HEAD START CHILDREN'S LITERACY PREDICTORS: HOME ENVIRONMENT,

SCHOOL ENVIRONMENT, AND FAMILY RESOURCES

by

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(Under the Direction of David Wright)

ABSTRACT

This study examined the relationship between parental involvement routines and family resources and former Head Start children's literacy outcomes. A subsample of 3,808 kindergarten children who were former Head Start attendees are from the National Head Start/Public School Transition Demonstration Research Project. The research questions were answered using three measures of family involvement routines and resources and three measures of child literacy outcomes. The results revealed routines at home to be a beneficial aspect of parent involvement at home and at school. The most involved parents in a child's classroom or school did not have the children with the highest outcome scores. Finally, parent resource measures revealed children benefited when parents provided their children with time for personal growth, time for interpersonal relationships, and time with children and family as well as money for luxuries.

INDEX WORDS: Family Involvement, Literacy, Head Start, Home, School, Family Resources

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DEDICATION

I would like to dedicate this thesis to my family. My husband, Jackson, has provided much needed love and emotional support through this journey and has given his time and energy into proof reading a number of versions. My parents, Roger and Mimi Kicklighter, have given much love, encouragement, and financial aid over the years that have been vital to get me to this point. My brother, Kevin Kicklighter, often questioned my reasons for going to graduate school, which forced me to search myself and rediscover my goals. Special thanks to the Quilting Club, who helped me stay on track throughout this process as well as provided a supportive space to talk through my ideas. During difficult times, Galatians 6:9 has given me strength to endure.

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TABLE OF CONTENTS

LIST OF TABLES

Page

CHAPTER 1

INTRODUCTION

Despite the widespread use of the term literacy, it often is not thought of in regard to how it influences everyday life. In short, many have difficulty defining and explaining the term literacy. To begin, I will outline the theoretical perspective of this study, which is based around the influences on a child's literacy development. Secondly, I will describe the importance and development of literacy. Next, I will discuss the specific influences on literacy that parents can have when they are involved with their children in the different environments of home and school, as well as the impact of family resources on literacy development. After this I will focus on the specific preschool education program, Head Start, in order to provide background information for the research study's setting.

Statement of the Problem

As children enter early educational environments, parents have the opportunity to consistently play an active role in the different settings their children frequent. Many experts in the field of education advocate for parents to be involved with their children's preschool education, but often these statements are not backed up with empirical data. The data that are available either focus on older children or only look at one setting within a child's life. There is a need to better understand the potential influence parents have on their children's literacy skills through their routine involvement within the different settings their children frequent.

Purpose of the Study

The purpose of this study is to understand how family routines in the home, family routines in a child's classroom, and family resources may influence Head Start children's literacy outcomes using a bioecological perspective. It addresses the following research questions: (1) do family routines at home influence child literacy outcomes, (2) do family routines at school influence child literacy outcomes, (3) do family resources influence child literacy outcomes.

CHAPTER 2

LITERATURE REVIEW

This review has four major sections with the first discussing the concentric circles model of bioecological theory to explain the interconnectedness of a child's relationships and environments. Secondly, research on the importance of preschool education, followed by the research on how literacy skills develop from infancy into preschool will be discussed to provide a foundation for understanding the importance and development of emergent literacy. Next, the research on parental influences on literacy development at home and within the child's classroom will be covered. Lastly, a review of the Head Start program from its roots to today will be presented to provide background information on the current study.

Theoretical Perspective

In his book, which explains the aspects of the bioecological theoretical perspective, Urie Bronfenbrenner (2005) states "a child's ability to learn to read in the primary grades may depend no less on how the child is taught than on the existence and nature of the ties between the school and the home" (p. 51). Although he is using this as an example to clarify his theoretical model, Bronfenbrenner's statement illuminates the foundation of this present study. Interestingly, Bronfenbrenner was beginning to devise his bioecological theory when he was named as one of three psychologists on the initial planning committee for Head Start, and was one of the advocates for involving families within the classrooms (Zigler & Styfco, 2010, p. 30). To better understand how bioecological theory has developed since then, it is necessary to explain some of the basics underlying this theory.

Tudge, Mokrova, Hatfield, and Karnik (2009) present the current use of Bronfenbrenner's theory in a more holistic manner, highlighting the dynamic state of human development. In their article, they point out an element of the bioecological theory that is frequently neglected, the Process-Person-Context-Time (PPCT) model (Tudge et al., 2009). The underlying assumption of this model is that these factors are interrelated across a multidimensional system.

Through the bioecological theory, the PPCT model describes the many dynamic influences of the contextual factors and processes through which children develop (Bronfenbrenner, 2005). The component of "Process" encompasses bidirectional interactions between the person and environment (Bronfenbrenner & Morris, 2006), which could include specific involvement routines and activities taking place within the context (Bronfenbrenner, 2005). In the present study, parent routine involvement practices at home and school will be reviewed to understand the impact parents are having on children's literacy outcomes. The aspect of "Person" includes specific characteristics, biological or psychological, of an individual within the context. In the current study, this could include parental literacy beliefs or the school climate (Bronfenbrenner, 2005). Considering the "Context," Bronfenbrenner's four primary contexts are organized into hierarchical levels: microsystem, mesosystem, exosystem, and macrosystem (Bronfenbrenner, 2005; Tudge et al., 2009), which will be addressed in the following paragraph. The last factor of PPCT is "Time," which is conceptualized as an essential part in constructing a consistent, stable environment for which optimal human development occurs (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Morris, 2006). As described by Bronfenbrenner (2005), the information needed for this model includes a minimum of three distinct areas – person, process, and context. Therefore, the element of time will not be discussed in this current study.

As the focus of the present study is children's literacy development within different environments, the four levels of contexts support the core perspective of this study. Bronfenbrenner (2005) differentiated research paradigms of contexts to varying degrees of complexity. Beginning with the child at the center, varying layers of influence are nested in one another depicted by a concentric circles model (Bronfenbrenner, 2005; Rogoff, 2003). The microsystem is the first layer around the child and is made up of the more immediate experiences for an individual (Bronfenbrenner, 2005; Rogoff, 2003). Theoretically, microsystems have the most direct impact on a child's development. The next level of the bioecological theory is the mesosystem. These are environments in which an individual frequently and actively participates. Bronfenbrenner (2005) discussed the interconnected nature of these mesosystems as "applying not only within settings but with equal force and consequence to linkages between settings" (p. 54). This interconnectedness also applies to environments that an individual may never actually enter but that still affect his or her immediate environments, which are exosystems (Bronfenbrenner, 2005). One example of exosystems is parents' work places, which can affect the child even though he or she rarely, if ever, enters that environment. The existence of Head Start illustrates how the exosystems of political context and environment can affect center and classroom policies (Zigler & Styfco, 2010), which then impact the families and individual children within the program. The next and most expansive level of the theory is the macrosystem. The macrosystem is comprised of cultural, subcultrual, and social contextual aspects of micro-, meso-, and exosystems. The macrosystem is also made up of belief systems, resources, lifestyles, life course options, and social exchange patterns that are within each of the systems (Bronfenbrenner, 2005).

Although the bioecological system makes up the world around each individual, the majority of this study is focused on the areas of the microsystems surrounding the young child. By looking specifically at the research on how emergent literacy is affected within the bioecological theory and the PPCT model, a clearer picture of the influences on a child's emergent literacy development will be revealed.

The Importance of Early Literacy Education

Literacy skills are foundational to a quality education. A body of scientific research suggests reading skills are vital for children's educational success. As children with poor reading skills fall behind their more literate peers, the result is a gap that may widen as they move through their academic careers (McDowell, Lonigan, & Goldstein, 2007). Because of the importance of literacy skills, there is a great emphasis on their early development, particularly in the areas of decoding skills, language, and the alphabet. For example, Tramontana, Hooper, and Selzer's (1988) review of research on the predictive nature of preschool on academic achievement noted a relationship between the naming and recitation of letters in kindergarten and later achievement in reading. As children enter school, they need fundamental knowledge of emergent literacy as their teachers guide them into learning more advanced content and concepts about the world around them.

One project that has been used to illustrate the long-term effects of a preschool education as a whole is the Perry Preschool study. This program began in 1962 and has been used as a starting point for longitudinal data collection and a multitude of research projects, including a cost-benefit analysis of the students 25 years after the program, research on family and child influences on educational attainment, and research on the participants at the age of 40 (Barnett, 1993; Jacobson, 2004; Luster & McAdoo, 1996). Because of the amount of money that was

poured into the program, other programs that are not comparably funded cannot be compared to it, but the results do serve as an illustration.

The longitudinal studies indicate that the return on costs of operating a high quality preschool was as much as 248% (Zigler & Styfco, 2010) if the return is conceptualized as the benefits it provided the students and society as a whole (Barnett, 1993). For example, some data suggest that participants who attended such preschools maintained employment and higher wage earnings, whereas those who didn't had higher crime rates and welfare program participation (Barnett, 1993; Jacobson, 2004; Zigler & Styfco, 2010).

