

**BEFORE THE SCHOOL BUS: PARENTAL INFLUENCE ON EARLY  
LANGUAGE AND LITERACY LEARNING IN THE HOME ENVIRONMENT**

by

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## ABSTRACT

The purpose of this study was to examine parent-child literacy interactions in the home environment. Specifically, this study examined parental interaction and its influence on child receptive and expressive language ability. As parents are the first and often most important teachers, it is essential to understand what it is that parents and their young children do during literacy activities in the home and how these behaviors influence child receptive and expressive language. The sample for this study was comprised of 72 parent-child dyads consisting of a kindergarten child and his or her primary caregiver. The 72 dyads represented a range of socioeconomic levels. Data were gathered during three visits to the home environment. Parents and their children were asked to participate in three semi-structured literacy activities: a book reading, play session, and writing task. During these tasks, the following parent behaviors were analyzed: labeling, generalizing, repetition/paraphrasing, scaffolding, quantity/variety of parental language, and fostering of child autonomy. Parent-child literacy interactions were observed and audio taped. In addition, parents were asked to fill out a Parent Survey, which gathered demographic information and details pertaining to parent-child home interactions. Children's language ability was assessed using *The Woodcock Johnson Tests of Achievement-Picture Vocabulary subtest* (Woodcock, Johnson, McGrew, & Mather, 2001) and the *Peabody Picture Vocabulary Test, Third Edition-PPVT-III* (Dunn & Dunn, 1997). Data were coded and analyzed using analysis of

variance and regression. Findings revealed that parents varied their behavior with their young children across the three literacy tasks. Specifically, parents used labeling, generalizing, and fostering child autonomy differently during the three tasks. Overall, parents were most interactive with their children during the play activity. In addition, specific parent behavior features predicted child language ability even after controlling for SES. The study revealed that the quantity and variety of parent language and how parents fostered child autonomy positively predicted child expressive and receptive language skills. The findings from this research study reinforce the influential relationship parents have in their children's early learning in the home. Specifically, this research supports the examination of multiple contexts of early literacy learning in the home environment. According to study results, parents do vary their behavior with their children across literacy activities. In addition, the play activity was a context where parents were very interactive with their children. This finding points to the importance of adult-child play as being beneficial to early language and literacy learning in the home.

## **CHAPTER I**

### **Introduction**

How parents speak to their children during the early years of life may have lasting effects on children's language development (Hart & Risley, 1995). Early home literacy experiences may also influence children's relationships with reading and writing in school and beyond (de Jong & Leseman, 2001). The parent is a child's first and most important teacher, and the home environment is the primary classroom. From birth until the onset of formalized schooling, children spend countless hours constructing knowledge outside the classroom. These learning experiences create a foundation for life-long academic success. For example, the quality and quantity of parent-child language interactions often impact early vocabulary development (Carter, Chard, & Pool, 2009; Hart & Risley, 1995). In turn, vocabulary knowledge has a strong influence on later reading achievement (Cunningham & Stanovich, 1997; Scarborough & Dobrich, 1994; Sénéchal, Oullette, & Rodney, 2006).

Unfortunately, more than one-third of United States children enter school with limited language and early literacy skills that put them at risk for later learning difficulties (Carter, et al., 2009; Neuman, 2006). Differences in children's early language and literacy knowledge become amplified as children with greater language and literacy proficiency continue to make gains, while children with less proficiency struggle and fall behind (Stanovich, 1986). This cycle creates ongoing language and literacy inequity

throughout the primary and secondary grades, with disadvantaged children rarely able to close the gap (Juel, 1988; O'Connor & Jenkins, 1999). The presence of early and enduring language and literacy disparities establishes a need to explore the early learning environments of young children. Perhaps even more important is the examination of parent-child interactions during learning tasks within the home environment. In order to better comprehend the disparity in language and literacy skills at the onset of school, it is important to gain a greater understanding of what takes place between parents and children during in-home literacy learning activities.

A great deal of parent-child interaction research focuses on storybook reading as a prominent parent-child learning activity (Bus, van IJzendoorn, & Pellegrini, 1995; Commission on Reading, National Academy of Education, 1985; Scarborough & Dobrich, 1994). The play context also has a long-standing history as an influential area for child development (Pellegrini & Galda, 1993; Piaget, 1962; Vygotsky, 1976), especially child literacy development (Neuman & Gallagher, 1994; Roskos & Christie, 2001). Parent-child writing interactions are another supportive context for young children's early literacy development (Aram & Levin, 2002; DeBaryshe, Buell, & Binder, 1996; Neumann & Neumann, 2010).

During literacy tasks, language is a critical factor in parent-child learning. Researchers argue that in mainstream American culture, speech is the primary means for teaching and learning (Cole, 1996; Lee & Smagorinsky, 2000). Parents act as essential language models, especially during the early years of a child's life. Consequently, the speech and language patterns parents utilize with their young children can provide models of conversational skills and new vocabulary (Kempe, 2001; Newport, Gleitman &

Gleitman, 1977; Rowe, 2008; Snow, 1977). The research literature highlights specific features of parents' child-directed speech as being influential in the language and literacy development of children. These features include quantity and variety of parent language (Hart & Risley, 1995; Hoff, 2003), labeling with expansions (Beals & Tabor, 1995; Gellman, Coley, Rosengren, Harman, & Pappas, 1998), repetition and paraphrasing (Snow, 1972), and parental use of decontextualized language (Siegel, 1993).

However, language does not occur in isolation. While examining the language patterns of parents and their children, it is also critical to explore the context in which language takes place. Vygotsky's (1962; 1978) theory of sociocultural learning stresses the interplay between a learner, the environment, and the people in the environment. From a sociocultural perspective, individuals in the social environment can act as essential teaching partners. Consequently, throughout parent-child interactions, parents and the social environment become essential components of the parent-child teaching and learning process. Two areas where parents may assist their children as teaching/learning partners are scaffolding, derived from the work of Vygotsky (1962, 1976) and fostering child autonomy (Baumrind, 1991; Lareau, 2003).

### *Study Rationale*

All in all, research supports both parents as language models and teaching/learning partners as advantageous to child language and learning development. Literature from a more linguistic approach often highlights the influence parents have as language models. Research from a sociocultural perspective supports parents as prominent and influential learning partners. Defining parents as only language models or

learning partners, however, may provide an incomplete understanding of how parents influence childhood learning. Viewing parents as both language models and teaching/learning partners makes possible a more comprehensive depiction of how parents interact with their children. Rarely do parents in mainstream U. S. culture scaffold their child's learning without modeling language. Similarly, parental language takes place within the social environment. Influences within that environment will most likely affect parental language and interactions with children.

By bringing the research literature together, it is possible to identify key features of parent interactions that influence child language and literacy development. Looking across various theoretical perspectives allows for the compilation of parent behavior features that more accurately represent parent interactions with their children. Such features include the quantity/variety of parent language, labeling, repetition/paraphrasing, decontextualized language, scaffolding, and fostering child autonomy. Because these features are supported by research as enhancing the language and literacy of children, they gain credibility as effective practices. Analysis of parent-child interactions using these research-based features as variables will allow for a more comprehensive examination of what takes place when parents and children engage in learning activities in the home.

The research literature also highlights specific parent-child literacy activities that are influential in early language and literacy development. Such activities include parent-child storybook reading, play, and writing. Children acquire proficient literacy knowledge by interacting in many parent-child literacy-learning tasks (Neuman, 2000; Neuman & Gallagher, 1994). Therefore, just as it is more comprehensive to analyze

parent-child interactions by focusing on multiple parent behavior features, it is also beneficial to examine several parent-child literacy learning activities. It is possible that parents behave differently with their children during various learning activities.

Consequently, it may prove quite informative to explore parent-child interactions across several literacy activities while examining multiple parent behavior features.

Finally, the influence of parent behavior on child language development and ability has a standing presence throughout the research literature. Therefore, examining the relationship between parent behavior features and child language ability may uncover pertinent data regarding how early parent-child learning interactions influence the manner in which children acquire and develop language.

### *Study Overview*

The purpose of the present research study was to observe and examine in-home parent-child literacy interactions to understand how parent behavior influences child language and literacy development. This study examines parental interaction and its influence on child receptive and expressive language. These language skills have been shown to have significant effects on children's early literacy development. Using data collected under the auspices of the Ready to Learn Project, in this dissertation I examined two research questions:

- How does parent behavior toward their children in the home environment differ across three specific literacy tasks?
- How does parent behavior toward their children in the home environment predict children's language ability?

For the first research question, I examined parent-child learning interactions in and across three literacy activities: parent-child storybook reading, play, and writing. These three literacy activities covered a range of skills all considered essential to the early literacy learning process. When analyzing parent behavior within and across the three activities, it was important to examine specific, research-based features of parent behavior thought to influence early childhood learning and language development. After examining the research literature, I selected the following parent behaviors features: labeling, generalizing (often referred to as distancing in the research literature), scaffolding, repetition/paraphrasing, fostering child autonomy, and quantity/variety of parent language. More than likely, parents enact many of these behaviors within a given literacy-learning episode. For this research, I hypothesized that parents would incorporate multiple research-based behaviors into literacy-learning interactions with their young children. I also hypothesized that parents would enact these behaviors differently across the three activities.

In the analysis for my second research question, I examined how specific parent behavior features predicted child language when accounting for SES. To extend what is currently understood about parental influence on child language ability, I examined multiple literacy activities and multiple parent behaviors. In addition, when examining parent-child literacy interactions in the home, it is difficult to ignore the influence SES may have on how parents and their children approach and enact literacy learning activities. It is important to note, however, that SES does not completely define parents or their behavior with their children. There are many variables that may account for how parents and their children interact. Therefore, in this dissertation, I examined how

specific parent behavior may predict child language ability when controlling for SES. I hypothesized that the influence of parent behavior on child language ability would differ based on the specific parent behavior feature being measured.

Data collection for the present study was comprised of in-home observation, as well as a survey where parents were asked to self-report regarding specific demographics and home interactions with their children. As a member of the Ready to Learn team, I conducted, along with my colleagues, home visits between December 2008 and June 2009, collecting data on 72 parent-child dyads. All parent-child dyads were asked to participate in literacy activities defined and designed by the study team. The interactions were observed and coded by trained assessors.

Using data collected as part of this research, this dissertation is designed to explore and answer my research questions. In chapter two, I review the literature pertaining to parental influence on child learning in the home. I focus specifically on parent-child literacy learning in the home across multiple literacy activities. In addition, I examine particular research-based parent behavior features shown to enhance early child language and literacy learning. In chapter three, I outline my study methodology. Chapter four focuses on study results pertaining to my two research questions. Finally, in chapter five I discuss the study's findings and implications and how they relate to current research. Also in chapter five, I discuss possible study limitations as well as future research. Through this in-depth analysis and discussion I hope to further highlight the ever-important relationship between parent interaction and early child literacy and language learning in the home.

## **CHAPTER II**

### **Literature Review**

Early parent-child learning interactions are pivotal experiences, often priming children for later academic success (Leseman & de Jong, 1998; Rashid, Morris, & Sevcik, 2005; Saracho, 1997). When examining factors influencing early language and literacy, research indicates that variables within the home setting may outweigh those in the school environment (Al Otaiba & Fuchs, 2006; Carter, Chard, & Pool, 2009). In the first few years of life, children are “uniquely susceptible” to the culture of their parents (Hart & Risley, 1995, pg. 180). Interactions with parental language, attitudes, beliefs, and ideas are often the first learning experiences children encounter. Therefore, the home should be viewed as an influential context for children’s early language and literacy development. Parent participation in this learning can be an integral component to a child’s overall academic success.

There is a vast amount of literature highlighting parents as crucial participants in their children’s overall development; however, this study focuses specifically on the role parents play in their children’s early language and literacy acquisition. In particular, this review explores literature highlighting parental factors related to child language and literacy development in the home environment. In this chapter, I examine specific features of parent behavior supported through research as being advantageous to

early child language and literacy development. In addition, I highlight three specific parent-child literacy activities supported in the research as beneficial to overall child language and literacy growth. Throughout this chapter, literature is presented to support a study focusing on early, in-home parent-child learning interactions and how parent behavior influences child language and literacy acquisition.

*Parent-Child Early Learning:*

There is a great deal of research pointing to the importance of parent involvement in child language and learning during the elementary years. Evidence reveals that greater parent participation during elementary school positively impacts a child's overall school performance (Epstein & Dauber, 1991; Griffith, 1996; Moles, 1996; United States Department of Education, 1994). This research often focuses on parent involvement in the school setting. When examining parent involvement in the home environment with elementary school-aged children, research most often focuses on parent participation during homework (see Hoover-Dempsey, Battiato, Walker, Reed, DeJone, & Jones, 2001 for a review).

Other studies focus on parent participation in the learning of children who have not yet entered elementary school. Studies that concentrate on this developmental period indicate the importance of parent involvement in a child's early learning. These studies show that parent involvement may influence a child's overall school readiness (Parker, Piotrkowski, Kessler-Sklar, Baker, Peay, & Clark, 1997; Petrie & Davidson, 1995; Reynolds, Mavrogenes, Bezruczko, & Hagemann, 1996). Similar to the parent participation literature for elementary children, parent involvement in the early

developmental years often concentrates on learning interactions outside the home environment. These studies tend to examine parent participation in formal learning institutions such as Head Start (Parker et. al., 1997) or private preschool programs (Petrie & Davidson, 1995; Reynolds et. al, 1996). When the focus shifts to the home, research often examines parent involvement in organized early literacy or language interventions (ex: Lonigan & Whitehurst, 1998; Neuman, 1997; Neuman & Gallagher, 1994; Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994). Less frequently, research concentrates on the natural learning interactions between parents and their children within the home environment.

#### *Parent-Child Early Learning in the Home Environment*

The influence of the home environment, including the role parents play in their children's early learning in the home must not be overlooked. According to Son and Morrison (2010), "a consensus is emerging that the home environment provides an important contribution to children's development, learning, and school success" (pg. 1103). The home is considered a critical context for children's development of the cognitive and linguistic abilities that are necessary for overall literacy and academic growth (Carter, Chard, & Pool, 2009; Leseman & de Jong, 1998; Rashid, Morris, & Sevcik, 2005; Saracho, 1997). Leseman and de Jong (1998) argue there are several essential elements necessary to create an advantageous home literacy environment, including opportunities to participate in literacy activities, quality interactions with literate

models (usually adult family members), and quality emotional relationships between adults and children. According to these researchers, not only is it necessary for children to have ample opportunities to participate in home literacy activities, but also they must have access to positive literate models with whom they feel comfortable and emotionally attached. Therefore, a key factor in effective home literacy environments for children is parent participation. In mainstream cultures, parent participation in early home literacy activities is often considered one of the most important areas where parents can influence their child's overall language development and academic success (de Jong & Leseman, 2001; Leseman & de Jong, 1998; Rashid Morris, & Sevcik, 2005). Aram (2008) argues that more research and interventions should focus specifically on the home environment where parent-child interactions are viewed as pivotal contexts for early literacy learning.

In order to fully understand how parents influence their young children's early literacy and language development in the home environment, it is beneficial to explore the literacy activities in which parents and their children engage and to understand what exactly parents do with their children while participating in early, in-home literacy activities. The specific literacy activities that parents participate in with their children can be quite informative in terms of the overall early learning and language development of young children. The following sections highlight three literacy activities supported through the research literature as advantageous contexts for parent-child literacy and language growth. These activities are parent-child storybook reading, play, and writing.

### *Parent-Child Storybook Reading*

The research literature views parent-child storybook reading as one of the most influential activities leading to child literacy and language development (Bus, van IJzendoorn, & Pellegrini, 1995; Neuman, 1997; Pellegrini and Galda, 1998; Scarborough & Dobrich, 1994; Vandermaas-Peeler, Nelson, Bumpass, & Sassine, 2009). Shared storybook reading has an established reputation as an approach to improving both the language and reading skills of young children that has lasting effects (Anderson, Hiebert, Scott, & Wilkinson, 1985). In the shared storybook reading context, natural social learning takes place during which adults and children work together to construct meaning (e.g., Crain-Thoreson & Dale, 1999; Sulzby, 1985). The book reading context allows more capable readers (often parents) to facilitate the language and vocabulary growth of children who either are unable to read independently or are just beginning the reading process. While reading a story aloud, more capable readers model the mechanics of reading written texts. Regular engagement in story reading creates a predictable and safe learning environment in which children can feel comfortable asking questions, making comments, and taking on the role of storyteller (Crain-Thoreson & Dale, 1999; Crowe, Norris, & Hoffman, 2000).

Bus, van IJzendoorn, and Pellegrini (1995) conducted an in-depth quantitative meta-analysis of the parent-child storybook reading research. Their work reveals that parent-child storybook reading impacts a child's early literacy skills, overall reading ability, and language growth. Furthermore, they stress that storybook reading between parents and young children is one of the most important activities for children to acquire literacy knowledge leading to overall reading success. Although Bus and colleagues (1995) found storybook reading to have an established reputation in the research

literature as an advantageous parent-child learning activity, some researchers caution that studying storybook reading alone is insufficient (Britto & Brooks-Gunn, 2001; de Jong & Leseman, 2001; Vandermaas-Peeler, et. al., 2009).

### *Parent-Child Play*

A second context supported by research as influential to early literacy learning and language development is play. A great deal of the play and literacy research cites the theories of Jean Piaget (1962) and Lev Vygotsky (1976), who studied the cognitive relationship between play and literacy learning (e.g. Neuman & Roskos, 1992; Roskos & Christie, 2001; Vandermaas-Peeler, et. al., 2009). The ideas of these theorists frequently provide the theoretical framework for studies examining the connection between play and child literacy development (Pellegrini & Galda, 1993). In his work, Jean Piaget (1962) maintained that through play, children are able to move from the sensorimotor learning of infants to the more operational intelligence of school-aged children. Such operational intelligence is necessary when developing literacy and language learning. Lev Vygotsky (1976) stressed the social relationship between play and child development. His work emphasizes that children's cognitive and language development does not occur in isolation from the social environment. When engaging in play with others in the social environment, children learn to think in the abstract. This abstract thinking then lends itself to the cognitive demands of literacy understanding and language acquisition.

Drawing upon the theories of Vygotsky and Piaget, Roskos and Christie (2001) dedicated their work to exploring the context of play as an influential setting for literacy learning. These researchers conducted a critical analysis of play research to determine the

extent to which play promotes child language and literacy development. They analyzed 20 studies that examined what Roskos and Christie termed “the play-literacy interface” (pg. 60). The researchers found that the context of play promotes literacy and language learning in several ways. First, they concluded that the context of play provides children with opportunities to interact with literacy activities, skills, and strategies. Secondly, through play, children are able to practice oral and written language use, which supports child literacy learning and language development. Finally, the authors argued that a play context provides both children and adults opportunities to teach and learn literacy skills in a social context. While the findings from this study are quite interesting, the critical-analysis involved only 20 research studies. Analyzing a larger sample of studies may highlight even more the important connection between play and literacy learning. In addition, it is important to observe first-hand how parents and their children incorporate literacy interactions into their play in the home environment.

Building on the idea that play takes place in a social context, Ginsburg (2007) and The American Academy of Pediatrics argued that play is most advantageous when it includes adults. Through the social setting of parent-child play, parents are able to support their children as they practice decision-making, explore personal interests, and become more confident thinkers. According to Ginsburg, the context of parent-child play is important to children’s burgeoning intellectual development and is essential, especially as children learn to read and write.

The National Institute for Child Health and Human Development (NICHD), Study of Early Child Care (NICHD, 1998) examined the influence of parent-child play, specifically studying the teaching and scaffolding strategies mothers incorporate into

their play with their toddlers. In the NICHD study, mother-toddler dyads were asked to play with three individual toys. The mothers in the study were analyzed on maternal sensitivity, responsivity, intrusiveness, and cognitive stimulation. According to study results, mothers who displayed greater levels of sensitivity, contingent responsivity, attention, and cognitive stimulation during their play episodes had children who performed better on the child outcome measures. A particular strength of this study was that trained assessors observed mother-child dyads as they interacted with the activities. As the methodology of the study included first-hand observations of mother-child play, the researchers were able to alleviate some of the possible validity issues associated with parent report.

According to play research, the level of parent participation in child play influences the language and literacy development of young children. However, the role of the child in parent-child play is equally important. It is possible the level to which the child is engaged in the play and the language the child brings to a play episode also impact the language and literacy development of that child. Therefore the relationship between a parent and child during play episodes takes on an important role in understanding how parents influence their child's language and literacy learning through play.

### *Parent-Child Writing*

In addition to the storybook reading and play contexts, parent-child interactions surrounding writing also positively influence a child's learning development. In the research literature, parent-child writing is cited as an effective activity to foster the

developing literacy skills of young children (Ritchey 2008; Neumann, Hood, & Neumann, 2009). However, the context of parent-child writing has not garnered the same level of research attention as shared storybook reading or even parent-child play (Aram, 2008; DeBaryshe, Buell, & Binder, 1996; Neumann & Neumann, 2010; Ritchey, 2008). The studies that focus on parent-child writing, especially writing with young children, often discuss how parents foster children's emergent writing skills in the home environment (Aram, 2008; Aram & Levin, 2002; Neumann, Hood, & Neumann, 2009; Neumann & Neumann, 2010). Emergent writing, according to Neumann and Neumann (2010) includes developing an understanding of the function of print, the use of scribbling, pretend writing and invented spelling, copying environmental print, and linking letters to sounds during writing. The authors concluded that the role of parents in a child's emergent writing development is quite important.

In the studies that examine parent-child interactions focused on emergent writing, parents often offer a great deal of scaffolding support for their children throughout parent-child writing tasks (DeBaryshe, Buell, & Binder, 1996; Neumann, Hood, & Neumann, 2009; Neumann & Neumann, 2010). Often parents concentrate heavily on assisting their young children in the mechanics of writing (Aram & Levin, 2002; Neumann & Neumann, 2010). Aram and Levin (2002) found that parental assistance in child emergent writing often includes supporting and guiding a child's hand while writing letters and words, modeling writing a word while urging the child to copy it, and producing letter sounds and words for the child to write.

Current research examining parent-child writing has been informative; however, more research must be conducted looking at diverse samples. Neumann et. al., (2009)

used a single case study for their research and Aram and Levin (2002) included only low-SES mothers and their children. Research including larger sample sizes across various SES groups may provide additional insight into how parents influence their child's writing above and beyond assisting with writing mechanics.

Parent-child storybook reading, play, and writing have an established reputation in the research literature as being advantageous to early literacy and language development. However, children do not acquire proficient literacy and language knowledge by participating in a single literacy activity; parent-child literacy and language learning occurs across multiple contexts and activities (Neuman, 2000; Neuman & Gallagher, 1994). Studying only one literacy-learning activity, therefore, provides a less comprehensive view of how parents and their children interact with literacy in the home environment.

#### *Parent-Child Learning Across Multiple Activities*

There are studies that compare parent-child literacy learning in the home environment across two literacy contexts (Aram & Levin, 2002; Neuman & Gallagher, 1994; Sorsby & Martlew, 1991; Vandermaas-Peeler et. al., 2009; Wood, 2002). For example, Vandermaas-Peeler and colleagues (2009) explored parent-child interactions during a book reading and a play activity in the home. They found that regardless of social class (their sample was made up of families from low and middle-SES groups), both storybook reading and play are contexts in which parents provide high-levels of support and guidance and are activities in which parents and children are highly engaged. The researchers did find variation between the two SES groups regarding the degree to

which parents made connections between the book and play activities, and also in the number of questions parents asked. However, the researchers concluded that for both SES-groups, parents use storybook reading and play activities as a way to teach early literacy skills and bond with their young children. Neuman and Gallagher (1994) developed an intervention for teen mothers to coach the young mothers on the use of labeling, modeling, scaffolding, and contingent responsivity during play and book reading activities with their young child. Following the intervention, the researchers found mothers increased their use of labeling, scaffolding, and contingent responsivity with their child in both activities. In addition, the children in the study were more interactive in both the storybook and play activities once the mothers received coaching.

Aram and Levin (2002) examined mother-child literacy interactions in joint writing and storybook reading. They were specifically interested in maternal-mediation during reading and writing activities between parent-child dyads from low-SES families. According to their findings, maternal-mediation in both reading and writing activities positively impacts specific literacy learning skills, including phonological awareness and language development.

