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## **Early Literacy and Children with Special Needs: An Examination of Resources in the Home Environment**

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To the Graduate Council:

I am submitting herewith a thesis written by Juli Meagan Dolezal entitled "Early Literacy and Children with Special Needs: An Examination of Resources in the Home Environment." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Child and Family Studies.

Vey M. Nordquist, Sandra Twardosz, Major Professor

We have read this thesis and recommend its acceptance:

Rena Hallam

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Co-Major Professor

Dr. Sandra Twardosz  
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Anne Mayhew  
Vice Chancellor and  
Dean of Graduate Studies

(Original signatures are on file with official student records.)

EARLY LITERACY AND CHILDREN WITH SPECIAL NEEDS:  
AN EXAMINATION OF RESOURCES IN THE HOME ENVIRONMENT

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee, Knoxville

Juli Meagan Dolezal

August 2006

## Dedication

To Thomas “Lake” Freeman, the boy who helped me keep everything in perspective and constantly reminded me of why I love what I do.

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The **12 parents and 6 children** who participated in the study and welcomed me into their homes and their lives.

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My very-soon-to-be husband, **Jonathan Blake Sams**, I am so blessed that you are in my life and are compassionate and funny enough to help me reach this goal. I love and appreciate you very much.

## Abstract

Early literacy development of young children is an area of research that is receiving increasing attention from scholars in the fields of early childhood general and special education. However, researchers in both fields have failed to examine the broad contextual features of the home environment and ways that these features may facilitate or impede literacy development. In an attempt to close the gap on research on early literacy development of young children with special needs, a measurement tool was developed for the purposes of obtaining a more holistic representation of resources available in home environments and gathering information about possible influences of these resources on literacy development of young children with disabilities. Six families were drawn from a subsample of parents who received services from Tennessee's Early Intervention System (TEIS). Two observations were in each home that, together, included a home tour, room mapping, direct observations of individual reading interactions between the child and each parent, and individual interviews with both of the parents. Utilizing this multi-method approach, eight literacy resources were assessed simultaneously for the kinds of information that was obtained from each individual method. The findings were related to literacy information presented in previous research. It was found that the multi-method approach produced a breadth as well as depth of information about resources in home settings that may have important implications for literacy development in young children with disabilities. The findings also suggested that the multi-method approach identified several resources in the home environment of a family in which the parents reported reading to their children daily versus the home

environment of a family in which the parents reported reading to their children three times a week or less. Implications for future research as well as early intervention practitioners also were discussed.

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## CHAPTER 1

### LITERATURE REVIEW

For the past 25 years, research on family literacy expanded and evolved into a varied focus of attention in both family and educational settings. As a whole, researchers suggest that the experiences that occur prior to school age form a foundation for later literacy development. Furthermore, a parent's participation throughout the education of his or her child reinforces the reading behaviors a child learns in school (Denti & Guerin, 2002; Dodici, Draper, & Peterson, 2003). Family literacy, in an optimal situation, involves a parent modeling and teaching appropriate reading and writing behaviors in addition to organizing a home environment that is language-rich. Family literacy differs from school literacy development in the individualized and intimate connection that can potentially be attained at home and is not as present in a school setting. Also, there are unique dynamics ascribed to individual families and the varied manners in which they function. For instance, some families may be involved in several extracurricular activities, others may lack sufficient time to interact with their child due to work, or may be very child-centered in daily living. Furthermore, the variations of appropriate resources in the home environment expectedly impact the development of early literacy skills.

Bronfenbrenner and Morris (1998) recognized that influence on development may not be concentrated from a single source, such as a parent reading to a child. Rather it may be that there are a number of influences on development, such as the availability of people and/or time, which are amalgamated and potentially impact development

individually or collectively. As a result, the ecological perspective was applied to the present research in an effort to incorporate a number of the possible influences on literacy development.

The resources that families provide are not limited to literacy materials they have in the home. Roskos and Twardosz (2004) described a variety of literacy-related resources that can be found in home settings. The degree to which these resources are available and the methods in which parents utilize them potentially impact the rate at which children develop literacy skills. There are physical, social, and symbolic resources that either promote or hinder literacy development. The manner in which household tasks are assigned, the affective quality of a parent towards a child, and the amount of time that can be devoted to reading are all examples of potential family literacy resources (Roskos & Twardosz). Also, there are a number of possible combinations of the availability of resources, for instance, a family may have a multitude of literacy materials, yet there may be minimal time that a parent designates to spend reading to a child. Literacy may not be a priority and, thus, a child may lag behind his or her peers when it comes time to enter school and thereby set the occasion for negative long-term consequences.

Researchers in the domain of literacy development have not independently examined all forms of resources that may have an impact on young children's literacy skills. The most common focus of attention has been the interaction between parent and child, not the manner in which the family functions from day to day that may play a pivotal role in a child's progress. Furthermore, many researchers have concentrated on shared storybook reading and somewhat overlooked the number of literacy activities,

such as writing, that are influential to the development of literacy skills. Though the language and conversations that ensue are the fundamental objective of reading, there are a number of indirect influences that prelude and ultimately guide literacy interactions.

In the literature review that follows, attention is paid first to defining resources in home settings that may have an impact on literacy development. Next, illustrative examples of research on family literacy for typically developing children are presented that highlight the various resources in the home environment and their impact on literacy development. The review continues with an exhaustive examination of studies that focus on children with mild to moderate disabilities. This is conducted for the purpose of illustrating the sparseness of research that examines distal environmental influences on literacy development. Methods of data collection also are described in an effort to expose the homogenous approach that is so prevalent in this area of research of literacy development of children with special needs. Finally, the review concludes with a summary of the findings and implications for the present study.

### Defining Resources

Roskos and Twardosz (2004) identified several resources that are evident in the home environment in relation to literacy development. Findings were based on an extensive review of research on typically developing children from which the authors drew 12 studies in an effort to compare representations of home-based resources. All of the studies included some form of empirical data; topical and theoretical studies were not considered. As previously mentioned, there are physical, social and symbolic resources that are present in every environment. The physical environment entails materials, time,

and space. **Materials**, quite simply, are the books, writing utensils, and various palpable objects that are useful for expanding literary knowledge in children. For example, letter magnets on a refrigerator would be considered a physical material. Time and space, on the other hand, are more elusive resources that are both important in their availability and the amounts that are intentionally reserved for literacy interactions. **Time** is considered in relation to when and how long literacy interactions occur, whereas **space** is the location in which these interactions take place.

Social resources that are available in the environment include people, knowledge, and emotional relationships that ensue in relation to literacy-related activities. The individuals who are available for reading to a child or assisting with household tasks during reading are considered **people** resources. Furthermore, a caregiver who is reading to a child is often conveying his or her own knowledge to the child. This is evident in both specialized knowledge, for example, a farmer's knowledge about cattle, or in a parent's general educational level, such as a bachelor's degree. Each of these are examples of **knowledge** resources. Also, some members of a family, usually parents, may have specialized knowledge about a child's behavior and, subsequently, may alter the manner in which they interact with a child. This would be deemed an **emotional relationship** resource.

Lastly, Roskos and Twardosz (2004) identified two types of symbolic resources that are evident in literature on literacy development of young, typically developing children. **Routine** refers to the frequency and constancy that literacy interactions transpire for a child. A **community, society and culture** resource refers to the influence on the

home environment from the external world. Socioeconomic status, language, and importance that parents place on education are all examples of ecological characteristics that are potentially symbolic and may influence the progression of literacy development in young children.

Studies of typically developing children proved to be so diverse in focus and depth that Roskos and Twardosz (2004) developed a system of logical ratings to help organize resource information. The rating system included a series of numbers from 0 to 3. The number 0 indicated that there was no mention of a specific resource in a study, whereas a 1 suggested that the resource was mentioned but may not have been an influential to the progression of the study. For instance, if investigators only acknowledged that a routine existed, but did not suggest it was affecting literacy development in any substantial way, the resource received a rating of 1. To receive a rating of 2 investigators needed to focus on a resource, but not exclusively or exhaustively. In other words, it was not an integral part of the study, yet still received a great deal of attention. To receive a rating of 3, a resource had to be the predominant focus of a study. For example, when books and other print materials in a home setting were the primary subject of analysis, the materials resource received a rating of 3.

### Typically Developing Children

For the purpose of the present paper, only two articles from Roskos and Twardosz (2004) will be presented in an effort to demonstrate how the rating system was used and also illustrate how it might be applied to studies of young children with special needs. One of these, Dickinson, DeTemple, Hirschler, and Smith (1992), received a high

number of ratings in relation to the resources previously mentioned; in contrast, Ninio (1980) had a quite low number of ratings. The selection of these two articles permits examination of the full range of resource ratings. There also will be mention of general trends that were evident throughout research on the resources that exist in the home environments of typically developing children.

### *Physical Resources*

Dickinson et al. (1992) received their highest rating for the subcategory of *materials*. The study had a rating of 3 because the investigators requested information from parents about the types and amounts of books in the home, in addition to a child's favorite book. Also, participants were questioned about the times at which they read to their children, but because this was the only mention that was made of *time* in relation to literacy activities, the study received a rating of 1 for this particular resource. Dickinson et al. did not mention *space* and, therefore, this resource received a rating of a 0. This was the only resource subcategory that did not receive attention from Dickinson et al.. In contrast, Ninio (1980) did not discuss any of the physical resources and, consequently, received a 0 in all three of the related subcategories.

### *Social Resources*

Dickinson et al. (1992) also inquired about whether or not a child was read to by someone other than the participant, yet the other individuals were not specified. Additionally, they found that siblings joined many of the focal children during literacy interactions. Therefore, they only received a rating of 1 for *people* resources. They also investigated the number and types of questions that mothers used when reading to their

children in comparison to teachers and therefore received a rating of 1 for the *knowledge* resource. Ninio (1980) also received the same rating because the investigator's asked about fathers' educational levels; however, it should be noted that the study was conducted only with mothers. Dickinson et al. acknowledged the amount of feedback and methods parents used for effectively engaging children by placing less emphasis on learning compared to teachers. As a result, the study received a 1 rating for *emotional relationships*. Ninio, on the other hand, received a 0 for this resource because it was not discussed at all.

### *Symbolic Resources*

The participants in Dickinson et al. (1992) noted that reading was a frequent and familiar activity for their children. Therefore *routines* received a 1. Ninio (1980) did not present any information that related to routines, but did provide information about the socioeconomic status of the Israeli participants. Similarly, Dickinson et al. recognized the influence of socioeconomic status in addition to the effect of the school environment on home literacy experiences. Consequently both studies received ratings of 1 for *community, society, and culture* resources. Also, it should be mentioned that both studies involved at least some in-home observations of literacy-related interactions. However, this was not true for over half (58.3%) of the studies that Roskos and Twardosz (2004) reviewed, even though they all related to family literacy.

### *Conclusions*

As a whole, researchers of typically developing children have paid a great deal of attention to the physical environment, just as the Dickinson et al. (1992) study illustrates. However, this information was primarily related to materials in the home; space and time received far less attention. Only one of the 12 studies, for example, received a rating above zero for the subcategory of *space* and only 5 received ratings above zero for *time*. On the other hand, social resources received a more diverse number of ratings than physical resources. For example, *knowledge* was addressed in all 12 studies. Many researchers recognized the importance of symbolic resources but failed to provide much empirical information about them. *Routines*, for instance, were only mentioned to the extent that they existed; little effort was made to quantify or describe them. *Time*, *people*, *emotional relationships*, and *community, society and culture* all received modest numbers of low to moderate ratings. Overall, the total resource analysis conducted by Roskos and Twardosz (2004) yielded fairly grim results; 47% of the ratings were zeros, whereas only 15.6% were threes. Although one would not expect investigators to focus on every resource, the descriptive statistics were quite revealing and indicated that, to date, investigators have not paid much attention to distal resources in the home environments of typically developing children.

### Children with Special Needs

A literature review similar to the one conducted by Roskos and Twardosz (2004) is now presented, but includes studies of children with mild to moderate disabilities. The review was undertaken for the purpose of learning whether resource ratings of studies

that included children with special needs would be comparable to or different than the ratings of studies that focused on typically developing children. Only studies of mild to moderate disabilities were included in the present analysis for the following reasons.

First, the majority of children with disabilities have mild to moderate diagnoses (i.e., Kuo, Franke, Regalado, & Halfon, 2004). Second, inclusion of information related to children with more severe diagnoses may alter comparisons that can be made with typically developing children. The daily demands of caring for a child with a severe disability may require parental efforts that preclude a focus on literacy-related activities. Finally, one might expect there to be relatively minor differences among daily routines of families of children who are typically developing and those who have mild to moderate disabilities. One illustration of a possible difference between the two groups is that children with special needs typically receive some form of therapeutic service and families must reserve time and transportation for therapy; parents of typically developing children do not have to concern themselves with these kinds of special services.

The present literature review was undertaken using many of the same criteria that Roskos and Twardosz (2004) used to select studies for their review. Studies in the present review all included some form of data collection and they also were related to families of young children. However, Roskos and Twardosz selected studies based on literacy interactions that occurred at the time of observation, not parents' recall information. This criterion could not be used in the present review due to the sparseness of this type of research. Nonetheless, in an effort to complete an exhaustive review of the literature, studies were obtained through a series of steps. First, a general search of the university's

electronic databases, for instance, Academic Search Premier and JSTOR Arts and Sciences 4, and peer-reviewed journals, i.e., *Child Development* and *Topics in Early Childhood Education*, was completed. Second, the investigator examined the reference lists of all the articles that were used in the present study and articles that were not included in the present study, but pertained to literacy-related topics. Third, the cycle was repeated. This process yielded a total of 17 studies that were published in peer-reviewed journals during the past 20 years that met these criteria.