In addition to societal benefits, such programs have been found to have a direct impact on the academic achievement of children who participated in the program (Luster & McAdoo, 1996). Many of the students not only achieved school success on the elementary level, but also through high school and into higher education. Specifically, participants of the Perry Preschool Program were found to have better grades, higher standardized test scores, higher graduation rates, and fewer special education placements as compared to the control group (U.S. Department of Justice, 2000). From the age of 7 until 14, the program group made, on average, 16 percent higher scores on standardized tests than the control group, with the final test, at age 14, having a difference of 29 percent (U.S. Department of Justice, 2000).

At ages 15 and 19 the program participants also reported more positive attitudes toward school and more time spent on homework (U.S. Department of Justice, 2000). Parents of the program group also reported more positive attitudes toward their children's education and were more hopeful their children would continue their education after high school (U.S. Department of Justice, 2000).

Overall these results demonstrate the importance quality programs can have on children's educational outcomes. Although these results were not specifically focused on literacy skills, which may be due to the time frame of the study, it does illuminate the importance of preparation. By participating in a high quality preschool, children were better prepared for the educational journey before them, thus illustrating the importance of fostering emergent literacy skills and preparing early educational routines that would promote school readiness.

The Definition and Development of Emergent Literacy

Since the 1960s, the definition of literacy development has moved beyond elementary schools to include younger learners (Gillen & Hall, 2003). From infancy, humans are learning to decode and read (Lindfors, 2008; Zeece & Churchill, 2001), and for children under the age of five, these practices of decoding the world and becoming literate are titled emergent literacy (Clay, 2002; Owocki & Goodman, 2002; Whitehurst & Lonigan 1998). Much research has been done to understand the development of emergent literacy.

Whitehurst and Lonigan (1998) define emergent literacy as the precursor skills, understandings, and attitudes of conventional forms of reading and writing. Emergent literacy, however, may be further operationalized into more specific components. The first of these emergent literacy components is language or vocabulary, which when paired with the decoding process of translating the words into meaningful language is an important developmental skill (Whitehurst & Lonigan, 1998). The ways in which literacy begins to develop may be observed and documented through a child's ability to decode language (Owocki & Goodman, 2002). Early in their development, children detect the nuances in the patterns of language they have heard and slowly refine their speech to match conventional language (Lindfors, 2008). The method of decoding is also taking place in other emergent literacy processes. As children's

language skills develop, their use of decontextualized language, which is language used with listeners with limited shared knowledge to present novel information, relates to more conventional literacy skills including decoding, comprehending stories, and writing (Whitehurst & Lonigan, 1998).

The understanding of varying patterns in written language is defined as "concepts about print" and is another important component in emergent literacy (Clay, 2002; Owocki & Goodsman, 2002; Whitehurst & Lonigan, 1998). In English, these concepts include conventions such as page directionality of left-to-right and top-to-bottom, the sequencing of pages, distinguishing the cover from the pages, differing of pictures and text, and the meaning of punctuation (Whitehurst & Lonigan, 1998). Some early understandings of print concepts may be observed in young toddlers, but as children grow their emergent literacy skills develop into more advanced literacy decoding components (Owocki, 2001; Owocki & Goodman, 2002; Whitehurst & Lonigan, 1998).

Alphabetic writing systems, such as English, require readers to decode words by translating units of print into units of sound, thus a reader must have knowledge and understanding of the letters to be able to read them (Whitehurst & Lonigan, 1998). As stated by Whitehurst and Lonigan (1998) a child's alphabet knowledge, when he or she enters school has been found to be "one of the strongest single predictors of short- and long-term literacy success" (p. 851). In addition to the ability to decode units of print, successful reading requires a child to also have the ability to discriminate units of language such as propositions, phonemes, and words (Whitehurst & Lonigan, 1998). This ability is identified as language discrimination and is typically demonstrated in late preschool.

Although it is similar to language discrimination, linguistic awareness as described by Whitehurst and Lonigan (1998) "involves the ability to take language as a cognitive object and to possess information about the manner in which language is constructed and used" (p. 851). Linguistic awareness is not all or nothing and children may be aware of some aspects of language and not of others. For example, one such literacy component is phoneme-grapheme correspondence. Knowledge of individual letters' sounds and letter combinations is required for phoneme-grapheme correspondence. As children's emergent reading skills develop they are able to recognize labels, signs, and various forms of print in their environment. Similarly children's emergent writing skills involve demonstration of how to write without actually being able to write words or even letters. Although adults may see children's pretending to read and to write to be a form of play, children's understanding of print functions and intentions, such as stories or directions, have been found to relate to print concepts, writing concepts, and alphabetic principle understanding (Whitehurst & Lonigan, 1998). As children's emergent reading and writing skills progress, there is a parallel between toddlers refining speech patterns and their later approach to print through invented spellings that mature from "kidwriting" to conventional writing (Lindfors, 2008). To be understood, language, both spoken and written, has to be decoded.

There are a few other general cognitive factors, such as phonological memory and rapid naming, which are associated with children's emergent and conventional literacy skills (Whitehurst & Lonigan, 1998). Emergent literacy practices are taking place all around children. These components work together throughout the child's life ultimately influencing his or her development. Additional insights may be gained into what is influencing children's emergent literacy by reviewing the research on some of the family routines that focus, directly or indirectly, on literacy.

Parent Influence on Literacy Development

Although the development of emergent literacy skills is an important aspect to literacy development, research on specific influences better reveals the whole process of literacy development. Family routines are an integral part of children's home, school, and extra-curricular activities. The literature on parental involvement in both home and school emergent literacy practices helps to frame what is known about the influences family routines play in their child's development in the many different settings a child experiences each day. While parent involvement may be operatonalized in multiple ways, for this study parent involvement includes the activities parents choose to participate in either with or for their child. Hoover-Dempsey and Sandler (1997) defined parent involvement as a range of activities in the home related to children's learning such as reviewing and aiding with work, monitoring progress, discussing a child's day with the child, offering children opportunities to participate in enriching activities, and various types of communication with the child's school from home. In addition parent's involvement in school can range from volunteering at school functions to participating in formal and informal conferences with teachers or school administration (Hoover-Dempsey & Sandler, 1997). To see how parents are playing a role in their child's literacy development, this section will be divided into the two environments that children frequent: home and school.

Parental Home Literacy Involvement

Even though literacy and emergent literacy practices take place in many ordinary everyday situations, research highlights multiple areas in which parents are influencing their children's skills at home. From empirical studies, the four areas of parent home literacy involvement that emerge are home literacy activities, parent characteristics that influence literacy involvement in the home, home literacy environment, and family characteristics that influence

literacy involvement in the home. In the paragraphs that follow, each of these has been found to impact young children's emergent literacy development.

Home literacy activities. Research suggests that activities and processes taking place in the home may influence a child's development in many areas of emergent literacy (Bus, van Ijzerldoorn, & Pellegrini, 1995; Deckner, Adamson, & Bakeman, 2006; Weigel, Martin, Bennett, 2006). Specifically, quantitative research on 123 children using parent surveys and assessments of children's language and literacy found parents engaging their children in enriching activities such as singing, drawing, story telling, rhyming, reciting, and game playing has been found to improve preschool children's language and literacy outcomes in areas such as greater print knowledge and interest in reading (Weigel et al., 2006). The same study found shared book readings have been associated with children's oral language, letter-sound knowledge, and word decoding abilities (Weigel et al., 2006). Deckner et al. (2006) used open-ended qualitative parental survey responses coded on a three point scale and child linguistic assessments on 55 mother-child dyads. Similar to Weigel et al. (2006), Deckner et al. (2006) found home literacy practices, such as age of the child when parents began reading to her or him, the number of times caregivers read to the child, length of the readings, and the total amount of time spent weekly reading to the child, were good predictors of language development even after controlling for the initial difference in the children's language skills.

Parent characteristics that influence literacy involvement in the home. The research cited above indicates the importance of parental involvement in activities, like joint reading, drawing, and singing at home (Deckner et al., 2006; Levy et al., 2006; Weigel et al., 2006). Examining another facet within the complex construct of emergent literacy development, such as individual characteristics of children and parents, may help further our understanding of

children's development. Parental characteristics, which have been found to influence emergent literacy development, are encouragement, personal beliefs towards literacy, and language and literacy skills (Deckner et al., 2006; Fletcher & Reese, 2005; Levy et al., 2006; Pan, Rowe, Singer, & Snow, 2005; Weigel et al., 2006). Using parental questionnaires, standardized tests, and experimental measure on 474 children, Levy et al. (2006) found when parents are encouraging and guiding their children to take part in emergent literacy activities, parents reinforce the importance of these activities resulting in children's literacy skills and a relationship with reading achievement.

In addition to encouragement, reading interaction, frequency, and quality are variables that have been connected to positive maternal beliefs about reading to children more often (Fletcher & Reese, 2005). Parental literacy habits have also been shown to correlate with children's print knowledge and interest in reading (Weigel et al., 2006). Through observing reading and child assessments of 55 mothers and their children, Deckner et al., (2006) found parent language characteristics used in the home, such as the metalingual utterances of mothers drawing attention to specific aspects of language or attempting to prompt the use of words, were associated with children's language development, letter knowledge, and understanding of concepts of print. The variety of maternal vocabulary correlated with faster and more linear vocabulary production in children under 24 months of age (Pan et al., 2005). These studies reveal the influence even minute parental behaviors have on children's emergent literacy development.