Although research focuses on parent-child literacy interactions across two activities, there are few, if any, studies that examine parent-child interactions specifically across book reading, parent-child play, and writing activities. According to Wood (2002), the range of literacy activities that take place between parents and children in the home environment is under researched. To date, accumulated research suggests that storybook reading, play, and writing promote children's engagement in literacy activities and their overall language development. Therefore, it is important to extend the current research by

examining how parents interact with their children across these three literacy activities specifically. In addition, it is possible that parents interact differently with their children during a book reading, play, and writing activity. To measure how parents interact with their children during and across these three activities, it may be beneficial to examine research-based parent behaviors known to influence child learning and language development. In the following section, I highlight specific parent behavior features that, according to the research, positively influence child learning and language development. To do this, I examine the different roles parents take on in their children's early learning.

#### *Roles of Parents in Parent-Child Learning Interactions:*

The research literature often identifies parents by the roles they enact during interactions with their children. These roles may vary based on the context of parent-child learning interactions or the theoretical perspective of the research. Two distinct parental roles typically described are parents as language models and parents as teaching/learning partners. Considering how the research literature defines these parental roles, including the specific parent behaviors usually associated with such roles, may provide a clearer understanding of parental influence on children's early literacy and language development.

#### *Parents as Language Models*

Language is at the heart of parent-child learning interactions in mainstream American culture (Cole, 1996; Lee & Smagorinsky, 2000). Consequently, one of the prominent parental roles that influences child development and learning is that of

language model. The early research literature highlighting parents as language models tends to focus on the speech of mothers. Research indicates that the speech patterns mothers use with their young children differ from the language they employ when speaking with adults (e.g. Broen, 1972; Newport, 1976; Snow, 1972; Snow, 1977). The term “motherese” has been used to describe the speech patterns that mothers use with their infants (Newport, 1976). Motherese is often characterized as highly intelligible, simple, short utterances (Landry & Smith, 2006; Newport, Gleitman, & Gleitman, 1977; Snow, 1972). The sensitive tones of a mother’s language expose infants to language that matches their newly developing communication skills (Cross, 1977). By presenting specialized and simplified speech, infants are better able to comprehend the language modeled by their mothers and, in turn, begin to employ similar speech.

Over time, parents adapt their language to be responsive to the age and development of their children (Cross, 1977; Gleitman, Newport, & Gleitman, 1982; Landry & Smith, 2006). Motherese often refers to parent language with infants (Gleitman, Newport, & Gleitman, 1982). Child-directed speech refers to the language patterns of caretakers with their young children (Brodsky, Waterfall, & Shimon, 2007; Kempe, 2001; Rowe, 2008). Features of child-directed speech tend to include longer utterances with more complex vocabulary (Beals & Tabor, 1995; Cross, 1977; Hoff, 2003). Thus, the language interactions between parents and their children can be viewed as a series of language lessons in which parents model the mechanics of language while presenting vocabulary and informational content (Cross, 1977). From such language lessons, young children begin to decipher language syntax and semantics. Through child-

directed speech, parents model more complex language and vocabulary for children, enabling the children to advance their own language and vocabulary skills.

Specific features of child-directed speech are represented in the research literature as influencing the language and literacy learning of children. These features include the quantity and variety of parental speech (Hart & Risley, 1995; Hoff, 2003; Huttenlocher, Haight, Bryk, Seltzer, & Lyons, 1991; Minami, 2001), sophisticated labeling (Beals & Tabor, 1995; Gellman, Coley, Rosengren, Harman, & Pappas, 1998; Weizman & Snow, 2001), the use of repetitive language (Hoff-Ginsberg, 1985; Snow, 1972), and the use of decontextualized language (Siegel, 1993; Snow, 1986; Snow & Dickinson, 1991). All of these parent language features are discussed in the following section.

Hart and Risley (1995) conducted a longitudinal study on the quantity and variety of parent language in varying socioeconomic levels. They found that children with more affluent parents hear almost four times the number of words over a three-year time frame than do children living with parents from more impoverished backgrounds. In addition to hearing fewer words, children in poorer families experience a smaller variety of words. The researchers concluded that the quantity and variety of parental speech with young children impacts children's overall language development. Over time, as parents model language for their children, children, in turn, begin to use language patterns similar to their parents. According to Hart and Risley, for children from poor families, that means the use of fewer words and less variety. On the other hand, children from more advantaged homes develop larger vocabularies and speak more than their less-advantaged peers. While the work of Hart and Risley has garnered much attention, and rightly so, the

research findings are based on a relatively small sample of 42 families. While the findings are provocative, a larger sample size may have influenced the results.

Hoff (2003) also examined the quantity/variety of parent language with young children. Similar to the work of Hart and Risley (1995), Hoff explored the relationship between parental language quantity/variety and socioeconomic status (SES). The researcher examined 66 parent-child dyads during two sets of conversations recorded 10 weeks apart. Hoff found a strong connection between the quantity and variety of child-directed speech and SES. More affluent mothers produce a larger amount of speech, longer utterances, and greater variety in word type when compared to the speech of mothers with less socioeconomic advantage. Mothers who use longer utterances during narrative elicitations have children who incorporate complex words and sentences into their own speech. Further, Hoff (2003) argued that the quantity and variety of parent speech influences overall vocabulary acquisition. Parents who speak in longer utterances rear children who develop productive vocabularies at faster rates than children who are exposed to shorter parental utterances. According to the researcher, greater parent word quantity and variety not only shapes the complexity of child speech, but also influences the overall rate at which children acquire new words and syntactic knowledge. However, it is important to note that these findings are based on only two recorded episodes of conversational speech. The researchers did not examine the effects of parent speech over extended periods of time and multiple (more than two) conversational episodes.

According to the research discussed above, the quantity and variety of parental language can often directly influence child language development. Therefore, the role of parents as language models, especially in how they model language quantity and variety

for their children, can have lasting effects on their children's overall language and learning development.

In addition to the quantity and variety of parental speech, the level of sophistication in parental speech can also have an impact on child language and learning development. Beals and Tabors (1995) argued that a strong connection exists between the number of sophisticated words a child hears in the home environment and that child's overall vocabulary knowledge. Children who encounter sophisticated labeling at a young age tend to have advanced vocabulary repertoires. Weizman and Snow (2001) maintained that young children's language and vocabulary knowledge is affected more by ample encounters with sophisticated vocabulary than by overall language input. Therefore, the degree to which parents incorporate sophisticated vocabulary into their parent-child language interactions often has a direct relationship to overall child language development.

Simply exposing children to sophisticated labels, however, may not be enough. Gelman and colleagues (1994) argued that parents who provide labels with explicit definition expansions supply multiple opportunities for their children to map meaning onto new words. They found that parents who identify a new word and pair the new word with informational speech pertaining to the label enable children to make a stronger connection between word and meaning. Therefore, when parents identify new words and provide expanded explanations/definitions, they allow their children to couple words with meaning. This affords children greater opportunities to incorporate new words into their vocabulary repertoires.

Similar to providing young children with labels and expansions, repetition and

paraphrasing are identified in the parent language literature as effective strategies for overall child learning and language development (Hoff-Ginsberg, 1985; Snow, 1972). The use of repetition and paraphrasing has been connected to greater word learning (Hoff-Ginsberg, 1985; 1986; 1990), as well as advanced language processing (Brodosky, Waterfall, & Shimon, 2007; Snow, 1972). Snow (1972) argued that the use of repetition and paraphrasing assists children in their interpretation of parent language. Parents who use consistent and redundant language provide young children with additional processing time. In addition, paraphrasing language exposes children to the understanding that units within an utterance can be manipulated while retaining overall meaning (Brodosky, Waterfall, & Shimon 2007). This language discovery may enable children to gain a deeper understanding of language structure, use, and overall meaning.

Finally, studies show that the level of decontextualization encompassed by child-directed speech improves the language and literacy skills of young children (Siegel, 1993; Snow, 1986; Snow & Dickinson, 1991). Such parental speech includes discussing the past and future or prompting children to consider hypothetical concepts and events. Parents who decontextualize (in this study I refer to decontextualized speech as generalizing language) their conversational speech move children to think and talk about the abstract or things that are not physically present. Siegel (1993) referred to such generalized speech as “distancing:”

Behaviors or events separate the child [individual] cognitively from the immediate behavioral environment. The behaviors or events in question are those that require the child [individual] to attend to or react in terms of the non-present (future or past) or the non-palpable (abstract language) (pg. 142).

Generalized speech requires children to think about concepts and events that are beyond the presently observable. Parents who incorporate distancing or generalizing speech into conversations with their young children, often have children with more sophisticated language skills (Dickinson & Smith, 1994; van Kleeck, Gillam, Hamilton, & McGrath, 1997) and advanced early literacy skills, including concepts of print and story comprehension (Reese, 1995; Snow & Dickinson, 1991; Sorsby & Martlew, 1991). Therefore, how parents incorporate generalizing language into their parent-child learning interactions in the home can have a lasting impact on child language and literacy learning and overall academic success.

Research indicates that specific features of parent language such as those discussed previously positively influence child learning and language development. It is important to note; however, that the role of the child in language and literacy learning is profound as well. While parents can be highly influential in their child's language and literacy development, the role of the child is equally crucial. Child motivation levels, responsivity, inquisitiveness, and many other factors may impact how a child learns and develops as well as how a parent interacts with a child. This dissertation focuses mainly, however, on the role of the parent, specifically on features of parent behavior that influence child language and literacy learning. While research supports each of these parent language features as being effective elements of parent speech, often this research focuses on a single feature of parent language without addressing the importance of others. For example, research concerning the quantity of parent language might not include a discussion of the effects of parental use of repetition and paraphrasing. Likewise, studies highlighting children's exposure to sophisticated vocabulary may not

convey the importance of extensions. Yet, analyzing the influence of multiple features of parent language such as those discussed above provides a more comprehensive picture of parents as language models.

### *Parents as Teaching/Learning Partners*

Thus far, my discussion of parent influence on early child language and literacy development has emphasized parents as language models. Research focusing on parents in this role often reflects a linguistic perspective. However, varying theoretical perspectives delineate the role of parents differently. Research from a sociocultural perspective, for example, focuses on parents as teaching/learning partners.

According to the sociocultural perspective, it is impossible to ignore the relationship between an individual and the environment (Rogoff, 1995; Vygotsky, 1978; Wertsch, 1991). Prominent theorist Lev Vygotsky (1978) stressed that children's learning and development must be understood as taking place within a social context. Within this social context, the interactions children have with more capable learning partners are what drive their cognitive development. "Learning is mediated first on the interpsychological plane between a person and other people... and then appropriated by individuals on the intrapsychological plane" (Lee & Smagorinsky, 2000, pg. 2). So just as it is impossible to separate the individual from the learning environment, one cannot negate the connection between the learner (often a child) and their learning partners (often parents). Rogoff (1990) explained parent-child learning as an apprenticeship-type relationship. The parents' role is that of teacher, since they are often more capable and skilled thinkers. Children take on the role of the apprentice, learning from their parents.

The apprenticeship relationship is one where parents guide their children through daily learning activities and interactions. Children then acquire knowledge from these learning interactions with their parents.

The role of parents in children's early language and literacy development often takes shape through the use of learning supports and teaching strategies (Landry & Smith, 2006). As teaching/learning partners, parents may call upon specific strategies to enhance and extend their children's learning. Such strategies include parents' use of scaffolding and how parents foster their child's growing autonomy during parent-child learning interactions. Both strategies are discussed below.

Perhaps one of the most prominent parent teaching/learning strategies highlighted in the sociocultural literature is scaffolding (Wood, Bruner & Ross, 1976). As learning occurs in the social context, parents are often viewed as more competent learning partners. Scaffolding the learning of young children then includes parents supporting and extending the learning of their children. Such support allows children to move beyond what they would be capable of doing on their own. To assist children in reaching higher levels of learning, parents can scaffold learning through commenting, questioning, and initiating learning activities (Snow, 1986). Research reveals that when parents scaffold their children's learning during writing activities, children benefit more from the overall writing encounter (Neumann, Hood, & Neumann, 2009; Neumann & Neumann, 2010). In addition, research supports parent scaffolding during storybook reading (Crain-Thoreson & Dale, 1999; McDonnell, Friel-Patti, & Rollins, 2003; Sulzby, 1985) and through parent-child play (Neuman & Gallagher, 1994; NICHD, 1998) as advantageous to child learning and development.

An important element of parent-child learning and scaffolding is working within a child's zone of proximal development. According to Vygotsky (1978), the zone of proximal development is the level at which, with appropriate adult support, a child is capable of successfully completing tasks he or she would not be capable of if working independently. The role of the parent as teaching/learning partner is to support the child to move beyond what he or she is independently capable of, thus, introducing him or her to higher levels of thinking and learning. Ideally, parents target their children's zone of proximal development, yet, gradually reduce their level of support as children become more advanced learners and thinkers (Pratt, Kerig, Cowan, & Cowan, 1988). Therefore, in addition to scaffolding children's thinking, it is necessary for parents to have a keen sense of when/how to foster their children's growing independence in thinking, learning, and life.

The manner in which parents foster their children's growing autonomy during learning activities can often be influenced by their specific parenting style. According to Baumrind (1991) there are four specific parenting styles that influence the child-rearing interactions of parents. Baumrind specified these parenting styles as indulgent, authoritarian, authoritative, and uninvolved. According to Baumrind, an indulgent parent places few restrictions on the child and allows him or her to regulate his/her own activities. The indulgent parent does little to exercise control or teach the child about external responsibilities and societal standards. In contrast, the authoritarian parent is highly restrictive and often values obedience over autonomy. The authoritarian parent may place less value on negotiation and explanation of behavior; rather, such parents often prefer the child simply accept what the parent does and says. The uninvolved parent

is often just that and may be slow to respond to his/her child or neglect to place demands, either positive or negative. According to Baumrind, the indulgent, authoritarian, and uninvolved parenting styles do little to prepare children for negotiating the social complexities of learning and daily life. However, Baumrind's fourth type of parenting, called authoritative, helps foster a child's growing independence while still teaching acceptable and appropriate behavior and boundaries. An authoritative parent encourages a child's growing independence and autonomy while focusing on discipline and desired behavior. Through authoritative parenting, parents enforce their own ideas and perspectives while fostering their child's interests and self-will. This type of parenting often allows children to develop appropriate behavior while fostering children's burgeoning sense of autonomy and independence. According to Morrison and Cooney (2002), authoritative parenting is often connected to greater academic success in children while non-authoritative parenting is often associated with poorer academic outcomes.

Lareau (2003) examined how parents encourage their elementary-aged children to develop confidence, self-assurance, and autonomy. In her work, she identified that parents who respect and follow the cues and ideas of their children often have children with not only greater levels of autonomy, but also children who have more sophisticated language abilities. According to Lareau, how parents foster a growing sense of autonomy in their children includes listening to what children say, negotiating with children, and responding positively to children's suggestions and desires.

Many of the parenting strategies found by Lareau to positively influence child language and autonomy coincide with Baumrind's (1991) authoritative parenting style. Thus, parenting style may directly influence how children develop independence and

autonomy. This autonomy, in turn, may impact the language and learning of children. While Lareau (2003) focused her work on elementary-aged children specifically, Baumrind's (1966; 1991) four parenting styles are based on her work with preschool children and adolescents. Further research focusing on how parents foster their young child's growing autonomy, especially in young children before they enter formalized schooling may shed additional light on this topic.

In sum, often during parent-child learning interactions in the home, parents can act as language models and/or teaching/learning partners. In each of these roles, parents can positively influence their children's early language and literacy development. Both parental roles can be examined through specific theoretical perspectives. The linguistic perspective often defines parents as language models for their children. According to the sociocultural perspective, parents can be seen as teaching/learning partners. Both viewpoints highlight specific parent behaviors as influential factors in child language and learning development. However, at times these parental roles and the parent behavior features within these roles are examined in isolation from one another. In an effort to provide a more complete picture of how parents influence the early language and literacy development of their children, it is important to simultaneously explore multiple parent behavior features that span theoretical perspectives.

The research-based parent behavior features discussed in this chapter are quantity/variety of parent language, labeling, generalizing language, repetition/paraphrasing, scaffolding, and fostering child autonomy. Studying all of these parent behavior features offers a more comprehensive analysis of how parents influence their children's early language and literacy learning in the home. Just as examining

multiple parent behavior features offers a more complete representation of parent-child interactions, it is equally beneficial to study multiple parent behavior features across various literacy activities. Doing so may extend what is currently understood surrounding parent-child literacy learning interactions in the home environment.

### *The Influence of Socioeconomic Status (SES) on Parent-Child Learning Interactions*

Socioeconomic status has a prominent place in the research examining how parents influence their children's early literacy learning (e.g. Biemiller & Boote, 2006; Hart & Risley, 1995; Heath, 1983; Neuman, 2006). Socioeconomic status is a factor associated with the variability in children's early language and literacy skills at the start of kindergarten (Carter, Chard, & Pool, 2009; Hart & Risley, 1995; Neuman, 2006). For example, at the beginning of kindergarten, children who attend Head Start preschool programs often fall short in vocabulary and early reading skills when compared to their more advantaged peers (Haskin & Rouse, 2005). Biemiller and Slonim (2001) identified a 4,000-word discrepancy in the root-word vocabulary knowledge of second grade children based on SES. Children in the lowest socioeconomic quintile had a root word vocabulary of 4,000 words, while students within the highest quintile possessed a root word vocabulary of 8,000 words. Sadly, this discrepancy increases throughout the primary and secondary grades, with children from poor families rarely able to close the gap (Juel, 1988; O'Connor, & Jenkins, 1999).

Lareau (2003) argued that SES in some way mediates how parents approach and view themselves in parent-child interactions. Based on her ethnographic home observations of families from various socioeconomic levels, she maintained that parents

from more affluent backgrounds tend to define their parenting roles by what Lareau (2003) termed “concerted cultivation” (pg. 2). Parents following the notion of concerted cultivation believe that in addition to meeting their children’s daily needs, their role as parents is to make a daily, concerted effort to cultivate their children in the areas of language, academics, and overall personality development. Lareau contrasted concerted cultivation to “accomplishment of natural growth” (pg. 3). From an accomplishment of natural growth viewpoint, parents tend to define their role more in terms of providing basic life-sustaining needs (food, shelter, love etc.) and less on fostering specific language, literacy, and personality development. According to Lareau, parents from lower socioeconomic backgrounds often follow the accomplishment of natural growth parenting approach. Parents who use this parenting style are less likely to employ research-based parent behaviors such as those discussed earlier in this chapter. Parents taking a concerted cultivation parenting approach, however, are more likely to enact these specific research-based parent behavior features known to positively influence child language and literacy development. Lareau’s work, however, is based on elementary-aged children and not children before they enter formalized schooling. It is possible that children are influenced by people and ideas encountered in the social context of school. Therefore, examining children who have not entered the schooling process might also be beneficial.

The influence of SES is also highlighted when examining research regarding the aforementioned parent behavior features. Hoff (2003) found that SES impacts the quantity and variety of parental speech. Mothers from higher socioeconomic households produce more utterances, more word types, and greater continuing replies when

compared to mothers from middle socioeconomic families. Also, examining the quantity/variety of parent language, Hart and Risley (1995) reported that children of professionals hear a greater number of words in a given hour than do children from poorer homes. Snow (1972) focused her work on repetition and paraphrasing and found that middle class mothers tend to organize their speech into simplified and redundant patterns, providing their children additional processing time. Mothers from low-income backgrounds are less likely to organize their speech using paraphrasing and repetition. In addition, Lareau (2003) showed that SES influences how parents foster their child's growing autonomies. Parents from higher SES backgrounds are more likely to foster their children's autonomy than are parents from lower SES backgrounds.

Although this chapter presents research establishing SES as a prominent factor in parent-child interactions, there are other variables that may impact how parents behave with their children during early learning experiences. The sociocultural learning perspective acknowledges that all learning is influenced by the social and cultural surroundings in which learning takes place (Rogoff, 1990; Vygotsky, 1978). According to this perspective, specific literacy learning practices occurring in the home environment can be strongly dictated and directed by the cultural and social norms found in that particular setting (Hammer, Nimmo, Cohen, Draheim, Johnson, 2005; Purcell-Gates, 1995).

SES is often associated with the social and cultural norms found within a given home environment. However, defining a parent-dyad solely by their SES can be misleading. More accurately, SES is one of many variables that can influence the parent-child behavior taking place in the home environment. There is little that can be done

about the SES of a particular parent-child dyad from an intervention standpoint however. Consequently, it may be beneficial to identify successful parent behavior features leading to child language and literacy development that are influential above and beyond the effects of SES. Implications from such findings could foster the development of parent training programs, language and literacy interventions, and supplemental curricula all aimed at alleviating the gap in language and literacy knowledge found at the start of kindergarten.

#### *Data Collection in the Home Environment*

Often studies that focus on early, in-home parent-child learning interactions rely on parent self-report rather than on in-home observations as a data collection method (Rashid, Morris, & Sevcik, 2005). For example, Wood (2002) examined parent-child in-home literacy activities including reading, singing activities, letter-based activities, and literacy games. Parents were asked to fill out an open-ended questionnaire pertaining to the type of activities they and their children participated in and indicate how often they engaged in these activities. In this research, parent-child literacy interactions were not directly observed. Other researchers have developed similar questionnaires that gather information on parent-child interactions in the home. Fantuzzo, Tighe, and Childs (2000) developed the *Family Involvement Questionnaire*, which is a scale measuring family involvement in early childhood education. Parents are asked to complete a 42-item scale that examines home-based involvement in learning activities, school-based involvement in learning activities, and home-school relationships. Again, this measure concentrates on parent self-report and does not include in-home observation of parent-child interactions.

*The Early Childhood Home Observation for Measurement of the Environment-EC-HOME Inventory* (Caldwell & Bradley, 1984) is designed to measure the level of support (quantity and quality) provided to a child within the home environment by his/her primary caregivers. This measure uses in-home observation of parents and children and includes an interview process. Although observation in the home is necessary to complete the *EC-HOME Inventory*, the measure does not include actual observations of parent-child literacy learning activities. Rather parents are asked to report on how they interact with their children.

The aforementioned measures are useful tools in further understanding the relationship between parent participation in child learning in the home and child development. However, some scholars have argued that actual observation of how parents engage with their children in literacy activities in the home environment is a more advantageous method of gathering data on parent-child literacy learning than is parent report on questionnaires (Dodici, Draper, & Peterson, 2003; Vandermaas-Peeler, et. al, 2009). Bus, van IJzendoorn, and Pellegrini (1995) concluded that self-reports as a method for gathering data pertaining to parent-child learning interactions may be less reliable than observations of actual parent-child learning interactions. They argued that a major pitfall to parental self-reports is the effect of social desirability. Parents may feel pressure to amplify their descriptions regarding literacy interactions with their children and may, therefore, not be as accurate as desired. Incorporating in-home observations of parent-child literacy interactions is important because such observations provide first-hand data regarding how parents interact with their children during literacy tasks.

## *Summary*

Throughout this chapter, research is presented supporting the importance of examining in-home learning interactions between young children and their parents. Early and appropriate language and literacy learning often provides children with a solid academic foundation. The influence of parents on children's early language and literacy development is scattered throughout the research literature (i.e. Carter, Chard, & Pool, 2009; Hart & Risley, 1995; Leseman & de Jong, 1998). The pivotal role of parent-child learning interactions within the home environment is shown to potentially outweigh factors found in the school environment (Al Otaiba & Fuchs, 2006; Carter, Chard, & Pool, 2009). Therefore, in order to better understand the role parents play in their children's early language development and learning, it is advantageous to explore specifically how parents and their children interact in the home environment.

In this review, I discussed the importance of examining multiple parent behavior features across several literacy activities. Focusing on a single parent-child literacy activity or one particular parent behavioral feature may not provide a comprehensive view of how parents influence their children's early language and literacy learning.

The research study described within this dissertation builds on the advantages of stepping inside the home environment to observe first-hand how parents and their children interact during and across three literacy activities. Multiple parent behavior features are examined in order to better understand the complex and influential relationship parents have in their children's early language and literacy learning. Through this research, it is possible to further illustrate the critical role of parents in children's early learning, the learning that takes place before children begin the formalized

schooling process. This may enable a better understanding of how children acquire knowledge from their parents in the home environment.

## **CHAPTER III**

### **Methodology**

Parents are children's first and most influential teachers. Therefore, the purpose of this research was to examine how parent-child interactions differ across three literacy activities. Of particular interest was how specific parent behavior during these activities might predict children's receptive and expressive language development. Therefore, investigating in-home parent-child learning experiences will prove fruitful in highlighting how parents influence their children's early language and literacy development. The study addressed two questions:

- How does parent behavior toward their children in the home environment differ across three specific literacy tasks?
- How does parent behavior toward their children in the home environment predict children's language ability?