### *Studies*

Family literacy is vital for any child's development; however, it may be particularly so for children with mild to moderate disabilities. Unfortunately, characteristics associated with a disability may sometimes encumber literacy interactions between parent and child. Therefore, it might be that researchers in this area often need to analyze literacy development from a different perspective for children with disabilities compared to those without disabilities. The ratings analysis developed by Roskos and Twardosz (2004) was used, therefore, to learn whether this might be true with respect to resources in the homes of children with special needs. Resource ratings for all 16 studies are presented in Table 1. All tables are located in Appendix G.

### *Physical Resources*

#### *Materials*

Research on the materials varied quite dramatically in relation to the type of disability. VanderWoude and Barton (2003) explored the differences between a parent's utilization of expository books, for example, an alphabet book, versus narrative books,

such as *Green Eggs and Ham*. Within the context of a laboratory observation, the authors concluded that expository books were useful for children with speech-language delays because they required more conversation on a child's part. Furthermore, there were variations in relation to the child's familiarity with the book the dyad utilized during the interaction. There were more verbalizations associated with familiar books.

Kuo et al. (2004) and Fitzgerald, Roberts, and Pierce (1995) assessed the presence and types of literacy materials in the home. Similarly, Gioia (2001) recognized the importance of repetitious books for children with hearing impairments and Craig (1997) acknowledged the variations in utilization of Braille, print, or a combination of Braille and print for children with visual impairments. However, their methods of collecting data were very different. Gioia completed a series of classrooms observations, informal parent interviews, and direct communication with the lead teacher of children with hearing impairments. In contrast, Craig obtained information by means of a questionnaire tailored to the resources for children with visual impairments. Light and Kelford-Smith (1993), Marvin (1994), and Marvin and Wright (1997) also used questionnaires to obtain information, but used them to investigate the broader contextual influences of disabilities, such as the number of books in the home. As a result, the investigators in all three studies only inquired about the presence of specific print and literary materials available to the children in the families' home environment. They did not assess discrepancies in literacy development that might have been associated with these materials. Goin, Nordquist, and Twardosz (2004) completed a hometour and interview with the families in their sample

and found that books were the most common literacy material used in a home and some of the children utilized electronic media, such as computers as well.

### *Time*

Researchers often overlooked the resource of time, unlike the research conducted on materials. Fitzgerald et al. (1995) briefly acknowledged the amount of time that the parent and child spent in literacy activities overall and the variations of availability of focal parent among the three families. Goin et al. (2004) reported that parents typically read to their children during a transitional time, such as before bed. Light and Kelford-Smith (1993) acquired information about a number of resources of children who used alternative and augmentative communication (AAC) devices compared to their typically developing peers. Through the use of a questionnaire completed by parents, the researchers inquired about the time at which literacy activities occurred and concluded that it was often during the bedtime routine for both groups. They also found that the length of time in a literacy interaction was double for children without special needs compared to those who used AAC devices and customarily lasted approximately thirty minutes when typically developing children were involved. In addition, literacy activities were not allotted nearly as much time as eating for children who required AAC devices compared to children without delays.

The few studies that are available revealed that parents of typically developing children may be capable of devoting more time to certain kinds of literacy-related activities than parents of children with mild to moderate disabilities. The investigators who mentioned either materials or time all reached the conclusion that there is specific

information about literacy development that relates to the unique lives of children with special needs.

### *Space*

Light and Kelford-Smith (1993) also were somewhat distinctive in the amount of information they queried about for the physical resource of space. The parents of children who used an AAC device reported difficulty in placing children on their laps; nevertheless, the majority reported that they, in fact, did so. Marvin (1994) and Marvin and Wright (1997) also inquired about the placement of children with either single or multiple disabilities during literacy interactions. The parents of children with single disabilities reported sitting closer to their children than parents of children with multiple disabilities (Marvin). This may be partly attributed to the diagnosis of a physical disability or, similar to the children in the Light and Kelford-Smith study, a child may have assistive technology to facilitate basic functioning. Moreover, Fitzgerald et al. (1995) concluded that some families might have distracters, such as a television, in close proximity. Their research was conducted through a series of in-home observations of families of children with mild cognitive and language delays associated with Down syndrome. Therefore, the information that was derived was the researchers' direct observation of these distracters, yet it is unclear whether the television was a distracter to the observer and/or the family.

Collectively, researchers that acknowledged space as a resource noted the constraints placed on the proximity of a child to a parent related to a child's disability. This is a prime example of the minor ways that a child's disability may hamper the frequency of literacy interactions.

### *Social Resources*

#### *People*

As Table 1 demonstrates (all tables are located in Appendix G), social resources have not received the same degree of attention from researchers as physical resources. Nevertheless, Cohen (1997) and Light and Kelford-Smith (1993) recognized that parents are usually the individuals who read to their children. Through the utilization of a telephone survey, Cohen noted that, for some families, siblings may be involved in storybook reading or may be the ones who actually read to children with special needs. This, in turn, may have allowed parents to manage other responsibilities while reading was occurring. Goin et al. (2004) also noted the presence and possible influence of siblings for children's literacy development. According to the parents, changes appeared to be somewhat influenced by the age of the sibling(s). Fitzgerald et al. (1995) indicated that this might not be the set of circumstances in many families. In fact, it may be that one parent is managing all the household tasks while the other parent is at work. All three of the fathers in their sample worked outside of the home and it appeared to be the mothers' responsibility to maintain life at home. As a result, there may have been less time for literacy interactions to occur with a young child, yet the authors did not address this assumption.

### *Knowledge*

Researchers documented two ways that knowledge may be impacting children's literacy development. First, Kuo et al. (2004) used a telephone survey to interview a nationwide sample of parents and found that parents with more years of education reported reading to their children more often than parents with fewer years of education. Fitzgerald et al. (1995) obtained information about the educational level of both parents in all three families in their sample, which varied greatly from one year of school to a master's degree. They also noted that parents in their sample tended to promote learning over general conversation in relationship to the parents' educational level or interests. Taken together, this information suggests that, although parents with more years of education read more often to their children with special needs, they also may control more of the conversation. The concept of maternal topic control also was supported by Justice and Kadervak (2003) and Schneider and Hecht (1995) in their observations of children with language delays and their mothers. However, these investigators did not examine whether a relationship, if any, existed between topic control and the educational level of the mothers. This may be due to the assumption that parents are usually aware of their children's abilities and may not persist if they feel the child will not be able to succeed (VanderWoude & Barton, 2003).

Lastly, Hockenberger, Goldstein, and Haas (1999) did not provide as detailed information about knowledge as other researchers did. They tested mothers' reading levels through the use of a standardized test in an intervention study. All of the mothers

had at least an 8<sup>th</sup> grade reading level and the investigators did not pursue the relationship between educational background and literacy development any further.

### *Emotional Relationships*

Schneider and Hecht (1995) were on the forefront of examining the social resource of emotional relationships although they, much like the other investigators who researched emotional relationships, focused mostly on parental responsiveness. They found that mothers of difficult children, as defined by the researchers, requested less from their children compared mothers of less difficult children and that a child's behavior appeared to impact the verbalizations from the mother. Fitzgerald et al. (1995) also noted that one of the mothers in their sample was less demanding of her child with disabilities compared to the child's typically developing sibling. Also, Dale & Crain-Thoreson (1996) concluded that children's improvements on literacy-related measures correlated with their parent's improvements following intervention. They noted that this was true regardless of the reading method, i.e., verbatim versus more conversational. Furthermore, children's interest in literacy related activities may be related, in fact, to the additional information that is brought to the story through the parent's incorporation of familiar activities or objects (Hockenberger et al., 1999). Overall, it seems that both parent and child are responsive to the other's behavior during literacy interactions. Nevertheless, these researchers did not address additional components that may be categorized under emotional relationship such as the affective quality between parent and child.

### *Symbolic Resources*

#### *Routines*

Routines have received very little attention from researchers. In fact, most researchers only acknowledged the existence of routines (Cohen, 1997; Crain & Dale-Thoreson, 1999; Goin et al., 2004; Kuo et al., 2004; Marvin, 1994; Marvin & Wright, 1997). Paulson, Kelly, Jepson, van den Pol, Ashmore, Farrier, and Guilfoyle (2004) suggested that minor changes in routines and a child's environment within a school, home, or community setting potentially contribute to literacy development. An example would be when parents and teachers include books on culturally diverse topics in the home and classroom.

Paulson et al (2004) assigned participants into either an intervention, control, or combination group. The investigators worked with individuals in the intervention and combination groups to improve the existence of literacy behaviors in a routine based situation. As a result, children in the intervention group performed better on an administered test than their control group counterparts. Also, Light and Kelford-Smith (1993) suggested that parents of children with special needs may have routines that are organized more for daily functioning activities, such as eating, but not for leisurely activities such as reading. Therefore, if families are capable of constructing routines around characteristics associated with a child's disability, families may also be able to make simple changes to incorporate literacy-related activities

*Community, Society, and Culture*

Community, society, and culture resources were addressed by a number of investigators, all of who suggested that literacy development for young children with special needs should not be the sole responsibility of the family. Gioia (2001), Hockenberger et al. (1999), and Paulson et al. (2004) acknowledged that individuals in school and other community settings need to assist families in children's attainment of literacy skills. Furthermore, literacy activities that occur in the school setting may spontaneously generalize into the home environment. For example, in Gioia, parents remarked that reading activities that changed in the context of a classroom of children with hearing impairments increased child-initiated reading interactions at home. Correspondingly, Kuo et al. (2004) emphasized the need for pediatricians to provide information to families regarding the value of reading activities at a young age.

The parents in Goin et al. (2004) appeared to hold reading and education in high esteem and recognized that the community had on their children's literacy development. Additionally, parents recognized how reading can be utilized as means to other areas of development than simply literacy development. On a separate note, Cohen (1997) concluded that there are variations in reading frequency between rural and urban settings, with parents of children with special needs who reside in rural settings reading to them more often. Similarly, Fitzgerald et al. (1995) examined the home life of families from rural, suburban and urban settings, but did not report conclusions that related to these various settings. Finally, Schneider and Hecht (1995) reported that mothers who valued literacy more than others read to their children more often. Even though this appears to be

a personal choice, it is the kind of value that probably is influenced somewhat by the community and pervasive cultural values.

### *Conclusions*

The data in Table 1 (all tables are located in appendix suggest that researchers tend to focus more on *materials* than *time* and *space* resources. Researchers that addressed social resources received varied ratings, although many (11) received ratings of 1, indicating that minimal attention was paid to them, regardless of the category. Surprisingly, both of the symbolic resources, *routines* and *community, society and culture*, received at least some attention. Over half of each of these categories had some rating other than 0. There also was a tendency among researchers to reach similar conclusions on a number of items. For instance, researchers who investigated space all reached the conclusion that the placement of the child during a literacy interaction was at least somewhat affected by the child's disability.

The investigators also recognized the variations of children's literacy development as it related to their special needs. However, often the information focused solely on the parent and child as the unit of analysis. It remains to be seen how a child's disability might affect a parent and, subsequently, the manner in which the parent organizes resources in the home environment. Nevertheless, it needs to be noted that, collectively, 64% of the ratings were zero, whereas only 5% were 3. These percentages clearly indicate that researchers have paid even less attention to resources in the home environments of children with disabilities than they have to resources in the environments of typically developing children. One reason for this may be that researchers in this area

have not utilized direct observation or parental interview methods to gather information about home-based family literacy activities.

### Summary of the Combined Research Findings

An examination of the research of typically developing children in comparison to those with special needs yields findings that are relatively similar. Table 2 presents a comparison of the percentages of the average ratings for each category and subcategory for studies of typically developing children and children with special needs. The percentages in Table 2 were obtained by calculating the total number of ratings in a category divided by the highest possible number that could have been obtained for each one. For example, if all 17 studies in the subcategory of space for children with special needs had a maximum score of 3, the total number would be 51. However, all of the ratings combined in the subcategory of space totaled 4 and, subsequently, this accounted for only 8% of the possible information about space as a resource.

As previously mentioned, analysis of studies that include children with special needs were not selected using the same criteria that were used to select studies of typically developing children this was because of the virtual absence of studies conducted in home settings of children with special needs. However, findings of the present resource analysis do provide some support for the conclusion that information on resources in the home environments of children with special needs is limited. In other words, there was not enough information on children with special needs to do a comparable analysis in the beginning and, even then, studies that were included in the present analysis still addressed fewer resources than studies of literacy development that

focused exclusively on typically developing children. The data in Table 2 demonstrate that, overall, information on the home environment of young children in relation to literacy development is lacking no matter what the developmental disposition of the children. Moreover, researchers focused only on one or two resources when they paid attention to them at all. Furthermore, when researchers did attend to resources, usually they examined only one component of each one. For instance, although many of the investigators mentioned that there were materials in the home, most of them did not investigate the possible influence that type or amount of materials might have on children's literacy development.

The research conducted with typically developing children almost invariably produced higher resource ratings than studies of children with special needs. In fact, the percentages were over twice as high in both the physical and social categories. However, there was a core discrepancy between the findings for studies conducted with typically developing children versus those that focused only on children with mild to moderate disabilities. Although each group of studies were evaluated on the amount of information on a specific resource, the results derived for children with special needs was, in some respects, quite specific to the unique lives of these families. For instance, reported where they placed a child for storybook reading in relation to the child's AAC device, whereas a child without an AAC device may be more mobile (Light & Kelford-Smith, 1993). This type of specific information is unique to research on children with special needs.