Home literacy environment. Although activities that are taking place within the home are similar to the home environment, the two vary in that environment is more focused on the atmosphere of learning as a whole and not just activities. Additionally within Weigel et al.'s (2006) definition of home environment, the amount of book reading, television watching, and

subscriptions to magazines and newspapers, was found through parental surveys of 123 families to be positively related to the receptive vocabulary skills, reading recognition skills, reading achievement, verbal achievement skills, and alphabet recognition in kindergartners (Weigel et al., 2006). Lastly, using parental surveys on the home literacy practices, standardized tests, and an experimental measure on 474 children ages four to almost seven, Levy, Gong, Hessels, Evans, and Jared (2006) found that the activities with which children are directly involved including printing, reading, and writing correlate with print knowledge. This research demonstrates the importance of parents engaging with their children in literacy related activities at home and such engagement with a wide array of emergent literacy outcomes (Deckner et al., 2006; Levy et al. 2006; Weigel et al., 2006). Although Weigel et al. (2006) found active parental involvement reaches beyond test scores, additional factors may also be influencing children's literacy activities at home.

Family characteristics that influence literacy involvement in the home. Going beyond the experiences and environment of a child, research studies have examined the role of household demographics on literacy development. Quantitative research using parental surveys and child assessments on 123 families found family demographic characteristics were positively related to children's language skills (Weigel et al., 2005). Within a demographic variable, households may be quite different resulting in variable language and emergent literacy outcomes (Payne, Whitehurst, & Angell, 1994). For example, Payne, et al. (1994) assessed 236 Head Start children's language abilities and surveyed their caregivers on the home literacy environment. Although the children were from low-income families, there were observed differences in the richness of the home literacy environment (Payne, et al., 1994). This and other studies have found income was not related to shared reading frequency within the home (Payne et al., 1994;

Yarosz & Barnett, 2006). Although parents in homes with limited economic resources may exhibit greater levels of stress than families with more affluent economic means, many families still find the time and energy to engage their children with shared reading interactions. Thus, individual differences in the families may be a better predictor of the influential activities affecting children's emergent literacy than overall socioeconomic status (Payne et al., 1994; Yarosz & Barnett, 2006).

The research above highlights the processes parents engage in within the home to influence language and emergent literacy development. Parent involvement, however, reaches beyond home practices into children's classrooms. Although there is much research on the actual processes happening in the home, much of the research on parental involvement in the classroom revolves around the influences on parent involvement instead of the specific practices.

Parent Involvement at School

While there are a number of studies on parent involvement centering on home literacy activities, there are a limited number of studies focusing on relationships between parental involvement at school and academic achievement involving preschool age children procedure (Arnold, Zeljo, Docroff, & Ortiz, 2008). Therefore, much of the information in this section will include parent involvement research on a variety of child ages. Many believe that involvement with classroom activities gives parents additional knowledge that helps complement that which their children are learning in class (Arnold et al., 2008). Overall, research on 163 children and their parents attending preschool indicates higher parent involvement is positively related to preschool children's language and emergent literacy skills (Arnold et al., 2008). Parent involvement may take a number of different forms and may be influenced by multiple factors. The sections that follow describe parental involvement in school related activities, parent

characteristics that influence involvement in the classroom, school characteristics that influence involvement in the classroom, and family characteristics that influence involvement in the classroom.

School related activities. There are many different ways parents may be a part of their child's school life, such as aiding with class work, guest speaking in class, and organizing school functions so that they are mutually creating experiences. Epstein (2001) laid out six categories of parent involvement that include parenting, learning at home, school-home communication, volunteering at school, involvement in school decision making, and community collaboration (Ryan, Casas, Kelly-Vance, & Ryalls, 2010). Research on 1,971 seventh and eighth graders found parental involvement on a seemingly basic level of discussing schoolwork and activities and helping with school projects has been found to positively affect students' engagement with school (Mo & Singh, 2008). Despite these conclusions, an older study came to a different deduction and the lack of research in this area makes it worth noting. White, Taylor, and Moss's (1992) analysis of parental involvement in early intervention programs focused on the variety of strategies, which are often advocated for by experts, administrators, and politicians, to involve parents in their child's intervention. These strategies, however, were not found to benefit the participating children and their families. Those authors attributed their findings to parents being used as supplemental interveners, poor implementation of interventions, limited measurement techniques at the time, and previous perceptions of the importance of parental involvement being based on anecdotal reports and poorly designed research. Yet since that time, advances in research and teaching may have resolved concerns described by White et al. (1992), specifically by demonstrating the need for understanding research regarding specific influences on parental school involvement.

Parent characteristics that influence involvement in the classroom. Multiple parent characteristics may influence the amount of involvement parents take in their child's classroom. Differing cultural beliefs and attitudes toward parent involvement is one factor that may be misinterpreted as lack of interest. For example, qualitative research and analysis of literature reveal some Hispanic and African-American communities place much trust and responsibility into teachers' hands and parents only enter schools upon invitation (Seginer, 2006; Souto-Manning & Swick, 2006).

Although, research indicates some ethnic groups believe that teachers should be in charge of involving parents, Hoover-Dempsey and Sander's (1997) review of research found parents across ethnic groups desire to be involved in their child's classroom in different, non-universal ways, such as through various roles like home tutor or audience. This finding suggests that parents' willingness to be involved in their children's education is not always in ways that require a physical presence in the classroom. In addition, some authors have suggested previous negative experiences with their own academic careers may cause parents difficulty in being involved with their own children's education (Foundation for Child Development, 2009).

Finally, research using parent questionnaires and children's school records of 104 parents and their child in Omaha, Nebraska indicated that there are groups of Latino parents who are beginning to adopt assimilated points of view on parent involvement so that they have a more white middle-class cultural orientation and thus view parental involvement as an actual physical presence in their children's classrooms (Ryan et al., 2010). Even though parent characteristics may influence their involvement, additional factors can also contribute to parental involvement with the classroom.

School characteristics that influence involvement in the classroom. Although research indicates parent involvement to be beneficial, school environments may influence the degree to which parents are involved. One such factor associated with the school environment is the expectations that the schools and other parents place on parental involvement. Multiple research studies have found higher expectations of parental involvement have been found to increase their involvement at school whereas limited expectations of parental involvement often result in less parental involvement (Hoover-Dempsey & Sandler, 1997; Waanders, Mendez, & Downer, 2007). From 853 parental surveys for children in first to sixth grade, additional factors were found that may encourage parent involvement include the child affirming the importance of parental involvement, an inviting school climate, and welcoming teacher actions (Green, Walker, Hoover-Dempsey, & Sandler, 2007; Hoover-Dempsey & Sandler, 1997). Specifically, Hoover-Dempsey and Sandler's (1997) review of research discussed findings that parents were most involved when teachers created inviting classroom climates, and in turn those teacher efforts were positively related to children's higher reading achievement. In addition, school organizations that focused on understanding students' families were also found to increase parent involvement and students' academic performance (Hoover-Dempsey & Sander, 1997). These factors may impact the parent involvement as a whole within a particular school, but the unique characteristics of parents may influence their amount of involvement within their child's classroom as well.

Family characteristics that influence involvement in the classroom. Although some researchers debate the definition and measures of socioeconomic status (SES) to include occupation, education, income, others use it interchangeably with social class, which is generally used as a category of people similar in their educational attainment, income, and occupational

status. However, research has suggested both measures influence parental involvement (Hoff, Laursen, & Tardiff, 2002). Multiple studies have demonstrated parental educational attainment related to SES and ethnicity as a predictor of parental involvement (Green et al., 2007; Seginer, 2006). In addition, research on parent involvement with their preschooler's transition into kindergarten on 132 parent surveys found parents who were receiving government financial aid were less likely to be involved with annual preschool meetings, monthly communication with preschool, and visiting a kindergarten classroom (McIntyre, Eckert, Fiese, DiGennaro, & Wildenger, 2007).

Lareau's (1987) qualitative research on family-school relationships by social class found that American working class parents view their role in their children's education to be more preparatory, but beyond that their children's education was in the school's hands. This separate view of home and school led the parents in the study to accept decisions the school made because they described those as being the school's responsibility (Lareau, 1987). However, upper-middle class parents were found to be quite different, in that they had an interconnected, interdependent view of the relationship between home and school (Lareau, 1987). These parents took an active role in their children's education with constant monitoring and parental intervention if school decisions did not meet their standards (Lareau, 1987).

Although parental attitudes may contribute to the differing views parents have of their role in their children's classroom, the US Department of Education (2006) had parents of 12,167 students fill out Family Involvement in Education Survey. The results revealed parents from lower SES English-speaking households, reported less opportunity for involvement, volunteering, and parent meetings as well as less general communication with the child's school, such as newsletters, memos, or phone calls, than their higher SES counterparts. Similar to the

earlier section on family characteristics, this finding reveals that lack of involvement may be due to a number of factors. Overall, as revealed by Arnold et al. (2008) increasing parental involvement, no matter a family's demographic status, may be beneficial to children's academic development.