#### **Sample**

The children for this study were recruited from a larger sample of preschoolers participating in a longitudinal research study conducted by the Ready to Learn Project, led by Susan Neuman. For the original longitudinal study, Neuman and her team created a supplemental vocabulary curriculum called the

World of Words (Neuman, Dwyer, Koh, & Wright, 2007). A goal of their research was to use the World of Words curriculum with preschool children from low-income backgrounds in an effort to increase their vocabulary skills, taxonomic vocabulary learning, and overall oral language comprehension.

In the fall of 2008, Ready to Learn team members and I launched the current study to examine the development of oral language skills as children learn to read and write in the home. A main focus of the study was to examine how parents and their children interact during specific literacy activities in the home environment. We were particularly interested in examining parent-child dyads from varying socioeconomic backgrounds. To create a socio-economically diverse sample, we randomly selected 20 children from four groups represented within the original Ready to Learn longitudinal sample<sup>1</sup>. Parents of the 80 children were contacted during the spring of 2008 and asked to participate in a home study that would be conducted during the 2008-2009 academic year. Included in the study would be three visits to the home. During these visits parents and their children would be asked to participate in literacy-related activities, standardized assessments of child language, and demographic surveys.

The parent-child dyads comprising the sample for the present study consisted of a kindergarten-aged child and his or her primary caregiver<sup>2</sup>. From the original 80 children randomly selected to participate, 72 parent-child dyads agreed and successfully

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<sup>1</sup> The original Ready to Learn longitudinal sample included children from four groups: Head Start treatment group (n = 294) and Head Start control group (n = 309), Great Start Readiness Program control group (n = 507), and private day care control group (n = 171).

<sup>2</sup> Parents of the sample child decided who was the primary caregiver in a family. That person became part of the study sample and participated in all of the home visits.

completed the home visits. For the remaining eight families, two families were excluded based on limited English skills, and six were excluded due to missing or incomplete data. All 72 sample families lived in Southeastern Michigan. The mean age for sample children was 5 years, 3 months; 44 children were female and 28 male. The mean age for parents was 35 years, 7 months; the group was comprised of 65 females and 7 males. Table 1 shows descriptives for the sample parents including ethnicity, education levels, and income.

**Procedure:**

We conducted three home visits for each of the 72 parent-child dyads in the sample. During these visits, we asked the dyads to participate in literacy-related activities, standardized assessments, and demographic surveys. My goal for this dissertation was to examine how parents interact with young children during and across three specific literacy activities found in what the design team called the Literacy Prop Bag. The Literacy Prop Bag activities -- a book reading, play, and writing activity-- are described below.

*Study Measures:*

*Literacy Prop Bag*

To observe and analyze parent-child literacy interactions in the home environment, the study team and I developed the Literacy Prop Bag. The concept of the Literacy Prop Bag was adapted after the Three Box Task developed by the National

Table 1

*Descriptives for Sample Parents*

Ethnicity	n = 72	%
Caucasian/White	35	48.5%
Black or African American	20	27.7%
Hispanic or Latino/a	2	2.8%
Asian/Pacific Islander	3	4.2%
Middle Eastern	2	2.8%
Mixed Race	4	5.6%
Other	3	4.2%
Not specified	3	4.2%

  

Education Level	n = 72	%
Post-graduate degree	14	19.5%
Bachelor's degree	11	15.3%
Vocational or Associates degree	17	23.6%
Completed some college	12	16.7%
High school diploma or equivalent	13	18.1%
Did not complete high school	5	6.8%

  

Average Household Income	n = 72	%
Greater than \$75,000	20	27.7%
\$74,999 - \$ 35,000	23	32.0%
Under \$ 35,000	29	40.3%

Note. Ethnicity was determined by parent-report on the Parent Survey. Three parents chose not to respond to this question on the survey. They are marked as "not specified" in the table.

Institute for Child Health and Human Development (NICHD), Study of Early Child Care (NICHD, 1998) and Neuman and Gallagher's (1994) intervention research.

The goal of the NICHD's Three Box Task (NICHD, 1998) was to analyze the strategies mothers employ to teach concepts and scaffold their 36-month old child's knowledge during a play-based session. During the Three Box Task, mothers were given three boxes, each containing a specific toy. They were asked to assist their child in playing with the toys for 15 minutes. From these 15-minute play sessions, researchers

assessed maternal sensitivity, responsivity, intrusiveness, and cognitive stimulation (NICHD, 1998, pg. 2). Neuman and Gallagher's (1994) intervention research focused on in-home literacy interactions between teen mothers and their young children. The researchers were specifically interested in the effect of maternal coaching on children's literacy play and cognitive development. Researchers coached the mothers in labeling strategies, scaffolding using modeling and demonstration, and contingent responsivity. Mother-child dyads were then given literacy-related prop boxes designed to foster literacy interactions such as reading and play. Through the intervention, the researchers analyzed the effects of maternal coaching on mother-child literacy play and on child literacy and language development.

For the present study, we adapted the Three Box Task (NICHD, 1998) and Neuman and Gallagher's (1994) literacy prop box intervention to develop the Literacy Prop Bag. The purpose of the Literacy Prop Bag was to capture and analyze parent-child interactions surrounding three specific in-home literacy activities. The selected tasks for the Literacy Prop Bag were reading a storybook aloud, playing with toys, and writing in a notebook. The materials for the Literacy Prop Bag activities centered on the topic of insects. We selected the topic of insects using knowledge gained from the original Ready to Learn longitudinal study. In the original Ready to Learn study, the World of Words curriculum focused on developing children's vocabulary knowledge through taxonomic learning. For example, in the World of Words curriculum, children were taught several key taxonomic properties of plants (e.g, all plants need water and sunlight to grow). Children were then presented with vocabulary words that did and did not represent plants to determine if their knowledge of plant properties enhanced their word learning ability.

The Ready to Learn team discovered that children do use and build on their current knowledge of taxonomies when encountering new words. For the Literacy Prop Bag, we chose the topic of insects based on our knowledge of how children learn vocabulary through taxonomies. We also considered insects to be age-appropriate and of interest to children. In addition, we wanted to examine how parents might approach the topic of insects during a storybook reading, play, and writing task with their children. The materials in the Literacy Prop Bag were:

- Canvas tote bag
- Children's trade book titled *Have You Seen Bugs?* by Joanne Oppenheim (1998)
- One small, unlined spiral notebook
- One pencil
- Three small markers
- Miniature, plastic toys (insects, mammals, frog, turtle, centipede, spider, scorpion, twigs, a flower, butterfly net, magnifying glass)

In the following section, I describe each of the three Literacy Prop Bag tasks in detail.

The three tasks were purposefully included because they examine a range of activities all considered to be essential to the literacy learning process. We were interested in examining how parent-child dyads interact during multiple learning contexts and during activities with varying levels of structure ranging from highly structured to non-structured.

The book task was selected to better understand how parents and their children interact in a more structured task. The book task was considered the most structured of the three activities and tapped into specific reading-related skills. The text itself, as well as the activity of shared book reading, offered parents varied levels of scaffolding. The text selected for the Literacy Prop Bag was the trade book *Have you Seen Bugs?*

(Oppenheim, 1998). We selected this particular book because its organization allows for a variety of language without a great deal of prompting. The book contains vibrant pictures and a rhyming format (see Appendix A for an excerpt from the text). For this activity, parents were asked to read with their child but were not required to finish the book. They were free to pick and choose how to proceed through the reading. Our goal was to allow for variability in how parents approached reading and sequencing the book. We believed parents would be most familiar and comfortable with a book reading task and requested that the parent-child dyads begin with this task.

We considered the play activity more open-ended. The goal for this activity was to examine parent-child interactions in a different context, specifically one that was less structured than the book activity. In the Literacy Prop Bag, parent-child dyads were given a bag of small plastic toys. The toys included insects (ant, bee, fly etc.), items that might be found in an insect's habitat (flowers, sticks, leaves), items used to examine insects (magnifying glass, butterfly net), and toys representing animals that were not insects (mammals, frog, turtle, centipede). The toys could be used however the parent and child wished. We were interested in how parents and their children might organize a play episode with toys relating to a book they had recently read.

Finally, to examine how parent-child dyads interact during a third learning context, we included a notebook activity. We viewed the notebook task as the least structured of the three activities. Parent-child dyads were given an unlined notebook, a pencil, and markers. The directions stated that the parent and child should end their 15 minutes with the notebook activity. No specific instructions were provided regarding how the notebook was to be used. Children were free to scribble, write, or draw.

### Literacy Prop Bag Parent Behavior Features

While observing the parent-child dyads during the Literacy Prop Bag activities, we examined how parents interacted with their children during and across the three literacy contexts. To analyze parent behavior, we identified six parent behavior features considered to be influential, research-based elements of parent-child interactions (e.g., Beals & Tabor, 1995; Hart & Risley, 1995; Siegel, 1993; Vygotsky, 1978). The parent behavior features captured elements of parent language, parental assistance, and parent-employed teaching strategies (see table 2 for a list of the parent behavior features). The goal for the parent behavior features was to examine how specifically parents interacted with their children during structured and less structured tasks designed to elicit language and literacy development. We used the parent behavior features to analyze parent interactions with their children during these tasks. Following are descriptions of the parent behavior features for this study:

- *Labeling*: The labeling parent behavior feature explores the degree to which parents label, describe, and define vocabulary words and concepts. We considered basic labeling as simply naming an object. More advanced labeling included providing additional information about what the object was and what it did. A parent scoring low in the labeling feature provides few, if any, labels during each of the activities. In contrast, parents scoring high provide frequent labels, including extended explanations of the objects and words.
- *Generalizing language*: Generalizing language includes hypothetical thinking, discussion of the abstract or unobservable, cause and effect, and proposing alternatives. Parents scoring low on this feature refer only to the observable,

Table 2

*Literacy Prop Bag Parent Behavior Features*

Parent behavior features	Example
Labeling	<i>This is an insect. You can tell because insects have six legs.</i>
Generalizing words/concepts	<i>Do you think these lady bugs could live in our garden during the winter?</i>
Repetition and paraphrasing	<i>Antennae help the ant communicate with his friends. They help ants talk to each other.</i>
Scaffolding	<i>Why don't we sort the toys? Which ones are insects and which ones aren't?</i>
Parent's fostering child autonomy	<i>Oh, it looks like you want to draw in the notebook. Should we put the toys aside? What do you want to draw?</i>
Quantity and variety	<i>Here she disguised herself as a leaf. She was camouflaging herself so her enemies would not capture her.</i>

while parents scoring high frequently incorporate discussions of the abstract and unobservable.

- *Repetition/paraphrasing:* In the repetition/paraphrasing feature, we examine the level to which parents use repetition and paraphrasing as an effective way to reinforce instructions, main ideas, and concepts. For paraphrasing, we were concerned with how parents restate ideas or instructions in alternative ways in order to clarify meaning for their child. While repetition is important, we considered paraphrasing to be the more effective method of clarification.

Therefore, we were most interested in how parents incorporate paraphrasing into their parent-child interactions. A parent scoring low on this feature makes little or no attempt to repeat or paraphrase their language. Parents scoring high on this feature paraphrase instructions, concepts, and main ideas throughout conversations with their children.

- *Scaffolding*: The focus of this parent behavior feature is on the parent's purposeful teaching. It measures the extent to which parents engage their child in various activities with the intent to support the child's learning, development, and achievement. The purpose of scaffolding is to assist the child in higher-level thinking and/or more sophisticated activities, which the child might not be capable of doing on his/her own. A parent scoring high on the scaffolding feature appears to make a conscious, deliberate effort to assist the child, expanding the child's language, thinking, learning etc. The parent's behavior with the child demonstrates the parent is taking advantage of the activity as a learning experience. A parent scoring low in scaffolding does not appear to make conscious, explicit efforts to stimulate or engage the child during learning episodes. The parent may not recognize that a learning opportunity exists and does little to foster a more advanced learning experience for the child.
- *Fostering child autonomy*: The fostering child autonomy feature measures how parents respond to their child's cues. It reflects the degree to which parents recognize and foster their child's ideas, opinions, and individuality. A parent scoring high on this feature acknowledges and follows the lead of the child. This could include negotiating rules with the child and verbalizing his/her

acknowledgement of the child's intentions. A parent scoring low, on the other hand, follows his/her own agenda, exerting his/her expectations on the child, while ignoring the child's cues.

- *Quantity/variety*: The quantity/variety feature examines the type and variety of language parents use when speaking with their child. We were interested in the type of words (“enormous” vs. “big”; “marvelous” vs. “good”) parents use with their children, as well as the variety of language parents incorporate into their conversations. A parent scoring low on the quantity/variety feature uses simple phrases and commands. Parents scoring high on this feature use more elaborate sentences, including sophisticated vocabulary.

Further explanations of the parent behavior features (including examples and instructions on scoring each feature) are found in the Literacy Prop Bag Administration Instructions Training Manual (see Appendix B).

### *Child Language Measures*

We also examined how parent behavior during the literacy activities predicted child language ability. To analyze the relationship between the parent behavior features and child language, we selected two child language measures, one for receptive language and one for expressive language ability. We believed it was important to examine both child receptive and expressive language ability since the children in this sample were at an age where their language was still developing. Often in young children, expressive and receptive language skills develop at different rates. Therefore, it is beneficial to analyze both expressive and receptive skills when examining early child language.

Children's receptive language ability was measured using *The Peabody Picture Vocabulary Test, Third Edition-PPVT-III* (Dunn & Dunn, 1997). *The PPVT-III* is a norm-referenced receptive language assessment that can be used with people ages 2 to 90. It is a standardized assessment that yields raw scores and standard equivalent scores related to national norms. Administration of the test included showing a child four pictures, then presenting a word. Assessors asked the child to point to the picture that best matched the stimulus word. The reported reliability for the *PPVT-III* ranges from .91 to .94.

To measure child expressive language, we used *The Woodcock Johnson Tests of Achievement-Picture Vocabulary subtest* (Woodcock, Johnson, McGrew, & Mather, 2001). *The Woodcock Johnson Tests of Achievement-Picture Vocabulary subtest* is a standardized assessment that measures expressive language ability in people ages 2 to 90. To administer the assessment, assessors showed the child a picture and ask him/her to verbally identify the picture. The reported reliability for the *Woodcock Johnson* standard battery of tests ranges from .81 to .94. Both the expressive and receptive child language measures were included in this study to analyze child language ability in relation to specific parent behavior features during literacy-related tasks in the home.

#### *Parent and Home Environment Measure*

We also examined aspects of the home environment and how parents interact more generally with their children in the home. To examine the home environment, the study team developed the Parent Survey. The Parent Survey includes items capturing demographic data, family resources, and parent-child activities in the home, community, and school setting. The Parent Survey is organized into six sections including:

- *Home Resources:* This section examines whether specific items such as child and adult reading/learning materials are present or absent in the home environment.
- *Community Resources:* Community Resources measures how involved the family is in activities outside the home, including trips to the library, zoo, or museum, as well as child participation in activities such as organized team sports, religious classes, and music lessons.
- *Family Activities:* In this section, information is gathered pertaining to the number of times per week parents participate with their children in reading and academic-related tasks, leisure activities, as well as other household activities such as eating together as a family.
- *Household Information:* In this section, parents are asked to provide demographic information including annual income, employment, parent education levels, parent age, and family ethnicity.
- *Home-School Connection:* This section examines whether and how often the parent is involved with the child's school activities.
- *Child Language:* This section focuses on the primary language of the child and whether the child is exposed to multiple languages in the home environment.

The Parent Survey contains 37 questions; however, many of the questions include multiple response options. Overall the total number of items on the Parent Survey is 126. During the home visit, the parent was asked to fill out the survey while the assessor interacted with the child. See Appendix C for the complete Parent Survey.

### *Study Piloting*

To examine the reliability and validity of the measures developed and selected for this study, the research team and I conducted pilot visits before beginning home visits for the 72 parent-child dyads within our sample. It was critical to determine if the Literacy Prop Bag was an appropriate measure for analyzing parent-child literacy interactions in the home environment. During the pilot visits, we observed how parent-child dyads interacted with the activities and materials included in the Literacy Prop Bag. We also examined the parent behavior features closely. It was essential that we determine whether the particular parent behavior features would be/could be observed and analyzed during the course of the Literacy Prop Bag activities. In addition, we administered the Parent Survey to determine if this measure assisted in learning about parents, their children, and the home environment.

Pilot visits were conducted with a sample of seven families. We purposefully selected parent-child dyads representing various socioeconomic levels in an effort to parallel the socioeconomic diversity represented within the study sample. During pilot visits, team members and I introduced the Literacy Prop Bag activities, observed parent-child interactions during the activities, and asked for feedback regarding Literacy Prop Bag procedures and materials. We also administered the Parent Survey. We asked parents to fill out the Parent Survey and provide feedback on item clarity and their level of comfort in providing personal information such as income level. The pilot visits were audio and video taped.

Following the pilot visits, we used the audio and video to code the Literacy Prop bag activities. We listened and watched the parent-child interactions and identified the

specific parent behavior features as they occurred in each of the three literacy activities. Observations and parent feedback were used to modify the Literacy Prop Bag materials, coding, and overall study procedures. Piloting was particularly important in the development of the Literacy Prop Bag Administration Instructions and Training Manual (Appendix B), as well as the Literacy Prop Bag Coding Form (Appendix D). As a team, we drew upon the pilot visit observations, video, and audio footage to further clarify parent behavior feature definitions, examples, and coding procedures. We also planned to use data and examples gathered during the pilot visits for assessor training.

During the pilot visits, we found the Literacy Prop Bag procedures and materials to be appropriate measures for examining parent-child literacy interactions in the home. The particular parent behavior features selected for this study were identifiable and observable during the parent-child interactions. We determined that through our coding process we could capture and score parent behavior during the activities. Parent feedback for the Parent Survey was favorable and we determined the measure captured elements of the home environment. Overall, the pilot visits provided positive feedback regarding our measures and study procedures.

#### *Assessors and Assessor Training*

A team of 10 assessors conducted the home visits for this study<sup>3</sup>. Assessors were selected based on their experience working with previous Ready to Learn research

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<sup>3</sup> Members of the study design team, including myself, were not part of the assessment team conducting the home visits for the 72 parent-child dyads. As we developed the study procedures and some of the measures we felt it would strengthen the validity of the study to have trained assessors gather the data who were not part of the study development.

projects or based on their experience working with children and families. For this study, five of the assessors worked previously on Ready to Learn research projects as data collectors. They were originally hired based on their experience working with children in the elementary school system either as teachers or administrators. In their previous work with Ready to Learn, each of these five assessors received training in research methods and data collection and gathered data for other Ready to Learn research projects. The remaining five assessors were hired specifically for this project. Two of the assessors were previous elementary school principals and the other three had several years experience as classroom teachers. All five of the newly hired assessors had master's degrees or were currently working on a master's degree.

The 10 assessors attended a two-day training session conducted by the Ready to Learn design team and myself prior to beginning the home visits. During these sessions, assessors received training on how to conduct research in the home environment. Specific research training topics included building rapport, privacy, and professionalism. In addition, assessors were given training on how to administer the two standardized language assessments and the Parent Survey. They were provided with time to practice administering each of the aforementioned assessments on each other. We also provided extensive training on the Literacy Prop Bag procedures and parent behavior features. We reviewed and discussed the Literacy Prop Bag Administration Instructions and Training Manual and the Literacy Prop Bag Coding Form thoroughly. Each of the Literacy Prop Bag parent behavior features was defined and supported with multiple video examples. In addition, assessors viewed video segments and were given opportunities to discuss and practice coding the parent behavior features.

Following the two-day training, assessors took a certification exam created by the Ready to Learn design team. On the certification test, 10 examples of parent-child interactions were provided representing specific parent behavior features selected for the study. Assessors were asked to identify which parent behavior feature the examples supported, as well as whether or not the feature was characteristic based on the example listed. The assessors were required to get all 10 certification examples correct. If an assessor did not accurately identify each of the 10 parent behavior examples they met with a research design team member and discussed the examples and the correct answers. They were then given another certification exam with 10 different examples. The assessors were again required to identify all 10 parent behavior feature examples correctly in order to pass the certification process. All of the assessors passed the certification test on either the first or second attempt.

Once the assessors passed the certification test, they were sent on practice home visits with parent-child dyads that were not part of the study sample. The assessors went on two practice visits with a partner. One assessor was selected to administer the standardized child language assessments and the Parent Survey while his or her partner watched. The assessors switched roles for the second practice visit. In addition, the assessors administered the Literacy Prop Bag. While the parent and child interacted with the Literacy Prop Bag, both assessors observed and took individual notes. After leaving the home, assessors listened to the audio recording and individually coded the interactions. Members of the Ready to Learn study design team reviewed the Literacy Prop Bag coding for the assessor pairs and calculated reliability using the Cohen's kappa coefficient (Cohen, 1960). The kappas for all of the assessor pairs were then averaged to

determine overall reliability. The overall reliability for the assessors practice Literacy Prop Bag coding was .8. After the training and practice visits, assessors began the home visits for the 72 parent-child dyads.

*Home Visit Procedures:*

The data for this study were collected during the 2008-2009 year. The first home visit took place in November or December 2008, the second visit in February and early March 2009, and the third visit during May and early June 2009. Assessors contacted the families by telephone to schedule convenient times for the home visits. It was essential that the primary caregiver and kindergarten child be available for all home visits in order to collect the desired information and data. One assessor conducted a home visit for each parent-child dyad; the same assessor was assigned to complete all visits for a particular family.

*Home Visit One:* The two goals for the initial home visit were for the assessor to build rapport with the parent and child and for the assessor to gather demographic and background information pertaining to the family and the home environment. During the initial visit, the assessor asked the primary caregiver to complete the Parent Survey. While the parent completed the survey, the assessor spent time with the target child building rapport. Building rapport with the child was essential to enable a more comfortable and natural observation period during subsequent visits. Often, the child was asked to show the assessor his/her room or favorite toys. Assessors reported spending approximately 10 minutes with a child while his/her parent completed the Parent Survey.

After the parent completed the Parent Survey the assessor explained he/she would return for a second visit. Contact would be made via phone to establish the next appointment. The assessor thanked the parent and child for their time. Parents were given a gift card, and children were given a book to further express gratitude for their participation.

Home Visit Two: During the second visit, parent-child dyads completed the activities in the Literacy Prop Bag. The assessor outlined the Literacy Prop Bag procedures for the parent and child. According to Literacy Prop Bag administration guidelines, the parent and child were given a total of 15 minutes to complete the Literacy Prop Bag. Prior to beginning the activities, the assessor asked the parent to select a comfortable spot where he/she and the child could interact without being distracted. The assessor then read scripted instructions explaining the Literacy Prop Bag process and activities. The scripted instructions were developed to assist with fidelity (see Appendix E for the Literacy Prop Bag scripted instructions).

Directions for the Literacy Prop Bag were deliberately open-ended to allow freedom for exploration of materials, as well as the possibility for variation among the parent-child dyads. The only specific instructions given were that the pair was to begin with the book and end with the notebook. We assumed that parents would be most familiar with book reading; therefore, starting with this activity would be the most comfortable. If parents asked specific questions such as “What should we do with the toys?” or “Do we write in the notebook?” the assessors were instructed to respond in an open-ended manner, “You can decide what you want to do with everything in the bag.” The open-ended directions were given to allow parents to choose how to interact with the

activities and their children without a great deal of prompting from the assessors. The entire Literacy Prop Bag interaction was audio taped. In addition, we asked assessors to take observational notes on non-verbal interactions such as proximity between parent and child, facial expressions etc.

Following the Literacy Prop Bag, the assessor administered *The Woodcock Johnson Tests of Achievement-Picture Vocabulary subtest* (Woodcock, Johnson, McGrew, & Mather, 2001). We used *The Woodcock Johnson Tests of Achievement-Picture Vocabulary subtest* to measure the child's expressive language ability. The assessor and child found a quiet place in the home where they would not be interrupted. The assessor brought a laptop computer and administered the assessment using the laptop. The assessor was trained to administer the test and record the answers on the laptop computer. The child was not required to interact with the computer other than looking at the picture prompt on the screen and verbalizing what he/she saw. The assessor then typed the response given by the child. Following the standardized expressive language measure, the assessor explained that he/she would return for another visit and reminded the parent that contact would be made via telephone to arrange a meeting time. Parents were given a gift card and the children were given the items from the Literacy Prop Bag as a thank you for their participation.

Home Visit Three: There were two goals for the final home visit. The first goal was for the assessor to administer *The Peabody Picture Vocabulary Test, Third Edition-PPVT-III* (Dunn & Dunn, 1997). *The PPVT-III* measured the sample children's receptive language ability. The assessor and child found a quiet place in the home where they would not be

distracted. The assessor brought a laptop computer and administered the *PPVT-III* using the computer. Assessors were trained on how to administer and score the *PPVT-III* items using the laptop computer. The child was asked to look at the computer screen and point to the picture that represented the given prompt. The assessor then recorded the answer for the child using the computer keyboard. The second goal for the third home visit was to thank the parents and children for participating in the study and to tie up any loose ends.