In-home observation was not the most common method used by investigators to study typically developing children or those with mild to moderate disabilities. In fact, only 8 of the studies included in Roskos and Twardosz (2004) and 2 of the studies in the present review (Fitzgerald et al., 1995; Goin et al., 2004) were conducted, at least partially, with an observer present in the home. There is no doubt that researchers have relied far more on questionnaires and, to some extent, controlled laboratory observations, when they have examined the literacy development of young children with special needs compared to investigators who have studied the literacy development of typically developing children. This may be related to the limited amount of research available and the tendency of researchers who are just beginning to explore an area of interest to utilize survey methods of gathering information.

The lack of literacy-related research conducted in the homes of young children with special needs is even more discouraging in light of the law (Part C of the Individuals with Disabilities Education Act) that mandates that intervention be conducted in a child's natural environment. In a recent review of literature on special instruction, Childress (2004) addressed the importance of providing early intervention services in natural settings and maximizing parental involvement. Childress recommended that interventionists should utilize physical resources in a home environment (i.e. toys) while incorporating challenging, yet developmentally appropriate tasks. She also noted that there is a disparity in the United States between policy and practice and that, unfortunately, early intervention services often vary across systems, communities, and families. Childress concluded that, "while best practice guidelines are helpful in outlining

how to provide a service, they usually do not provide the practical knowledge and strategies those in the field need to begin working toward them” (p. 168). Furthermore, McWilliam and Scott (2001) recognized that it might be beneficial for families of young children with special needs to incorporate early intervention practices into families’ daily routines. Given the legal mandate for applying early intervention in natural environments such as the home and the current gap between policy and practice, there is an urgent need for research that might help early intervention professionals know more about conditions in the home that may support or impede the application of best practices. The present study was undertaken, in part, to help meet this need.

#### Purpose

There is little doubt that research conducted with both typically developing children and those with special needs does not include findings that relate to all of the resources, collectively or individually, that might facilitate or impede literacy development. As a result, the present pilot study was designed for the purpose of learning whether all of the resources described above can, in effect, be assessed in the home simultaneously. Because valuable information about specific resources related to literacy development might be gathered better by one method of data collection as opposed to another, multiple methods of data collection may be necessary to obtain a comprehensive description of literacy resources in the homes of families of young children with disabilities. Consequently, another purpose of the present research was to develop a multi-method approach to data collection that would be useful as well as informative. This was done with the long-term goal of gathering information that will be helpful in

laying a foundation for early intervention service provision and, more specifically, the promotion of parental practices that enhance literacy development for young children with special needs.

In addition, an effort was made to determine whether the multi-method approach to data collection could distinguish the exploitation of resources between parents who report reading daily to their children with special needs tend to live in homes that are organized differently in terms of the amount, types, and utilization of resources than parents who do not read as often to their children with special needs. This analysis was important because it would provide a means of demonstrating that the methods of gathering resource information were actually sensitive to resource differences in homes where reading occurs at different weekly rates.

## CHAPTER 2

### METHODS

#### Participants

The participants were selected from approximately 380 families who previously completed a questionnaire for the Pathways Research Project. The Pathways Research Project was an evaluation component of Tennessee's Early Intervention System (TEIS). TEIS is the state's birth-to-3 early intervention program. It includes 9 different programs that are located in various geographical "districts" across the state, 8 of which are located on university campuses. The other is located in a hospital setting in Jackson, Tennessee. The East Tennessee District program is located at the University of Tennessee, Knoxville. Like all of the other TEIS programs, it is comprised of a staff that includes a Program Director, Project Coordinator, Contracts Coordinator (direct service to families), administrative assistants, and several service coordinators. The primary mission of TEIS is to identify young children in the state who have developmental delays and assign service coordinators to help their families receive needed early intervention services.

The service delivery model is based on a family-centered philosophy and all TEIS service coordinators must complete a training program that is designed to teach them how to utilize family-centered practices when working with families. TEIS is funded by the state's Department of Education (DOE) and also federal flow-through dollars. The DOE provided 3 years of funding to support the "Pathways to Family Empowerment Project" (Pathways Research Project) for the purpose of evaluating the extent to which service coordinators were using family-centered practices as well as the effects of these practices

on parental empowerment outcomes. A questionnaire was developed by the Pathways research team, the Pathways Project Questionnaire, and distributed to families in all 9 TEIS districts. A small number of parents who completed the questionnaire served as participants in the present study.

The families met a number of criteria prior to their involvement in the pilot study. First, children were selected only if their parents' reported a single disability on the Pathways Project Questionnaire and only if the diagnosis was either a speech and/or hearing impairment or developmental delay. Second, only two-parent households were selected for participation in the study. However, only one of the parents needed to have previously completed the Pathways Project Questionnaire. Two-parent households were chosen, in part, to examine possible differences between mothers' and fathers' opinions of daily life and the presence of resources in a home. Third, all of the children had to be younger than school age ( $< 5$  years). A total of 6 families met all of the selection criteria and participated in the pilot study. Demographic information about each family is presented in Table 3. Child demographics are presented in Table 4.

The demographic information for both families and children was obtained from the mothers' Pathways Project Questionnaires. Only 2 of the 6 fathers completed the demographic portion of the questionnaire and, as a result, information specific to them (i.e., level of education) is not included. Parents completed the questionnaire up to two years prior to their participation in the pilot study; therefore, information on siblings is based on both the questionnaire and observation and discussion with parents. For example, Family A had another child in the time since they completed the questionnaire.

All of the parents were married and five of the families had children other than the focal child. The average age of the mothers was 37 years (range 28-43 years) and they were all Caucasian. All of the mothers had at least some college education and 5 of the 6 mothers had bachelors degrees or higher. Four of the mothers stayed at home to care for their children, one was employed part-time, and one was employed full-time. The average income range for the families as reported by the mothers was \$40,000 to \$55,000 (range \$15,000 to \$75,000+). Four families lived in suburban areas and the other two families lived in rural areas.

Four of the children were Caucasian, one was Asian and one was from Georgia/former USSR, but her race was not specified. The latter two children were adopted. The average age of the children was 4 years, 6 months at the time of the first observation (range 3 years, 8 months to 4 years, 10 months). Two of the children were female and 4 were male. Four of the children were diagnosed with a developmental delay and 2 were diagnosed with speech and/or hearing disorders.

#### *Participant Selection*

This was a purposive sample and was actually reduced by the end of the study. In the beginning, the hope was to have a total of 8 families in the sample. Had this happened, the sample would have included two each of the following categories: female child whose parent(s) reported reading to her daily, female child whose parents reported reading to her 3 times a week or less, male child whose parents reported reading to him daily and male child whose parents reported reading to him 3 times a week or less. The

parents would have been counterbalanced for order of observations based on parent gender.

The criteria necessary for families to participate were very specific, which may have accounted for some of the difficulties in obtaining the full sample of families. First, parents who reported lower reading frequency may have less time to not only read with their children, but also to participate in a research study. Furthermore, they may be wary of participating due to the social stigma associated with not reading as often to their children as others. Second, the participants were selected based in part on their participation in previous research conducted within the same project. Some families may have felt that they already contributed enough to TEIS. In addition, the birth-to-three service coordination system only serves children three years and younger. There was a considerable time lapse (approximately 2 years) between administration of the initial questionnaire and the present study. Most families no longer received services from TEIS and therefore may not have felt obligated to be involved in another study.

A search for possible participants was conducted using a list of families who completed the Pathways Project Questionnaire and resided in the East Tennessee district. Information related to child gender, parental reading frequency, two-parent household, and child with speech/hearing or developmental delay also was obtained from the questionnaire. This yielded a total of 32 possible participants in the East Tennessee district. Only 4 of these families agreed to participate in the pilot study. However, a second search was conducted in 6 of the 8 remaining TEIS districts and yielded a list of 56 potential participant families from which 29 families were contacted via the phone. In

the end, two of these families agreed to participate, one of which was approximately 100 miles from the University of Tennessee, Knoxville campus and the other was approximately 250 miles from campus.

There was a 73% decline rate from individuals who were reached via phone. Some of the parents declined because their child was no longer receiving services from TEIS. When they were informed that they could still participate in the study, many simply declined without reason. Several declined because one parent was willing to participate, but the other was not. Mothers were the ones who typically agreed and then opted not to participate in relation to our selection criteria (both parents participating). When the investigators spoke with fathers, then it was more common for them to decline upfront without discussing it with mothers. Still others were concerned about the time investment and/or felt that the present methodology was intrusive. They expressed that they were uncomfortable with someone coming in their home to observe them. This is a limitation of the present study and may have altered the demographic makeup of the sample. Also, it is interesting to note that the individuals who did choose to participate typically agreed before the monetary incentive was discussed.

#### *Compensation*

Participants received \$50 each after a home visit was completed. In addition, the parents were given the option of receiving a summary of the results after the study was completed.

## Procedures

### *Home Visit*

Home visits with mothers and fathers were conducted on separate occasions. The first home visit began with a hometour where the parent accompanied the investigator during an examination of different rooms in the home and pointed out and answered questions about resources, primarily physical resources, in the home. All of the rooms were photographed to obtain a visual record of resources that supported parents' comments about the organization of the home and location of literacy materials. The parent was asked to identify a room where he or she commonly read to his or her child. Once the room was identified, the investigator constructed a map of the room that illustrated how it was organized and where resources were located so that the immediate physical environment could be analyzed for its possible impact on the storybook reading activity. After the tour, photos, and mapping procedures were completed, a fifteen-minute observation of one parent reading to the child was conducted in which the parent or child selected books from the materials they had in the home and then participated in the reading activity. After the activity was over, the parent participated in a semi-structured interview.

Participants were contacted approximately 1 to 2 weeks prior to the first scheduled observation. The parents were asked to indicate the time they typically read to their children and, subsequently, scheduled times with the investigator. However, it was more common for a parent to schedule a time that was convenient rather than a typical reading time. Most parents indicated, for example, that they often read to their children at

night after the children were in bed, but none of the parents offered to be observed during the bedtime routine. The parents were given the option of either having the informed consent form sent to them via mail one week prior to the visit or having the form presented at the beginning of the visit. The observer discussed or read the consent form with each parent before any procedures were implemented. All participants were called again a day or two before each visit for confirmation purposes and to remind them about the time.

The day of the visit with the first parent in each family, after the parent signed the informed consent form, the focal parent led the observer on a home tour of rooms that were approved for viewing and photographing by the parent. The parent provided any information he or she deemed relevant or necessary, e.g., where books were located in the room. After the tour was completed, the parent was informed that the reading activity would take place within approximately 10 minutes and to prepare the child for storybook reading. The observer used the 10-minute break to photograph every room that had been approved by the parent. Photos were taken from each corner of a room and then literacy related materials (e.g., books, child's name on the wall) were photographed up close. The observer and the parent then reviewed the photos and any photos the parent did not want included in the study were deleted from the camera. If a second observer was present, he or she mapped the room in which the reading activity was about to occur while the first observer photographed the rooms. If he or she was not present, the investigator completed the room-mapping after the rooms were photographed.

When the parent was ready to begin reading to the child, she or he was asked to read to the focal child in the manner to which the child was accustomed. Although each parent was observed for 15 minutes, she or he was not informed about the duration of the observation timeframe. This was done so that parent and child behaviors were not altered because of excessive or limited time constraints that might occur because the observer needed more or less time between interval recording to make notes about events related to the interactions. Also, it was necessary to ensure that each observation period included a total of 5 parent and 5 child 10-second intervals. During a number of the observations, some parents finished before the set of 5 interval recordings were completed and invariably asked the observer if they needed to continue. When this occurred, parents were asked to continue reading and then were informed when the observation session was over.

The observer (or observers when a second person was present for reliability purposes) sat in relatively close proximity (on average, approximately 4-6 feet) to where the storybook reading activity occurred, depending on both auditory and visual observation requirements. Before the interval recording began, the observer recorded demographic and other relevant information that preceded the reading interaction. After this was done, the observer completed the interval recording, recorded information about book(s) that were used during the reading activity, and also wrote down comments that helped to clarify conditions that may have affected the storybook reading interaction.

Following the 15-minute observation period, the parent was informed about the upcoming interview and given 10 to 15 minutes to attend to necessary activities. During

the break, the observer used the time to summarize notes and expand upon or clarify them as the situation warranted. The summarization process was completed at this time in order to minimize observer bias in relation to comments that parents might make during the interview and also maximize recall effects.

During the last part of each home visit, the parent answered a series of interview questions, in most cases, without additional family members being present. On two occasions mothers were in the room during their spouses' interviews and sometimes the focal child or siblings interrupted the interview. When this happened, parents were given time to attend to their children's needs. The parent was allowed and encouraged to respond in as much or little detail as she or he desired and the interviewer was free to request the parent to expand upon answers or comment about specific incidents that occurred during the storybook reading interaction.

The home visit with the second parent followed a similar but somewhat different format. The researcher and the second parent scheduled a time for the next visit after the first visit was done. During the second visit, the investigator presented the informed consent form if it had not been mailed to the parent. Neither the home tour nor room mapping procedure were repeated during the second home visit unless minor clarifications needed to be made from the first hometour, or if the storybook reading interaction took place in a different room than the first visit. Observation of the storybook reading activity, summarization of behavioral observations, and the parent interview occurred in precisely the same manner they did during the first home visit.

## Materials/ Instruments

### *Home Tour*

Parent comments during the hometour were audio taped. The parent held the voice recorder as she showed each room to the investigator. After the tour was over, the investigator took photos of each parent-approved room with a digital camera.