Although much research has been done on the subject of parent involvement in elementary, middle, and high school, less can be found focusing on preschool family involvement, (Arnold et al., 2008) with the exception of research on Head Start programs. Head Start programs have a long history of involving parents in their children's education. By engaging parents in the management and administration of their children's early care and education programs and the setting of goals for families and each child, Head Start parents have a critical role in the design of individual experiences that enhance the development of their children. So, even though the federal government and the National Association of the Education of Young Children (NAEYC) advocate involving parents in the classroom, little research can be found on the specific strategies that teachers and schools have used to encourage parent involvement (Foundation for Child Development, 2009).

Family Resources

Although family SES is often discussed with family involvement in home and classroom environments, to better understand how home environments may be affecting young children's emergent literacy development, it is necessary to define and discuss family resources as related to educational influences. Family resources are operatonalized into three finite categories including cultural or material objects such as books, music, and pictures; time for personal attention; and opportunities to experience the world outside the home, which in today's society often require monetary funding (Downey, 1995). For the purposes of this study, family income,

families' material objects, and family time will be discussed as related to children's academic outcomes.

Family income. Although family income is often included with multiple variables, quantitative research has found it to be statistically significant influence on children's school performance and research has found that as income increases, children are less likely to repeat a grade in school (Kim, 2004). In another study using family interviews of 5,420 students, Van Horn, Masyn, Ramey, Smith, and Antaramian (2009) found as children's basic needs are met they tend to score similarly on outcomes, but less resilient children, low on basic needs, scored one standard deviation lower on outcome measures than did their more resilient peers. Although basic needs can be defined in a number of ways, these results suggest that income to support those basic needs may influence children's outcomes.

Families' material objects. Research focused specifically on physical resources and cultural items within preschool and elementary students' homes is sparse; consequently the articles included in this section include a wider range of child ages and school years. In one such study using surveys of 1,482 seventh grade students and their parents, McNair and Johnson (2009) defined resources reported to be in the home as dictionaries, encyclopedias, books for children to learn specific skills, fictional books for children, educational books or magazines, newspapers, and a computer. The resources were all found to be statistically significantly related to seventh and eighth graders' grade point average (GPA) as well as to the amount of time parents spent with their adolescent child (McNair & Johnson, 2009). Although this study was very specific on the items found in the home, it revealed that physical resources are linked to children's academic outcomes.

Family time. The amount of time parents spend with their children is an interesting variable because studies vary with findings about how much it relates to child academic outcomes. This may be a reflection of differences between the quality of time spent together and quantity of time together (Kim, 2004). Van Horn et al.'s (2009) family interviews revealed parents who are less nurturing and less responsive tend to have children who are more negatively effected by not having their basic needs met. These children were also found to be at an increased risk for poor academic outcomes (Van Horn et al., 2009). The results of this study might be explained as an outcome of negative family environments and parenting practices that impact child academic outcomes in negative ways as the family spends time together (Van Horn, et al., 2009). Although it was not focused on time, McNair and Johnson's (2009) surveys on seventh graders and their parents found that, in addition to physical resources, the amount of time parents spent with their adolescent child was also positively related to children's grade point average. Although time spent with children is difficult to operationalize in terms of what it means to "spend" time together, these few studies indicate that the length parents spend with their children may not be as important as what they are doing together.

These three resource categories, however, may be interrelated. In a study of how family resources vary by country, Park (2008) found across 25 countries and 98,190 fourth grader reading achievement assessments and parent surveys, the Gross Domestic Product (GDP) per capita was statistically significantly related to the number of books in the home. Through assessments and surveys of 77 kindergarten students and their parents from Alberta, Canada a statistically significant correlation has also been found between the amount of time parents spent on emergent literacy teaching and reading with their children in the home and to the number of books in the home, suggesting that parent resources of time and money may be intertwined

(Stephenson, Parrila, Georgiou, & Kirby, et al., 2008). Overall research on family resources warrants further inquiry to understand the role parent and family resources play in children's outcomes.

Head Start

One program that uniquely combines emergent literacy, parent involvement in home and school, and parent resources is the governmental program, Head Start. To illustrate Head Start's relevance with this study, the next section will provide an overview of the program's history, how the program has evolved, and the importance of parent involvement since the beginning of Head Start.

Roots of Head Start

In the 1960s, scholars recognized children needed a stronger educational foundation prior to beginning elementary school. In her history of Head Start, Vinovskis (2005) outlined the viewpoints of major political figures, which led the push for opening the Head Start program. In 1964, Charles Silberman illustrated for the world that literacy begins long before elementary school and children's lack of literacy skills leads to later school dropout and subsequent unemployment. Children growing up in poverty at that time were seen as not getting the intellectual and sensory stimulating experiences they needed to prepare them for the first grade. Forty-five years ago researchers and politicians were aware of the need to provide all children, even the poor, with stimulating experiences to build their foundation for future educational success. These viewpoints reveal the recognition of the role of preschool education during tumultuous times in our nation's history. It was this recognition about inequities in early experiences among different subgroups in the United States that helped pave the way for the federally funded preschool program focused on reaching the youngest poor.

The Head Start program began with high expectations of changing the participating children's lives. President Johnson stated "this program this year means that 30 million man-years – the combined lifespan of these youngsters – will be spent productively and rewardingly, rather than wasted in tax-supported institutions or in welfare-supported lethargy" (Zigler & Styflco, 1993). Initially a summer program for children about to enter first grade, the program made use of abundant empty classrooms and teachers desiring summer work. Vinovskis (2005) described the program's evolution from the first summer of serving 560,000 children into a program to continue reaching children during the school year. The program began with a number of initiatives, which included meeting basic healthcare needs of children living in poverty, providing jobs to parents living in poverty, and preparing children for elementary school.

Head Start was revolutionary in its policies, which Edward Zigler (Zigler & Styfco, 2010), who is considered one of the fathers of Head Start, described in his most recent book how the Head Start planning committee focused on adopting a "cultural-relativistic approach" to respect the families of various racial backgrounds and cultures. Instead of viewing the Head Start families as culturally inferior, they included the families in daily activities as well as in decision-making power rolls. Parents were involved in all planning and administrative aspects of the centers in their neighborhoods. The use of families in the planning and governing processes was different than previous practices typically reserved for the educated professional who made the main operational decisions implemented in classrooms, which were based off the white middle-class cultural points of view. The founders of Head Start wanted to ensure the students were not forced to leave their cultural values, but instead use them as strengths for achieving

classroom standards (Zigler & Styfco, 2010). By utilizing parent involvement, Head Start was able to push the boundary of typical preschool practices in the 1960s.

Evolution of Head Start Focus

Although from the beginning, one goal of Head Start was to prepare students for elementary school, the focus on the importance of academic preparation grew. After discussing the program with Sargent Shriver in January 1965, Lady Bird Johnson wrote in her daily diary that Head Start "will include a medical examination, one good free meal a day, and the simplest rudimentary teaching in manners and vocabulary improvement" (as cited in Vinovski, p. 74, 2005). Clearly early plans for the program were to meet the children's basic needs for food and medical attention, while vocabulary and manners appear to be a secondary focus. Zigler and Styfco (2010) listed seven initial objectives the planning committee proposed to Shiver in February 1965. Those included: physical health and abilities, emotional and social development, mental processes and skills, successful patterns and expectations to build confidence in future learning, responsible attitudes toward society, sense of self-worth, and strengthening family problem solving skills (Zigler & Styfco, 2010, p. 37).

The evolution of Head Start's focus demonstrates the growing awareness of preschool preparation for future educational attainment. Over the years those objectives have evolved into specific child outcomes to help guide Head Start programs in assessing children's progress and achievements. These objectives now have eight domains and 27 domain elements. Each of the domains and domain elements are based on program standards, program performance measures, research done by a number of agencies and professional organizations, and advice from the Head Start Bureau Technical Work Group on Child Outcomes. Two of the eight domains specifically focus on language and literacy development. Although the objectives of the program have

evolved to be very specific, parental involvement has been an important aspect of Head Start since the beginning.

Family Involvement in Head Start

Head Start's original planning committee in February of 1965 wanted to base the program on a "whole child" philosophy that focused not only on early childhood education, the child's nutrition, physical and mental health but also on parent involvement and social services for families (Zigler & Styfco, p. 3, 1993). When the program began in 1965, it relied on parents as classroom aides (Zigler & Styfco, 1993). However, parental involvement in Head Start went beyond the walls of the classroom to include parents in administration of the program as a whole (Duch, 2005).

The focus on family involvement has continued into today's Head Start programs. A Head Start Program Fact Sheet (n. d.) notes that in 2005, 27% of staff members in Head Start programs either had children currently or previously in the program. The fact sheet also says that same year, Head Start parent volunteer numbers were close to 910,000. Given the research on the impact of family involvement, this should bode well for academic and social outcomes (McWayne, Campos, & Owsianik, 2008; Program Services, n.d.).

The previous sections provide the foundation for my research study. By reviewing the literature on the impact of parent involvement in the home, parent involvement in the classroom, and family resources on children's literacy outcomes, I have provided an outline for my research questions. However, the research on literacy development and the evolution of Head Start frame the context of this research study. Moving beyond what research has already been done, I will discuss the methodology of this study in the next chapter.