Coding:

*Home Visit One:* The data collected during home visit one consisted of the Parent Survey. Following the visit, assessors turned the data over to the research team. A research team member examined the Parent Survey to determine whether the parent completed each item. Any items not filled in by the parent were coded as missing.

*Home Visit Two:* During the second home visit, assessors gathered data using *The Woodcock Johnson, Picture Vocabulary subtest* and the Literacy Prop Bag. Once an assessor concluded the second home visit and left the home, he/she used the observational notes and the audio recordings to complete the Literacy Prop Bag Coding Form (see Appendix D). Assessors listened to the audio recording as many times as necessary to code the activities. Assessors were asked to code the three Literacy Prop Bag activities individually using the six parent behavior features. Parent behavior features were scored on a four-point scale (1= not at all characteristic, 2 = weakly characteristic, 3 = moderately characteristic, 4 = very characteristic).

The Literacy Prop Bag coding was a two-step process. An assessor's first task was to determine whether a specific parent behavior feature was or was not characteristic for a particular parent within a given activity. Once that initial decision was made, the assessor focused on the finer distinctions. For example, when coding the labeling feature for a particular parent during the book activity, the assessor first determined if labeling was characteristic of that parent (where a score of 3 or 4 would be given) or not characteristic (receiving a score of 1 or 2). From this basic scoring, a more nuanced examination of the feature coding then took place. If the assessor determined labeling not to be a characteristic behavior of the parent during book reading, the assessor would then decide between a 1 or 2 (either not at all characteristic or weakly characteristic). If however, the assessor determined labeling to be a characteristic behavior of the parent during the book, the assessor would decide between a 3 or 4 (moderately or very characteristic). The assessor gave a holistic coding for labeling within the book activity, and then another score for labeling during the play activity, and a separate score for labeling during the notebook activity. Coding was conducted in this manner for all parent behavior features across the three literacy activities. For further explanation of parent behavior coding procedures see the Literacy Prop Bag Administration Instructions and Training Manual (Appendix B) as well as the Literacy Prop Bag Coding Form (Appendix D). In addition, Appendix F is an example of how a transcript might be coded for the six parent-behavior features. It was possible that a given parent-child exchange could be coded for more than one parent behavior feature. The coding example provided in Appendix F is meant to reflect how specific interactions could be and were coded for several parent behavior features. It is important to note, however, that assessors did not

code using typed transcriptions such as the one in Appendix F. Rather assessors listened to audio recordings and used their observational notes. Therefore, the example in Appendix F is provided for the reader of this dissertation, but does not represent an actual or complete coding form.

Once assessors finished the Literacy Prop Bag coding process, they turned all data from the second home visit over to the Ready to Learn team. The data turned over were the Literacy Prop Bag Coding Form, the *Woodcock Johnson, Picture Vocabulary subtest* computer assessment, and the Literacy Prop Bag audio recording. Team members checked the Literacy Prop Bag coding form to ensure it was filled out entirely. If any information was missing, assessors were contacted and asked to complete the coding process. A Ready to Learn team member also inspected the *Woodcock Johnson, Picture Vocabulary subtest* computer assessment to make sure it was complete.

*Home Visit Three:* Data collected for the third home visit included the *PPVT-III*. Once finished with the third home visit, assessors turned the *PPVT-III* computer assessment over to the Ready to Learn team members. Team members checked the computer assessment to make sure all information was included.

Once the data were collected for each of the 72 parent-child dyads, I began data analysis. In the following section, I provide an overview of my data analysis process. In chapter four I also discuss in detail my data analyses and findings for this research study.

#### Overview of Analytic Method

The analyses for this research study investigate parent-child interactions as they relate to two research questions. The first research question examines how parent-child interactions vary across three literacy-learning tasks. In the second research question, I examine relationships between parent behavior features and child language ability. To examine the data, I first used correlations to explore the relationships between my variables. I also analyzed descriptive statistics to describe and summarize how parents interacted with their children during and across the three literacy tasks. Finally, I used inferential statistics (analysis of variance and regression analysis) to examine parent behavior across the three literacy tasks and how parent behavior features predicted child language abilities. In the following section, I describe my analytic methods for each of my research questions.

*Question One: How does parent behavior toward their children in the home environment differ across three specific literacy tasks?*

In the first research question, I was interested in how parent interactions with their children vary across the three literacy tasks. Within the three literacy tasks, I examined the parent behavior features as they pertained to each of the literacy tasks. I also explored how the parent behavior features differed across the three activities. First, I examined correlations and descriptive statistics relating to the six parent behavior features in each of the three literacy tasks. Next, to test for significant differences in parent behavior across the activities, I conducted repeated measure analyses of variance. I used the six parent behavior features as dependent variables and the three literacy activities as the independent variables. I also included a dependent variable representing overall parent

behavior within each of the activities. To create this variable, I combined the parent behavior features within each of the three tasks into one overall parent behavior variable. For these analyses, I explored differences in overall parent behavior across the three literacy activities, as well as variations in the specific parent behavior features in and across each activity.

*Question Two: How does parent behavior toward their children in the home environment predict children's language ability?*

For the second research question, I examined how parent behavior during the activities predicted child language abilities. To measure child language, I analyzed both expressive and receptive language skills. I used *The Woodcock Johnson, Picture Vocabulary subtest* as a measure of child expressive language and *The Peabody Picture Vocabulary Test-Third Edition* to assess child receptive language. I conducted regression analyses to determine whether and how the parent behavior features predicted child language abilities. I analyzed the three literacy activities separately and ran two regressions for each activity, one using the *PPVT-III* as the dependent variable and one using the *Woodcock Johnson, Picture Vocabulary subtest* as the dependent variable.

In all regression models, I conducted two steps. In the first step, I entered the six parent behavior features as independent variables. In the second step of each regression, I included SES as a control variable. The influence SES has on both parent-child interactions and child language ability is well represented in the research literature. However, a compelling examination deals with how these parent behaviors might predict child expressive and receptive language when controlling for SES. By investigating how

specific parent behavior features influence child language while accounting for SES, I may possibly identify parent behaviors that remain positively predictive of child language while taking SES into consideration. Identifying parent behavior that positively predicts child language, when controlling for SES, could have lasting implications for language and literacy interventions and future parent literacy training.

To measure SES I created a socioeconomic composite variable by combining data concerning parent education levels and annual income. Included in the Parent Survey, which assessors administered during the first home visit, parents were asked to report their annual household income and primary caregiver's highest level of completed education. When examining the correlation data, I found a significant correlation between annual household income and primary caregiver's level of completed education ( $r = .66$ ,  $p < .001$ ). This strong correlation supported the development of a composite socioeconomic variable. To create this variable, I transformed each of the two variables (annual income level and primary caregiver education level) into standardized z-scores. I then added together the standardized z-scores for the two variables to create a continuous socioeconomic composite score. I used this socioeconomic composite score as a measure of SES throughout my data analyses.

Through the regression analyses described above, I explored the predictive relationship between the parent behavior features in each of the three activities and child expressive and receptive language abilities. In addition, I included SES as a control variable to investigate the predictive power of my parent behavior features when accounting for the role of SES on child language.

## CHAPTER IV

### Results

The purpose of this research was to examine parent behavior with their children during literacy tasks within the home environment. The analyses were designed to investigate parent behaviors as they relate to two research questions. The first question examines how parent-child interactions vary across three literacy activities. In the second research question, I ask how features of parent behavior predict children's receptive and expressive language abilities. To address these questions, I present correlations, descriptive statistics, analysis of variance, and regression results. Discussions surrounding these results will shed light on how parents influence their young child's learning in the home environment.

*Question One: How does parent behavior toward their children differ across literacy tasks?*

In the first research question, I examine whether parent behaviors differ across three literacy tasks. By drawing upon the parent research literature, I identified specific features of parent behavior essential to parent-child learning interactions. The specific behavior features were labeling, generalizing, repetition/paraphrasing, scaffolding, parental fostering of child autonomy, and quantity/variety of parental language. I then analyzed these parent behavior features across the three literacy activities.

According to observations and the audio recordings, while parent-child interactions during the book activity varied, for the most part, parents tended to read the story to their child while the child listened. On a few occasions the child read the story with parent assistance. Some parents engaged their children in conversations related to the story, while other parents simply read the book word for word. Many children commented and/or asked questions during the story. Parents varied on how they responded to their child's questions and comments.

Parent-child dyads were instructed to begin with the book and were also given toys that related to the book. Therefore, parent-child play interactions were inevitably primed by the content of the book as well as the toys provided in the Literacy Prop Bag. During the play activity, parents and children often associated the provided toys with the book, and some parent-child dyads related their oral language exchanges to topics in the book. Often parents and their children began the play activity by removing the toys from the bag and discussing them. At times the child directed the play and for others, the parent made suggestions. Although there was a great deal of variability among the parent-child dyads, common trends during the play activity were to create pretend scenarios with the toys, sort the toys into categories, and discuss the toys in reference to the book.

The notebook too was primed by the preceding activities. Often children wrote their names in the notebook, copied words from the book, or drew pictures. The pictures children drew often coincided with the book or the toys. However, because the directions were open-ended some children drew pictures that were not related to the theme of insects, the book, or the Literacy Prop Bag toys.

Parent-child dyads were given 15 minutes for the three activities and assessors gave a time warning after 8 minutes. There were two common patterns for how parent-child dyads managed their time. Some spent a great deal of time reading the book and when assessors gave the eight minute warning, parents and children then completed the remaining two activities. This resulted in the parent-child dyad spending more time on the book activity than on the other two activities. The other common pattern was for parent-child dyads to move quickly through the book and play activities and therefore find themselves with more time for the notebook activity. Most parent-child dyads followed the directions, which were to begin with the book and end with the notebook, but there were a few cases where dyads did not follow this direction.

In table 3, I present a correlation matrix for the six parent behaviors during the book activity. All of the parent behavior features during the book activity are positively

Table 3

*Correlation Matrix for Parent Behavior Features During Book Activity*

Parent Behavior Features	1	2	3	4	5	6
1. Labeling	-	.64***	.49***	.64***	.47***	.66***
2. Generalizing		-	.58***	.58***	.37***	.64***
3.Repetition/paraphrasing			-	.61***	.35**	.61***
4. Scaffolding				-	.54***	.69***
5. Fostering autonomy					-	.57***
6. Quantity/variety						-

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

and significantly correlated with each other. Correlations range between .35 and .69, showing that many of the parent behavior features during the book activity are highly related to one another.

Table 4 describes a correlation matrix for the six parent behavior features during the play activity. Unlike correlations for parent behavior features during the book activity, where all are significant, some correlations for parent behavior features during play are not. Repetition/paraphrasing is not significantly correlated to labeling, generalizing, and fostering autonomy. All significant correlations, however, are positive and range from .23 to .64.

Table 4

*Correlation Matrix for Parent Behavior Features During Play Activity*

Parent Behavior Features	1	2	3	4	5	6
1. Labeling	-	.36**	.17	.39**	.23***	.38***
2. Generalizing		-	.06	.52***	.37***	.49***
3. Repetition/paraphrasing			-	.42***	.12	.48***
4. Scaffolding				-	.39***	.64***
5. Fostering autonomy					-	.40***
6. Quantity/variety						-

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Finally, table 5 shows a correlation matrix for parent behavior features during the notebook activity. Similar to correlations in the play activity, some of the correlations between the parent behavior features during the notebook are not significant. The

Table 5

*Correlation Matrix for Parent Behavior Features During Notebook Activity*

Parent Behavior Features	1	2	3	4	5	6
1. Labeling	-	.40***	.41***	.30*	.23	.20
2. Generalizing		-	.36**	.50***	.41***	.51***
3. Repetition/paraphrasing			-	.32**	.27*	.32**
4. Scaffolding				-	.34**	.43***
5. Fostering autonomy					-	.41***
6. Quantity/variety						-

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

labeling parent behavior feature is not significantly correlated to fostering child autonomy or quantity/variety of parent language. All significant correlations for the notebook activity range from .27 to .51.

Next, in table 6, I present descriptive statistics for the parent behavior features in the book, play, and notebook activities. Included are total scores for each of the three tasks. To calculate each total score, I combined the parent behavior features from each activity. For example, to compute the total parent behavior score for the book, scores for each of the six parent behavior features within the book task were added together. I did the same when computing the total parent behavior score for the play task and, finally, the total score for the notebook task.

When analyzing the descriptive statistics provided in table 6 and comparing

Table 6

*ANOVA Results for Parent Behavior Features Across the Three Literacy Tasks*

Parent behavior features	Book	Play	Notebook
Labeling <sub>a***</sub>	2.61 <sub>b**</sub> (1.00)	2.93 <sub>c***</sub> (0.78)	2.39 (0.83)
Generalizing <sub>a***</sub>	2.44 (1.07)	2.54 <sub>c***</sub> (0.99)	1.99 <sub>d***</sub> (1.00)
Repetition/paraphrasing	2.08 (0.93)	2.11 (0.83)	1.99 (0.80)
Scaffolding	2.56 (1.01)	2.83 (0.93)	2.71 (0.86)
Fostering child autonomy <sub>a**</sub>	2.58 <sub>b***</sub> (1.03)	2.90 (0.98)	2.76 (1.09)
Quantity/variety	2.08 (0.93)	2.17 (0.81)	2.03 (0.77)
Total score for combined features <sub>a***</sub>	14.36 <sub>b**</sub> (4.75)	15.49 <sub>c***</sub> (3.64)	13.86 (3.67)

*Note.* Standard deviations appear in parenthesis below means. A subscript <sub>a</sub> indicates significant differences among the three activities; A subscript <sub>b</sub> indicates significant differences between the book and play activities; a subscript <sub>c</sub> indicates significant differences between the play and notebook activities; a subscript <sub>d</sub> indicates significant differences between the notebook and book activities; \*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$ .

parent behavior across the three tasks, scores appear highest within the play activity. The notebook activity presented the lowest mean scores, specifically for the generalizing (M = 1.99) and repetition/paraphrasing (M = 1.99) variables. Overall, parents tended to be more interactive (based on their higher mean scores) in the play activity than in either the book or notebook tasks.

Next, to test whether significant differences existed in mean scores across the three activities, I conducted repeated measures analyses of variance. I used the parent behavior features as the dependent variables and the three activities as independent variables. I included the total scores for each of the three activities as dependent variables in the analyses as well. Table 6 indicates that significant differences existed when comparing the total scores for parent behavior across the three activities,  $F(2, 142) = 8.20, p < .001$ . Post-hoc analysis using Fisher's LSD planned comparison revealed that significant differences existed between the book and play tasks ( $p < .01$ ) and between the play and notebook ( $p < .001$ ). In both cases, parents were more interactive (based on the higher mean score) with their children during play. I also analyzed each of the parent behavior features individually and whether significant differences existed across the activities for each of the parent behavior features. From these analyses, I found significant within-subjects differences for the labeling,  $F(2, 142) = 11.37, p < .001$ , generalizing,  $F(2, 142) = 12.50, p < .001$ , and fostering child autonomy variables,  $F(2, 142) = 5.21, p < .01$  (see table 6).

Post-hoc analysis using Fisher's LSD planned comparison revealed that for the labeling variable, significant differences existed between the book and play activities ( $p < .01$ ) and the play and notebook tasks ( $p < .001$ ). In both cases, parents engaged in greater labeling during the play activity than during the book or notebook activities. The following excerpt was taken from the study audio transcripts and highlights how one parent used labeling during the play task:

*Parent: Look [child's name] you can tell these are insects because they have how many legs?*

*Child: Eight.*

*Parent: That's a spider.*

*Child: Six*

*Parent: Yeah, spiders have eight and insects have six. We're bug scientists.*

In this example, the parent took the opportunity to identify the toy figures as insects. In addition, the parent extended the labeling by giving the child additional information pertaining to the label, "spiders have eight [legs] and insects have six [legs]."

For this parent behavior feature, I examined not only the degree to which parents identified words, but also whether and how parents extended their labeling. In the example above, the parent identified the toys by providing them with a label. In addition, the parent extended this labeling by supplying a scientific fact related to insects: all insects have six legs. By providing additional information attached to labeling, it is possible that parents better assisted their children in comprehending and perhaps remembering new labels.

Table 6 indicates that significant within-subject differences were also found in parent generalizing behaviors. For this study, "generalizing behaviors" refers to whether and how parents made connections from the observable to the non-observable when interacting with their child. For example, the following exchange took place during the play task:

*Child: Look! [Taking items out of the bag]*

*Parent: This is great, it is like we are suddenly in the rainforest.*

*Child: I wish we were in the rainforest, my mom would be screaming.*

*Parent: My dear, there are a lot of bugs in the rainforest, I can tell you that.*

Here, the parent made a connection between the observable, concrete toys the child was holding and the presently unobservable world of the rainforest. By referring to the rainforest, the parent extended the child's thinking surrounding the toys. Prompted by the parent, the child drew upon prior knowledge pertaining to the rainforest, something

she might not have done if the parent were not present. In addition, the child was able to think about insects not only as toys in front of her, but also make the connection that real insects often live in the rainforest and make her mother scream.

The following example demonstrates how a parent used generalizing language to assist her child in understanding a concept presented in the book:

*Parent: So here's a question, why do you think this butterfly has this big tongue?*

*Child: So it can eat.*

*Parent: Yeah, remember when we went to the Leslie Science Center?*

*Child: Yeah.*

*Parent: Remember the hummingbird?*

*Child: Yeah.*

*Parent: Remember it had a really long skinny beak?*

*Child: Uhum.*

*Parent: And what was that for do you remember?*

*Child: To pick things up.*

*Parent: Ummm, do you remember it was to go into flowers and get the nectar out.*

*Child: Huh?*

*Parent: Remember in Michelle's garden? What did you see the butterflies doing?*

*Child: Going into the flowers.*

*Parent: Exactly. I think he has a long tongue to get nectar out of the flowers.*

In this example, the parent referred to two presently unobservable experiences (a trip to the Leslie Science Center and Michelle's garden) to help activate the child's background knowledge surrounding butterflies. The parent discussed topics that were not readily observable, thus prompting the child to think in a more abstract manner

According to my findings, Fisher's LSD planned comparison post-hoc results pertaining to parent generalizing behaviors revealed significant differences between the play and notebook activities ( $p < .001$ ) and the book and notebook activities ( $p < .001$ ). In both cases, during the notebook activity, parents were least likely to make generalizing connections like the one in the examples above. In the following example, during a

notebook activity exchange, the parent refers to presently observable information in order to assist the child in drawing a picture:

*Parent: Here, see if you can draw a ladybug. Come on, okay, draw. Look on the book.*

*Child: Oh yeah, I got to see.*

*Parent: What color is it?*

*Child: It's red.*

*Parent: Red and what color?*

*Child: Red and black polka-dots.*

In this example, the parent refers the child to the presently observable picture of a ladybug in the book rather than discussing unobservable experiences like seeing a ladybug in the backyard. A lack of generalizing language such as this was most common during the notebook activity.

Finally, using Fisher's LSD post-hoc comparison, I found significant differences for how parents fostered their child's autonomy within the book and play activities ( $p < .001$ ). Parents were more likely to foster the autonomy of a child throughout the play activity than throughout the book activity. The following example from the audio transcripts highlights how a parent fostered a child's growing autonomy:

*Child: Mommy, I'm going like this. The bugs are playing in the middle...*

*Parent: Okay.*

*Child: And then one of the bugs got caught.*

*Parent: Oh no! Which bug got caught?*

*Child: Mommy, you have to find out.*

*Parent: Okay. Did I get caught? [Parent uses a pretend voice]*

*Child: No!*

*Parent: Did I get caught? [Parent uses a different pretend voice]*

*Child: No! [Game continues for several additional back and forth exchanges]*

In this example, the child was able to direct the play exchange. The parent responded to the child's ideas and cues, thus fostering the child's growing sense of autonomy.

According to analysis results, when compared to play, parents appeared less likely to

foster their child's autonomy while reading a book. The following example taken from the study transcripts describes an interaction during the book activity:

*Parent: Let's look at the book first.*

*Child: Oh. [Child plays with toy bugs]*

*Parent: Finish with that one. Let's see what we've got. Have you seen bugs?*

*[Parent reads the title of the book]*

*Child: Buggy. [While parent is reading child continues to play with toy insect]*

*Parent: Let's find the first page.*

*Child: They fly on you. [Continuing to play with toys]*

*Parent: All right ready? Have you seen bugs? [Parent continues to read]*

*Child: Have you seen bugs?*

In this example, the parent and child appeared to have separate agendas. The parent's attention was focused on reading the book, while the child was interested in the toys. The parent did not respond to the child's cues and continued to interact with the book. In the end, the child abandoned his play agenda and focused on what the parent was doing. The parent directed the exchange rather than fostering the child's autonomy by following his lead. While significant differences were found between the book and play activities in the fostering child autonomy variable, there were no significant differences between the book and notebook and the play and notebook tasks.

Results from the repeated measures ANOVA analyses did not reveal significant differences for the remaining three parent behavior features. Overall, these analyses reveal that while some parental behaviors remained consistent across the three literacy tasks, other behaviors varied. Specifically, parents differed in how they enacted labeling and generalization strategies with their children. The manner in which parents fostered their child's sense of autonomy varied as well.

*Question Two: How does parent behavior toward their children in the home environment predict child language ability?*

The second research question explores how parent behaviors during literacy interactions with children predict child language ability. Table 7 describes descriptive statistics for sample children’s receptive and expressive language. According to table 7, children tended to have higher expressive language scores (M = 109.46) than receptive language scores (M = 106.05). It is important to note that fewer children were tested in the area of receptive language because this assessment was given later in the study. Due to attrition, six of the sample children were not assessed in the area of receptive language. All sample children were assessed in the area of expressive language ability; however, this assessment was given during the second home visit. The *PPVT-III* was given at a later date.

For the next set of analyses, I examined relationships between the parent behaviors and child language. Specifically, I was interested in how parent behaviors within each of the three literacy tasks predicted child receptive and expressive language

Table 7

*Descriptive Statistics for Child Receptive and Expressive Language Assessments*

Child language assessment	Sample size	Mean score (Standard deviation)
Receptive ( <i>PPVT-III</i> )	N = 66	106.05 (15.29)
Expressive ( <i>Woodcock Johnson</i> )	N = 72	109.46 (14.11)

ability. To examine this, I regressed the parent behavior features on the *Peabody Picture Vocabulary Test, Third Edition-PPVT-III* and the *Woodcock Johnson Tests of Achievement, Picture Vocabulary subtest* separately.

I conducted separate regression analyses for the book, play, and notebook tasks. For each activity, I ran two regressions, one using the *PPVT-III* as the dependent variable and the other using the *Woodcock Johnson, Picture Vocabulary subtest* as the dependent variable. In all regression models, I conducted two steps. In the first step, I used the six parent behavior features as independent variables. In addition, in the original directions for the Literacy Prop Bag, parents were asked to spend a total of 15 minutes on the entire activity but were given no directions regarding how much time they were to spend on each of the three tasks individually. Therefore, variations existed in how much time parent-child dyads spent on each task. Recognizing that variations in time spent on the activity could impact language outcome scores, I included time spent (in seconds) on each task as a control variable in the regression models. In the second step for each regression model, I included SES as a variable. By controlling for SES, I was able to investigate the predictive effect of my parent behavior features on child language when taking SES into account.

Table 8 describes regression results for the book activity and child receptive language. According to table 8, the first step of this model significantly explained approximately 35% of the variance in child receptive language scores ( $R^2 = 0.35$ ,  $p < .001$ ). Also in the first step of the regression model, fostering child autonomy ( $B = 4.77$ ,  $p < .05$ ) and quantity/variety of parent language ( $B = 9.85$ ,  $p < .001$ ) were both

Table 8

*Regression Analysis for Book activity on Child Receptive Language (PPVT-III)*

Independent Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Constant	96.09	5.67		103.13	5.93	
Labeling	-5.52	2.46	-0.36*	- 4.28	2.37	-0.28
Generalizing	3.38	2.21	0.24	2.52	2.12	0.18
Repetition and paraphrasing	-2.13	2.43	-0.13	-2.40	2.30	-0.15
Scaffolding	-4.44	2.59	-0.29	-3.40	2.48	-0.22
Fostering child autonomy	4.77	1.99	0.32*	4.13	1.90	0.28*
Quantity and variety	9.85	2.95	0.60***	6.48	3.04	0.39*
Length in seconds	-0.00	0.01	-0.04	-0.01	0.01	-0.10
SES				5.43	1.95	0.36**
$R^2$			0.35***			0.43***

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

positive predictors of child receptive language. Labeling had a negative predictive relationship to child receptive language ( $B = -5.52$ ,  $p < .05$ ). The remaining three parent behavior features and time spent in seconds were not significant. I then included SES in the second step of this model. Here 43% of the variance in sample children's receptive language scores was explained ( $R^2 = 0.43$ ,  $p < .001$ ). When controlling for SES, fostering child autonomy in the book activity ( $B = 4.13$ ,  $p < .05$ ) and quantity/variety ( $B = 6.48$ ,  $p < .05$ ) both positively predicted the sample children's receptive language scores. When including SES in the model, the negative predictive

relationship between labeling and child receptive language was no longer significant. Again, time spent on the book activity did not have a significant relationship to child receptive scores, nor did the generalizing, repetition/paraphrasing, or scaffolding parent behavior features.