### *Room-mapping*

The room in which reading occurred was mapped using a free-style method of drawing the room. The room-mapping form included a large square that was divided equally into sixteen smaller squares that facilitated to some extent a proportional rendering of the room and location of certain objects. A “key” also was used for many of the objects that related to the previously mentioned physical resources. In addition, there was space on the form to describe objects that needed to be explained in some detail so that other individuals who had not seen them would know what they were. For example, a child-sized chair warranted written clarification because it could not be depicted accurately in a drawing of this kind.

### *Observation Instrument*

The observation instrument was developed by the investigator in an effort to assess the features of the home environment that might have an impact on the storybook reading activity. A copy is located in Appendix A. It was informed on the research conducted by Roskos and Twardosz (2004) which suggests that a variety of components within both proximal and distal environments potentially affect the quality and/or length of literacy interactions. The instrument was periodically modified after practice

administrations were conducted in both classroom and home settings. The instrument began as a checklist that included literacy resources presented in either a dichotomous or varying degree format (high-medium-low). However, it eventually became apparent that a format that included more open-ended responses would allow observers to have opportunities to include information that had not previously been observed. As a result, the instrument was adapted to include written prompts that were strategically placed on the form to remind the observer to check the environment or interaction for the presence of certain resources, e.g., furnishings, lighting, seating, privacy, quietness, and crowdedness.

The final version of the instrument was divided into 3 sections. The first section included a single sheet for recording basic demographic information in addition to information about each observation. The second section was comprised of 5 identical sheets that were subdivided into 3 components: time sampling intervals, book information, and descriptive notes. The time sampling component was used to record parent and child behaviors during the storybook reading activity. The first step of the recording process required the observer(s) to complete a 10-second time sampling observation of child behaviors and then another 10-second observation of parent behaviors. Some examples of child behaviors that were included on the interval portion were listening, looking at pictures, and nonengagement. Examples of parent behaviors were smiling, turning pages, and asking. Definitions of child and parent behaviors are included in Appendix B.

During the interval recording component of the storybook reading observation, child and parent behaviors were observed for 10 seconds and coded “yes” when a behavior occurred or “no” when it did not. After one set of child and parent 10-second observation intervals were done, notes were recorded for approximately 2 and half minutes. Thus, it took about 3 minutes to complete each of the 5 observation sheets. Observation cycles were repeated 5 times until a total of 50-seconds of observation time had been coded for both child and parent. It took approximately 15 minutes to obtain all of the interval and notation data.

The second component in this section included space for recording the title, author and brief description of the book that the parent read to the child. The third component permitted the observer to record information about the surrounding environment in a descriptive format. The last section of the observation instrument contained summary sheets that allowed the observer to further describe, clarify, and expand on the notes that he or she recorded in section two, but may have not had time to complete in a comprehensive and fully accurate manner.

### *Interview*

To obtain information about parent perceptions of literacy and related questions, he or she answered a series of structured interview questions that related to the topic of family literacy. A copy of the questions that guided the interview process is located in Appendix C. All of the questions pertained to specific details related to the resources mentioned in the literature review. For example, parents were asked to describe a typical day in the life of their family to assess resources that related to time and people. The

interviewer was free to deviate from specific questions at her or his own discretion; all of the structured questions were presented to every parent who participated in the study.

### Reliability

A second observer attended at least half of the home visits so that reliability checks could be performed. Both observers met within 24 hours after each observation was completed and compared their time sampling records as well as narrative records that were written during the 2 ½ minute periods that followed each set of parent/child observation intervals. None of these data were changed. Interobserver reliability percentages for the interval data were computed separately for parent and child behaviors and were based on the determination of whether the parent or child was “engaged” during the interval. If any of the behaviors that could be scored did, in fact, occur then the parent (or child) was said to be engaged in the reading activity. Therefore, when both observers recorded at least one of the behaviors that were of interest, e.g. turning a page, smiling, handling the book, listening, an agreement was scored.

Observers did not have to agree on the occurrence of the same parent (or child) behavior; they only had to agree that one of several possible behaviors had occurred. A disagreement was scored when one observer recorded a parent (or child) behavior and the other observer did not record anything (nonengagement). Reliability percentages for individual child and parent behaviors that occurred during the 10-second intervals were computed for engagement by dividing agreements by agreements plus disagreements and multiply by 100. Interobserver reliability percentages for both the parent and child interval data were 100%.

A list of statements was created to assess interobserver reliability of the summary records (please see Appendix D). The list covered several potential resource categories and included specific positive statements (e.g. “Drawing and writing materials are available to children”) that related to individual resources. The statements were constructed so that each one could be answered “yes” or “no”. Observers independently responded to each statement after reading the summary and interview transcript and examining the photos. Interobserver agreement percentages were computed for 7 of the 12 parent transcripts using the same computational procedure described above. The interobserver agreement percentage was 88.4%.

Reliability for the parent interview transcripts was determined using a second transcriber. The second transcriber read the interview transcripts while listening to the original tape and highlighted words or lines that were not consistent with the original transcription. For the sake of efficiency, the unit of analysis was a transcript line. Thus, when the second transcriber agreed with every word in a line that had been recorded by the first transcriber, an “agreement” was scored. When the second transcriber did not agree with every word, a “disagreement” was scored. Intertranscriber reliability was computed by dividing the number of agreements plus disagreements into agreements and multiplying by 100. Reliability was computed in this manner using only the 4 transcripts from 2 families. These families are highlighted in the Results section. Intertranscriber reliability was 86.7%.

## Data Analyses

### *Hometour and Photos*

There was no effort made to structure the hometour across families. The hometour with a parent enabled the investigator to gain access to a home environment and, at times, additional knowledge about the amount, types, quality, and use of resources in the home. Some of the parents used the occasion to speak about topics or items that may or may not have related to literacy resources (e.g., a child's eating habits). Information may have been obtained from the hometour that was not evident with the other forms of data collection, but this was not consistent across the hometours with all parents.

The photos were used to visually illustrate the organization of the homes (i.e., location of lamp in relation to storybook reading) and the availability of materials. The main purpose of the photos was to support the information that was gathered via the observation and interview processes, not necessarily to add any new information about the availability or function of literacy-related resources. Photos were analyzed by means of visual examination to locate any surface differences or similarities between homes.

### *Interval Data*

The interval data was scored by tallying each time engagement was scored for parent and child and then multiplied by 100 to obtain a percentage. For example, if a child was engaged four of the five interval scorings, the child's percentage of engagement would be 80%. The storybook reading was used to provide a context in which an observer could examine the resources in the home environment. Therefore, the amount of

engagement was the only data that was obtained from this section and no further analysis was conducted.

### *Descriptive Summaries and Interviews*

Due to the fact that there were multiple methods of data collection, data analysis posed quite a challenge. The data was quantitative in some respects, yet the majority of information was in a written format. However, both the observation instrument and interview were guided and, as result, the possibility of new themes emerging at the broader levels was not investigated.

The first step in the process of data analysis for the reading activity summary statements was to include all information on the summary pages from the notations taken during the 2 ½ minute intervals for each resource. Although a large amount of notation information was already included in the summarization statement section, all notes were transferred to the summary and, therefore, all of the information was in one location. Therefore, the summary information was the only section of the observation instrument that was analyzed. The investigator used NUD\*IST software application to code, line by line, the summary statement transcripts. The summary statements were, for the most part, already organized into the 8 literacy resources. However, NUD\*IST was used to assist in the placement of comments in the appropriate categories because the comments were, at times, out of place due to the limited time allotted for the summarization process. Initially, the statements were coded into the broad environmental categories (Physical, Social, and Symbolic) and then into the 8 resource categories (e.g. materials, time, space). At this point, critical differences appeared within each resource category and were

consistent across summary statements for each family. For example, in the resource of space, there was a clear distinction between comments made by an observer about furnishings, lighting, room characteristics, and distracters.

As these subcategories were revealed, it became essential to create a diagram that visually represented the possible subcategories (for an example, see Appendix F). These were modified as the formation of new subcategories was necessary and were a combination of coding both summary statements and interview transcripts. Although the diagram was formed based on both summary statement and interview transcripts (see description below), the coded data were separate in the computer system. For example, if the investigator wanted specific information on summary statements made by the second observer for a father in one family, this information was readily available and was easily accessible. Furthermore, specific comments, such as summary statements regarding who selected a book for the reading activity were easily located with the assistance of the diagram. The development of the diagram assisted the investigator with subsequent line analysis.

Coding the summary statements for all parents was the first stage in the data analysis process. This provided a framework for analyzing the parents collectively, as well as individually. The investigator began by reviewing the summary statements of four parents selected for individual analysis (see Results). She read the summary statement transcripts from these two families and, with the assistance of the diagram to guide exploration, highlighted statements that pertained to specific subcategories using a variety of colors. This was completed for all families. The summary statements were then

organized into each subcategory and general trends, as well as specific statements for the 4 focal parents, were outlined.

A related process as the one used to analyze the summary statements was conducted with interview transcripts. The investigator utilized the diagram created from the coding process to guide the organization of data into the resource categories and subcategories. Analysis of interview transcript data followed a similar format, in that the investigator read the interview transcripts of the four parents in their entirety and highlighted based on each resource category. However, the organization of the interview aided in finding the general trends of the resources for the other family transcript data and therefore, the remaining interview transcripts were not examined as extensively.

## CHAPTER 3

### RESULTS

The main objective of the present study was to examine the feasibility of a novel approach to gathering literacy-related data in a home setting. Thus, information will be presented that illustrates how the present methodology played out in the homes of the participants as well as results as an outcome of the utilization of this method. Furthermore, the information is organized by each method of data collection in the order it was obtained for the home visit procedure.

A multi-method approach was used for data collection in the present study; therefore, it was a combination of a number of different methods and not one particular method. General findings are presented first for all families for each resource category, then more specific data (i.e., quotes from transcripts) are presented that illustrate various resource features. Only 2 families were used for this purpose. These “focal families” are referred to as Family A and Family B. The mother in Family A reported that they read to their child 1 to 3 times a week. The mother in Family B reported that they read to their child every day. These two families were selected with the hope of finding resource differences that might be related to reading frequency and thereby demonstrate that the multi-method approach of gathering information was able to detect differences between families in which at least one parent acknowledged spending more or less time reading to their child each week.

### Family Information

Demographic family data are highlighted for Family A and Family B and can be found in Table 3. Similarly, demographic data related to the children are highlighted for the two families and are located in Table 4. These data were derived from the Pathways Project Questionnaire as well as information obtained during the home visits.

#### *Family A*

Family A (FA) was comprised of a married couple, 3-year-old triplet males, and a female infant. The father (FAf) worked approximately 12 hours a day, 5 days a week and the mother (FAm) stayed at home with the children. The focal child, along with his two brothers, attended a volunteer daycare program (mother's day out) through a local church for 5 hours, two days a week. The mother had a bachelor's degree and was a stay-at-home mother.

The focal child was 3 years and 10 months at the time of the first observation and was previously diagnosed with a developmental delay. His mother acknowledged that he was "catching up with his peers", but was still concerned about his speech. The focal child began receiving services when he was 20 months, but was not receiving therapy at the time of the observation.

#### *Family B*

Family B (FB) included a married couple and focal child, a boy, who was 4 years and 10 months at the time of the first observation. The father (FBf) worked an average of 12-14 hours, 6 days a week, and occasionally went on business trips. The mother (FBm) stayed at home with the focal child. The child also attended a daycare program for 5

hours a day, 5 days a week. The mother had a master's degree and was a stay-at-home mother.

The focal child was diagnosed with a developmental delay at birth, but reportedly was making good progress. At the time of the observation, the focal child wore a hearing aid in his right ear and was attending physical therapy classes twice a week. He began receiving therapy services when he was 10 months old.

### Results of Methodology

#### *Scheduling of Home Visit*

All families who participated in the study were instructed to select a time that they typically read to their children. Four parents scheduled the one of the observations during the evening (after 5 p.m.), 5 on an afternoon (between 12:00 and 5:00 p.m.), and 3 on mornings (before 12:00 p.m.). All of the observations occurred on weekdays. Family A scheduled the first observation with the mother at 10 a.m. and the second observation with the father at 6 p.m. Similarly, Family B scheduled the first observation with the father at 6 p.m. and the second observation with the mother at 4 p.m.. The majority (10) of the parents decided to read to their children in the den/ living room during the storybook reading activity, so did both sets of focal parents who read on sofas located in general living spaces in their homes.

#### *Hometour*

The hometour was always conducted during the first visit and unintentionally always included the mothers, even when the first observation was with the father. For one family the hometour was completed with both father and mother because the father's

interview revealed items that were missed on the first hometour. During the hometour in Family A, the mother provided details about book storage, book selection, location of books, and reading locations, among other things. More specifically, she stated that the children were “pretty rough with books, so I try to limit the books I let ‘em have” (line 4). In addition, she acknowledged that reading was “not a routine yet. I’d like it to be. But the times that I’ve tried it’s just been hard to get all three of them to sit down” (line 13 & 14). Although the first home visit with Family B was scheduled for the father, the mother conducted the home tour. She acknowledged that “he would reach up and he could say hop on top and he’d recognize the spine” (line 3) from a very early age. She also provided information about the location of the majority of the books and places in the home where she and her husband read to their son. It appeared that the parents began reading to the focal child early on because the mother mentioned that, “even when he was in the high chair I’d actually read him books” (line 11).

### *Roommapping and Photos*

At the beginning of the study, the intent was to map every room that was included in the hometour. However, it soon became evident that mapping of all the rooms was too time-consuming and did not provide any more information than was obtained from the photos. For example, when an observer mapped a room, he or she had to draw and then describe a child-sized chair, whereas, with a photo, the dimensions of the chair were visually evident. As a result, the decision was made to map only the room in which the storybook reading activity took place. However, information related to the mapping procedure will not be presented in the present study, primarily because the photographic

record proved to be more informative as well as economical in terms of time and this portion of the home visit would not be recommended for further use.