Gaps in Research

Overall this review of literature illuminates the gap in available research. The different areas of research on parental involvement and family resources highlighted above each had gaps that this study would fill. First, most research on parents involvement routines within the home does not go beyond the home setting to understand the other environments which children frequently visit. This study however goes beyond the home to understand the influences of parent involvement in both the home and school environment. Secondly, research on parent involvement in children's classrooms generally focuses on children in middle elementary school to middle school. The current study focuses on the early childhood when emergent literacy skills are developing. Lastly much research on family resources tends to use varying definitions of resources. Instead of looking at one aspect of family resources, the current study will look at familial support as well as health and necessities. Overall, the current exploratory study is meant to fill the need of better understanding the potential influence parents have on their children's literacy skills through their routine involvement within the different settings their children frequent.

CHAPTER 3

METHODS

To evaluate the influence of parent involvement on child literacy outcomes, a quantitative research study was conducted. The data for the current study are from the National Head Start/Public School Transition Demonstration Research Project, which was a federally funded study that took place from 1991-1999. The full sample is 10,392 former Head Start and non-Head Start children placed in two groups, a treatment condition and a comparison group. Children in the treatment condition received Head Start-like services that included family engagement, developmentally appropriate curricula, health and medical screening, and social services from their kindergarten year to grade three. As detailed below, data were collected using a variety of measures, however, in order to best fit the current study three specific research questions addressed:

(1) Do family routines at home influence child literacy outcomes?

(2) Do family routines at school influence child literacy outcomes?

(3) Do family resources influence child literacy outcomes?

Data Collection

Data were collected on children, families, and teachers from 31 sites across the United States to ascertain the role of continuous Head Start-like service to children as they moved from Head Start into the primary grades of elementary school. The children were assessed in the fall and the spring from the time they were in kindergarten until they completed grade three using a battery of carefully selected assessments. Data on caregiver's perceptions of child and family

variables were provided through a family interview protocol. The family interview protocol data for the current study were collected in the fall of the former Head Start children's kindergarten year, however, the child assessment data used in this study were collected in the spring of their kindergarten year.

Participants

The current study focuses on a subsample of 3,808 children who were former Head Start attendees. For this study's subsample, the majority of the respondents to this family interview protocol who reported their relationship with the child (n = 1,704) were children's mothers (n = 1,510, 88.6%), followed by fathers (n = 86, 5.0%), grandmothers (n = 66, 3.9%) and other caregivers (n = 42, 2.5%), which included step-parents, foster parents, or other non-relative caregivers. The child subsample was comprised of 51.0% males (n = 1,943) and 49.0% females (n = 1,865). Any child who was enrolled in services for English as a Second Language or who entered kindergarten with a formal Individualized Education Plan and was receiving services for special education was removed from the subsample to avoid skewing the data.

Data were collected on the race/ethnicity of the family respondents to the survey as well as for the children who were part of the study. For the current study's subsample, the self-reported race/ethnicity of the family respondents to the family survey was 57.3% White/Caucasian, 28.8% Black/African American, 7.1% Hispanic/Latino, with 6.6% comprised of Asian/Pacific Islander, American Indian, Eskimo/Inuit/Aleut, and other. A similar profile exists for children in this study's subsample with 53.4% White/Caucasian, 29.4% Black/African American, 7.0% Hispanic/Latino, and 10.3% Asian/Pacific Islander, American Indian, Eskimo/Inuit/Aleut, and other. The primary language spoken in the homes was English (95.1%) followed by Spanish (2.1%) and Other (2.5%).

Mothers lived in the homes of 93.7% of the children in the subsample, whereas only 42.3% of fathers were present. The percentage of children with both a mother and father in the home was 40.0%. The subsample's median number of children living in the homes was three while the mean was 2.8. Educational level of the families the subsample varied from 27.7% with less than a high school education to 36.2% with either a GED or high school diploma with the remainder having some educational experiences beyond high school. On parenting behaviors associated with literacy, 71.6% of the subsample read to their children less than daily and 68.6% read to their child less than weekly.

Data were also collected on the types of educational programs in which parents were enrolled at the time of the interview. Of the subsample, eight parents were enrolled in a reading program (0.2%), 25 were enrolled in an English program (0.7%), 85 were enrolled in a parenting education program (2.2%), and 19 were enrolled in a literacy program (0.5%). Data were collected on the monthly income for families enrolled in the study. On income range, the subsample's mode was between $1,001 and $1,500 per month in 1995 dollars; however, income was reported ranging from $1-$200 per month to $5,001 - $6,000 per month. Across the subsample's families, 65.7% lived below the poverty level when the data were collected in the mid-1990s.

Measures

The data collection of the full sample included a battery of assessment, interview, and survey measures. The current study will focus on three of those measures of family involvement routines and resources: the *Family Routines Inventory* and the *Family Resource Scale* as well as a few additional individual items on family routines in the child's classroom that are not part of

the published *Family Routines Inventory* scale. The current study will also focus on three assessments on child literacy development.

The *Family Routines Inventory* (FRI) is a 28-item measure designed to assess the extent to which family members help and support each other, clarity in the rules and the importance of order and organization in the family, the extent to which family directs the actions of others, and the amount of conflict and open expression of anger in the family. Respondents were asked how often certain routines were currently taking place in their family which the potential response of "*every day*", "*3 to 5 times per week*", "*1 to 2 times per week*", "*almost never*", and "*does not apply*". Jensen, James, Boyce, and Harnett (1983) developed the FRI. The construct validity was established through regression analysis. Concurrent validity was also established through comparing the FRI to the validated Family Environment Scale. Reliability estimates for the frequency score were found to be 0.79. The instrument as used in the national study employed a total score across the 28 items.

An additional four items focused on parent involvement routines within the child's school were added to the routines interview instrument. These four questions are not part of the FRI nor were they included in the overall score. Rather they are reported as individual items. These items included (a) how often the parent discussed the child's school day with the child, (b) how often the parent participated in school activities for the parent, (c) how often the parent volunteered at school, and (d) how often the parent kept in touch with his or her child's teacher. Each question had five response options: "*almost everyday*," "*1 – 2 times a week*," "*1 – 3 times a month*," "*less than monthly*," and "*does not apply*". To avoid skewing the data, for the current analysis the "*does not apply*" cases were removed from these four items, which lead to varying participant numbers for each question. Data on these four items were collected in fall and spring

of the kindergarten year. For the overall instrument, data were collected on this instrument as part of the fall family interview during the child's kindergarten year. These four items came from the study's family interview packet. All of the items were either from a published instrument or were extensively vetted by the study's research team.

The *Family Resource Scale* (FRS) is a 30-item measure that assesses which resources are adequate for families with young children. Respondents had the option of "*does not apply*," "*not at all adequate*," "*seldom adequate*," "*sometimes adequate*," "*usually adequate*," *and* "*almost always adequate*" to describe the extent to which the detailed resources are adequate for his or her family. Developed by Leet and Dunst (1985), the scale is composed of eight subscales, of which three are used in the current study: Growth and Support, Health and Necessities, and Intrafamily Support. The Growth and Support subscale includes items to assess time for personal growth and interpersonal relationships, as well as money for luxuries. The Health and Necessities subscale includes items to measure money for basic necessities such as food, shelter, utilities, and health and dental care as well as a source of income. The third subscale, Intrafamily Support, measures time with children and family. Validity was established by using exploratory and confirmatory factor analysis. Construct validity was also confirmed through regression analysis. The authors of the scale report a coefficient alpha of 0.92 (Dunst & Leet, 1987). Overall the FRS has been found to be a valid and reliable measure to assess economically diverse families' perceived adequacy of concrete resources (Brannan, Manteuffel, Holden, & Heflinger, 2006).

Data were also collected on child variables using standardized measures that included the *Woodcock-Johnson Psycho-Educational Tests of Achievement-Revised* [WJR] (Woodock & Mather, 1990). For this study, two subscales were chosen from the national assessment battery

which best aligned with studying literacy development. Those subtests included (a) Letter-Word Identification and (b) Passage Comprehension. The dataset includes a composite variable titled the Reading Standard Score. The mean score for the measure is 100 with a standard deviation of 15. Children were also assessed with the *Peabody Picture Vocabulary Test-Revised* [PPVT-R] (Dunn & Dunn, 1981). The PPVT-R is a standardized measure of receptive language normed for individuals from ages 2.5 through adulthood with internal consistencies that range from .80-.95. The measure has a mean standard score of 100 (*SD* = 15). The authors of the tool report internal consistencies ranging from .73 to .84.

Analysis Strategies

Data analyses for this study began by calculating and reviewing the univariate statistics for each of the measures. From there analysis for each of the research questions was completed as follows:

Research Question 1. Four one-way analysis of variances (ANOVAs) were conducted to evaluate the relationship between family routines involving the children at home and former Head Start children's literacy outcomes. The independent variable was the FRI scores collected in the fall of the child's kindergarten year. Using SPSS frequencies, the FRI was quartiled to look at the different levels of parent involvement. Four child literacy outcome measures assessed in the spring of the child's Kindergarten year are the dependent variables: the WJR Letter-Word Identification score, the WJR Passage Comprehension score, the Reading Standard Score, and the PPVT-R score.

Research Question 2. Sixteen one-way ANOVAs were conducted to evaluate the relationship between family routines involving the children at school and former Head Start children's literacy outcomes. The independent variables were four questions added to the FRI

instrument that focused on varying degrees of parental involvement within the classroom. Child literacy outcome measures assessed in the spring of the child's Kindergarten year are the dependent variables: the WJR Letter-Word Identification score, the WJR Passage Comprehension score, the Reading Standard Score, and the PPVT-R score. Since the questions were individual items, an ANOVA was conducted for each question.

