Family Reading Survey*. I am creating a questionnaire to assess the Home Literacy Environment of families whose children are enrolled in the Ferst Foundation for Childhood Literacy program. I would like to use 7 of the questions from *The Stony Brook Family Reading Survey* in my questionnaire. Could you point me in the right direction concerning the copyright? Below is a list of the questions.

1. How often do you or another family member read a picture book with your child?
2. How many minutes did you or another family member read to your child yesterday?
3. Approximately how many picture books do you have in your home for your child's

use?

4. How often does your child watch ‘educational television’ programs (ex. Sesame Street)?
5. How much time per day does your child watch T.V.?
6. How often does your child look at books by himself or herself?
7. How often do you go to the Library with your child?

Please let me know if you have information on how I can get permission to use these questions.

Sincerely,

Gina B. Thomason

gbthomason@liberty.edu

1040 Crenshaw Rd.
Martin GA 30557

From: jfischel@notes.cc.sunysb.edu [mailto:jfischel@notes.cc.sunysb.edu]
Sent: Tue 8/14/2007 4:03 PM
To: Thomason, Gina Bennett
Subject: The Stony Brook Family Reading Survey

Hello Gina,
 I can mail you a paper copy of the Stony Brook Reading Survey. Please give me a mailing address to do so.
 Best,
 Janet Fischel

Janet E. Fischel, Ph.D.
 Professor of Pediatrics and Psychology
 Director, Pediatric Medical Education
 Director, Developmental & Behavioral Pediatrics
 Director, SB Reading and Language Laboratory
 Dept of Pediatrics - SUNY Stony Brook
 Stony Brook, NY 11794-8111
 Phone: Office:(631)444-2648 Lab:(631)632-7870 Fax: Office:(631) 444-2894
 Lab:(631 632-7871

Appendix H: Internal Review Board Approval

(email received 9-06-2007)

IRB Approval 543: The Ferst Foundation for Childhood Literacy and the Home Literacy Environment

Dear Gina,

We are pleased to inform you that your above study has been approved by the Liberty IRB. This approval is extended to you for one year. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must resubmit the study to the IRB. See the IRB website for appropriate forms in these cases.

Thank you for your cooperation with the IRB and we wish you well with your research project. We will be glad to send you a written memo from the Liberty IRB, as needed, upon request.

Sincerely,

Fernando Garzon, Psy.D.
IRB Chair, Liberty University
Center for Counseling and Family Studies
Liberty University
1971 University Boulevard
Lynchburg, VA 24502-2269
(434) 592-4054
Fax: (434) 522-0477

Appendix I: Internal Review Board Change in Protocol Approval

(email received on 12-9-07)

Gina,

We received your change in protocol request for your project "Ferst Foundation for Childhood Literacy ad the Home Literacy Environment." Your changes in protocol have been approved by the Liberty IRB. Thank you for your cooperation with the IRB and we wish you well with your research project. We will be glad to send you a written memo from the Liberty IRB, as needed, upon request.

Sincerely,

Fernando Garzon, Psy.D.
IRB Chair, Liberty University
Center for Counseling and Family Studies Liberty University
1971 University Boulevard
Lynchburg, VA 24502-2269
(434) 592-4054
Fax: (434) 522-0477

Appendix J: Survey Budget

Proposed budget

Data collection item	Cost per item	Total for estimated 1,500 surveys * may be adjusted at actual time of data collection
Survey with cover letter	.20	300.00
Addressed envelope with stamp	.50	750.00
Postcard	.15	225.00
Book	.99	1,485.00
Gift card	50.00	50.00
Package envelope with postage	2.75	4,125.00
Total cost	4.59	6935.00

Final Budget

Data collection item	Cost per item	Total for pilot and formal survey. 2,200 surveys
Survey with cover letter	.20	440.00
Addressed envelope with stamp	.50	1,100.00
Postcard	.15	330.00
Book	donated	0
Gift card (1 per survey mailing)	50.00	100.00
Package envelope with postage	1.92	4,224.00
Total cost		6,194.00

Appendix K: National Center for Learning Disabilities Correspondence

Dear Gina,

You have our permission to use the wording of the scale, provided that you attribute it to us (National Center for Learning Disabilities).

Please let me know if you have any questions, and good luck with your dissertation.

Deanna Stecker

~~~~~

[Deanna S. Stecker](mailto:Deanna.S.Stecker@ld.org)

Senior Associate, Education Programs

National Center for Learning Disabilities

Phone: (212) 545-7510 x223

Fax: (212) 545-9665

[www.LD.org](http://www.LD.org)

[www.getreadytoread.org](http://www.getreadytoread.org)

[www.recognitionandresponse.org](http://www.recognitionandresponse.org)

---

**From:** Thomason, Gina Bennett [mailto:gbthomason@liberty.edu]  
**Sent:** Thursday, October 04, 2007 7:30 PM  
**To:** prereading  
**Subject:** Home Literacy Environment Checklist

To Whom it may Concern:

I am currently working on my doctoral dissertation at Liberty University. The dissertation topic is The Ferst Foundation for Childhood Literacy and the Home Literacy Environment. I am creating a questionnaire to assess the Home Literacy Environment of families whose children are enrolled in the Ferst Foundation program. I am requesting permission to use the rating scale at the end of your *Get Ready to Read Home Literacy Environment Checklist* in my questionnaire.

Please inform me of your decision by one of the following means:

Sincerely,

Gina B. Thomason

[gbthomason@liberty.edu](mailto:gbthomason@liberty.edu)

1040 Crenshaw Rd.  
Martin GA 30557