Next, I examined parent behavior during the book activity using child expressive language as the dependent variable and the parent behavior features during the book task as independent variables. According to table 9, the first step of this regression model explained almost 35% of the variance in child expressive language scores ( $R^2 = 0.35$ ,  $p < .001$ ). Fostering child autonomy ( $B = 3.94$ ,  $p < .05$ ) and quantity/variety of parent language ( $B = 8.97$ ,  $p < .001$ ) were both positive predictors of child expressive language. Again, as with receptive language, labeling during the book activity negatively predicted child expressive language scores ( $B = -5.84$ ,  $p < .01$ ). The second step of the model, when including SES, explained 50% of the variance in children's expressive language ( $R^2 = 0.50$ ,  $p < .001$ ). Parental fostering of child autonomy ( $B = 3.12$ ,  $p < .05$ ) remained positively predictive of children's expressive scores, while labeling still had a negative relationship to child expressive language ( $B = -4.26$ ,  $p < .05$ )<sup>4 5</sup>. SES played an important positive role in the sample children's expressive language ( $B = 6.89$ ,  $p < .001$ ) and when including SES in the second step, all of the predictive power attributed to the

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<sup>4</sup> To investigate whether high correlations between my parent behavior features might explain the negative betas in my regression analysis, I conducted additional statistical analysis. A CSCAR statistician and I ran a collinearity test available on SPSS and found that while there is multicollinearity between my predictor variables, it is not at a "serious" level. According to Cohen, Cohen, West, and Aiken (2003) a variance inflation factor (which is a measure of the impact of collinearity among variables in a regression model) of 10 or more is serious. I am between 2 and 3 for my various regression models.

<sup>5</sup> I also conducted a factor analysis in an effort to attend to the issue of multicollinearity between my parent behavior variables in my regressions. After running a factor analysis, all of my parent behavior features loaded into one variable.

Table 9

*Regression Analysis for Book Activity on Child Expressive Language  
(Woodcock Johnson-Picture Vocabulary Subtest)*

Independent Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Constant	100.15	4.97		109.07	4.86	
Labeling	-5.84	2.16	-0.41**	-4.26	1.94	-0.30*
Generalizing	3.34	1.94	0.25	2.25	1.74	0.17
Repetition and paraphrasing	-1.20	2.13	-0.08	-1.54	1.89	-0.10
Scaffolding	-3.04	2.27	-0.22	-1.71	2.03	-0.12
Fostering child autonomy	3.94	1.74	0.29*	3.12	1.56	0.23*
Quantity and variety	8.97	2.58	0.59***	4.70	2.49	0.31
Length in seconds	-0.01	0.07	-0.09	-0.01	0.01	-0.18
SES				6.89	1.60	0.49***
$R^2$			0.35***			0.50***

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

quantity/variety variable in step one was no longer significant. As for the influence of parent behavior on child expressive language during the book activity, there were no significant contributions from the generalizing, repetition/paraphrasing, and scaffolding parent behavior features for either of the steps. Time was also not a significant predictor during the book on child expressive language.

Overall, when examining how parent behavior during the book activity influenced child expressive and receptive language, regression analyses revealed that several of the

parent behavior features positively predicted child language even after controlling for SES. The level to which a parent fostered his/her child's autonomy had a positive predictive relationship to both child expressive and receptive language when controlling for SES. In addition, the quantity/variety of parental language positively predicted the sample children's receptive language when controlling for SES. Interestingly, parent labeling during the book activity remained negatively predictive of child expressive language when controlling for SES. While SES did take on some of the predictive power in the second step of the models, several of the parent behavior features continued to significantly predict child expressive and/or receptive language during the book activity.

In the next set of regression analyses, I examined parent behavior during the play activity. Table 10 describes regression analysis results for the play activity using child receptive language as the dependent variable. According to table 10, the first step of the regression model explained approximately 30% of the total variance in the sample children's receptive language ( $R^2 = 0.30$ ,  $p < .01$ ). Fostering child autonomy ( $B = 5.55$ ,  $p < .01$ ) and quantity/variety ( $B = 9.18$ ,  $p < .01$ ) positively predicted child receptive language scores. When adding SES in the second step of the regression model, the fostering child autonomy ( $B = 3.87$ ,  $p < .05$ ) and quantity/variety parent behavior variables ( $B = 6.81$ ,  $p < .05$ ) remained positively predictive of the sample children's receptive language. The addition of SES into the regression model helped to explain approximately 41% of the total variance in the sample children's receptive language in relation to the play task ( $R^2 = 0.41$ ,  $p < .001$ ). For receptive language during the play task, labeling, generalizing, repetition/paraphrasing, scaffolding, and time were not significant predictors.

Table 10

*Regression Analysis for Play activity on Child Receptive Language (PPVT-III)*

Independent Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Constant	96.92	8.46		103.40	8.08	
Labeling	-3.04	2.45	-0.15	-1.36	2.32	-0.07
Generalizing	-0.12	2.19	-0.01	-0.77	2.04	-0.05
Repetition and paraphrasing	-0.58	2.47	-0.31	-0.69	2.29	-0.04
Scaffolding	-4.08	2.62	-0.25	-3.91	2.43	-0.24
Fostering child autonomy	5.55	1.95	0.36**	3.87	1.88	0.25*
Quantity and variety	9.18	3.08	0.48**	6.81	2.95	0.36*
Length in seconds	-0.02	0.01	-0.21	-0.02	0.01	-0.21
SES				5.91	1.81	0.39**
$R^2$		0.30**			0.41***	

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

For the play activity, I also examined relationships between specific parent behavior features and child expressive language ability. Table 11 indicates that the first step of my regression analysis explained about 30% of the variance in child expressive language scores in relation to the play activity ( $R^2 = 0.30$ ,  $p < .001$ ). For this first step of the regression, fostering child autonomy ( $B = 5.68$ ,  $p < .01$ ) had a positive predictive relationship to child expressive language. This was the only parent behavior feature to have a significant relationship to child expressive language. When factoring SES into

Table 11

*Regression Analysis for Play Activity on Child Expressive Language  
(Woodcock Johnson-Picture Vocabulary Subtest)*

Independent Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Constant	86.60	7.44		93.75	6.81	
Labeling	-1.66	2.15	-0.09	0.19	1.96	0.01
Generalizing	1.13	1.93	0.08	0.41	1.72	0.03
Repetition and paraphrasing	0.60	2.17	0.35	0.47	1.93	0.03
Scaffolding	0.37	2.30	0.24	0.56	2.05	0.04
Fostering child autonomy	5.68	1.71	0.40**	3.82	1.58	0.27*
Quantity and variety	3.59	2.71	0.21	0.97	2.48	0.06
Length in seconds	-0.01	0.01	-0.08	-0.01	0.01	-0.08
SES				6.53	1.53	0.46***
$R^2$	0.30***			0.46***		

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

step two, fostering child autonomy ( $B = 3.82$ ,  $p < .05$ ) continued to be the only parent behavior feature to have a significant and positive predictive relationship to child expressive language. The second step of the regression explained approximately 46% of the variance in child expressive language during the play activity ( $R^2 = 0.46$ ,  $p < .001$ ). The remaining five parent behavior features along with time spent on the play activity, did not have a significant relationship to child expressive language scores.

Similar to regression analyses for the book activity, for the play activity, after controlling for SES some of the parent behavior features continued to positively predict child expressive and receptive language. While SES did take on some of the predictive power, fostering child autonomy remained positively predictive of child expressive and receptive language. The quantity/variety of parental language variable remained positively predictive of child receptive language.

Finally, I analyzed the predictive power of parent behavior during the notebook activity on child receptive language. Table 12 indicates that the first step of the model

Table 12

*Regression Analysis for Notebook Activity on Child Receptive Language (PPVT-III)*

Independent Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Constant	88.16	7.52		96.90	7.36	
Labeling	-1.45	2.41	-0.08	-2.86	2.25	-0.16
Generalizing	-0.87	2.28	-0.06	-0.77	2.09	-0.05
Repetition and paraphrasing	4.55	2.51	0.24	3.47	2.32	0.18
Scaffolding	-3.75	2.45	-0.21	-2.66	2.27	-0.15
Fostering child autonomy	4.86	1.80	0.35**	3.15	1.72	0.23
Quantity and variety	5.11	2.78	0.26	4.09	2.57	0.21
Length in seconds	0.00	0.01	0.02	0.00	0.01	0.03
SES				6.14	1.79	0.40***
$R^2$		0.27**			0.40***	

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

explained approximately 27% of the variability in child receptive language scores and parent behavior during the notebook activity ( $R^2 = 0.27$ ,  $p < .01$ ). Fostering child autonomy was a positive predictor of child receptive language ( $B = 4.86$ ,  $p < .01$ ). While the remaining parent behavior features and time were not significant. In the second step of the model, after adding SES as a control variable, fostering child autonomy was no longer a significant predictor of child receptive language. The second model in table 12 explained approximately 40% of the variance in child language scores ( $R^2 = 0.40$ ,  $p < .001$ ).

Next, I examined relationships between parent behavior during the notebook task and child expressive language. Table 13 indicates that in step one, one variable significantly explained approximately 27% of the variance in child expressive language scores ( $R^2 = 0.27$ ,  $p < .01$ ). The fostering child autonomy variable was a positive predictor of child expressive language ( $B = 5.10$ ,  $p < .001$ ). In the second step of the model, after controlling for SES, fostering child autonomy remained a positive predictor of child expressive language ( $B = 3.17$ ,  $p < .05$ ) The remaining five parent behavior features, along with time spent on the notebook task, did not have a significant predictive association to child expressive language ability during the notebook task. The second step of the model explained 46% of the total variance in child expressive language during the notebook activity ( $R^2 = 0.46$ ,  $p < .001$ ).

Regression analyses examining relationships between parent behavior and child language during the notebook task revealed that only one parent behavior feature had a significant relationship to child language. Parental fostering of autonomy had a significant, positive relationship to child expressive language even after controlling

Table 13

*Regression Analysis for Notebook Activity on Child Expressive Language  
(Woodcock Johnson-Picture Vocabulary Subtest)*

Independent Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Constant	90.06	6.60		99.90	6.11	
Labeling	-0.11	2.11	-0.01	-1.70	1.87	-0.10
Generalizing	0.12	2.00	0.01	0.24	1.73	0.02
Repetition and paraphrasing	2.96	2.20	0.17	1.76	1.93	0.10
Scaffolding	-3.71	2.15	-0.23	-2.49	1.89	-0.15
Fostering child autonomy	5.10	1.58	0.40**	3.17	1.43	0.25*
Quantity and variety	3.50	2.44	0.19	2.34	2.13	0.13
Length in seconds	0.01	0.01	0.11	0.01	0.01	0.13
SES				6.92	1.48	0.49***
$R^2$	0.27**			0.46***		

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

for SES. The remaining five parent behavior features did not significantly predict either child receptive or expressive language in the notebook activity after controlling for SES. As with the book and play regression results, throughout the notebook analyses, SES was a significant positive predictor for both child expressive and receptive language. When adding SES into the second step of every model, the variance explained in child receptive and expressive language scores increased, suggesting that SES, similar to what the research says, is indeed a powerful predictor of child language.

Overall, analysis for the second question reveals that specific parent behavior features remained positively predictive of child expressive or receptive language even after controlling for SES. For example, the fostering child autonomy variable positively predicted child expressive and/or receptive language for all three activities. After accounting for SES, parents who fostered their child's autonomy had children with higher language scores. Examples from the transcripts highlight how parents from different SES groups fostered their child's autonomy in the various activities. The first example is from a parent-child dyad from a lower SES background during the notebook activity:

*Child: Let's color the outside of his body red.*  
*Parent: Okay.*  
*Child: Mama?*  
*Parent: Hmm?*  
*Child: Inside of his body it looks like it is blood.*  
*Parent: This looks like the color of blood doesn't it?*  
*Child: Yeah. I want to use the spider.*  
*Parent: Do you want to draw anything else?*  
*Child: Let's draw a head. We need a head for him.*  
*Parent: Okay. So let's make a head like that.*  
*Child: No, it has to go big.*  
*Parent: Okay. Should we put some eyes on him?*  
*Child: Yeah. Now let's draw his an-teck-teez.*  
*Parent: His antennae?*  
*Child: Yeah.*  
*Parent: Okay.*

In this example, the parent followed the child's lead allowing the child to dictate the activity and lead the parent through her thinking. The child was not afraid to disagree with a suggestion made by the parent, and the parent willingly relinquished her idea and followed the will of the child. In another example, this from a parent-child dyad from a higher-SES household, the parent also followed the child's lead during the play activity, asking questions and commenting when appropriate:

*Parent: Tell me again, I didn't understand what you're saying.*

*Child: Mommy, I'm going like this. The bugs are playing in the middle and they didn't notice the old man walking. And they say I'm a old man want some food to eat?*

*Parent: Okay*

*Child: And then one of the bugs got caught.*

*Parent: In the bag? Who caught him? The old man?*

*Child: Yeah.*

In this example, because the parent allowed the child to direct the play, the child was able to share his ideas and do a lot of talking. In fact, in both examples, as the parent fostered the child's autonomy, the child in turn produced more language. In the first example, the child tried to use vocabulary words from the recently read book (such as the word "antennae"). Although the child mispronounced the word, the parent was able to provide the correct vocabulary. By fostering child autonomy, the parents also enabled their children to use and practice language.

In addition, I found the quantity/variety variable positively predicted child receptive language in the book and play activities, even after controlling for SES.

Taking an example from the study transcripts, we see how a parent used sophisticated vocabulary to explain an illustration in the book:

*Child: He's walking on the water?[Referring to a picture in the book]*

*Parent: He is.*

*Child: Walking on it?*

*Parent: Literally walking on it. Water has something called water surface tension.*

*Child: Yeah.*

*Parent: And he's light enough and he can spread his weight so that he can use that surface tension to stay on the water so he doesn't fall in. We're too big, we break through it.*

In this example, the parent took advantage of an illustration supplied in the book and the child's curiosity surrounding the illustration to explain the scientific concept of water surface tension. The parent's language included long utterances and sophisticated

vocabulary. Throughout this example and the entire transcript for this parent-child dyad, the parent seemed to view book reading as an opportunity to use and model language quantity and variety. Similarly, a parent from a lower SES background used quantity/variety to expand on a concept in the book:

*Parent: Can you see any with see through wings? You can see through it. They don't look like they are there.*

*Child: They light up?*

*Parent: Those would be the iridescent bugs. But where are the ones that have the wings that you can see through? There's one. See anymore? See them? It looks like they are not even there.*

In this example, the parent uses questioning and rare vocabulary, “iridescent,” to assist the child in thinking about the insects pictured in the book. In both examples, the parents’ modeling of this sophisticated and varied language enabled the children to hear new and sophisticated words and language. This in turn might assist them in their overall language development and ability.

I found that both fostering child autonomy and quantity/variety of parental language remained significant and positively predictive of child receptive and/or expressive language scores after controlling for SES. This finding suggests that although SES is a powerful predictor of parent behavior, even after accounting for SES differences, some parental behaviors predict higher child language scores.

### *Summary*

In this chapter, I examined two research questions that explored parent-child literacy interactions in the home environment. My overall goal was to analyze specific features of parent behavior and how these behavior features related to parent-child

literacy interactions. I also examined how parent behavior might predict child language scores. I found that parents did interact differently with their children across three literacy tasks. According to my results, they appeared to be most interactive with their children during the play task. I also found that parent behavior during specific literacy tasks did influence child receptive and expressive language. Even when controlling for SES, how parents fostered their child's autonomy and used quantity/variety in their language positively predicted child receptive and expressive language scores.

## **CHAPTER V**

### **Discussion**

This study was designed to examine parent-child interactions in the home environment during literacy learning activities. I was particularly interested in how parents interacted with their children during three tasks associated with children's literacy development. Research shows that variables present in the home environment may be more influential in child learning and development than variables in the school environment (Al Otaiba & Fuchs, 2006; Carter, Chard, & Pool, 2009). Consequently, the quality of the home learning environment for children is arguably a prominent predictor of children's language and academic success (Connor, Son, Hindman, & Morrison, 2005; Son & Morrison, 2010; Storch & Whitehurst, 2001). Therefore, I considered exploring how parents interact with their children during in-home learning experiences to be an essential topic of research.

For this study, I focused on two research questions. The first research question examined parent interactions with their children and whether parents differed in how they conducted themselves across three individual literacy tasks. The second research question focused on relationships between parent behavior with children during in-home literacy learning and child language ability. This chapter will first review the study's findings related to the two research questions, then discuss these findings and how they

support and extend the current research on parent-child interactions. Further, I will highlight areas for future research and discuss the limitations associated with the present study.

*Summary of Question One: How does parent behavior toward their children differ across three specific literacy tasks?*

The purpose of my first research question was to explore how parents interacted with their children during early literacy learning. According to my research findings, parent behavior differed across the three tasks. Specifically, significant differences arose when I examined overall parent behavior between the book and play activities and the play and notebook activities. In both cases, parents were most interactive with their children during the play task.

In addition, to explore variations in overall parent behavior across the three literacy tasks, I also questioned whether parents would enact the specific parent behavior features differently across the three activities. When examining the specific parent behavior features, I found significant differences for three of the six features of parent behavior. There were significant between-activity differences in how parents identified words during the literacy activities, in parent generalizing language, and finally, in how parents fostered their child's autonomy throughout the tasks. However, there were no significant between-activity differences for the repetition/paraphrasing, scaffolding, or quantity/variety parent behavior features.

Overall, findings for the first research question revealed the importance of examining parent behavior within and across three literacy-learning tasks. The analyses

for this first research question point to the importance of analyzing not only multiple parent behavior features, but also examining several early literacy-learning contexts.

*Summary of Question Two: How does parent behavior toward their children in the home environment predict child language ability?*

For my second research question, I examined how parent behavior with children during three literacy tasks predicted children's language ability. I was particularly interested in the role of SES and how it might possibly take on some of the predictive power attributed to the parent behavior features. Therefore, I controlled for SES in all of my regressions.

For the book activity, when examining receptive language, I found the quantity/variety of parental language and parental fostering of child autonomy were both positive predictors of child receptive language ability. This predictive relationship remained significant even after accounting for the influential role of SES. For expressive language and the book activity, the parental fostering of child autonomy variable was the only parent behavior feature to maintain a significant positive predictive relationship to child expressive language after controlling for SES. The quantity/variety variable decreased in significance after including SES in my regression model for expressive language during the book. Interestingly, how parents identified words during the book task had a negative predictive relationship to child expressive and receptive language. After controlling for SES, the labeling variable continued to have a negative predictive relationship to child expressive language during the book.

For the play task, I again found that the fostering of child autonomy and quantity/variety variables positively predicted child receptive language after controlling for SES. Also, during the play activity, when examining child expressive language, the fostering child autonomy variable, after controlling for SES, was the only parent behavior feature that positively predicted child expressive ability.

Finally, when analyzing parent behavior during the notebook activity, none of the six parent behavior features predicted child receptive language after controlling for SES. SES was the only positive predictor of child receptive language in this model. However, during the notebook task, the fostering child autonomy variable was a positive predictor of child expressive language after accounting for the predictive power of SES.

In sum, findings for the second research question reveal that in each of the three literacy activities, some of the parent behavior features selected for this study did have predictive relationships for child expressive and/or receptive language ability after controlling for SES. Findings for the second research question reinforce the importance of examining connections between parent behavior and child language ability during parent-child learning interactions.

#### *Implications of the Research:*

The findings for the two research questions presented above reinforce the value of examining and exploring early parent-child learning interactions in the home environment. My research supports and extends what is currently understood about parent involvement in home-based early learning episodes. Based on my findings, there are important implications for this research.

### Importance of Play

My findings suggest that parents engage in different behaviors across three literacy tasks. On the basis of this study, it appears that play is a useful context for parent-child interactions. This is a notable finding because traditionally the research literature highlights the context of parent-child storybook reading, while less often focusing on the benefits of adult-child play, especially in the areas of language and literacy development.

The Commission on Reading, National Academy of Education (1985) identifies book reading with young children as one of the most important activities parents can perform with their children to increase later reading success. Other research examines specifically how parents influence their children's learning and language development during reading stories (Bus, van IJzendoorn, & Pellegrini, 1995; Pellegrini and Galda, 1998; Scarborough & Dobrich, 1994; Vandermaas-Peeler, Nelson, Bumpass, & Sassine, 2009). In particular, research focuses on the parent-child storybook context as advantageous for vocabulary development (DeBaryshe, 1993; Sénéchal, 1997; Whitehurst, Falco, Lonigan, Fischel, DeBaryshe, Valdez-Menchaca, & Caulfield, 1988), parent scaffolding of child literacy and language knowledge (Neuman & Gallagher, 1994), and overall emergent literacy acquisition (Bus, van IJzendoorn, & Pellegrini, 1995; de Jong & Leseman, 2001). While storybook reading has an established reputation as a beneficial parent-child learning activity, some researchers caution that studying storybook reading alone is insufficient (Britto & Brooks-Gunn, 2001; de Jong & Leseman, 2001; Vandermaas-Peeler, et, al., 2009).

The findings of the current study reveal that parent-child play in the home is an influential context for early child language and literacy learning as well. However, it is

important to note that the play activity in the present study occurred directly following the storybook activity. The toys given to the parent-child dyads were related to the book as well. Therefore, the play activity was primed, to some extent, by the content of the book and book reading in general. Therefore, although play appeared to be a rich context for parent-child interactions, it is possible that coupling book reading and play may be a particularly advantageous learning activity.

Results from the current study support what is already understood in the research literature regarding the influential nature of play. Play is an important and prominent context for child development in myriad areas (Ginsburg, 2007; Piaget, 1962; Vygotsky, 1976). Specifically, this study supports and extends current research regarding the role of parents within the context of their child's play.

There are a number of studies that highlight the role of parents within the parent-child play context. In their critical analysis of play research, Roskos and Christie (2001) argue that parent-child play is an influential context for early literacy and language development. Through the social context of parent-child play, children are able to explore and practice the emerging literacy practices they see occurring in their world. Likewise, parents can introduce and model sophisticated language and literacy strategies for their children in a social setting. According to Roskos and Christie, the context of adult-child play is one that provides optimal opportunities for parents to foster child literacy and language strategies, skills, and knowledge. Ginsburg and the American Academy of Pediatrics (2007) argue that when parents join their children in play, they are given a "unique opportunity to see the world from their children's vantage point" (pg. 183). In addition, through play, parents are able to offer guidance and support while building

positive relationships with their children. Ginsburg also stresses that children benefit when academic learning and social-emotional learning are combined. The context of play enables parents to promote both academic learning and social-emotional development in a single context.

The findings from the current study can be useful in further understanding how parents behave with their children during in-home play activities. Specifically, this study suggests that the context of play is one where parents engage in sophisticated language with their children. Through the social context of the play task, results reveal that parents identified and explained sophisticated words for their children and used generalizing language more readily than during the other two literacy tasks. In chapter two, I discuss the role of parents as language models. According to the research literature, one of the most powerful ways parents influence their children's growing language skills can be by talking to their children and modeling language use (Hart & Risley, 1995; Hoff, 2003; Hoff-Ginsberg, 1985). Included in the research concerning parents as influential language models are the importance of labeling (Beals & Tabor, 1995; Gelman, Coley, Rosengren, Hartman, & Pappas, 1998) and the use of generalizing language (Morgan & Goldstein, 2004; Siegel, 1993). According to such research, the level to which parents introduce new and sophisticated words and discuss abstract concepts and ideas directly affects how children acquire language and literacy knowledge. The context of play may be one that stimulates and extends parent talk with their children in the home environment. Future research focusing particularly on parent language patterns with their children during play activities in the home environment would be beneficial. Such

research may highlight the relationship between parent language with children during play and child language and learning development.