Research Question 3. Four multiple regression analyses were conducted to determine if the three indicators of family resources predict former Head Start students' literacy outcomes. The predictors were the three subscales of the FRS, while the dependent variables were each of the child literacy outcome measures: the WJR Letter-Word Identification, the WJR Passage Comprehension, the Reading Standard Score, and the PPVT-R.

CHAPTER 4

RESULTS

As detailed in the previous chapter, data were collected on 3,808 former Head Start students and their families. Participants' family home involvement routines, parental school involvement routines, and resources were evaluated through the FRI, four individual items from the family interview packet, and the FRS, respectively. The participants' literacy outcomes were measured using the WJR Letter-Word Identification score, the WJR Passage Comprehension score, the Reading Standard Score, and the PPVT-R score. The results are organized by the research questions:

(1) Do family routines at home influence child literacy outcomes?

(2) Do family routines at school influence child literacy outcomes?

(3) Do family resources influence child literacy outcomes?

Question 1: Do Family Routines at Home Influence Child Literacy Outcomes?

Four one-way analysis of variances (ANOVAs) were conducted to evaluate the relationship between family routines involving the children at home and former Head Start children's literacy outcomes. The independent variable was the quartiled FRI scores. The four child literacy outcome measures are the dependent variables: the WJR Letter-Word Identification score, the WJR Passage Comprehension score, the Reading Standard Score, and the PPVT-R score. For each of the outcome measures, the means and standard deviations are reported for the FRI quartiles in Table 1.

Table 1: Question 1 Means and Standard Deviations

	Mean	SD
WJR Letter-Word Identification Score		
FRI Quartile 1	89.55	13.09
FRI Quartile 2	89.28	13.49
FRI Quartile 3	89.01	12.21
FRI Quartile 4	87.84	12.41
WJR Passage Comprehension		
FRI Quartile 1	92.12	12.67
FRI Quartile 2	91.16	13.72
FRI Quartile 3	91.69	12.92
FRI Quartile 4	90.90	12.18
Reading Standard Score		
FRI Quartile 1	89.75	12.76
FRI Quartile 2	89.04	13.74
FRI Quartile 3	89.28	12.43
FRI Quartile 4	88.12	12.14
PPVT-R		
FRI Quartile 1	93.80	13.95
FRI Quartile 2	93.31	15.34
FRI Quartile 3	90.56	14.90
FRI Quartile 4	90.06	14.42

Results from FRI ANOVA: WJR Letter-Word Identification Score

Regarding the WJR Letter-Word Identification score, the ANOVA was statistically significant, $F(3, 3804) = 3.15$, $p < .05$. The strength of relationship between the WJR Letter-Word Identification score and the FRI quartiled score, as assessed by the partial eta squared statistic (η^2), was weak, with the FRI accounting for .2% of the variance of the dependent variable.

Follow-up tests were conducted to evaluate pairwise comparisons among the means. Using the Scheffe test, the difference between the means of the first and the fourth quartiles was statistically significant, but the differences between the means of the other quartiles were not statistically significant**.** The results reveal that families with more consistent routine at home had

children who scored higher on vocabulary assessments. The results also revealed that when parents reported more consistent routines at home the child scored higher on the WJR Letter-Word Identification test.

Results from FRI ANOVA: WJR Passage Comprehension Score

Next the ANOVA for the WJR Passage Comprehension score was analyzed. No differences in test scores were found across the four levels of family routines, $F(3, 3804) = 1.68$, $p = .17$.

Results from FRI ANOVA: Reading Standard Score

Similarly, no differences were found for the Reading Standard Score based on the four levels of family routines, since the ANOVA was not statically significant, $F(3, 3804) = 2.59$, $p = .051$.

Results from FRI ANOVA: PPVT-R Score

The ANOVA examining the PPVT-R as the independent variable was statistically significant, $F(3, 3804) = 15.71$, $p < .01$. The strength of relationship between the PPVT-R score and the FRI quartiled score, as assessed by η^2, however, was not strong, with the FRI quartiles accounting for only 1% of the variance in the dependent variable.

Follow-up tests were conducted to evaluate pairwise comparisons among the means. Using the Scheffe test, the differences between the means of the first and the third quartiles, the first and fourth quartiles, the second and third quartiles, and the second and fourth quartiles were statistically significant, but the differences between the means of the first and second quartiles and the third and fourth quartiles were not statistically significant. For each of the mean score differences, the lowest level, or the most consistent, of the family routines was associated with a lower mean test score on the PPVT-R.

Question 2: Do Family Routines at School Influence Child Literacy Outcomes?

Sixteen one-way ANOVAs were conducted to evaluate the relationship between family involvement routines at school and the former Head Start children's literacy outcomes. The independent variables were four questions added to the routines instrument focused on varying degrees of parental involvement within the classroom. These items including talking to children about their day, participating in parent activities, volunteering at the school, and keeping in touch with the child's teacher. Each of the questions covered very different aspects of parent involvement routines and thus the results of this research question will be organized by the questions. The dependent variables were the child literacy outcome measures: the WJR Letter-Word Identification, the WJR Passage Comprehension score, the Reading Standard Score, and the PPVT-R score. For each of the child literacy outcomes measures and the questions, the means and standard deviations are reported in Table 2.

Results from ANOVA: How often parents discuss child's day with child

The two ANOVAs examining the WJR Letter-Word Identification score, $F(3, 3495) = 3.77$, $p < .05$, and the PPVT-R, $F(3, 3495) = 29.05$, $p < .01$ were statistically significant. However, the ANOVAs did not reach statistical significance for the WJR Passage Comprehension score, $F(3, 3495) = .80$, $p = .49$, or the Reading Standard Score, $F(3, 3495) = 2.33$, $p = .07$.

For the two statistically significant ANOVAs, follow-up tests were conducted to evaluate pairwise comparisons among the means. Using the Scheffe test, for the WJR Letter-Word Identification scores, the differences between the means of the parents who responded "*almost every day*" and "*1 – 3 times a month*" as well as "*1 – 2 times a week*" and "*1 – 3 times a month*" were statistically significant, but no statistical significance was found between the other parental

frequency responses. Thus when parents discuss their child's day with him or her everyday or a few times a week, the children on average had higher scores on the WJR Letter-Word Identification assessment than children who's parents only discussed their day with them a few times a month.

Table 2: Research Question 2 Results Descriptives

		WJR Letter-Word Identification Score		**WJR Passage Comprehension Score**		**Reading Standard Score**		**PPVT-R Score**	
	N	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Discuss Day									
Almost every day	1421	89.38	12.93	91.59	12.88	89.38	12.89	94.26	14.85
1 - 2 times a Week	1837	89.09	12.86	91.71	13.07	89.26	12.86	91.55	14.60
1 - 3 times a month	195	86.28	11.53	90.36	11.97	87.00	11.59	85.09	14.78
Less than monthly	46	86.85	14.02	90.22	14.17	87.33	14.41	85.35	13.25
Participate in Activities									
Almost every day	164	85.97	12.41	90.81	12.25	87.18	12.37	88.74	14.54
1 - 2 times a Week	163	89.39	12.47	91.93	12.94	89.63	12.52	89.06	14.86
1 - 3 times a month	648	90.07	12.69	91.57	13.25	89.74	13.11	92.78	15.62
Less than monthly	1419	89.18	13.09	91.95	12.96	89.45	13.01	93.33	14.88
Volunteer at School									
Almost every day	339	86.39	12.68	90.24	12.07	86.90	11.81	89.19	13.83
1 - 2 times a Week	144	90.97	12.31	93.02	13.59	91.11	12.92	90.66	16.07
1 - 3 times a month	419	89.44	11.63	90.77	12.90	89.00	12.70	92.66	16.03
Less than monthly	1242	89.85	13.57	92.40	13.28	90.09	13.38	93.93	14.97
Kept in touch with Teacher									
Almost every day	260	89.58	12.34	92.17	12.31	89.78	12.11	92.44	14.43
1 - 2 times a Week	663	89.42	12.36	91.38	13.07	89.29	12.69	91.61	15.15
1 - 3 times a month	1063	89.02	13.25	91.81	12.90	89.33	12.97	92.04	15.04
Less than monthly	1072	88.21	13.08	91.28	12.88	88.53	12.97	92.44	15.03

Similarly with the post-hoc tests, the PPVT-R score revealed the differences between the means of all the frequency responses were statistically significant except "*less than monthly*" and "*1 to 3 times monthly*". Thus, on average children had higher scores on the PPVT-R when

parents discussed their child's school day with their child more frequently, yet little difference was found between discussing the child's day a few times a month or less than monthly.

Results from ANOVA: How often the parent participated in school activities for the parent.

The ANOVAs for the WJR Letter-Word Identification score and the PPVT-R reached statistical significance, $F(3, 2390) = 4.43$, $p < .01$ and $F(3, 2390) = 7.74$, $p < .01$, respectively. However, the ANOVAs did not reach statistical significance for the WJR Passage Comprehension score, $F(3, 2390) = .45$, $p = .72$, and the Reading Standard Score, $F(3, 2390) = 1.8$, $p = .15$.