Although the parents were given the option of deleting photos, none of the parents requested that a photo be deleted. Seven photos of rooms in each focal family are located in Appendix E. The first two photos illustrates room characteristics and lighting, the next three book storage, and last two depict two of the books that were used during the storybook reading activity, as well as the condition of the books. Photos similar to these were comparable to ones obtained from the homes of the other 4 families. From these photos, visual differences are noticeable between the two families organization of the physical environment. The photos were not altered for exposure and, therefore, are representative of the actual conditions (i.e., lighting) in these homes.

The room conditions are comparable between the two homes in that the furniture appears comfortable, but the lighting was limited in both of the homes. However, the windows provided light during daytime observations and, unfortunately, photos were not taken for Family B at a time when the lighting was natural. The book storage varied between the two families. Family A had fewer books and those they had were not easily accessible or visible to a child. Family B had several books that were located at various places around the home and they were all easily accessible with spines or covers facing out. The books in family A were not all in good condition and this is evident in the tear of one of the books in the photo. The books tended to be narrative and colorful and, often times, had some form of interactive aspect to them (e.g., sound buttons). For Family B, all the books appeared to be in good condition and were generally detailed and

expository, books that were used for the purpose of teaching. They were all in good condition. Although the differences were not highly significant, they were present nonetheless.

### Observation of Reading Activity

#### *Interval Data*

All 12 parents and children were engaged in the reading activity at least 80% of the time (range 80% to 100%). Eight of the 12 children and 8 parents were engaged 100% of the time. Thus, both parents and children in all 6 families interacted appropriately during the reading activity and seemed to enjoy the experience, including parents and children in Family A and Family B. Non-engagement or inappropriate parent or child behaviors rarely occurred. For the reading interaction with the father for Family A, the father was engaged 80% of the time and the child was engaged 100%. For the interaction with the mother, she was engaged 80% of the interaction, as was the child. For both the mother and father reading interactions for Family B, the parents and child were engaged 100% of the time.

#### *Descriptive Information*

The following are comments taken from the summary statements of the observation instrument guided by the diagram for each section. All of the summary statements for parents in Family A were recorded by the investigator (OB1) because she was the only one who attended the home visits. The summary statements for parents in Family B were recorded by the investigator and a second observer (OB2).

*Physical Environment: Materials*

Overall, the books in every home were generally narrative, developmentally appropriate, and of reasonable lengths for the parents to read. Many of the books had religious or holiday themes. The latter may be in relation to the time of year in which the data were collected. For most of the families, the books were in decent, good, and often excellent condition; only a few books were torn or tattered.

FAm: One of the books was torn (product of boys' behavior; but the rest were in decent condition).

FBm: Books in very good condition (OB2)

The storage was quite consistent across the homes. Books were typically stored on child-sized bookshelves with spines facing out, but often they were not in the rooms where the reading activities took place. On several occasions, the parent or child left the activity to obtain an additional book. In some of the homes, books were stored in several rooms, and it was common for a few books to be located on a table in the immediate area. However, in these instances only 2 or 3 books were usually available.

FAm: The books in the interaction were accessible, but behind gate. They were in a bucket and therefore could not easily be seen. Also, one would not automatically see it when in entering the room.

FBm: The child was able to get the books, [therefore] they were accessible to him. Although the books were across the room, they were still in close enough proximity that they could converse about book selection (OB1).

There was not a steadfast trend of who selected the books, although many parents had previously selected books and allowed the children to choose from those for the storybook reading. It was evident when they voiced their opinion or the manner in which they read to their children, when parents were not pleased with a book selection, in relation to length of the book or other factors.

FAm: The focal child chose all the books.

FBf: The child had chosen a book prior to interaction...the child's selection may have positively promoted his interests in reading (OB1).

FBm: The child had chosen a book prior to interaction, but the mother wanted a different book so the child got it (OB2).

If other print materials were in the immediate area, they tended to serve more as an inhibitor than an agent for promoting reading or literacy related activities. Occasionally, additional books limited the child's engagement from the book the parent was reading.

*Physical Environment: Time*

Both parents and children tended to remain engaged in reading throughout the interaction, as is evident in the time-sampling percentages. However, some parents and/or children tended to show signs that the interaction was longer than normal or too lengthy at that particular time. This was evident when parents asked the observers if they needed to continue reading and/or when a child became restless. Sometimes, it also was apparent in the manner in which they were reading. Nonetheless, parents typically were able to reengage the children through goals, such as finishing the book they were currently

reading, or by continuing with reading even when the child appeared to be temporarily interested in something else.

FAf: Possibly continued longer than normal...child was disengaged and wanted to play, but parent allowed for play then reintroduced.

FAm: The child would begin to play, but [the] mother would use questions or assistance to regain child's attention. She did not, however, force participation.

The participants in Family B were the exception in that the child wanted to continue reading after the interaction ended. Furthermore, the father continued to read to the child while the observers were summarizing their comments after the reading activity had ended. This did not happen during any visits with other families or the mother in Family B.

FBf: Had the impression [the child] would read for hours (OB2)...[and] the child wanted to read every story in the book, but father said they would start with one (OB1).

FBm: The child wanted to continue reading (the same book) but mother did not want to...however, she did once we asked and was pleasant about it (OB1)...[she] did not have to do anything special to maintain is interest (OB2).

#### *Physical Environment: Space*

The reading activity took place in a central living area during the majority of the 12 visits, such as a den or family room. These areas were usually open, but sectioned off by the placement of furniture. When the parents decided to read in rooms that were in other locations, such as a playroom, problems tended to occur during the reading activity,

possibly because of distracters and/or the discomfort of the seating arrangements.

FBf: Very tall ceiling...slight echo in room, but not intrusive (OB2)...[and] the room is sectioned off even though the space is out in the open (OB1).

The furnishings, especially in general living areas, were typically comfortable and included sofas or cushioned chairs. In addition, when the parent and child sat on a loveseat, the child was usually positioned on a parent's lap or right next to him or her. When this occurred, the child tended to stay in the same place for the duration of the activity. In several instances, when a parent was in another location, such as on the floor or the bed, the child was more likely to roam about the room.

FAf: The father was sitting on the floor in front of the couch—which allows for focal child to climb on father's back.

FAm: The couch was wide with high cushions and several pillows...the couch may encourage participation of all children or a more relaxed reading session.

FBf: Father and child on comfortable, soft couch. Child in father's lap during whole session (OB2)...the father and child were sitting at a corner of couch—therefore, the Father was able to rest his arm on the side of the couch while it was around child. The father did not have to strain to hold child (OB1).

FBm: The mother and child are sitting on a chair...at some points the child's head is in the way, normally the mother leans head over (OB1).

Electronic equipment, such as a television or a skipping compact disc, was the most common distracter that occurred during the reading activity. However, on a few occasions, even other books sometimes competed for the child's attention.

*Social: People*

It is interesting to note that mothers were present during 9 of the home visits, whereas fathers were present during 7 of them. Unfortunately, situations did not arise during enough of the visits that allowed an examination of differences in parent or child behaviors that might be associated with spousal help in dealing with household tasks. Nevertheless, a couple of the spouses did answer the phone, answer questions about the book, or tend to the other children while the focal parent read to the child. If the mothers were present in the home, they were generally within hearing distance when fathers read to their children. The one father that was present during the mother's home visit was in another location in the house when the mother read to the child, and was not able to hear or see if his spouse needed help.

FBf: Mother was seated in chair maybe 8 [feet] from the couch. She commented a couple of times but never interrupted or disrupted reading. She answered [the] phone when it rang, allowing father to continue reading.

Siblings were present during 6 of the 12 visits. More often than not, the siblings either helped to minimize the effects of distracters (i.e., turn off a skipping compact disc) or remained quiet, but in a few instances this was not the case.

FAf: All other members present, but quiet...the other boys occasionally wanted to be a part of the interaction, but father told them they would read later.

FAM: The two other boys were present, but involved in own tasks for the majority of the session. The infant was placed in mother's lap, limiting mobility and, possibly affection with focal child.

The observers were typically within a few feet of the parents and children and occasionally may have influenced the reading interaction.

FBm: Mother clearly aware of [the observers], showed [them] picture {of character being watched} on back of book after finished reading first time, laughed.

*Social Environment: Knowledge*

This kind of resource was not evident in many of the homes. Although the majority of parents clearly knew how to interact with their children and respond appropriately to child behaviors, neither child nor parent behaviors occurred very often which suggested that one or the other had specialized knowledge that related to the reading activity or other kinds of literacy experiences. Parents in Family B were exceptions to this general contextual feature.

FBf: [The] father really brought his knowledge to bear on reading. Science book was about objects like ships and he could elaborate on various parts of ship (i.e. radio room engine room, etc.) (OB2)...[and the] father is obviously intelligent-conveyed in his ability to articulate to child and use of large words. However, info[rmation] is not about child's level (OB1).

FBm: She loves to garden...this allowed her to talk about worms, how they arreate the soil, help "compost" [and] explained what compost is, "Black Gold" (OB2).

*Social Environment: Emotional Relationships*

As previously stated, many of the children sat on their parents' laps or next to them on a sofa. Very often during the storybook reading activity a parent put an arm around the child and sometimes hugged and tickled the child.

FBm: Child in lap, both child and mother comfortable. Mother tickled child at one point (OB2).

However, during the first visit with Family A, the mother was alone with the children and had an infant on her lap while she tried to read to the focal child.

FAm: [There was] very little affection, but she was limited by the baby. She did have her arm around the focal child for part of the observation.

Some parents, especially parents of the more active children, appeared to use physical contact as a means of keeping their children under control and focused on the reading materials.

FAf: The father had his arms and legs surrounding child—limits child's mobility/ease of distraction, but does not force child to stay.

The majority of the parents used pleasant voice tones and varied their vocal emphases to highlight and maintain interest in the reading topic. Many of the parents placed emphasis on certain words or phrases to help their children focus better on certain reading content or attend better to a particular point of information. Only one or two parents maintained a calm, almost monotonous tone of voice.

FAm: The mother was positive and had a general calm tone, but expressive when child answered correctly or chose book.

FBf: Generally, neutral but pleasant tone, quiet but audible, [and] his voice is pleasant, but not overwhelming (OB1)...fluctuates and places emphasis on various [words] in a nice, easy way that enhances interest on story (OB2).

FBm: Mother used a nice pace, fluctuated voice to place emphasis on certain words/ actions, made it more interesting and fun for child (OB2)...[she used a] playful voice (OB1).

Only a few of the parents used positive comments to reinforce their children's correct responses; none of them used negative comments to shape or control what they perceived as inappropriate behavior.

FAf: The father uses a lot of praise—even for trying.

During the majority of the storybook reading sessions, it was obvious that both parents and children enjoyed the reading activity.

FBm: Strong sense that child really enjoyed reading and used to it. Even though mother under some stress, she still made interaction very positive for child and did not display signs of stress while reading to him (OB2).

### *Symbolic Environment: Routine*

The common indication that a reading routine existed in the home was in the child's knowledge about the location of the books. In most cases, a child knew where the books were stored and was able to select them without the parent's assistance.

FBm: The child knew where the books were prior to the interaction. [He] knew where his favorite book was and where the book his mother requested was (OB2).

A child's participation and recognition of labels, words, books, and characters also implied that he or she had read the book before and that reading books was probably a regular routine in the home.

FBf: The child was aware of the part that the father had not read (OB2).

In some instances, the parent or child commented about reading a book just before the reading activity began, which also suggested the child was familiar with the book(s) and had been read to before.

FAm: "Oh, I like that one"

FBm: [She] commented on how they had already read the first book [the] child selected day before (OB2).

Some of the parents referred directly to certain behaviors and/or reading strategies while they read to their children, which also suggested that reading was a regular routine in the home.

FBf: Mother and father identified couch as area that they regularly read to child (OB2)

FBm: ...mother said she usually read to the child in [the living] room in same chair (OB2).

### *Symbolic Environment: Community, Society and Culture*

The most common indicator of this kind of resource was the presence and utilization of books that included strong religious themes. There also were books in a

couple of the homes that included content related to adoption and language, but these were few and limited only to the homes of adoptive children. There were not summary statements about this resource for the two focal families.

### *Interview*

The interview allowed parents to elaborate upon and explain the behaviors that were observed during the storybook reading activity. The interview also permitted the investigator to gather information about literacy-related resources that could not be a obtained from the hometour, photos, room-mapping, engagement percentages, or summary descriptions of the reading activity. The following information and quotes were taken from the interview transcripts.

### *Physical Resources: Materials*

There were certain physical characteristics of books that parents said had a positive impact on reading.

FAf: With [focal child], his attention span is so very short...I think if it was more 3-D...where it was really jumping out at him...he might stay focused a little more (p. 2).

FAM: ...[the focal child and his 2 brothers] are really interested in animals...like the horsie and the ones that make sounds (p. 2)

FBf: I think that is why he likes that Richard Scarry book because it has a lot of stuff happening on the page...he seems to have an interest in things that are visually interesting (p. 1)

FBm: He loves that “What People Do All Day” by Richard Scarry...because there’s so many pictures of people doing things and I think he likes to mix reading with imagination...he loved that “Cool Stuff” which was very technical with a lot of thematic drawings and he tends to like things that are iconic (p. 2).

Most of the parents knew their children’s favorite books, although many commented on how often their child’s preferences changed. Some parents’ opinions about their children’s favorite books were not always favorable.

Faf: The Animal Book...I like it...and I think it’s just because he WILL interact with that book...anything that would interest him would interest me (p. 2).

FAm: “Old McDonald Had a Farm”...I think it helps him learn the animals...he associates lots of things from the book to different things in the environment (p. 3).