In addition, the current research findings highlight the role of parents as teaching/learning partners with their children during play, especially in the area of fostering a child's growing autonomy. Research suggests that parents who foster their children's growing autonomy and independence help to create a strong foundation for their children's overall academic success (Baumrind, 1966, 1991; Lareau, 2003; Morrison & Cooney, 2002). Specifically, according to Lareau (2003), the degree to which parents actively foster their young children's developing autonomy is linked to greater language skills and assertiveness when children enter formalized schooling.

On the basis of this study, it appears that play is a beneficial context for parent-child interactions, especially with regard to how parents choose to cultivate their child's growing ideas, opinions, and interests. During play, as parents foster their children's autonomy, they help them develop as people and as learners. Consequently, fostering a child's sense of autonomy in many literacy activities, but especially during play, is critical. Further research focusing specifically on the connection between parent-child play and how parents foster their child's autonomy would be beneficial. Such research may uncover how parents foster their child's autonomy during play activities, and also how child autonomy is linked to early language and literacy development.

The results from this study reveal that parents engage with their children differently across the three literacy activities (book reading, play, and writing). Further, findings suggest the play activity was one where parents were more interactive with their children when compared to a book reading and writing task. This finding highlights the

important role of parents in child play. Consequently, future research concentrating on how parents participate and foster child language and literacy development, specifically during play activities, may prove fruitful in further understanding the influential nature of parents in early child learning in the home. In particular, because the play interactions were primed by a book reading episode and included play materials related to the book, it could be advantageous to further explore the connection between parent-child play relating to a recently read book.

### *Parental Role in Early Language Acquisition*

A second implication for this research deals with parent behavior during literacy interactions and the influence such behavior has on the language abilities of young children. Specifically, the study results reveal that several parent behavior features analyzed for this study do predict child language ability. Perhaps more important, these parent behavior features remained positively predictive after accounting for the role of SES.

There is a long-standing history of research exploring the pivotal role parents play in their children's developing language (Gellman, Coley, Rosengren, Harman, & Pappas, 1998; Hart & Risley, 1995; Hoff, 2003; Hoff-Ginsberg, 1985; Snow, 1972). According to such research, how parents interact with and speak to their children directly affects children's language development.

My study supports what is already understood about the importance of parental involvement in children's language development. Further, my findings also extend what is currently established in the research literature—most importantly, that several of the

parent behavior features selected for this study predict child expressive and/or child receptive language even after controlling for SES. In addition, the influence of the specific parent behavior features on child language ability varies across the three literacy activities.

According to research, children often learn from the language patterns of their parents (Beals & Tabor, 1995; Cross, 1977; Hart & Risley, 1995; Newport, Gleitman, & Gleitman, 1977). In their pivotal longitudinal study, Hart and Risley (1995) discovered that the quantity and variety of parent language directly affects the language acquisition of young children. Specifically, they found that children learn from and eventually model their language patterns after those of their parents. Hoff (2003) argued that the quantity/variety of parental language actually influences the rate at which children learn new vocabulary. Parents who talk to their children more and incorporate sophisticated vocabulary often have children who acquire new vocabulary at a faster rate. As I analyzed the parent behavior features, I found the quantity/variety of parental language was a positive predictor of child receptive language in more than one literacy activity. Specifically, in this study, parents who used more language, including sophisticated vocabulary, while playing with their children and reading a book, had children with higher receptive language scores.

There are many intervention research studies that explore the connection between the quantity/variety of parent language during book reading and child language development (e.g., Morgan & Goldstein, 2004; Neuman, 1996; Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994; Whitehurst, Falco, Lonigan, Fischel, DeBaryshe, Valdez-Menchaca, & Caulfield, 1988). For example, in their parent-child

reading research, Whitehurst and colleagues (1988) found that a home book-reading intervention encouraging parents to use sophisticated speech and specific language patterns while reading a book to their children resulted in advanced child language abilities. My results support what is currently understood about the relationship between the quantity/variety of parent language, specifically during book reading, and child language ability. In addition, I found that play was an advantageous context where the quantity/variety of parental language can influence child language ability. Although the effect of parental language on child language ability is strong, parents may not inherently understand that their language influences the language development of their children, especially during multiple literacy-learning tasks. Therefore, future research, including intervention studies and parent-training programs focusing specifically on the relationship between parent language and child language development, may provide useful data. It may be especially beneficial to examine the effects of parent language across multiple parent-child literacy tasks.

Another parent behavior feature from this study that influenced child language ability was the fostering child autonomy variable. How parents fostered child autonomy was a positive predictor of child expressive and/or receptive language. According to research, specific parenting roles (i.e., indulgent, uninvolved, authoritarian, authoritative) may assist or hinder parents in fostering their children's growing sense of autonomy (Baumrind, 1991). An authoritative parent often fosters his/her child's independence and autonomy by responding to the child's cues, participating in negotiating conversations, and following the child's lead. This type of parenting has been linked to greater language development and academic success for children (Lareau, 2003; Morrison & Cooney,

2002). My findings suggest that how parents foster their children's autonomy even at a young age during these three literacy activities influences children's overall expressive and receptive language. In all three literacy activities, parental fostering of child autonomy positively predicted child language ability to some extent. This finding extends what is currently understood about a parent's ability to influence their child's language while fostering his/her growing sense of autonomy. Supporting children's burgeoning independence does affect children's overall language ability. Consequently, fostering a child's autonomy is an important element of parent-child learning interactions.

The role of SES in how parent behavior influences child language development has also received a great deal of attention in the research literature (Dodici, Draper, & Peterson, 2003; Hart & Risley, 1995; Heath, 1983; Hoff, 2003). In my analyses for child expressive and receptive language across the three activities, I included SES as a control variable. In all my regression models, I found SES to positively predicted child language ability.

SES has been identified in the research as an important factor that influences how parents interact with their children in the home. For example, current research examines the relationship between SES and the quantity, variety, and sophistication of adult language (e.g. Beals & Tabors, 1995; Hart & Risley, 1995; Hoff, 2003; Morgan & Goldstein, 2004; Snow, 1972). This research suggests that the SES of a family directly affects how parents model and use language with their children. According to Hart and Risley (1995) parents from low-SES backgrounds often speak to their children less and use more simplified speech. In contrast, parents from more affluent backgrounds often speak more and use more sophisticated language. In turn, children imitate the speech

patterns of their parents. Lareau (2003) analyzed how parents foster child autonomy based on SES. Her findings revealed that parents varied the extent to which they made a concerted effort to foster child autonomy based on SES. The results within this dissertation also highlight the important connection between SES, parent behavior, and child language.

While it is difficult to ignore the prominent role SES plays in early parent-child literacy interactions in the home environment, especially the relationship it has to parent behavior and child language ability, an important finding in this dissertation is that two parent behavior features positively predicted child language even after accounting for SES. Specifically, fostering child autonomy and quantity/variety of parental language positively predicted child expressive and/or receptive language after accounting for the predictive relationship of SES. This finding is particularly exciting because when analyzing the home environment there is often little that can be done, from an outsider perspective, about the SES of a given household. However, the results for this dissertation reveal that parents positively influence their child's language ability by using language quantity/variety and by making a concerted effort to foster their child's autonomy. Intervention research and parent training aimed at these particular parent behaviors may help to alleviate some of the language discrepancies found at the beginning of kindergarten.

Interestingly, throughout my analyses, a significant negative predictor of child language ability was parent labeling during book reading. During the book reading task, when parents increased their labeling, child expressive and receptive language ability decreased. This is a surprising finding because much storybook reading research

examines the positive relationship between labeling and child language development (Coyne, Simmons, Kame'enui, & Stollmiller, 2004; Coyne, McCoach, & Kapp, 2007; Girolametto & Steigl 1996; Wasik, Bond, & Hindman, 2006). However, DeBaryshe (1993) argues that while storybook reading often facilitates child receptive and expressive language, it is possible that only when parents actively foster their children's expressive and receptive language skills during storytelling (by prompting children to retell the story, point to pictures, ask questions, make predictions, use new vocabulary etc.) do children's language skills develop. Examining my study transcripts may be beneficial in determining what specific words parents identified while reading and how parents stimulated their children's language skills throughout the book activity. Qualitative analysis of the book reading activity transcripts may provide additional insight into this negative predictive relationship.

Examination of parent behavior within and across three literacy activities further supports the influential nature of parent behavior on child language skills. The extent of this predictive relationship varies based on the specific parent behavior being analyzed and the task in which the parent and child are engaged. Overall, results from this study reveal that parental behavior during early literacy tasks in the home influences children's language acquisition and use even after controlling for SES. These findings support the essential role of parents in their children's early learning and development, especially in the learning that occurs before the onset of formalized schooling.

### *Study Limitations*

Although this study enhances what is understood about parent-child interactions surrounding literacy-related activities in the home, it does have some limitations. The researchers and I developed the Literacy Prop Bag, a set of activities designed specifically to better understand how parents and their young children interact during home-based literacy activities. The Literacy Prop Bag activities lasted for 15 minutes, and assessor observations and coding of this 15 minute time period yielded the Literacy Prop Bag data. While the data were informative and interesting, I cannot say with any certainty that the observed interactions represent the sample parent-child dyads' natural daily behavior. The research team and I designed the home visits. We provided parents and their children with activities and instructions, and assessors observed and audiotaped the parent-child interactions. The data gathered from these home visits may represent a proxy of parent-child interactions surrounding literacy activities but may not necessarily represent the natural interactions of the sample.

A specific goal of this study was to respect the personal nature of the home environment. We instructed assessors to be as unobtrusive as possible during the observation period. Although assessors took every possible precaution, it was impossible for them to go unnoticed in the home environment. The assessors' presence and their study of how parents and their children interact during the literacy activities most likely led the parent-child dyads to alter their behavior. In the future, it might be helpful to observe and analyze parent-child interactions during more natural contexts as well. While parents and their children would still be aware they were being observed, they would have the opportunity to interact during more natural, daily activities. It could be

advantageous to first observe parents and their children interacting as they typically would in their home before introducing the Literacy Prop Bag activities. Such observations could provide data on how parents and their children behave in more natural contexts in addition to information pertaining to parent-child interactions during the specific literacy activities.

The activities in the Literacy Prop Bag could also be considered a possible limitation of the study. While we considered each of the tasks as essential to the literacy learning process, the activities themselves may be problematic because they were predetermined for the parents and their children. The tasks selected for this research may or may not be typical for the parent-child dyads. The research team and I believed it was important for all parent-child dyads to participate in similar literacy activities during the observation period. This allowed for comparisons across sample subjects. Comparisons would have been difficult if each parent-child dyad had not participated in similar book reading, play, and notebook tasks. Still, it is important to keep in mind that the activities were not familiar to every parent-child dyad and, therefore, the behavior observed might not portray how parents and their children typically participate in literacy activities. In fact, the activities themselves prompted parent-child dyads to interact with literacy learning specifically. It is possible that not every parent-child dyad in the sample regularly participates in literacy learning activities in the home. Therefore, the very nature of the provided literacy tasks may have primed the parent-child interactions.

Another potential limitation is the sequence of the book, play, and notebook activities. Parent-child dyads were instructed to begin with the book and end with the notebook activity. While there was intentionality in sequencing the activities in this

manner, it is possible that parent-child interactions were influenced by the order of activities and the topic of the book and related toys. The play activity occurred directly following a book about insects. The toys were related to the topic of insects as well. Therefore, a play scenario that did not have the same priming may look very different. The same may hold true for interactions during the notebook activity. An informative future direction could be to counterbalance the activities to see how behavior might change based on whether parent-child dyads begin with the book, play, or notebook task.

Social desirability is another possible roadblock in my research. When subjects in a research study know their behavior is under investigation, they are often more likely to behave or reply in a way they feel is favorable or reflects what they believe the researcher wants to see. In this study, parents were asked to complete a Parent Survey. This measure gathered data pertaining to sensitive topics, including whether and how parents engage their children in learning activities and income and parent-education levels. Because parents knew their responses were part of a research study, they may have replied in a way they felt would be viewed favorably. In addition, parents and their children were observed and audio recorded in their homes. This too may have added to the social desirability effect. It is difficult to completely protect against social desirability when conducting research of this nature. However, it is important to be cognizant that the interactions observed and the information gathered might not represent what normally occurs in the home environment between a parent and child.

In addition, the study team and I did not specifically match the assessors and parent-child dyads based on gender and race. Most of the primary caregivers taking part in the study were women and all of the assessors were women. Therefore, there was a

fairly strong gender match between assessors and sample parents. However, the parents were not matched with an assessor of the same race. It is possible that had we done so, parents and children may have acted differently during the observations and assessments. This is a possible direction for future research and could add to the validity of the study.

A rather technical limitation of this dissertation is the formatting of the Literacy Prop Bag Coding Form (see Appendix D). Assessors were instructed to code each of the activities individually. However, the coding form was formatted so that for each parent behavior feature, assessors recorded their coding for all three activities on the same page. It is possible assessors were influenced by having the scores for previous activities in front of them. To alleviate this issue, the Literacy Prop Bag Coding Form could be formatted so that while assessors scored a particular parent behavior feature they did not have previous activity scoring in front of them on the same page.

Finally, the focus of this dissertation is on the influence parents have on their child's early learning. Therefore, I examined specific parent behavior features. However, the role of the child in parent-child learning interactions is equally important. I realize that by examining the role of the parent in this dissertation, I do not completely represent the reciprocal nature of parent-child learning. How children respond and prompt their parents during learning episodes can be quite powerful and informative. In future work, I believe examining both parent and child behavior features may present a more complete understanding of the influential and reciprocal nature of parent-child interactions during early learning in the home.

### *Future Directions*

While there are certain limitations to this study, through further research, I could expand upon my current data and findings. First, my results are based on quantitative analyses and qualitative examples. Through my quantitative analyses, I explored specific parent behavior features during literacy activities with children. I also examined the predictive relationship between parent behavior features and child language ability. I included qualitative examples to support my quantitative findings. However, exploration of my data using more nuanced qualitative analysis of the study transcripts would be advantageous. Such qualitative analysis may uncover possible patterns in parent language and interactions not captured through my Likert scale coding and quantitative analyses. With my quantitative findings and further in-depth qualitative analysis of the Literacy Prop Bag transcripts, I believe the study results could create a more complete and representative picture of parent-child interactions surrounding literacy activities in the home.

Another future direction for my research could be to replicate the current study, focusing instead on parents and their children with special needs. In addition to studying parent interactions with children who are developing typically, I believe it is equally important to understand how parents and their young children with special needs approach literacy learning in the early years. It may be interesting to examine a range of disabilities, or I could focus on one particular disability. An area of specific need is to examine parent-child literacy interactions in children with speech and language impairments. Often children with speech and language impairments have difficulty with the literacy learning process (Nathan, Stackhouse, Goulandris, & Snowling, 2004).

Exploring how parents and their children with speech and language impairments approach the three literacy tasks in the home environment could prove quite informative.

It is also important to use the data I gathered during this current study, as well as any data from future research, to develop parent-training interventions. Due to the gap in children's language and literacy skills present in young children (Biemiller & Boote, 2006; Biemiller & Slonim, 2001; Haskin & Rouse, 2005; Neuman, 2006), specific early literacy interventions may help to alleviate the language and literacy disparities in young children. Because these gaps are present at the start of kindergarten, interventions for parents and children in the home environment may be most beneficial. Specifically, a literacy intervention training parents how to use the specific parent behavior features included in this study across multiple literacy activities might be an advantageous endeavor. By coaching and training parents and their children in home literacy development, it may be possible to better equip children with the proper literacy knowledge they need at the start of formalized schooling. However, it is often difficult to control what happens in the home. Therefore, using the knowledge gained from this study and other research, developing supplemental language and literacy curriculum for preschool and kindergarten teachers also makes sense. Targeting children both in the home and in the classroom could be a viable avenue for influencing the early literacy and language disparities among children.

Acknowledging the limitations of my current research and contemplating new and future research directions allows me to strengthen the work I have done thus far. This dissertation is a stepping-stone to future important and relevant work. Therefore, I plan to continue examining the in-home literacy interactions between parents and children,

especially across multiple literacy contexts. Through further exploration of the findings described throughout this dissertation, I can continue to shed light on the essential learning relationship between children and their parents.

### *Conclusion*

The purpose of my research was to examine how parents and their children interact during literacy activities in the home environment. Throughout my analyses and discussion, I explore parent-child interactions within and across three literacy activities. Through this work, I have come to several conclusions. First, my study substantiates the importance of researching the role of parents in young children's early learning. This research supports what is currently understood about parents as influential language models and teaching/learning partners. It also extends what is presently understood regarding how parents interact with their children when examining specific parent behavior features.

In addition, this research highlights the benefits of investigating parent involvement in child learning across multiple literacy activities/contexts. Currently, there are few research studies concentrating on in-home observations of parent-child interactions during three (or more) literacy activities. Literacy learning does not occur during a single activity; therefore, it is not enough to examine parent-child literacy interactions during a single literacy event. According to my findings, parents interacted differently with their children across the three literacy activities. Understanding how parents alter, or do not alter, their behavior with their children when engaging in various

literacy-learning tasks will further explain the influence of parent-child learning interactions in the home environment.

Finally, I believe that research alone is insufficient. It is essential to take the knowledge that is garnered through a study such as this one and disseminate it to those who can benefit most. Therefore, I believe an advantageous next step would be to design and implement parent training programs and literacy curriculum for children. An important way to impact the gap in early language and literacy skills in young children is to reach out to children and their families early. The knowledge gained from this study can benefit so many families. However, my findings can only be advantageous if they are translated into future research, literacy interventions, and parent training programs.

At the beginning of this dissertation, I stated that children are susceptible to the influences of their parents and the overall home environment. The learning interactions that take place in the home environment are often pivotal to children's overall learning and development. How parents interact with their children in the home, therefore, has lasting implications on whether children will or will not succeed in school and in life. This research provides a glimpse into parent-child literacy interactions in the home. In the end, examining early parent-child literacy interactions in the home is an advantageous endeavor. Through the information gained from this research, I am able to further describe how parents and their children interact during literacy activities in the home. Only when we understand how parents and their children behave and learn in the home environment can we begin to fully comprehend how crucial parents are to their children's overall learning and development.

## **APPENDICES**

## APPENDIX A

### Excerpt from *Have you Seen Bugs?* by Joanne Oppenheim

Page 1: Have you seen bugs?

Pages 2-3: Itty-bitty bugs small as specks of sand, wide-winged bugs bigger than your hand. Bugs with stripes or speckled with spots, shiny like metal or covered with dots.

Pages 4-5: Iridescent bugs that shimmer in the light, winking, blinking bugs that twinkle in the night. Dark as bark green as grass see-through bugs with wings like glass.

Pages 6-7: Shaped like thorns or sticks or leaves, burrowed in bubbles or clinging to trees. Hide-and-seek bugs-can you see these?

## **APPENDIX B**

### **Literacy Prop Bag Administration Instructions and Training Manual**

# **LITERACY PROP BAG ADMINISTRATION INSTRUCTIONS AND TRAINING MANUAL**

(Adapted from the CHELLO and NICHD Study of Early Child Care)

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## I. OVERVIEW

The Literacy Prop Bag Observation is an instrument designed to capture the parent-child language interaction in a home setting.

The literacy prop bag activity will be given during the 2<sup>nd</sup> home visit. The task is designed to observe the verbal interaction between parent and child during a reading, play situation, and writing activity. The rating scales will be used to assess verbal qualities of parenting such as scaffolding, paraphrasing, parental fostering of child autonomy, and quantity and variety of words. All interactions will be observed and audio taped.

The literacy prop bag is comprised of three activities. The first involves parent and child reading a book about insects. The second involves a set of toys, consisting of animals (e.g. insects, wild animals, and other small creatures) and also objects thematically related to insects (e.g. nets, leaves, sticks, magnifying glass). The third involves an unlined notebook, markers and a pencil. The parent and child have the choice to either write or draw in the notebook.

We strongly encourage the assessors to review and familiarize themselves with the scales that will be used to rate the parent-child interactions in order to have a basis for on-the-spot decisions that might need to be made while observing the interaction.

## II. GENERAL INFORMATION AND GUIDELINES

The total time for the observation is 15 minutes with an additional 5 minutes allocated for instructions to the parent regarding the tasks. Specific instructions for the tasks follow below. Interruptions in the 15 minutes of interaction should be avoided but may occur if the parent requests terminating the audio-taping or if the parent and/or child need a break or are significantly interrupted for some reason. A minimum of 13 minutes including at least part of the notebook activity is needed for coding. If an interruption occurs or a break is needed after the notebook activity has begun, the interaction tasks need not be resumed. However, if the break occurs earlier in the taping, the interaction tasks should be resumed if possible.

Ask the parent to choose a comfortable spot where he/she usually reads to the child. The audio-recorder must be placed as close to the parent and child as possible without getting in their way. Also, suggest that any background noises (e.g. TV, household appliances, or other child in house) be limited or reduced completely. During the observation, the assessor should be as unobtrusive as possible. This will mean different things in different settings. Although interacting with the children is often unavoidable, it should be kept to a minimum so the observation can be completed objectively. Similarly, the assessor should try to make the parent feel comfortable about the fact that they are there to just “see what great things are going on”. The assessor should make every effort to politely extract themselves from extraneous conversation so they can observe more objectively.

Giving clear and precise instructions prior to the observation will minimize parental questions during the course of the 15 minutes.

### III. MATERIALS

Materials for this procedure are detailed below.

#### A. Book Activity

1. *Have You Seen Bugs?* by Joanne Oppenheim.

#### B. Toy Activity

1. Toy Objects
  - a. 8 insect toys (2 sets of 2 matching insects, 4 non-matching insects)
  - b. 2 wild animal toys
  - c. 2 frog/turtle toys
  - d. 2 distracter toys (spider, scorpion or centipede)
  - e. 1 flower stem
  - f. 2 leaves
  - g. 1 magnifying glass
  - h. 1 net
  - i. 1 twig

#### C. Notebook Activity

1. Items
  - a. Mini-notebook, unlined
  - b. Markers
  - c. Beginner's pencil

#### D. Miscellaneous Materials

1. Containers
  - a. All materials will be kept in a reusable bag.
  - b. The toys for this interaction can be kept in a 1-gallon ziplock bag.

#### E. Assessor Materials

1. Consent form
2. Audio Recorder
3. Observation instrument
4. Pencil
5. Watch

#### IV. INSTRUCTIONS

When you call to make your appointment with the parent, this is what you might want to include in your conversation: **“During our visit I will be observing you and [CHILD’S NAME] playing with some activities. This will only take 15 minutes but during this time it is very important that we have a quiet space. I will need to clearly listen to your interactions, with as few distractions as possible (if you know there are other children in the house you may want to suggest preplanning activities for this 15-minute period). We really appreciate your help and I think you and [CHILD’S NAME] will enjoy the activities. “**

When you arrive at the home, explain to the parent that the upcoming activity involves a task that the parent will need to help his/her child with and that instructions are necessary before observation and audio-taping begins. Before beginning, you need to make sure all possible distractions are at a minimum. Explain to the parent **“Through this activity, we’re interested in learning more about how parents and children interact during reading, writing and play activities. For this observation we would like to clearly listen to your interactions, and will need the room to be as quiet as possible, with few distractions. (Ask whether the TV could be turned off, other children and adults can be otherwise occupied, etc.) We would like to audio-tape your interaction with your child so we will need you to please read this consent form carefully and sign in the given space.”**

If parent declines to be audio taped, you may want to say:

**It is really important for me to capture all of what you and [CHILD’S NAME] say and do. The audiotape will only be used to take notes on what happened during the 15-minute observation. It will really help our research.”**

If parent still refuses to be audio-taped:

**“If you don’t want to be audio-taped we can continue with the observation and I will write down notes. We really appreciate your cooperation.”** At this point, continue with observation but just make sure that audio-recorder is put aside. Please indicate on the instrument that the observation was not audio taped.