Follow-up tests were conducted to evaluate pairwise comparisons among the means using the Scheffe test. For the WJR Letter-Word Identification score, the differences between the means of the parents who responded "*almost every day*" and "*1 – 3 times a month*" as well as "*almost every day*" and "*less than monthly*" were statistically significant, but the differences between the means of the other frequency categories were not statistically significant. Interestingly, the children who scored the highest on the WJR Letter-Word Identification had parents who responded they participated in activities for parents "*1 – 3 times a month*" and children actually scored the lowest when parents responded "*almost every day"*.

The pairwise comparisons for the PPVT-R score revealed the differences between the means of all the frequency responses were statistically significant except "*almost every day*" and "*1 – 2 times a week*" and "*1 – 3 times a month*" and "*less than monthly*". Similar to the WJR Letter-Word Identification scores, children scored the highest on the PPVT-R when parents responded they participated in activities for parents "*less than monthly"* and children scored the lowest when parents responded "*almost every day"*.

Results from ANOVA: How often the parent volunteered at school.

When examining the effect of parents' school volunteering on the four child literacy outcomes, all four ANOVAs were statistically significant: the WJR Letter-Word Identification score, $F(3, 2140) = 7.20$, $p < .01$, the WJR Passage Comprehension score, $F(3, 2140) = 3.81$, $p < .05$, the Reading Standard Score, $F(3, 2140) = 6.32$, $p < .01$, and the PPVT-R score, $F(3, 2140) = 9.77$, $p < .01$.

Using the Scheffe test, for the WJR Letter-Word Identification score, the differences between the means of the parents who responded "*almost every day*" and "*1 – 2 times a week*", "*almost every day*" and "*1 – 3 times a month*", and "*almost every day*" and "*less than monthly*" were statistically significant, but the differences between the means of the other frequency responses were not statistically significant. The mean scores reveal that children scored the lowest on the WJR Letter-Word Identification when parents responded they volunteered at their child's school "*almost every day*" and children scored the highest when parents responded "*1 – 2 times a week*". For the WJR Passage Comprehension score, differences between the mean scores were not statistically significantly based on parents' volunteerism in the school.

For the Reading Standard Score, the post hoc comparisons also revealed the differences between the mean scores when parents volunteered in the school "*almost every day*" and "*1 – 2 times a week*" and "*almost every day*" and "*1 – 3 times a month*" were statistically significant, but the mean Reading Standard Scores did not vary across the other levels of parent volunteerism in the school. Similar to the WJR Letter-Word Identification score, children scored the highest on the Reading Standard Score when their parents responded they volunteered "*1 – 2 times a week*" at their child's school and children scored the lowest when parents responded "*almost every day*".

The pairwise comparisons for the PPVT-R score revealed the differences of the means when parents volunteered in the child's school "*almost every day*" and "*1 – 3 times a month*" and "*almost every day*" and "*less than a month*" were statistically significant. However the differences of the mean scores were not statistically significant at other levels of parent involvement. Similar to both the other findings, children scored the lowest on the PPVT-R when parents responded they volunteered "*almost every day*" in the child's school, however, children scored the highest on the PPVT-R when parents responded "*less than monthly*".

Results from ANOVA: How often parent kept in touch with child's teacher.

The ANOVA for contact between the parent and the child's teacher did not reach statistical significance for the WJR Letter-Word Identification score, $F(3, 3054) = 1.64$, $p = .18$, the WJR Passage Comprehension score, $F(3, 3054) = .54$, $p = .66$, the Reading Standard Score, $F(3, 3054) = 1.13$, $p = .34$, or the PPVT-R score, $F(3, 3054) = .47$, $p = .71$.

Question 3: Do Family Resources Influence Child Literacy Outcomes?

Four multiple regression analyses were conducted to predict former Head Start students' literacy outcomes. Each regression analysis included one of the four measures of literacy outcomes as the dependent variable: the WJR Letter-Word Identification, the WJR Passage Comprehension, the Reading Standard Score, or the PPVT-R. The independent variables for the four analyses included the three subscales of the Family Resource Survey: Growth and Support, Intrafamily Support, and Health and Necessities.

Results from Multiple Regression Analysis Model 1: The effect of FRS on WJ-R Letter-Word Identification score

For model 1 the dependent variable was the WJR Letter-Word Identification score. Overall, the model was statistically significant, $F(3, 3804) = 9.14$, $p < .01$). The overall R^2 value

was .007, indicating that the model accounts for less than one percent of the variance in students' score, and the standard error of the estimate was 12.80. When controlling for other variables in the model, both the Growth and Support (b = .08, t = 2.90, p < .01) and the Intrafamily Support (b = -.05, t = -2.79, p < .01) FRS subscales were statistically significant predictors of the WJR Letter-Word Identification scores when controlling for the other variables (see Table 3). However, the relationship between the WJR Letter-Word Identification scores and the Health and Necessities FRS subscale was not statistically significant.

Table 3: Regression Coefficients

Variable	*b*	*t*	*p*-Value
WJR Letter-Word ID			
FRS Growth and Support	.08**	2.90	.00
FRS Health and Necessities	.01	0.43	.67
FRS Intrafamily Support	-.05**	-2.79	.01
WJR Passage Comprehension			
FRS Growth and Support	.04	1.38	.17
FRS Health and Necessities	.01	0.54	.59
FRS Intrafamily Support	-.01	-0.63	.53
Reading Standard Score			
FRS Growth and Support	.06*	2.29	.02
FRS Health and Necessities	.02	0.72	.47
FRS Intrafamily Support	-.03	-1.94	.05
PPVT-R			
FRS Growth and Support	.11***	3.90	.00
FRS Health and Necessities	.04	1.40	.16
FRS Intrafamily Support	-.15***	-8.59	.00

*p < .05. **p < .01. **p < .001.

Results From Multiple Regression Analysis Model 2: The Effect Of FRS On WJ-R Passage Comprehension Score

For model 2, the dependent variable was the WJR Passage Comprehension score. Overall, the model was statistically significant (F(3, 3804) = 2.81, p < .05). The overall R^2 value was .002 and the standard error of the estimate was 12.90. Although according to the F value, the

model was statistically significant, but none of the FRS subscales were statistically significant predictors of the WJR Passage Comprehension scores when controlling for the other variables (see Table 3).

Results From Multiple Regression Analysis Model 3: The Effect Of FRS On Reading Standard Score

For model 3 the dependent variable was children's Reading Standard Score. Overall, the model was statistically significant ($F(3, 3804) = 6.96$, $p < .01$). The multiple regression analysis indicated that the overall R^2 value was .005 and the standard error of the estimate was 12.79. Although the overall model was statistically significant based on the *F* statistic, only one of the three independent variables, the Growth and Support FRS subscale, was a statistically significant predictor of the Reading Standard Score ($b = .06$, $t = 2.29$, $p < .05$). The relationship between the Reading Standard Score scores and both the Health and Necessities FRS subscale and the Intrafamily Support FRS subscale were not statistically significant as shown in Table 3.

Results from Multiple Regression Analysis Model 4: The effect of FRS on WJ-R Letter-Word Identification score

For model 4 the dependent variable was the PPVT-R score. Overall, the model was statistically significant ($F(3, 3804) = 34.46$, $p < .01$). The multiple regression analysis indicated that the overall R^2 value was .03, and the standard error of the estimate was 14.57. Both the Growth and Support FRS subscale ($b = .11$, $t = 3.90$, $p < .01$) and the Intrafamily Support FRS subscale ($b = -.15$, $t = -8.59$, $p < .01$) were statistically significant predictors of the PPVT-R scores when controlling for the other variables in the model (Table 3). The Health and Necessities FRS subscale was not a statistically significant predictor of students' PPVT-R scores as shown in Table 3.

CHAPTER 5

DISCUSSION

This study used the Process-Person-Context model to examine the relationship between parental involvement routines and family resources and former Head Start children's literacy outcomes. Previous research either focused on older children or only looked at one setting within a child's life. A gap in research was the need to better understand the potential influence parents have on their children's literacy development through their involvement within the different settings their children frequent and the available family resources. This study examined the influence of parental home involvement, parental school involvement, and family resources on four outcomes measures: the WJR Letter-Word Identification score, the WJR Passage Comprehension score, the Reading Standard Score, and the PPVT-R score to illuminate how parents may be influencing particular aspects of literacy development within the Kindergarten year. This chapter will discuss the study results based on each question, potential implications for future research, as well as the strengths and limitations of this study.

Discussion of Results

The first research question used the FRI to look at parental routines in the home and the impact on children's literacy outcomes. The results revealed that families with a more consistent routine at home had children who scored higher on vocabulary assessments. These results are similar to previous research that found the frequency of parents engaging their children in enriching activities was associated with children's oral language, letter-sound knowledge, and

word decoding abilities (Bus et al., 1995; Weigel et al., 2006). Thus as parents made these activities more routine, their children's language and literacy skills improved.

The second research question used four questions added to the FRI battery to look at parents' specific involvement within their child's classroom and school. Since these questions were individual and not totaled, results and implications vary for each question, and three of the four questions were statistically related to multiple child literacy outcome measures.