FBf: ...probably Richard Scarry’s “Mini Town”...it bugs the dickens out of me actually because I’m used to reading the narratives and it’s kind of a picture book with captions all over the place so I don’t know which one to read next and when he visually looks at it you know he may look somewhere else...its just it’s a great watch book for children, as an adult it is not that fun to read (p. 5).

FBm: “What People Do All Day” by Richard Scarry...I’ll be honest, I’m tired of it. It’s not really a story book so it’s not easy to read...I just grin and bear it because I just think that’s what you do...sometimes actually it is relaxing because it relaxes him...even though I’m sick of reading it something positive comes out of it (p. 4).

A few of the parents mentioned that they used specific books to teach certain concepts in an indirect way, such as adoption or the arrival of a new sibling.

FAm: “I’m the Big Brother”. We got that when [the infant daughter] came along...[it gave] them some ideas of what they were to her...[and] we have a potty book...its got a button on it that sounds like flushing the commode ‘cause we are still in training {laughs} (p. 2).

Every parent knew the location of at least some of the books in the home. In most cases, parents stated that the books were stored on child-sized shelves in their children’s bedroom.

FAf: We have quite a few in their bedroom...some in their toy boxes (p. 3)

FAm: I try to keep the books in one place so they know where to find them instead of just throwing them around in their toyboxes (p. 2)...I used to have them on that bookshelf in the den...but I took ‘em off that ‘cause I don’t let ‘em get on that...so that is why I moved them in their sister’s room...I tried keepin’ ‘em in their room, but...they tear up...I guess I could probably set it out more where...they can reach in that tin (p. 3).

FBf: We find actually that we don’t have enough storage space now but we have reached capacity (p. 4)...next to the dining room table downstairs in the living room...upstairs just outside of his room there is a neatwall...that’s kind of a display case which is kind of nice because as he walks by he can see them...in his closet there’s another bookshelf (p. 5).

FBm: He’s got a pile of books kept downstairs in the living room just on the

bookshelves...[and] a little set of book shelves on the wall on the way to his bedroom and then he's got a book shelf next to his little sofa upstairs and there are books in the loft that he will get into (p. 4)

Parents tended to be satisfied with the number and types of books they had in the home.

FAf: I don't know if you can have enough books...they're always makin' better books (p. 2).

FAm: I think I've got a lot of books...I've just sort of put back some of the better ones...I thought I had to have so many for each...having triplets...I thought we had to have one for each...but after it takes up your space and you run out of room, you sort of learn (p. 2)

FBf: We probably have more than we need...[the child's mother] spent a lot of time looking at [books] and...we tend to try to buy something that he's interested in...it tends to be his choice and I think that may be part of why he enjoys reading because it is not a chore, it's what he wants to do. I think he likes reading (p. 4)

The parents also listed a variety of places such as bookstores, yard sales, gifts, and the Internet for methods to attain new books. Based on their comments, it was a fairly easy for them to find new books. This was one way in which parents preselected the books that were available for their children to read and thus control the kind of print information to which they were exposed.

FAf: My wife gets 'em (p. 2).

FAm: They've got a lot for their birthdays and for Christmas...[and] at yard sales and consignment sales... If I DIDN'T like 'em I probably would have sold them

in a yard sale or got rid of them already (p. 2-3).

FBf: Bookstores...gifts...(p. 4)

FBm: Family...work baby shower (p. 3) {not a direct quote at this point}...we like to read what he is interested in (p. 11).

Coloring books, magazines and computer games were the most common additional literacy materials that parents included in their homes.

FAf: Coloring books...interactive TV (p. 3)

FAm: Interactive TV...we haven't got it to work yet (p. 4)

FBf: Children's magazines...[and] interactive educational sites like Sesame Street (p. 6)

FBm: He likes road signs or biohazard or radiation...we were in the post office and they had this pamphlet...it has all these tiny little, you know biohazards...I think that started him being very interested in what the words behind the sign meant (p. 2).

### *Physical Environment: Time*

Parents said that the average length of time they read to their children during a storybook reading activity was 13 minutes although some parents gauged the length of a typical storybook reading by the length of one or two books.

FAf: Fifteen minutes (p. 1)

FBf: For maybe 10 or 15 minutes, or 30 minutes (p. 1)

FBm: For maybe 20 or 30 minutes and then in the evening (p. 1)

Several parents identified a number of activities that they felt should not come before storybook reading. For example, watching television, interacting with siblings, or active playing tended to compete with reading because children did not want to disengage from them in order to read with a parent. Parents recognized that it would not be easy to make a child stop a preferred activity to read. Most parents needed to transition their children into a reading activity or when their children expressed an interest in books.

FAf: ...play...wrestling...they're just...hard to get 'em to relax any after that.

Hard to get 'em to slow down (p. 5).

FAm: Watchin' TV or something that gets them really hyper. It's sort of like taking a nap or getting 'em ready for bed. You don't want to get 'em all riled up and real excited and full of energy before you try to sit down and keep 'em calm (p. 5)

FBf: ...if we roughhouse or wrestle and get too excited sometimes its tough but he really enjoys reading so much that it is rarely a problem. TV is a distraction but a lot of times we'll turn the TV off or we'll read in a distractive fashion (p. 8)

FBm: He is a really good settle down child...[but] he gets dirty...I've always been taught to respect books...I tend to say "okay, let's wait til you clean up first" (p. 9)

Parents also were asked to describe the daily routines for both weekdays and weekends. Although the data will be described in greater detail in the social resource of people, this information illustrated the amount of time from which parents were available to read to children, in addition, to a child's schedule as it related to out-of-home care and therapy

services.

*Physical Environment: Space*

In most cases, the room appeared to influence the reading activity if it occurred where a family was not accustomed to reading. Most of the parents chose to read to their children in a general living space or family room, which all of them said they had used before to read to their children, but many acknowledged was not the location where they usually read to them. Some of the rooms were set up more for play or other purposes.

FAf: 'Cause this is the area we play in. I always do it back in their bedroom (p. 1)

FAm: It would be a lot nicer if we had more room...or more area to set out like toys...maybe a sitting room for us to read (p. 2)

The furnishings appeared to be useful for both comfort and for keeping the child in a central location. Some parents tended to have their children sit in their laps or next to them, but commented during the interview that this was becoming increasingly difficult as the child was growing larger. Furniture, especially sofas or chairs, tended to facilitate closeness between parents and children.

FAf: [I would like] a place for him and me to sit together. We sit on the floor (p. 1)

FBf: I have insipient varicose veins. I like to put my legs up because it feels better and having a footstool would be better...[and] I think sitting in my lap is good because we can both see the book effectively (p. 3)

Many of the parents used natural light during the day and artificial light at night to read by. A few stated that some locations in their homes were better lighted than others.

However, the majority of parents felt they had sufficient lighting for the purposes of reading.

FAM: ...we don't have a lot of light in here (p. 2)

FBf: [T]he lighting, it's not great in that area...there's kind of top down lighting that creates glare. And if you turn it off [you are] in the dark (p. 3)

FBm: ...[O]ur living room is terrible for reading because we have bad lighting, so I read to him in the living room during the day but if it's the evening and it's dark I usually read to him upstairs in his chair because there's a light right there...[in the living room] there's not that many plugs around and everywhere you put a plug you trip over it in order to bring it to the furniture (p. 1-2)

Noise and sound produced by electronic equipment was the most common distracter that occurred during reading, e.g., television, phone, and/ or a compact disc player.

FBf: I'll notice sometimes if I'm reading and [my wife] likes to watch

HGTV...it's a big distraction for him certainly and sometimes even for me (p. 3).

### *Social Resources: People*

Each parent was asked to estimate what percentage of the total reading time per week she or he read with the child as well as the proportion of total time their spouse read to the child. Two of the couples had very different opinions about the proportion of time they contributed to total reading time compared to their spouses. Furthermore, when parents did disagree, the percentage estimate for reading was always greater for the parent who was being interviewed. Mothers were more likely to receive higher percentage estimates than fathers, based on both parents' responses. This was because

mothers were at home more than fathers and, therefore, had more opportunities to read to their children.

FAf: [My wife], I bet she reads to 'em daily...we don't talk about that a whole lot...she reads quite a bit more...I would say she reads 80% more than I do (p. 5-6)

FAm: [My husband] reads to them less than I do...70-30 I guess (pp. 5-6)

FBf: I typically read to him more than [my wife] because we tend to read straight before bed when I'm home and she needs a break by the time I get home. During the day she reads to him a good deal too...from [my wife]'s perspective it would be lag but I guess it's over 50% maybe a little more...tends to be in the evening [there] would be longer stretches of reading right before bed whereas during the day...he's doing more active activities (p. 8)

FBm: [My husband reads] at least twice, maybe three times a week...I would say 90% me, 10% him (p. 10)

Parents were asked to describe daily routines for both weekdays and weekends. This was done, in part, to assess how much time each parent spent in the home on weekdays and weekends. All 6 fathers worked outside of the home and 3 of the mothers were stay-at-home mothers, 2 worked part-time, and 1 was a student. Several parents talked about scheduling demands, e.g., therapy schedules.

FAf: I go to work...early in the morning. I don't see 'em before I leave. I leave around 5:30 in the morning. I get home about 5:30...when I walk in...[my wife]'s getting ready for dinner. So I jump right in and help with dinner and stuff...about

7 [we would] play for about an hour. And then at 9:00 we would...get 'em to bed (p. 4-5).

FAm: My husband gets up about 5:30, and then I get up about 6. I feed [the baby] about 5. The boys get up about 7. Feed 'em breakfast. And a day that we DON'T go to mother's day out: we eat breakfast, and then we play around the house; sometimes I'll run errands with them; sometimes we just stay here...we come in and eat lunch at 12 and take a nap at 1, for about an hour-and-a-half to two hours. Then they wake up and play a little bit more. Then we try to eat about six. And then dad gets home about dinnertime. And then...he plays with them, gives them a bath, and gets ready for bed. They go to bed...about 8-8:30 (pp. 4-5).

FBf: About daybreak we get up and if I'm energetic I'll exercise for half an hour we'll get [our son] up in time for school and try to get him some breakfast...[my wife will take him to school and I'll go to work. He gets off from school about 1 some day, he has therapy or other kinds of activities...he'll run errands with mom occasionally, he'll stay here. I tend to get home somewhere between 6 and 8 on a typical day...closer to 7. We tend to eat dinner from 6 to 7 and we usually go to bed around 8 (p. 7).

FBm: I get up about 6:45 and occasionally [my husband] will get up at about 6 and he goes for a walk...I get up about 6:45 and I come downstairs and I get dressed really fast and then I go up and get [my son] at about 7 and come down and fix him breakfast...he has to be at school by 8:30 but I try to get him there by 8:10...I go pick up up and then every day after school except for Friday he has

something. Monday's he has Gymbogg...Tuesdays he goes to OT Wednesday he goes to Sportsbogg...and then Thursday he goes to physical therapy...my husband usually doesn't get home until about 8:00 every evening. And then I try to read him something before [my husband] comes and get him all cleaned and in his pajamas and good to go and so when [my husband] comes in the door they can have 30 good minutes (p. 8).

Five of the six families had children in addition to the focal child; Family B was the exception. The children were not always present during the reading activity, but the interview allowed parents to express what the siblings typically did when they read to the focal child. Some parents suggested that siblings tended to help a reading interaction by modeling, initiating storybook reading with the parent, or actually reading to the focal child.

FAM: ...[it is a help]...one'll get it and get the others interested (p. 6)

However, other parents remarked that the presence of additional children sometimes caused problems due to the varying ages of the children and, therefore, affected the focal child's interest in certain books. Additionally, some parents expressed that it was difficult sometimes to have one-on-one time with the focal child because his or her siblings detracted the focal child's attention from reading.

FAf: The two other boys...that's a hindrance...whichever child you are reading with...you'd want their total attention without distractions if possible (p. 6)

FAM: With the baby it sort of makes it a little more difficult. If I can get her fed and get her laying down and napping...I can...spend more time with them.

Having the three makes it difficult I think. Just trying to sit down and have quiet time to read to all three of 'em when they're all three into different things. That makes it {laughing} difficult...[u]sually all three are there. Or they at least start...I try to get 'em ALL together so I don't have to do it three different times...they're just different each time (pp. 5-6).

Other people who did not live in the home of the family also tended to have an impact on reading routines. These were typically grandparents or providers in a daycare/ preschool program.

FAf: My mom does as much as anyone (p. 5)

FAM: ...I'd say mother's day out reads to 'em quite a bit (p. 5)

FBf: When [focal child]'s grandfather is here, he loves to read to him, particularly Dr. Suess and [focal child] loves for him to read...it's a help because I think diversity (p. 9)

### *Social Environment: Knowledge*

Parents generally were not aware of how their educational level or specialized knowledge may have impacted their children's literacy development. However, two of the mothers had education/ child development backgrounds, which could have affected the way in which they read to their children.

FBm: We are largely influenced by what our family does...we've got lawyers, doctors, chemists, physicists, government so we cover the gambit and so we get books from family members...and so we all have advanced degrees in our family (p. 15)

*Social Environment: Emotional Relationships*

Parents were asked to rate, on a scale from 1 to 7 (1 indicating no enjoyment, 7 indicating extreme enjoyment), how much they enjoyed reading to their children. The average rating was 6, for both mothers and fathers.