Once distractions are at a minimum, give the following instructions to the parent:

**“For the next part of the visit we have an activity for you and (*child’s name*) to do together. Through this activity, we’re interested in learning more about how parents and children interact during reading, writing and play activities. For this observation we would like to clearly listen to your interactions, and will need the room to be as quiet as possible, with few distractions. We would like to audiotape your interaction with your child so we will need you to please read this consent form carefully and sign in the given space.**

*Hand parent the Consent Form to sign.*

Find a quiet location to begin the activity. Place the recorder close to the parent and child, press record, then say:

**Excuse me while I record some ID information.**

**Today is \_\_\_\_\_** (say the date).

**My name is \_\_\_\_\_** (say first and last name).

**The child's name is \_\_\_\_\_** (say child's first and last name).

**His/her ID number is \_\_\_\_\_** (say entire ID number).

**Okay, for the next 15 minutes, we have three activities for you and (child's name) to do together. All of the materials for the three activities are in this bag and they are yours to keep. The first activity is to read a book, the second involves toys, and the third involves a little writing tablet. You do not need to read the whole book- feel free to pick and choose pages to focus on.**

**You will have fifteen minutes to do these activities. You may manage this time however you like, but we would like you to spend some time with each of the three activities in the bag. Please start by reading the story and finish with the little notebook. Because there is quite a bit to cover and we would like you to be able to spend some time with each activity, I will let you know when you have 5 minutes left. Do you have any questions?**

*If the parent has no questions, or after you have answered any questions, say:  
"You may begin when you are ready."*

Remember to record the start times for each activity in the box marked "Time Allocation".

At the end of 8 minutes let the parent know she has 7 minutes left.

At the end of 15 minutes, stop coding.

#### A. Timing Considerations

The activities in this procedure are designed to take about 15 minutes, however parents may continue a minute or two beyond the protocol period. In situations like these, while you should stop coding at 15 minutes, it is important to find a natural termination point before requesting that parents stop their interactions. If the parent and child finish all three activities before the 15 minutes is over, and at least 13 minutes of the interaction have been taped, you may terminate the procedure once the notebook activity is complete.

#### REMINDER:

At the end of 8 minutes let the parent know she has 7 minutes left.

At the end of 15 minutes, stop coding.

## V. AUDIO-RECORDING UPLOADING PROTOCOL

### A. To save Audio files to your computer:

1. Insert recorder into USB port
2. Click Start
3. Click My computer
4. Click Removable disc
6. Open folder that was used and right click each audio recording and rename "Child's last name\_Child's first name\_Month\_Date\_Year\_Assessor's first name\_Assessor's last initial.wma" (e.g. "Smith\_John\_01\_07\_09\_Janet\_M.wma")
7. Click backspace
8. Right click and copy and paste folder into "My Documents" OR drag folders

### B. To upload audio:

1. Log onto Mfile ([mfile.umich.edu](http://mfile.umich.edu)) and log in
2. Click "Change" and enter : /afs/umich.edu/group/acadaff/rtldata
3. Click on "Literacy Prop Bag Audio File"
4. Click "Upload File(s)"
5. Click Browse
6. Find Folder in My Documents
7. Click folder
8. Click file then "open"
9. Continue adding files (up to 5) then click "Upload File"

### C. To safely remove the flash drive you must do the following:

1. Click on Safely Remove Hardware icon on lower corner of screen
2. Click 'Safely remove USB Mass Storage Device'
3. If any other boxes come up, click the correct device you removing
4. You may remove flash drive when a window says it is safe to remove

\*\* Remember to upload the audio file immediately after each session and then delete the file from the recorder. This will make sure that you do not run out of space.

### D. Audio Malfunction

The audio-recorder should be tested before and after taping. If the audio malfunctions at the outset and cannot be fixed, continue with observation.

Do not spend an inordinate amount of time trying to fix a problem as this could unduly lengthen the visit and/or interfere with collection of any remaining data. If a problem is identified at the end of taping, determine how early it started once you have left the home premises.

If an audio problem cannot be fixed, apologize to the parent and child and let them know that you would like to reschedule at a later date. Proceed to the next phase of data

collection and at the end of the home visit, try to schedule a return visit for a repeat of the parent-child interaction.

## VI. POTENTIAL DISRUPTIONS

### A. Parent-initiated Interruptions

If the parent requests or demands to stop for any reason, approve automatically if more than 13 minutes of taping, including part of the notebook task has taken place. If less than 13 minutes has gone by, or the notebook task has not begun, let the parent know that you need only a little more time and seek his/her approval to continue for a few more minutes. If she/he seems resistant to, or resentful of such a request, terminate taping and end the observation.

### B. Parent Refusal

If the parent says that he/she does not want to be audio taped, respect his/her wishes and continue with the observation. Again, please indicate on the instrument that the observation was not audio taped.

### C. Child Makes Taping Impossible

It will not be possible to complete the parent/child interaction procedure if the child persistently refuses to stay in the room or becomes too tired, upset or ill during the visit. These scenarios are unlikely now that the child is older, but should they occur, the solutions below are recommended.

i) If there are physical reasons (i.e. the child is ill or very tired) that would interfere with conducting the parent-child interaction, do not begin the interaction procedure and attempt to schedule another visit. Proceed with other parts of the home visit as appropriate.

ii) If the child appears restless, overly interested in you or the equipment, or is unwilling to stay in the room, go ahead and start the audio taping procedure. Often, these difficulties resolve themselves once the interaction begins and the parent encourages the child's interest in the toys. If, after 5 minutes, the problem still persists, then terminate the observation by saying something like, "**this looks like it is not working out well for [CHILD'S NAME] right now. Why don't we stop and see if it works better a little while later.**" Suggest that the child might need a break for a drink or a snack and then proceed with other parts of the visit and attempt the parent-child interaction again once other portions of the visit have been completed. If the child responds similarly in the second attempt, terminate again. Discuss with the parent if she thinks another day might work better and decide if it is worthwhile to reschedule. If the parent-child interaction procedure cannot be completed, this should be recorded on the observation form.

D. Questions From the Parent

i) The purpose of the study has been described in the consent form and instructions. This is to give the parent adequate information about our study objective but not the features themselves. For example, questions like "What are you looking for?" or "Why are we in the study?" can be answered with "**We're interested in learning more about children's development and learning in this critical transition year to elementary school**" (in other words, take the 'pressure' off the parent a bit by saying that our focus is on the child).

ii) Questions about the time allotment should also be answered so that the parent understands that she can manage the time however she likes. For example, "How much time do I spend on each one" or "Do I have to spend 5 minutes on each activity" can be answered with "**You have 15 minutes for all three activities and you can divide up the time however you like. Just remember to begin with the storybook and end with the notebook.**"

## VII. THE OBSERVATION FORM

In this section, *feature* refers to the various sections of the observation form such as Labeling/concepts, Generalizes words/concepts, and Repetition and paraphrasing, etc. *Activities* refers to the three elements of the Literacy Prop Bag, i.e. Book, Play, and Writing.

### A. Filling in the form

- (1) Complete the Names of the Assessor, Child, Parent, Date and Child/s Age and Gender prior to the visit.
- (2) For the rating table, assessors should score every feature separately for each activity (e.g. What level of the Labeling/concepts feature did you observe for the Book activity, Play activity, and Notebook activity? Check the appropriate 1 through 4 box)
- (3) Below the rating table, there is a Notes box with two columns: the small column to the left references the activity (indicate B, P, N, or combinations of activities), and the large column to the right is to be filled with notes. Assessors should take notes regarding each activity (B = Book, P = Play, N = Notebook, or a combination of activities). Notes may include specific quotes of utterances and actions that exemplify the feature, observations of gestures and eye contact, as well as notable incidences or exceptions (refer to sample observation and examples in next section).
- (4) For reliability, during the first visit, assessors should independently score and take notes, and then only after the observation, compare their scorings.
- (5) We use ratings from 1 to 4. The first step is to ask “Is this dimension ‘characteristic’ (a 3 or 4 rating); is this “not characteristic” (1-2). Then, finer distinctions should be made between 3 or 4; or 1 or 2.

### B. Coding the interaction

#### PARENT BEHAVIOR FEATURES

1. Labeling/concepts
2. Generalizes words/concepts (concept of distancing)
3. Repetition and paraphrasing
4. Scaffolding
5. Parent’s fostering of child autonomy
6. Quantity and variety

## I. PARENT BEHAVIOR FEATURES

### 1. Labeling/concepts

This feature reflects the degree to which the parent labels, produces information, describes, and defines concepts. Basic labeling refers to giving a name to an object; higher level labeling provides additional information about what it is and what it does.

A parent scoring low on this feature may move straight through the activities without labeling objects or defining concepts. Parents neither give names to objects they read about or play with, nor do they describe what those objects are.

In contrast, a parent scoring high on this feature consistently labels objects as they are mentioned. The parent provides additional descriptions about the objects.

Example of Not at all characteristic	Example of Very characteristic
<p><i>Parent makes almost no attempt to identify objects or label. She/He may read or give something to the child but does not use it as an opportunity for word/picture identification.</i></p> <p>[Parent picks up plastic insect, hands it to child, and says, "Here, look at this."]</p>	<p><i>Parent consistently produces labels information and provides descriptions and definitions with intention and effort.</i></p> <p>"Yes it's a scorpion. You can tell by its curly tail."</p>

### 2. Generalizes words/concepts

This feature reflects the degree to which the parent encourages/asks the child to make connections from the observable to the non-observable. This is accomplished by using hypothetical thinking, including cause and effect, generalizing, proposing alternatives, etc. Some examples include:

- Asking the child to use his/her imagination to think of alternative scenarios ("Do you think these bugs could live in our garden in the winter?").
- Using something during the activities to refer to an incident that happened in the past ("Remember going to Meijer and seeing them in the tank?").
- Getting the child to move from the specific to the general ("This ladybug is red. Do you think all ladybugs are red?").
- Asking the child to think hypothetically ("What would you do if you saw a caterpillar in our yard?")

A parent scoring low on this feature will refer only to the observable here and now in their conversation such as the book they are reading or the objects they are playing with there and then. There is little to no reference to hypothetical or imaginary situations.

In contrast, a parent scoring high on this feature will move discussion to the unobservable and abstract. For example, the parent may connect a present incident to past experiences and hypothetical thinking (such as asking "What if...?" questions).

Example of Not at all characteristic	Example of Very characteristic
<p><i>Parent refers only to the observable, such as in labeling and pointing.</i></p> <p>"This mosquito is grey."</p>	<p><i>Parent makes strong inferences to the unobservable. There is consistently effort to generalize to the hypothetical.</i></p> <p>"Remember when you had those mosquito</p>

	bites all over you? Do you think we see mosquitoes in the summer or the winter?"
--	--

### 3. Repetition and paraphrasing

This feature reflects the degree to which parents use paraphrasing as an effective way to repeat instructions or main ideas. Paraphrasing means to re-state ideas or instructions in alternative ways in order to clarify meaning. Repetition aids understanding but paraphrasing is the more effective method of clarification. Some examples:

- Parent repeats statements to get idea across, *“That bug’s not blue. Do you think that bug is blue? That bug’s not blue.”*
- Parent re-words instructions in different ways to make children understand, *“Let’s try reading the book together. What do you think? Do you think we should look at the pages and see what the book is trying to tell us?”*
- Parent paraphrases main ideas to get information across, *“The antennae helps the ant communicate with his friend. It helps them to talk to each other.”*

A parent scoring low on this feature will make little or no attempt to repeat instructions or main ideas. There is no re-wording or paraphrasing to help the child process sentences.

In contrast, a parent scoring high on this feature paraphrases instructions or main ideas in conversations to get information across.

Example of Not at all characteristic	Example of Very characteristic
<i>Little attempt to repeat instructions or main ideas.</i>	<i>Consistently paraphrases instructions or main ideas in conversations to get information across.</i>  <i>“How many legs does this insect have? Let’s try counting. Counting will tell us how many legs he has.”</i>

### 4. Scaffolding

This feature measures the degree to which the parent instructs and engages the child in a variety of explicit activities with the intent to support learning, development and achievement. The focus of this feature is on the parent's *purposeful teaching*. Purposeful teaching aims to help children do higher level thinking and more sophisticated activities. Some examples:

- Parent helps the child to talk about or expand knowledge by pointing to a picture in the book and saying, *“How do you know this is an insect?”*
- Parent offers new ideas for playing with activities, *“Should we try to sort these animals? Which ones are bugs and which ones aren’t?”*
- Parent uses child’s current skills and attempts to build on them, *“I know you can write your name, maybe you could try to write some other words in the book.”*

A parent scoring low on this feature will be totally uninvolved or appear to embody no effective plan of teaching. The parent makes no attempt to stimulate or teach the child

anything, or, any stimulation he/she provides is very poorly matched to the child's developmental level or interest.

In contrast, a parent scoring high on this feature will provide cognitive stimulation that clearly seeks to stimulate a higher level of mastery, understanding, or sophistication and does so several times, indicating that he or she is taking advantage of this activity as a learning experience for the child.

Example of Not at all characteristic	Example of Very characteristic
<p><i>Parent makes almost no attempt to provide stimulation or support to teach the child anything in a way that is developmentally appropriate.</i></p> <p>[Parent reads book straight through with no attempt to extend or question.]</p>	<p><i>Parent is consistently stimulating and takes advantage of many activities as opportunities for stimulation. It is clear that the parent is making the activity a learning experience for the child.</i></p> <p>“Do you think all of these animals are the same? Let’s try to put them in groups. We’ll sort them into wild animals and bugs.”</p>

### 5. Parent’s fostering of child autonomy

This feature reflects the parent’s ability to respond to the child’s cues rather than the other way around. It reflects the degree to which the parent acts in a way that recognizes and fosters the child's individuality, motives, and opinions.

A parent scoring low on this feature would act on his/her own agenda and be very intrusive in his/her interventions with the child, exerting his/her expectations on the child.

In contrast, a parent scoring high on this feature acknowledges the child's behavior and supports the child’s perspectives and desires. A parent scoring very high does this explicitly by negotiating rules with the child and verbalizing his/her acknowledgement of the child's intentions.

Example of Not at all characteristic	Example of Very characteristic
<p><i>Parent is on his/her own agenda; may not listen to child.</i></p> <p>[Child uses magnifying glass. Mom says, “We need to read the book. Put that down. We should really read the book.”]</p>	<p><i>Parent consistently acknowledges child’s behavior and encourages child to exercise own perspectives.</i></p> <p>[Child uses magnifying glass. Mom says “You like looking at them through the magnifying glass? How does it make me look? Do I look big?”]</p>

### 6. Quantity and variety

This feature looks at the type of words (“enormous” vs. “big”; “ferocious” vs. “scary”) and the variety of words parents use to speak to their child. It also examines whether or not parents provide explanations and definitions for the words and ideas they use.

A parent scoring low on this feature would use simple phrases and commands.

In contrast, a parent scoring high on this feature would use more elaborate sentences, exposing the child to a richer vocabulary. They would explicitly explain and define unfamiliar words.

Example of Not at all characteristic	Example of Very characteristic
<p data-bbox="284 268 771 298"><i>Simple and short phrases and commands.</i></p> <p data-bbox="284 331 487 361">“Sound that out.”</p>	<p data-bbox="868 268 1421 331"><i>Exposes child to rich vocabulary and explicitly explains and defines unfamiliar words.</i></p> <p data-bbox="868 367 1396 430">[Parent: That looks like the letter ‘A’. Is that what you meant for it to be?</p> <p data-bbox="868 436 998 466">Child: No.</p> <p data-bbox="868 472 1421 667">Parent: I didn’t think so. You see the letter ‘A’ there? You drew an ‘A’ by mistake. Actually that’s kind of a <u>coincidence</u>. It’s not really a mistake. You just drew one thing and it happens to look like something else.]</p>

## APPENDIX C

### Parent Survey

University of Michigan



Ready to Learn Research Program

Directions: Thank you for participating in the UM-Ready to Learn Program. We ask that you take a few minutes to tell us about you and your child's activities. Please print clearly.

Your Name \_\_\_\_\_

Your Kindergartner's Name is \_\_\_\_\_  
(Child's first and last name)

Parent  
signature \_\_\_\_\_

Teacher's Name and/or class \_\_\_\_\_ School \_\_\_\_\_

Kindergartner's Birthday \_\_\_\_\_

---

#### Section 1: Home Resource

1. For each of the following items, please indicate how many you have in your home.

	0	1	2-4	5-15	16-30	31- 50	Over 50
a. Children's books	<input type="radio"/>						
b. Adult fiction or nonfiction books	<input type="radio"/>						
c. Children's magazines	<input type="radio"/>						
d. General interest magazines	<input type="radio"/>						
e. Newspapers (daily)	<input type="radio"/>						

#### Section 2: Community Resources

2. How often did you take your Kindergartner to the following places during past year?

	Never	Once	Twice	Several times	Once per month or more
a. Zoo	<input type="radio"/>				
b. Aquarium	<input type="radio"/>				
c. Museum	<input type="radio"/>				
d. Indoor play space (mall, McDonalds Playland, Chuck E. Cheese, etc.)	<input type="radio"/>				
e. Library	<input type="radio"/>				
f. Bookstore	<input type="radio"/>				
g. Amusement park	<input type="radio"/>				
h. Movie theater	<input type="radio"/>				
i. Concert, musical, play, or other show	<input type="radio"/>				
j. Sporting event	<input type="radio"/>				

3. In the past year, have you involved your Kindergartner in any of the following activities that take place outside of a regular school class? Please check ALL that apply:

- Organized play group
- Music lessons or choir
- Team sports (soccer, Little League, etc.)
- Individual sports (gymnastics, karate, etc.)
- Dance lessons (ballet, tap dance, etc.)
- Religious classes or Sunday school
- Art or craft classes
- Organized clubs or activities
- Drama classes
- Language classes or tutoring
- Family fitness activities (YMCA, local recreation center or pool)

4. Does your family have a library card?  YES  NO

5. Does your child have his/her own library card?  YES  NO

### Section 3: Family Activities

6. Think about the past week. Approximately how often did you do the following things with your Kindergartner?

	Not at all in the past week	1-2 days	3-4 days	5-6 days	Every day
a. Eat meals together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Run errands together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Watch TV or videos together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Play sports or exercise together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Play games or do puzzles together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Help child do arts & crafts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Involve child in chores like cooking, cleaning, setting the table, caring for a pet etc...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Take walks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Build something together or play with feature on toys	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Visit neighbors or friends together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Think about the past week. Approximately how often did you do the following things with your Kindergartner?

	Not at all in the past week	1-2 days	3-4 days	5-6 days	Every day
a. Tell stories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Sing songs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Recite poems, rhymes or tongue twisters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Use flash cards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Play letter/number games or puzzles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Talk about shapes or colors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Talk about letters or numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Practice writing letters or numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Practice telling time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Talk about calendar days/months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Talk about directions (up, down, left, right)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Talk about manners (please, thank you)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Think about the past week. How often did your Kindergartner choose to do the following activities?

	Not at all in the past week	1-2 days	3-4 days	5-6 days	Every day
a. Look at picture books	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Read or pretend to read to himself/herself or others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Play with letter/number games or puzzles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Write or pretend to write to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Pretend play by himself/herself or other friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Please think about your own personal reading habits during the past week:

	Not applicable	Not at all	1-2 days	3-4 days	5-6 days	Every day
a. How often do you read books/ journals for work?		<input type="radio"/>				
b. How often do you read books/magazines for pleasure?		<input type="radio"/>				
c. How often do you read the news, online or in a paper?		<input type="radio"/>				
d. How often does your spouse or partner read books/ journals for work?	<input type="radio"/>					
e. How often does your spouse or partner read books/magazines for pleasure?	<input type="radio"/>					
f. How often does your spouse or partner read the news, online or in a paper?	<input type="radio"/>					

10. At what age did you or another family member begin to read to your child? (Please check only one):

- 0 - 6 months  
 7 - 12 months  
 13 - 18 months  
 19 - 24 months  
 After 2nd birthday

11. Do you read to your Kindergartner?

\_\_\_ Yes

\_\_\_ No IF NO, please skip to Section 4, question 15 on page 5.

12. In the last week, did you read to your Kindergartner?

\_\_\_ Yes

\_\_\_ No

If yes, how many days during the week?

1-2 days	3-4 days	5-6 days	Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. When you read with your Kindergartner, how often do you use each of these strategies?

	Never	Not often	Sometimes	Often	Always
a. I make up words/stories to go with the pictures	<input type="radio"/>				
b. I point to the words as I read	<input type="radio"/>				
c. I encourage my child to figure out certain words	<input type="radio"/>				
d. I like to read the story to my child without interruptions	<input type="radio"/>				
e. I encourage my child to ask questions	<input type="radio"/>				
f. I ask my child questions about the story as we read the book	<input type="radio"/>				
g. My child reads the words to me	<input type="radio"/>				
h. I listen to my child read	<input type="radio"/>				
i. I explain the meanings of the new words to my child	<input type="radio"/>				
j. Other:	<input type="radio"/>				

14. When you read with your Kindergartner:

	Not at all	A little	Moderately	Very much
a. How much do you enjoy it?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. How much does your child enjoy being read to?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Section 4: Household Information**

15. Approximately, what is your current annual household income (combining all income sources for the primary household):

- |                       |                       |                       |                       |                       |                        |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| Less than<br>\$15,000 | \$15,000 –<br>34,999  | \$35,000 –<br>49,999  | \$50,000-<br>74,999   | \$75,000-<br>99,999   | \$100,000<br>and above |
| <input type="radio"/>  |

**Primary Caregiver Information**

16. In what year were you born?      19 \_\_\_\_ \_\_\_\_

17. What is your highest level of completed education?
- Completed some high school
  - High school diploma
  - GED
  - Completed some college coursework
  - Completed a vocational training or certificate program
  - Associate’s degree (AA or equivalent)
  - Bachelor’s degree (BA, BS or equivalent)
  - Master’s degree (MA, MS or equivalent)
  - Doctorate (Ph.D., M.D., or equivalent)

18. If applicable, please list your current jobs and the number of hours you work each week.

Job Title	# Hours per week (average)	Shift worked (day/night/swing/multiple)
1.		
2.		
3.		

19. If you are a current student, please indicate the number of hours you spend in classes each week.

# Hours per week (average) \_\_\_\_\_

20. What is your racial or ethnic background?
- Caucasian/White
  - Black or African American
  - Hispanic or Latino/a
  - Asian/Pacific Islander
  - Native American
  - Middle Eastern
  - Mixed Race: \_\_\_\_\_
  - Other: \_\_\_\_\_

**Primary Caregiver’s Spouse or Partner (If not applicable, please go to next page)**

21. In what year was your spouse or partner born? 19 \_\_\_\_

22. What is your spouse's or partner's highest level of completed education?

- Completed some high school
- High school diploma
- GED
- Completed some college coursework
- Completed a vocational training or certificate program
- Associate's degree (AA or equivalent)
- Bachelor's degree (BA, BS or equivalent)-continued on next page
- Master's degree (MA, MS or equivalent)
- Doctorate (Ph.D., M.D., or equivalent)

23. If applicable, please list spouse's or partner's current jobs and the number of hours he or she works each week.

Job Title	# Hours per week (average)	Shift worked (day/night/swin g/multiple)
1.		
2.		
3.		

24. If your spouse/partner is a current student, please indicate the number of hours he/she spends in classes each week.

# Hours per week (average) \_\_\_\_\_

25. What is your spouse's or partner's racial or ethnic background?

- Caucasian/White
- Black or African American
- Hispanic or Latino/a
- Asian/Pacific Islander
- Native American
- Middle Eastern
- Mixed Race: \_\_\_\_\_
- Other: \_\_\_\_\_

**Section 5: Home-School Connection**

26. How often do you:

	Never	Not often	Sometimes	Often	Always
a. Talk to your child about school activities.	<input type="radio"/>				
b. Talk about what your child has learned in school.	<input type="radio"/>				
c. Monitor your child's learning, such as learning colors and numbers.	<input type="radio"/>				
d. Keep track of your child's progress in school or day care.	<input type="radio"/>				

27. How often do you talk with other parents or friends about the following:

	Never	Not often	Sometimes	Often	Always
a. Activities at your child's school?	<input type="radio"/>				
b. Your child's teacher?	<input type="radio"/>				
c. Parenting?	<input type="radio"/>				
d. Books or book titles to read with your child?	<input type="radio"/>				
e. Community activities and events?	<input type="radio"/>				
f. How to become involved at the school?	<input type="radio"/>				
g. Activities to play with your child?	<input type="radio"/>				
h. Your child's accomplishments in school?	<input type="radio"/>				

**Section 6: Your Child's Language**

1. Is more than one language spoken in your home?

- a. Yes
- b. No

If yes, what language other than English? \_\_\_\_\_

2. How often does your kindergartner speak in a language other than English?

- a. Never
- b. Rarely
- c. Sometimes

- d. Frequently
3. Is English your child's first language?
- Yes
  - No

If no, what is your child's first language? \_\_\_\_\_

4. At what age did your child start using words in English to communicate with others?  
 \_\_\_\_\_ (Year and month, if possible)

5. How often does your kindergartener watch TV in a language other than English?

Never	Rarely	Sometimes	Frequently	All the time
<input type="radio"/>				

**IF ENGLISH IS THE ONLY LANGUAGE YOU SPEAK IN THE FAMILY, THANK YOU FOR YOUR PARTICIPATION.**

**IF A LANGUAGE OTHER THAN ENGLISH IS REGULARLY SPOKEN IN THE HOME, PLEASE ANSWER THE FOLLOWING QUESTIONS.**

- What is the primary language spoken in your home? \_\_\_\_\_
- What is the total amount of time that a language other than English is spoken in your home?