The first of these questions asked parents how often they discussed their child's school day with him or her. This simple form of involvement is akin to Hoover-Dempsey and Sander's (1997) reference to parents across ethnic groups expressing a desire to be involved in their child's school life through being an audience or tutor for their child without actually being in the classroom. Also, the simple involvement of showing interest in their child's schoolwork or activities has been found by other research studies to positively effect students' engagement with school (Mo & Singh, 2008). The current study supports this finding since the mean scores reveal that the more frequently parents discussed the child's school day with their child the higher children scored on all four literacy assessments. However, only the vocabulary assessments, the WJR Letter-Word Identification score and the PPVT-R score, were found to be statistically significantly related to the frequency of parents talking to the child about his or her day at school. On average, children had higher scores on the PPVT-R when parents discussed their child's school day with their child more frequently, yet little difference was found between discussing the child's day a few times a month or less than monthly.

Secondly, parents were asked how often they participate in school activities for the parents. Although the F-test revealed that both WJR Letter-Word Identification and PPVT-R scores were statistically significantly related to parents' participation, the mean scores revealed

that the most involved parents did not have the children with the highest mean scores. The parents who were involved "*1 – 3 times a month*" or "*less than monthly*" had children with the highest mean scores on all four assessments. This is somewhat surprising as existing research has suggested higher parent involvement is positively related to preschool children's language and emergent literacy skills (Arnold et al., 2008). This may be due to the fact that the question asked specially about activities for parents, which may include parent-teacher conferences, visitation times, or similar events. Although empirical research on school events focused on parents and children's academic achievement is limited, it seems likely that these types of parent events are held rather infrequently, unless there is a reason that teachers are needing to meet with parents on a more regular basis. Frequent parent-teacher conferences generally have a negative connotation such as poor performance or frequent class disruption. Therefore, the lack of a statistically significant positive relationship at more frequent levels of participation in parent activities may be a product of schools' procedures.

The third question asked parents how often they volunteered at their child's school. When looking at the mean scores, the WJR Letter-Word Identification score and the Reading Standard Score appeared to have an ideal frequency of parent involvement at "*1 – 2 times a week*". In other words, children had the highest scores on those outcome measures when parents reported being involved in a voluntary position at the school on a weekly basis. Although this was a mid-level rate of volunteerism, children appeared to benefit most with this level of parental involvement. While this is an interesting and surprising finding, perhaps parents are helpful when volunteering just a few times a week, but parents who are volunteering daily may have additional family issues that are making them more available in their child's classroom, such as unemployment, unusual work hours, or even homelessness in which parents need a place to

spend the day. The PPVT-R scores, on the other hand, had the highest mean score at the parental response of "*less than monthly*". Thus, on average children had the highest score on this outcome measure of vocabulary when parents reported the lowest frequency of volunteering at their child's school. This finding could be a refection of the participants' parents placing trust and responsibility into teachers' hands and believing that parents only enter schools upon invitation and instead take a more preparatory role. Previous research has suggested that this belief is often found in Hispanic, African-American, and working-class communities (Lareau, 1987; Seginer, 2006; Souto-Manning & Swick, 2006). However, parents across ethnic groups have been found to desire to be part of their child's classroom in more non-traditional ways such as tutor or an audience, which was suggested in the results of the first of the four added questions (Hoover-Dempsey & Sander, 1997). This could be especially true for working parents who are unable to frequently volunteer at their child's school, yet take times out of each day to talk with their child about his or her day at school.

The fourth added question asking parents how often they kept in touch with their child's teacher did not reach statistical significance for any of the four child outcome measure. Also the four outcome scores did not vary much across the mean frequencies of parents keeping in touch with their child's teacher (Table 2). Interestingly this finding is quite opposite of what many experts and practitioner materials advocate. For example, the NAEYC Developmentally Appropriate Practice advocates for practitioners working with kindergarteners to maintain regular and frequent two-way communication with parents through face-to-face interactions, emails, notes, notebooks that travel each day between home and school, and parent conferences (Copple & Bredekamp, 2009). While experts are advocating for frequent parent-teacher communication, these results are not revealing much, if any benefit to the children. This may be

due a kindergarten daily schedule that does not provide the same opportunities for parent-teacher communication that a preschool classroom often makes available. For instance, children in kindergarten are often picked up and dropped off either by parents in a parking lot or using the school system buses.

The last research question used three subscales of the FRS Growth and Support, Health and Necessities, and Intrafamily Support to understand the role of family resources on a child's literacy outcomes. The regression analyses were statistically significant for the Growth and Support when examining the effect on children's WJR Letter-Word Identification score, Reading Standard Score, and PPVT-R score. Thus children benefit when parents provide them with time for personal growth and interpersonal relationships, as well as money for luxuries. The regression indicated a statistically significant effect of the Intraframily Support subscale on children's WJR Letter-Word Identification score and PPVT-R score. This is similar to previous findings in that children benefit from parents providing time for their children and family (McNair & Johnson, 2009). Surprisingly, the Health and Necessities subscale was a statistically significant predictor of children's literacy outcomes. In other words, money for basic necessities such as food, shelter, utilities, and health and dental care as well as a source of income does not related to children's literacy outcomes. This is contrary to Van Horn et al. (2009) who found that children who had their basic needs met scored, on average, one standard deviation higher on literacy outcomes than less resilient children whose basic needs were not met.

When looking across the three research question analyses, the WJR Passage Comprehension was found twice to be statistically significant initially. However, in of those both cases the post hoc pairwise comparison for the ANOVA and controlling for other variables in the regression revealed the outcome measure to not be statistically significant. In reviewing

the data, the children's scores on this outcome measure actually dropped from fall to spring. Although the fall child literacy outcome data were not used in this study, reviewing the data reveals additional factors may have been affecting student's passage comprehension scores, such as developmental regression with emergent literacy development growing in one area and taking a slight decline in another area. However, these results may also be a reflection of kindergarten classes in the 1990s, which may have been focusing on the emergent literacy skills of vocabulary instead of passage comprehension.

Implications for future research

Although this study fills a gap in previous research, many implications for future research emerge. Although a battery of assessments was collected in the fall and the spring from the time the children were in kindergarten until they completed third grade, the data on parental involvement were only collected in the fall of the kindergarten year. Parental involvement, however, can be dynamic and change with given circumstances (Hoover-Dempsey & Sandler, 1997). An example is Ryan et al.'s (2010) finding that as Latino families assimilate to a white middle-class orientation their beliefs and attitudes on parental involvement change. Additional research need to examine the impact that changing family situations such as moving, divorce, remarriage, death, major illness, unemployment, or even natural disasters can have on parental points of view of their place of involvement in their child's life.

Another implication, which could guide future research, is that parent classroom involvement seemed to have a certain frequency range that was most beneficial. Quantitative research with a more specific focus on this phenomenon, or even qualitative research on school procedures and parental involvement, could provide insights into why weekly or monthly participation was more beneficial than daily participation. In addition, more research on parent

involvement needs to be conducted. Although this study did examine it, more detailed studies with a focus on parents would greatly add to the literature. Also, this study focused on interviews done with parents. Future research that expands the breadth and depth of the interview survey could bring a new understanding to what influences parents' involvement (Arnold, et al., 2008). By including school policies, teacher procedures, and parent interview data, data could be triangulated and the study would go beyond four seemingly broad questions on parent participation routines (Creswell, 2009). Thus, future research could attain a deeper understanding of the processes, persons, and contexts that may influence parental involvement in children 's classrooms.

Strengths and Limitations

This study, like any study, has strengths and limitation. The current study has multiple strengths. One important strength is the large sample size, which includes families from around the United States. Secondly, this was a nationally funded US Department of Health and Human Services study that was carefully planned with extensive time spent on choosing age and method appropriate measures and training the interviewers and data collectors.

One limitation is that the data were collected from 1991 to 1999, and the Head Start program has been revised since that time. Another limitation is that while differences were statistically significant for many of the associations, the results did not reveal a strong relationship between the child outcomes. The independent variables accounted for very little of the variance in the dependent variables. The large number of significant associations could be due to the large sample size. Another limitation is the limited breathe of the measure of parent involvement in their child's classroom. Although, it was what was available, the four questions revealed more questions than it answered. Lastly, this study was conducted on a specific

population. Although the participants were from across the United States, they were all former Head Start attendees. The fact that Head Start attendance is focused on families who are economically disadvantaged limits the potential generalization of the findings to other populations.

Conclusion

In conclusion, this study supports the PPCT model in that the parents are impacting their children's literacy development, especially vocabulary development, through the processes taking place in their surrounding environments. Routines at home, including parents frequently talking to children about their day at school, appear to be a beneficial aspect of parent involvement at home and at school. Routines within a child's classroom or school, however had mixed results. Interestingly however, the most involved parents in a child's classroom or school did not have the children with the highest outcome scores. It would appear that parent involvement in a child's classroom or school has a certain mid-level frequency that benefits children the most. Lastly family resources, such as parents providing their children the opportunity to have time for personal growth, for interpersonal relationship, and with children and family, as well as money for luxuries, were found to benefit children. Overall this research study's examinations of the relationship between parental involvement routines and family resources and former Head Start children's literacy outcomes revealed parents are impacting their kindergarteners' literacy development.

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