FAf: I would say a 7...I always enjoy it...it's not a fair question for me (p. 7)

FAm: It's probably not one of the highest things I would like to do. I would rather be out playing a sport with 'em...probably a 4 ½...I'm not the kind that likes to sit (p. 8)

FBf: six or 7 (p. 11)

FBm: I'd say 7 (p. 12)

Parents expressed their general enjoyment with parenthood and described positive aspects of reading that made it an enjoyable activity for them. A few of the parents commented on the level of intimacy they felt when reading to their children. Some parents said they enjoyed reading with their children, in part, because it allowed them to observe their children learning new concepts and permitted them to promote the expansion of their children's imaginations.

FAf: I like to [engage] their curiosity and their imagination...I like to see 'em dream...[Being with the children] it's all wonderful to me. I love it. I love being a dad...I can tell that they like being with me. And I can tell they're happy when they're with me (p. 7)

FAm: When he starts...sort of giving me feedback...that really made it fun for me. Instead of me just sitting there reading and not knowing if he's really getting' any of it or knowing what I'm saying...just seeing what their minds are thinking it is, as opposed to what it really is. That makes it fun for me (p. 7)

FBf: I really love [my child] and it is a joy to be around him and he is genuinely curious...he is nice and cheerful and watching him is a fun thing (p. 11)

FBm: Almost any time we're reading it's a wonderful time. The only thing that would make it unwonderful is if I was overpacked by life in general (p. 12)

At times, some of the parents found that certain child behaviors made it difficult for them to enjoy reading. For example, when a child was distracted or physically active during a reading activity, parents found that the experience was often stressful.

FAf: [W]hen they are being rambunctious...when we are trying to get something done, but they're not wanting to cooperate...they'll do it to get attention, if they're not getting what they want (p. 7)

FAm: When he gets rough with the books. I know he was just playing...I think it's just boys...like in the book...he was playing like he was there IN the sand...but he's just so rough with the books...but it's a three-year-old {laughs} (p. 7-8).

FBf: When he's hungry or overly tired, he can get grumpy...basically he shuts down (p. 11)

*Symbolic Resources: Routine*

Parents were selected to participate in the present study based, in part, on the frequency of reading activities that occurred in the home each week. At least one parent, typically the mother reported reading to her child every day. However, when questioned about this during the interview, fathers said they read to their children an average of 4 times a week. The fathers of families in which reading did not occur on a daily basis (based on data from the Pathways Project Questionnaire), stated that they read to their children an average of 2 times a week.

FAf: Twice a week (p. 1).

FAm: Not every day, I know that... I'm embarrassed to say it...maybe three times a week. {laughs} Three or four times maybe...it is not a set routine (p. 1).

FBf: We tend to go in stretches. Often times, it's every day...I would say on average I read to him probably about half of a day. But it's not like every other day, but like a week where we read a lot and then there's times where we don't for a few days (p. 1).

FBm: At least twice a day (p. 1)

Several parents described specific details about the reading routine. For instance, some parents mentioned that reading typically occurred at night in the children's bedrooms before the children went to sleep. A few parents also referred to certain books that they previously had read to their children.

FBf: That is actually the first time I read that book to him. He had read the Hybrid car page I think to my wife before, so he had read it before but I hadn't (p. 1)

Many of the parents who reported that they read often to their children mentioned that reading, although it occurred regularly, was typically not a planned routine. Reading seemed to occur “naturally”, although these same parents said that reading had been a consistent activity that began early on in their children’s lives.

FBm: It just sort of fell naturally from the school scheduling...he just needed a break, needed a hug and needed to reconnect with mom (p. 14)

Most of the parents also stated that they did not necessarily initiate every reading interaction. Almost all of the parents reported that their children brought books for them to read on several occasions without any prompting, from the parents.

FBf: I think he truly enjoys being read to and so he asks for us to read to him (p. 12)

#### *Symbolic Environment: Community, Society and Culture*

Most of the parents, unless they had or were obtaining a degree in a child development related field, had not taken any courses or attended workshops on child development or children’s literacy.

FAf: Not really. Not on child development (p. 6).

Several parents expressed how their religious beliefs impacted, to varying degrees, the books that they read to their children.

FAf: We’re involved with the church a lot...but it don’t affect the way we read (p. 8)

FAm: My church. You know Bible stories, I guess...we read Bible stories (p. 9)

Some of the parents mentioned that there were programs in their local community that provided books every month. In addition, most of the parents mentioned that they utilized the local library, some more frequently than others.

FAm: Someone told me recently...I'm a member of a triplet group...but there's a thing at the [local] library you can go to and sign up and it's like a Dolly Parton thing where they get a book (p. 3)

In most cases, the parents felt that their jobs or educational backgrounds did not appear to influence how or what they read to their children. Perhaps this was because the books they used did not include content that related to this part of their lives.

FBm: There's a book about presidents and he loves that. He asks why the president is the biggest boss in the United States and so I read some political things to him and try to explain those kind of things (p. 14)...[and] I think that [it] makes a difference in that [the parents' families] all really care about education (p. 15)

Some of the parents mentioned that they would, on occasion, watch a television show or receive a pamphlet on the importance of reading that had been recommended or provided by TEIS service coordinators or the school system. However, very few of the parents received information from health providers other or early interventionists, and when they did, even fewer of them read it. Parents also expressed how reading was important for their family because their parents had instilled the value of reading in them when they were children.

## CHAPTER 4

### DISCUSSION

The primary goal of the present pilot study was to investigate whether all 8 resources could, in fact, be examined simultaneously. The findings indicate that it is possible to obtain important information about each of these resources, but only if multiple data collection methods are used. The findings also indicate that some resources such as *materials* were present more in the homes than *community, society and culture*. This finding was supported by both observation and interview data. This could be due, in part, to the more influential role that proximal resources like materials play on reading than distal factors outside of the homes. Also, it may be that these families value reading more than another group of a different social class or race, in relation to their demographic similarities. However, in the future, it would be interesting to examine the degree to which each resource appears to impact reading for families and the variety of the presence and utilization of these resources in a more heterogeneous sample.

It appears that there are, in fact, a number of influences on early literacy development of young children that occur simultaneously. For instance, the culture of a Hispanic family may have an influence on the type of books that they have in the home, as well as how often they read. These families may use books to teach their children about Hispanic culture or it may be that these families are less inclined to read to their children because it is not as valued in their culture as other cultures. Furthermore, an educational level may inhibit a parent from reading to his or her child and/or may limit his or her knowledge on how to organize the books so that they are appealing to a child.

Home literacy does not seem to be impacted by one resource or another on any level, rather they all appear to be integrated and influencing each other. Therefore, the present research falls in line with the ecological perspective in that development, or more specifically for the present purposes, literacy development, are seemingly impacted by more than one component concurrently and the manner in which each affects the other components.

A second goal of the present study was to examine whether or not unique information might be obtained from a multi-method approach to data collection compared to findings presented in previous research on early literacy and children with special needs that were largely generated by one method of data collection. A third goal was to investigate whether the present methodology could be used to uncover differences in the amount, type, and use of literacy resources in a home environment.

### Physical Resources

#### *Materials*

Previous researchers typically examined the number of books in a home and the effect that certain books had on children in relation to their disability (Craig, 1997; Gioia, 2001; VanderWoude & Barton, 2004). The present methodology provided information not only about the number of books in a home and the type of book, but a number of other factors, too. Observers saw first-hand the quality and variety of books, how and where the books were stored, their visibility and accessibility, and also noted who selected books that were used during the reading activity. In addition, it was possible to

learn about parents' opinions regarding certain books and those aspects of individual books that may have contributed to or hindered storybook reading.

The information obtained by the multi-method approach also revealed several factors that may have influenced a child's interest in and selection of books. For example, if a child is able to reach for and see the spines of books, he or she may be more inclined to find a book that is preferred by him or her. For the resource of materials, therefore, the multi-method approach that was used in the present study made it possible to gather additional and potentially useful information related to the early literacy development and young children with special needs that could have very important implications for early intervention professionals. For example, knowing about a child's reading preferences as well as a parent's opinion about certain kinds of reading content would certainly help a speech and language pathologist know how to organize or make suggestions about reading activities in the home that are likely to be enjoyed by the child and parent, maintain the child's attention, and thereby increase the likelihood of meeting certain therapeutic goals.

#### *Time*

Researchers tended to examine only the duration of storybook reading or variations in reading time in relation to children with special needs (Fitzgerald et al., 1995; Light and Kelford-Smith, 1995). Similar information was obtained in the present study. For example, it was possible to learn how long parents typically read to their children as well as the amount of time they spent reading to the focal child during the planned storybook reading activity. This was done without relying on survey data or a

focus exclusively on time spent during storybook reading. That said, the multi-method approach provided more distinctive information about the length of reading interactions and some confirmation about the estimated amount of times that parents read to their children. Additionally, parents mentioned certain activities, such as watching television that should not precede reading and these behaviors were sometimes evident during the home visits. The parents also provided extensive information about the amount of time that reading *could* typically occur during the week as it relates to a family's daily routine

### *Space*

Marvin (1994) and Marvin and Wright (1997) surveyed parents to learn about the location of a child while storybook reading occurred. In the present study, not only was it possible to see where reading occurred, but also note preferred reading areas as well as a variety of different positions parents and children assumed during the storybook reading activity. For example, the father in Family A sat on the floor during the reading activity while the child was roaming around the room the whole time. In addition, Fitzgerald et al. (1995), reported about the presence of distracters, such as a television, in the immediate environment. Using the present approach, other distracters were found that affected both the parent and child. Examples of distracters were evident in both the observation and interview data. Furthermore, other special features such as a room set up for play, the quality of lighting, and comfort and type of furnishings were documented in the photos as well as the observation and interview data. This kind of information has never been reported in previous research, even though it has clear implications for the type and quality of parent-child interactions as well as learning effects that might occur during a

storybook reading activity. Early intervention providers would clearly benefit if they had access to this kind of information, particularly in situations where specific resources are limited, absent, or dysfunctional. Making sure that something as simple as adequate lighting, comfortable seating, and/or distracter controls are present may have positive effects in parent-child interactions that occur during reading activities.

### Social Resources

#### *People*

It was evident from previous research that parents typically read to children, but sometimes siblings may do so as well (Cohen, 1997; Light & Kelford-Smith, 1993). From the present study, we were able to witness the presence of siblings during storybook reading and parents' perceptions of their contribution to reading as well as the ways in which they may detract from reading. Fitzgerald et al. (1995) reported that other parents were often present in the home when one parent read to a child with special needs. With the methodology used in this study, we were able to look beyond the presence at the time of the interaction and gather information about when parents are generally in the home as well as document the kinds of assistance they provide to spouses. This information is important because if a parent is alone and attempting to handle all of the household tasks, they may have less time to participate in a reading activity. In addition, providers would want to insure as much as possible that both parents are home when therapeutic reading activities occur, and they also should pay special attention to spousal attitudes about assisting during these kinds of activities. This may be

particularly important for fathers who may not feel that such assistance is consistent with their family responsibilities.

### *Knowledge*

The most common examination of the resource of knowledge in previous research has been in the area of parental educational levels (i.e., Kuo et al., 2004). Because this information was available from the Pathways Project Questionnaire, it was not necessary to obtain it from parents who participated in the study. However, some parents indirectly informed the investigator about their educational levels. Fitzgerald et al. (1995) investigated topic control between parents and children. Not much attention was paid to these behaviors and, as a result, very little information was obtained that related to the resource of knowledge. It was possible, however, to observe how parents incorporated their knowledge into storybook reading and how each parent felt about the effect that education might have had on books they choose to read to their children.

### *Emotional Relationships*

Very few studies have addressed emotional relationships. Schneider and Hecht (1995) and Fitzgerald et al. (1995) found that parents were aware of their children's skills and were responsive to them. Hockenberger et al. (1999) investigated the difference between conversational reading and reading to teach. However, with the methodology used in the present study it was possible to examine both physical affection, such as hugging or tickling, and verbal affection, such as positive reinforcement. The general enjoyment of both parent and child was evident in both the summary statements as well as comments that parents made during the interviews. This kind of information would be

very difficult to gather using only a survey method. Furthermore, a parent's tone of voice could only be assessed using a direct observation method. Therefore, it appears that the multi-method approach did provide important information about the general demeanor and specific behavior related to the affective quality of parent/child interactions.

Although similar behaviors may occur in laboratory settings, the interactions may not be representative of interactions that occur in natural environments such as the home, which might lead some providers to form conclusions and make recommendations to parents about affective features of behavior that are not very accurate or useful.

### Symbolic Resources

#### *Routines*

Researchers who have utilized surveys to study literacy development, have not obtained empirical support which shows that reading routines occurred in families (i.e., Cohen, 1997) or they only note that it is important for parents to establish reading routines (Paulson et al., 2004). The multi-method approach provided direct evidence of reading routines did exist in some of the homes, for instance, by documenting a child's knowledge about the location of children's books. The method also revealed how each family set up reading routines. It was found that routines, when they did occur, happened for most of the families without much forethought or planning. Routines seemed to occur primarily because parents had a strong desire to read to their children regularly, not because parents made sure they occurred at the same time and in the same place with the same participants. It would be important for early intervention specialists to know whether families followed some kind of routine and what the specific features were so

that a determination could be made about the feasibility of integrating best practices into the routine. McWilliam (1992) described a “routine-based” approach to early intervention that is consistent with this view.

For the purposes of literacy development, a routine appears to be stability in reading behaviors across time. For example, if a parent tends to read to his or her child at bedtime nearly every night, this constitutes a reading routine. Although a parent may be using reading as a quiet activity to transition into bedtime, a child may view it as a stable and predictable aspect of his or her life. This does not mean that reading cannot occur at other times or even that reading is the ultimate goal, rather it may have multiple purposes.