Never	Rarely (About 25% or less)	Sometimes (About 1/2 of the time)	Frequently (About 3/4 of the time)	All the time
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

\_\_\_\_\_

3. If English is not your first language, how well do you:

	Not at all	Not very well	Average	Pretty well	Very well
a. Speak English?	<input type="radio"/>				
b. Read English?	<input type="radio"/>				

c. Write English?	<input type="radio"/>				
d. Understand someone speaking English?	<input type="radio"/>				
e. Understand television?	<input type="radio"/>				

How often do you:

	Never	Rarely	Sometimes	Frequently	All the time
a. Speak to your kindergartener in a language <u>other than</u> English?	<input type="radio"/>				
b. Read to your kindergartener in a language <u>other than</u> English?	<input type="radio"/>				
c. Read in a language <u>other than</u> English?	<input type="radio"/>				
d. Watch TV in a language <u>other than</u> English?	<input type="radio"/>				

4. In which situations do you speak to your child only in a language other than English?

---



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---

5. In which situations are both languages used?

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*Thank you!*

## APPENDIX D

### Literacy Prop Bag Coding Form

#### Literacy Prop Bag

***“This activity will take about 15 minutes. We would like for you to spend some time with each of the three activities in the bags. Please start by reading a story and finish with the little notebook. You do not need to read the whole book- feel free to pick and choose pages to focus on. Because there is quite a bit to cover and we would like you to be able to finish all the activities, we’ll let you know when you have 5 minutes left. Before getting started, I would like you to read and sign this consent form.*”**

#### General Principles:

- (1) Two people should visit initially.
- (2) If possible, remove all distractions (e.g., television, other children or adults)
- (3) Ask the parent to make sure their and their child’s voices are loud enough to hear
- (4) Complete the Names of the Assessor, Child, Parent, Date and Child/s Age and Gender prior to the visit.
- (5) For the rating table, assessors should score every feature separately for each activity (e.g. What level of the Labeling/concepts feature did you observe for the Book activity, Play activity, and Notebook activity? Check the appropriate 1 through 4 box)
- (6) Below the rating table, there is Notes box with two columns: the small column to the left references the activity (indicate B, P, N, or combinations of activities), and the large column to the right is to be filled with notes. Assessors should take notes regarding each activity (B = Book, P = Play, N = Notebook, or a combination of activities). Notes may include specific quotes of utterances and actions that exemplify the feature, observations of gestures and eye contact, as well as notable incidences or exceptions (refer to sample observation and examples in next section).
- (7) On paired visits, assessors should independently score and take notes, and then only after the observation, compare their scorings.
- (8) We use ratings from 1 to 4. The first step is to ask “Is this dimension ‘characteristic’ (a 3 or 4 rating); is this “not characteristic” (1-2). Then, finer distinctions should be made between 3 or 4; or 1 or 2.
- (9) Because we are only audio-taping, it is important that we are still able to capture physical characteristics such as eye contact, gestures and proximity.

Name of Assessor: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Child: \_\_\_\_\_ Gender: M / F Age: \_\_\_\_\_

Name of Parent (Mother/Father): \_\_\_\_\_

<b>Time allocation</b>	
Book start time	
Manipulatives start time	
Notebook start time	

Activity	Notes:

Activity	Notes:

**1. Labeling/Concepts**

Definition: Labels; produces information, describes, defines

Examples:

- What is this? Yes, it's a scorpion.
- That's a butterfly. This is a beetle.

	B	P	N
(1) Not at all characteristic <i>Parent makes almost no attempt to identify objects or label. She/He may read or give something to the child but does not use it as an opportunity for word/picture identification.</i>			
(2) Weakly characteristic <i>Infrequent labeling or weak stimulation.</i>			
(3) Moderately characteristic <i>Provides labels frequently but does not seem to make a conscious or intentional effort to define or describe them.</i>			
(4) Very characteristic <i>Parent consistently produces labels information and provides descriptions and definitions with intention and effort.</i> <ul style="list-style-type: none"> <li>• Yes it's a scorpion. You can tell by its curly tail.</li> <li>• That looks like a caterpillar that has things sticking out of it to make it look like a plant so it can hide.</li> <li>• I think that's a moth cause it looks more furry.</li> </ul>			

Activity	Notes:

## 2. Generalizes Words/Concepts (Concept of Distancing)

Definition: Encourages/asks the child to make connections from the observable to the non-observable; uses propositional and hypothetical thinking; includes inference/cause

and effect; generalizing; proposing alternative; abstractions. A rating of 1 or 2 characterizes parents who refer only to the *observable* in their conversation. A rating of 3 or 4 characterizes parents who move discussion to the *unobservable*.

	<b>B</b>	<b>P</b>	<b>N</b>
(1) Not at all characteristic <i>Parent refers only to the observable, such as in labeling and pointing.</i>			
(2) Weakly characteristic <i>Parent elaborates concepts, but only about the observable. Compares and contrasts observable properties.</i> <ul style="list-style-type: none"> <li>You can see this bug is bigger than your hand. See that?</li> <li>How is this polar bear different than the zebra?</li> </ul>			
(3) Moderately characteristic <i>Parent frequently makes connections to the unobservable. Compares and contrasts unobservable properties. Refers to past experiences.</i> <ul style="list-style-type: none"> <li>Remember going to Meijer and seeing them in the tank?</li> <li>Remember right outside our door we used to have flowers and the bees would come up and we'd watch them?</li> <li>It's like the one you saw at school.</li> </ul>			
(4) Very characteristic <i>Parent makes strong inferences to the unobservable. There is consistently effort to generalize to the hypothetical.</i> <ul style="list-style-type: none"> <li>Do we see mosquitoes in the summer or the winter?</li> <li>Which bug to do you think they're talking about?</li> </ul>			

Activity	Notes:

### 3. Repetition and Paraphrasing

Definition: Using paraphrasing as an effective way to repeat instructions or main ideas.

	B	P	N
(1) Not at all characteristic <i>Little attempt to repeat instructions or main ideas.</i>			
(2) Weakly characteristic <i>Repeats but not paraphrases.</i>			
(3) Moderately characteristic <i>Paraphrases frequently.</i>			
(4) Very characteristic <i>Consistently paraphrases instructions or main ideas in conversations to get information across.</i>			

Activity	Notes:

### 4. Scaffolding

Definition: The degree to which the parent intentionally tries to foster the child's development. A stimulating parent may take advantage of even simple activities that can facilitate learning. Activities must be appropriate for the child's skill level.

Example activities:

- Look through the magnifying glass.
- Sound this word out.
- Count the legs on the insect. How many does it have?
- Why don't you follow your finger like this as I'm reading
- Lets see if we can find anything else (matching toys to pictures in book)
- Let's I-Spy the bugs (identification of bugs by location and color)

	<b>B</b>	<b>P</b>	<b>N</b>
(1) Not at all characteristic <i>Parent makes almost no attempt to provide stimulation or support to teach the child anything.</i>			
(2) Weakly characteristic <i>Parent only suggests activities or directs attention of the child to objects, but does not extend that suggestion.</i>			
(3) Moderately characteristic <i>Parent offers frequent support to scaffold child's engagement in activities.</i>			
(4) Very characteristic <i>Parent is consistently stimulating and takes advantage of many activities as opportunities for stimulation. It is clear that the parent is making the activity a learning experience for the child.</i>			

Activity	Notes:

## 5. Parents Fostering of Child Autonomy

Definition: The ability of the parent to respond to the child's behavior in both an appropriate and timely manner (responding to the child's cues rather than the way around).

	B	P	N
(1) Not at all characteristic <i>Parent is on his/her own agenda; may not listen to child.</i>			
(2) Weakly characteristic <i>Parent responds occasionally to child in a general, non-specific manner.</i> <ul style="list-style-type: none"> <li>• Good job. That's right. Ok. Uh-huh.</li> </ul>			
(3) Moderately characteristic <i>Parent frequently acknowledges child's behavior in a specific manner.</i> <ul style="list-style-type: none"> <li>• Good. That's a thick stem, isn't it?</li> <li>• Child: Polar bears are bigger. Mom: Yes, this one is small just to fit in the package but usually it's much bigger.</li> </ul>			
(4) Very characteristic <i>Parent consistently acknowledges child's behavior and encourages child to exercise own perspectives.</i> <ul style="list-style-type: none"> <li>• Child uses magnifying glass. Mom says "You like looking at them through the magnifying glass? What is it making me look like? Does it make me look big?"</li> </ul>			

Activity	Notes:

**6. Quantity and Variety**

Definition: This feature looks at length of utterances, quantity of word types, richer vocabulary, and more varied syntactic frames.

	B	P	N
(1) Not at all characteristic <i>Simple and short phrases and commands.</i>			
(2) Weakly characteristic <i>Longer utterances but few sophisticated words.</i>			
(3) Moderately characteristic <i>Exposes child to rich vocabulary but little attempt to explain or define.</i> <ul style="list-style-type: none"> <li>• Brighter colors are giving warnings to <i>predators</i>.</li> <li>• I think it's called a <i>larva</i>.</li> </ul>			
(4) Very characteristic <i>Exposes child to rich vocabulary and explicitly explains and defines unfamiliar words.</i> <ul style="list-style-type: none"> <li>• This insect is <i>teal</i>- it's a special kind of blue.</li> <li>• A mosquito has a mouth that can pierce your skin and <i>draw</i>...what does it take out of you?</li> <li>• <i>Nectar's</i> what's in the head of the flower.</li> </ul>			

Activity	Notes:

## APPENDIX E

### Literacy Prop Bag Scripted Instructions

**For the next part of the visit we have an activity for you and (*child's name*) to do together. Through this activity, we're interested in learning more about how parents and children interact during reading, writing and play activities. For this observation we would like to clearly listen to your interactions, and will need the room to be as quiet as possible, with few distractions. We would like to audiotape your interaction with your child so we will need you to please read this consent form carefully and sign in the given space.**

*Hand parent the Consent Form to sign.*

*Find a quiet location to begin the activity. Place the recorder close to the parent and child, press record, then say:*

**Excuse me while I record some ID information.**

**Today is \_\_\_\_\_** (*say the date*).

**My name is \_\_\_\_\_** (*say first and last name*).

**The child's name is \_\_\_\_\_** (*say child's first and last name*).

**His/her ID number is \_\_\_\_\_** (*say entire ID number*).

**Okay, for the next 15 minutes, we have three activities for you and (*child's name*) to do together. All of the materials for the three activities are in this bag and they are yours to keep. The first activity is to read a book, the second involves toys, and the third involves a little writing tablet. You do not need to read the whole book- feel free to pick and choose pages to focus on.**

**You will have fifteen minutes to do these activities. You may manage this time however you like, but we would like you to spend some time with each of the three activities in the bag. Please start by reading the story and finish with the little notebook. Because there is quite a bit to cover and we would like you to be able to spend some time with each**

**activity, I will let you know when you have 7 minutes left. Do you have any questions?**

*If the parent has no questions, or after you have answered any questions, say:*

**You may begin when you are ready.**

*Remember to record the start times for each activity in the box marked "Time Allocation".*

*At the end of 8 minutes let the parent know she has 7 minutes left.*

*If needed: **Remember to make time for the toys and the notebook.***

*At the end of 15 minutes, stop coding.*

## APPENDIX F

### Sample Coding Transcript<sup>6</sup>

**Bold=Labeling**

*Italics=Generalizing*

Underline=Repetition/Paraphrasing

Highlighting in yellow=Scaffolding

Blue Text=Fostering Autonomy

Quantity/Variety=Strikethrough

- P: Have you seen bugs? By Joanne Oppenheim, Illustrated by Ron Broda...
- C: I love bugs...
- P: **What kind of bug is that?**
- C: **Ladybug...**
- P: **A caterpillar...**
- C: All right, I didn't see that one.
- P: **What's this one?**
- C: A bee...spider...I don't that...
- P: I don't know what most of those are really. Let's read and see what they are.
- C: [Inaudible]
- P: ~~Those are called fossils. It's where the bugs die, they go into the rock and then you see the fossils.~~ [Parent reading from book] **What's that?**
- C: [Inaudible]
- P: [Parent reading from book]
- P: Dots? Shiny...
- C: What's shiny?
- P: ~~Sparkly~~
- C: **Those are shiny.**
- P: **Yes they are. Is that one shiny? What does that one have on it?**
- C: Dots...
- P: Dots and speckles... [Parent reading from book] **What kind of bugs go at night and they go off and on? What are those called? Remember you guys, catch them?**
- C: Fireflies

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<sup>6</sup> It is important to note that I provided this example to show how a given parent-child interaction could be coded for several parent behavior features. The assessors were asked to observe the Literacy Prop Bag interaction and then code from the audio and their observation notes. They did not code using typed transcripts of the parent-child interactions. This example does not represent the technical coding process but is provided only to highlight how specific interactions can be and were coded for several parent behavior features. To see the coding form the assessors used please see Appendix D.

P: Hey keep it quiet.<sup>7</sup> What else is on here that you know?

C: Uhmmm

P: Can you see these? Can you see bugs that are hiding and look like trees?

C: Yeah, I see that...that...that...

P: See any more...?

C: That...that...

P: Can you see that one...?

C: That...

P: See any more...I can see two more?

C: That

P: Yep

C: That...

P: You already said those ones...I still see two more.

C: I don't...

P: You don't see the one on the tree that looks like a stick?

C: I already said that.

P: Not that one...look at it...it's by the leaf. It looks just like a stick. You already said that one.

C: This...

P: It looks like a stick on a leaf.

P: You don't see that one?

C: Here...

P: Oh, yeah, that one right there. Do you see anymore...that I might not see?

C: [Inaudible] Oh, yeah, I found it...

P: I don't know if that's a bug.

C: That...

P: Maybe—it might be—

C: [Inaudible] butterfly...

P: [Parent reading from book]

P: [Inaudible] ~~bug—like warning bugs—see that one saying—get away—I'll bust you up.~~ [Parent reading from book] So he's saying he's poison—by the yellow.

[Parent reading from book]

P: That's crazy—he's poison.

C: And he smells...

P: And he stinks...go away...

C: Go away...

P: And he stings... [Parent reading from book]

C: Like that or like that...I've seen...

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<sup>7</sup> As assessors coded, they were asked to decide if a particular parent behavior feature was characteristic or uncharacteristic of that given parent. To do this they were asked to code for behaviors when they were present and for missed opportunities. For example, an assessor should have coded for when a parent was fostering a child's autonomy and for when he/she might have missed an opportunity. Therefore, the coding in this transcript represents both when the parent is characteristically using the behavior and when the parent misses an opportunity, uses the strategy incorrectly, etc.

P: [Parent reading from book]

C: How about that?

P: Which one is the one with long legs?

C: Long-legs?

P: Look at this one—praying mantis—see it has long legs? Which one has little legs?

C: And daddy-long-legs...

P: Which one has little legs? Look at those little legs on the centipede. [Parent continues reading]

C: [Inaudible]

P: It says some are fast—they dart and leap. Some are slow—they crawl and creep. Which ones sort of crawl and creep?

C: Uhhh

P: The worm

C: What kind of worm?

P: I don't know what kind of worm it is but it crawls. And look—

C: Oh, Dad, look...

P: Yeah, it's a little bug. That one is going to go eat it.

C: Who's going eat it?

P: That other one... [Parent reading from book] What kind of bugs go to a hive?

C: Um...

P: A bee...

C: And that...and that...that...and that...I can't reach.

P: [Parent reading from book] What kind of bugs do you see that go on the wall?

C: Uh...spiders, ants...sometimes...

P: Sometimes

C: Ants...

P: What about water bugs?

P: [Parent reading]

C: What is--some water bugs?

P: Let's see what the book says [Parent reading]

C: I don't know water bugs.

P: Look...all those...right there...water bugs...

C: What is this?

P: I don't know.

C: [Inaudible]

P: I don't know. [Inaudible] See those...

C: That should be a squid...

P: A squid? [Parent reading from book] I don't think we've ever seen those kinds of bugs. Except for mosquitoes...

C: Yeah, we saw them

P: What do mosquitoes do?

C: I know...itchy...

P: They itch you—when they bite you?

C: I still want to read the book.

P: Okay, we have to read faster then. [Parent reading from book]

P: [Parent reading]  
 C: Dad...that's...  
 P: [Parent reading]  
 C: Dad that's...Dad...  
 P: [Parent reading] **Cricket**s do that... What?  
 C: Um...that book is...  
 P: Here—let's play with some of those bugs.  
 C: Okay  
 P: Look at this pen  
 C: Yeah...  
 P: Look...that's cool!  
 C: Dad, I want to do this and this...that's all I want...  
 P: That's the only thing you want?  
 C: Yeah  
 P: Fine then  
 C: Okay, Daddy this is stuck in here...  
 P: What is it?  
 C: Um...oh, a tiger...  
 P: **A black panther...**what is this one?  
 C: Dad, you are the animals in the leaves...  
 P: Okay, and you're going to catch them?  
 C: Yeah. [Inaudible] I see that bug...  
 P: **What is that called?**  
 C: **What?**  
 P: That...  
 C: **What?**  
 P: That thing you got there...  
 C: Oh...  
 P: **A microscope...**  
 C: This is a lot...  
 P: I like that.  
 C: [Inaudible]  
 P: **Why don't you draw me something—the bug you like the best?**  
 C: Okay. Let me see if I can. [Inaudible]  
 P: **You know you can color it...**  
 P: **You have spiders, different colored bees, different kind of ants...**  
 C: Dad, I have to take them—Dad, I have to take them and use them because I don't know—I don't know how to draw these.  
 P: Okay you can look at them and draw<sup>8 9</sup>

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<sup>8</sup> This is only a portion of the 15-minute transcript.

<sup>9</sup> During the latter part of this transcript the parent characteristically did not use quantity/variety of language. This was difficult to represent here in this transcript example but would be reflected in the overall quantity/variety scoring of the activities.

**Labeling/Concepts<sup>10</sup>**

Definition: Labels; produces information, describes, defines

Examples:

- What is this? Yes, it's a scorpion.
- That's a butterfly. This is a beetle.

	B	P	N
(1) Not at all characteristic <i>Parent makes almost no attempt to identify objects or label. She/He may read or give something to the child but does not use it as an opportunity for word/picture identification.</i>			
(2) Weakly characteristic <i>Infrequent labeling or weak stimulation.</i>			
(3) Moderately characteristic <i>Provides labels frequently but does not seem to make a conscious or intentional effort to define or describe them.</i>		X	X
(4) Very characteristic <i>Parent consistently produces labels information and provides descriptions and definitions with intention and effort.</i> <ul style="list-style-type: none"> <li>• Yes it's a scorpion. You can tell by its curly tail.</li> <li>• That looks like a caterpillar that has things sticking out of it to make it look like a plant so it can hide.</li> <li>• I think that's a moth cause it looks more furry.</li> </ul>	X		

Activity	Notes:

**Generalizes Words/Concepts (Concept of Distancing)**

<sup>10</sup> This is an example of what the coding sheet would look like for the transcript sample above. It is important to note the entire transcript for this parent-child dyad is not included. The scores above are based on the entire audio recorded exchange between the parent-child dyad.

Definition: Encourages/asks the child to make connections from the observable to the non-observable; uses propositional and hypothetical thinking; includes inference/cause and effect; generalizing; proposing alternative; abstractions. A rating of 1 or 2 characterizes parents who refer only to the *observable* in their conversation. A rating of 3 or 4 characterizes parents who move discussion to the *unobservable*.

	<b>B</b>	<b>P</b>	<b>N</b>
(1) Not at all characteristic <i>Parent refers only to the observable, such as in labeling and pointing.</i>		X	X
(2) Weakly characteristic <i>Parent elaborates concepts, but only about the observable. Compares and contrasts observable properties.</i> <ul style="list-style-type: none"> <li>You can see this bug is bigger than your hand. See that?</li> <li>How is this polar bear different than the zebra?</li> </ul>			
(3) Moderately characteristic <i>Parent frequently makes connections to the unobservable. Compares and contrasts unobservable properties. Refers to past experiences.</i> <ul style="list-style-type: none"> <li>Remember going to Meijer and seeing them in the tank?</li> <li>Remember right outside our door we used to have flowers and the bees would come up and we'd watch them?</li> <li>It's like the one you saw at school.</li> </ul>			
(4) Very characteristic <i>Parent makes strong inferences to the unobservable. There is consistently effort to generalize to the hypothetical.</i> <ul style="list-style-type: none"> <li>Do we see mosquitoes in the summer or the winter?</li> <li>Which bug to do you think they're talking about?</li> </ul>	X		

Activity	Notes:

**Repetition and Paraphrasing**

Definition: Using paraphrasing as an effective way to repeat instructions or main ideas.

	<b>B</b>	<b>P</b>	<b>N</b>
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(1) Not at all characteristic <i>Little attempt to repeat instructions or main ideas.</i>			
(2) Weakly characteristic <i>Repeats but not paraphrases.</i>			
(3) Moderately characteristic <i>Paraphrases frequently.</i>		X	X
(4) Very characteristic <i>Consistently paraphrases instructions or main ideas in conversations to get information across.</i>	X		

Activity	Notes:

**Scaffolding**

Definition: The degree to which the parent intentionally tries to foster the child's development. A stimulating parent may take advantage of even simple activities that can facilitate learning. Activities must be appropriate for the child's skill level.

Example activities:

- Look through the magnifying glass.

- Sound this word out.
- Count the legs on the insect. How many does it have?
- Why don't you follow your finger like this as I'm reading
- Lets see if we can find anything else (matching toys to pictures in book)
- Let's I-Spy the bugs (identification of bugs by location and color)

	B	P	N
(1)Not at all characteristic <i>Parent makes almost no attempt to provide stimulation or support to teach the child anything.</i>			
(2)Weakly characteristic <i>Parent only suggests activities or directs attention of the child to objects, but does not extend that suggestion.</i>		X	
(3)Moderately characteristic <i>Parent offers frequent support to scaffold child's engagement in activities.</i>			X
(4) Very characteristic <i>Parent is consistently stimulating and takes advantage of many activities as opportunities for stimulation. It is clear that the parent is making the activity a learning experience for the child.</i>	X		

Activity	Notes:

**Parents Fostering of Child Autonomy**

Definition: The ability of the parent to respond to the child's behavior in both an appropriate and timely manner (responding to the child's cues rather than the way around).

	B	P	N
(1)Not at all characteristic			

<i>Parent is on his/her own agenda; may not listen to child.</i>			
(2)Weakly characteristic <i>Parent responds occasionally to child in a general, non-specific manner.</i> <ul style="list-style-type: none"> <li>• Good job. That's right. Ok. Uh-huh.</li> </ul>	X		
(3)Moderately characteristic <i>Parent frequently acknowledges child's behavior in a specific manner.</i> <ul style="list-style-type: none"> <li>• Good. That's a thick stem, isn't it?</li> <li>• Child: Polar bears are bigger. Mom: Yes, this one is small just to fit in the package but usually it's much bigger.</li> </ul>			X
(4) Very characteristic <i>Parent consistently acknowledges child's behavior and encourages child to exercise own perspectives.</i> <ul style="list-style-type: none"> <li>• Child uses magnifying glass. Mom says "You like looking at them through the magnifying glass? What is it making me look like? Does it make me look big?"</li> </ul>		X	

Activity	Notes:

**Quantity and Variety**

Definition: This feature looks at length of utterances, quantity of word types, richer vocabulary, and more varied syntactic frames.

	<b>B</b>	<b>P</b>	<b>N</b>
(1)Not at all characteristic <i>Simple and short phrases and commands.</i>			
(2)Weakly characteristic		X	X

<i>Longer utterances but few sophisticated words.</i>			
(3) Moderately characteristic <i>Exposes child to rich vocabulary but little attempt to explain or define.</i> <ul style="list-style-type: none"> <li>Brighter colors are giving warnings to <i>predators</i>.</li> <li>I think it's called a <i>larva</i>.</li> </ul>			
(4) Very characteristic <i>Exposes child to rich vocabulary and explicitly explains and defines unfamiliar words.</i> <ul style="list-style-type: none"> <li>This insect is <i>teal</i>- it's a special kind of blue.</li> <li>A mosquito has a mouth that can pierce your skin and <i>draw</i>...what does it take out of you?</li> <li><i>Nectar's</i> what's in the head of the flower.</li> </ul>	X		

Activity	Notes:

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