Early interventionists tend to view routines in a more limited manner with more of a focus on routines across daily activities. For example, they note when children eat, when time is scheduled to play, and how activities such as these are planned. It is essential that interventionists acknowledge that routines occur across time and that families’ routines may be important for aspects other than the central goal of an activity. If interventionists incorporate activities into preexisting routines, such as reading, this may be more natural for a child, because he or she is familiar with that activity. For families who do not have a reading routine or read rarely, an interventionist may suggest incorporating reading activities into times of a transition, such as returning home from preschool or when a child wakes up. They also may recommend that reading occur in a similar place nearly every time and appoint a place that most efficiently utilizes adequate

lighting and comfortable seating. It may be that a routine will become progressively more stable and more defined as certain aspects of a routine are introduced.

### *Community, Society and Culture*

Researchers acknowledge that the community and, more specifically, schools are important for children's literacy development (i.e., Hockenberger et al, 1999). Parents reported in the present study that children were often read to at school and that some schools provided books for the families to use quite regularly. Kuo et al. (2004) reported that some parents received information about the importance of reading from their doctors. Some of the parents in our sample stated that they had received similar kinds of information from doctors and other providers, but did not read it. Also, Cohen (1997) examined the differences in reading frequency between families who lived in rural versus urban areas. Unfortunately, the present sample was too small to conduct this kind of analysis, but there is no reason to believe it could not be done using the multimethod approach if the sample was larger. In the future, researchers could use the method to investigate factors related to socioeconomic status, e.g., how homes are organized for reading when reading resources are not limited or available. Such information might have implications for what providers can do, say, in single-parent households with parents who rarely read to children. Would it be possible, e.g., for providers to introduce resources that might compensate for what may be lacking in some of these homes? The question could be addressed only after providers have accurate and comprehensive information about all of the relevant resources.

The third and final goal of the present study was to investigate whether or not a multi-method approach to data collection could be used to identify differences of resources in the home environments of parents who reported high frequencies of weekly reading to their children compared to parents who reported low frequencies of weekly reading. The findings did reveal some resource differences between the two focal families. The condition of the books, the manner and placement of their storage, and the number and variety of literacy materials differed quite dramatically between Family A and Family B. For instance, Family A stored their books in a tub behind a gate in a room that was not very visible or accessible in a room where the parents did not read very often to their children, whereas Family B had visible and accessible bookshelves all around the home. The fifteen-minute reading period appeared to be too long for the focal child in Family A and not long enough for the focal child in Family B. This was evident in the time-sampling data, summary observations, and interview data.

The presence of other children appeared to have differential effects on parent and child attention to storybook reading. In Family A, the other children asked several questions and the infant limited the mother's ability to physically interact with the focal child during reading, however, Family B did not have anyone else vying for attention. Additionally, parents in Family A admitted that they did not have a reading routine, whereas the parents in Family B said they did. Both claims were supported by observational and interview data. The importance placed on reading by the parents in each family was different, as well. The mother in Family A stated that she would rather be doing something more active with her children than reading. Both parents in Family B

offered several reasons why they felt that reading was important for promoting literacy development as did the mother in Family A, but her daily activities were so demanding and often stressful that she preferred to be involved with her children in play activities rather than read to them even though she was fully aware of the potential benefits of reading regularly to her children.

The families appeared to be very similar in three ways. The first was that, although the furniture, lighting, and distractions in a home environment were suitable for a reading interaction, they probably did not contribute to a child's desire to read. The mother in Family A stated that she would like to have an area in their home for the exclusive purpose of reading to her child. The parents in Family B conveyed their frustrations about the lighting in particular, but the architectural features in the home did not permit any changes to this problem. The second way that the two families were comparable was the emotional relationships they had with their children. It was quite obvious how much all four parents cared for their children. For the purposes of reading, both families mentioned that they would read books to their children, even if they did not enjoy it, simply because their children took great pleasure in reading and benefited as a result.

The third commonality is that all of the parents were very good readers which may be one reason why the engagement percentages were high in both families. Thus, the other resources (or lack thereof) did not appear to be related to reading skills, or to the children's interest in book content. Parents who lacked certain resources or failed to use them properly still demonstrated that it was possible to read effectively to their

children. Those that did not do it as often as they wanted to seemed to know why they did not and described the reasons during the interview portion of the home visit. Such information may not be inclusive or entirely accurate sometimes, but it does provide opportunities for early intervention specialists to think about possible ways of reorganizing resources that parents have more free time, better physical features, more spousal support, or whatever else they may need to optimize reading opportunities.

It appears that it was possible to draw distinctions between the two families and observe a number of differences in the home environments of families who report high versus low reading frequencies. Although the other family in which parents reported low frequency reading was not highlighted in these analyses, there were similar differences evident in their home as well when it was compared to the homes of families who reported reading daily to their children. This is not to say that this information clearly illustrates how families either promote or hinder reading in their home, but it is a starting point for investigating specific resources in the home environment. Moreover, the variations in resources did not always include just the physical aspects of the home environments, and even when a room in a particular home environment was set up for reading; it did not ensure that the child had the desire, capabilities, or personality that promoted an interest in reading.

Several resources seemed to be important to insure that reading occurred on a regular basis, and parents also played a big role in promoting their children's interest in reading by the way they interacted with them during the reading activity. Perhaps the nature of the children's disabilities made the challenge somewhat easier; all of the

children had relatively good verbal and attention skills and only mild developmental delays. In the future, researchers may want to examine differences in literacy resources that relate to different disabilities. Parents are bound to have different priorities and learning goals when their children are severely or profoundly delayed.

The information derived from the observations and parent interviews produced unique and detailed views of the manner in which a small number of families function. It was possible to investigate not only the manner in which these families read to their children, but also additional factors that may be influential in both a child's and parent's desire to participate in literacy related activities. The depth of information was important, but the breadth of information yielded a variety of information about literacy resources that has not been examined in previous research. Furthermore, the interviews not only provided possible motives for certain parent and child behaviors, but also revealed a variety of external influences that may have had an impact on the daily lives of family members.

Parents discussed many of the behaviors observed during the reading activity. In addition, it was evident when parents were and were not aware of possible problems, such as low lighting. The combination of observation and interview methods may provide more information about what *can* be changed as well as what *needs* to be changed. As previously mentioned, there is a gap between legal mandates and early intervention practices. Even in this very homogenous sample, it would require different intervention methods to help families read more frequently to their children, or read more effectively to them.

Childress (2004) noted that a parent's participation in intervention should be optional. However, parents are the individuals in the best position to implement interventions recommended by early interventions, and the consultive model of early intervention is clearly the one best suited for implementation in natural settings, such as the home. It seems that utilization of resources in the home environment, especially the availability of people, may be critical if reading activities are to occur on a regular basis. However, there is not enough research at this point to suggest that one resource is more important or influential than another. Therefore, future research that utilizes much larger samples of families could address the hierarchy of influence of these resources in the context of a home environment.

Reviews of literature on children with and without special needs yielded grim results in light of the information related to resources that affect literacy development. Furthermore, the information was almost entirely based on the post-hoc perspective of parents. The present methodology allowed for an outside observer to make his or her own judgments about the availability and impact literacy-related resources and also assess whether these judgments were either supported or refuted by parents' comments. In addition, researchers typically examined only one of the resources that were evaluated in the present study, and many did so only to a limited degree. All 8 resources were examined simultaneously in the present study. This kind of information could have important implications for establishing early intervention strategies. The parents involved in the present study, for example, described methods they could use to organize their time, among other things, to promote reading. Some of them talked about daily schedules

that were quite hectic while others described fairly stable and predictable routines. Any intervention plan would be more or less likely to be adopted and utilized by parents depending on the ease with which it can be integrated into daily routines, and providers may need to help parents stabilize or create new routines that will support their integration effort.

Early intervention providers should have knowledge about daily schedules and be aware of the need to make changes in them first, if necessary, before recommending that parents implement interventions in the home. For children with specific disabilities, it may be that the presence of certain resources is necessary to optimize intervention effects. For children with language delays, for example, reorganizing the home environment to increase the interest in and frequency of reading may potentially increase the amount of verbalizations and communication between a parent and child. Even minimal changes, such as placing books on a bookshelf, may have profound effects on literacy and related areas of development. Future research on intervention strategies that take this kind of information into account needs to be conducted.

#### Potential Limitations

One of the major pitfalls of the methodology used in the present study was the amount of time it required from both the observer(s) and families who were involved in the study. From the time the investigator arrived to the time she departed ranged from 1 to 3 hours. Fortunately, the interview was parent directed and, therefore, allowed parents to provide as much or little detail as they deemed necessary to answer questions. Nonetheless, some of the participants did comment about the need to shorten the home

visits. Eliminating the mapping procedure will help, and perhaps the interview, which comprised about half of the total time per visit, can be shortened.

The time demands may inhibit some families from participating in this kind of research. In addition, efforts will have to make to control for sample bias effects.

Families who are willing to participate in this kind of research may have more free time than families who are not willing to participate or they may have different values, more knowledge about the importance of reading regularly to children (families in the present study were well educated) or feel more committed to promoting effective service delivery. If the time to complete a home visit were reduced to one hour, perhaps more families would be willing to participate. This is discouraging given that one of the resources is time. Also, families that do not have prior histories of participating in research and are associated with other kinds of early intervention efforts, e.g., Head Start, might be more inclined to participate.

Another limitation of the study was the expertise required to execute the research. Considerable time was spent in preparation of the instrument and practice administrations to ensure acceptable reliability among observers. Behavioral definitions had to be formulated to limit interobserver disagreement, and even after several discussions it was still evident throughout the study that training does not guarantee that observers will, in fact, observe and record the same details. Although observers did agree on the general features of the resources, they did not always agree on specific details when they recorded written descriptions of them. Nonetheless, the observers did consistently agree on the overall presence of resources in the home, which is no small accomplishment. One

may question the future utilization of this multi-method approach by other researchers or providers. It may be that with more refining of the instrument the approach will find some appeal among researchers and providers. Its eventual use by providers will certainly depend on its “economy of application”, but ultimately its use will depend on the empirical information it provides and how well this information can be used to improve the implementation of best practices.

Finally, the methodology used in the present study may seem intrusive to some families. However, most of the families who participated in the present study were used to people coming into their home because of TEIS sponsored in-home provision of services, moreover, none of the parents indicated that the visits were uncomfortable or intrusive; only the length of the visits presented a minor problem for some.

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## APPENDICES

**Appendix A**  
***Observation Instrument****Interviewer:*\_\_\_\_\_*Child Age:*\_\_\_\_\_*Parent:*\_\_\_\_\_*Child D.O.B.:*\_\_\_\_\_*Room:*\_\_\_\_\_*Visit number:*\_\_\_\_\_*Time begin:*\_\_\_\_\_*Time end*\_\_\_\_\_*Events that precede/ may affect literacy interaction:*

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<i>Child</i>	<i>Y</i>	<i>N</i>	<i>Parent</i>	<i>Y</i>	<i>N</i>
Listening			Reading		
Asking			Asking		
Answering			Answering		
Looking at pictures			Positive comments		
Pointing at book			Negative comments		
Handling book			Deliberate instruction		
Turning pages			Handling book		
Choosing book			Turning pages		
Smiling			Choosing book		
Nonengagement			Smiling		
Other:			Positive physical contact		
			Other:		

Time: \_\_\_\_\_

Title: \_\_\_\_\_

Author: \_\_\_\_\_

Description: \_\_\_\_\_

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Comments:

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Furnishings, lighting, seating, privacy, quietness, crowdedness

\_\_\_\_\_

Availability, accessibility, appropriateness, condition of print materials

\_\_\_\_\_

Presence/ absence of distractions, assistance (or lack of) of individuals in immediate vicinity

\_\_\_\_\_

Limited or excessive time, interruptions

\_\_\_\_\_

Specialized knowledge of child's engagement or delay, book topic

\_\_\_\_\_

Voice fluctuation, physical contact, extraneous comments (directed at child), patience

\_\_\_\_\_

Confidence or comments that suggest routine book-reading

\_\_\_\_\_

\_\_\_\_\_

<i>Child</i>	<i>Y</i>	<i>N</i>	<i>Parent</i>	<i>Y</i>	<i>N</i>
Listening			Reading		
Asking			Asking		
Answering			Answering		
Looking at pictures			Positive comments		
Pointing at book			Negative comments		
Handling book			Deliberate instruction		
Turning pages			Handling book		
Choosing book			Turning pages		
Smiling			Choosing book		
Nonengagement			Smiling		
Other:			Positive physical contact		
			Other:		

Comments:

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Furnishings, lighting, seating, privacy, quietness, crowdedness

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Availability, accessibility, appropriateness, condition of print materials

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Presence/ absence of distractions, assistance (or lack of) of individuals in immediate vicinity

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Limited or excessive time, interruptions

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Specialized knowledge of child's engagement or delay, book topic

---

Voice fluctuation, physical contact, extraneous comments (directed at child), patience

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Confidence or comments that suggest routine book-reading

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Time: \_\_\_\_\_

Title: \_\_\_\_\_

Author: \_\_\_\_\_

Description: \_\_\_\_\_

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<i>Child</i>	<i>Y</i>	<i>N</i>	<i>Parent</i>	<i>Y</i>	<i>N</i>
Listening			Reading		
Asking			Asking		
Answering			Answering		
Looking at pictures			Positive comments		
Pointing at book			Negative comments		
Handling book			Deliberate instruction		
Turning pages			Handling book		
Choosing book			Turning pages		
Smiling			Choosing book		
Nonengagement			Smiling		
Other:			Positive physical contact		
			Other:		

Comments:

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Furnishings, lighting, seating, privacy, quietness, crowdedness

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Availability, accessibility, appropriateness, condition of print materials

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Presence/ absence of distractions, assistance (or lack of) of individuals in immediate vicinity

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Limited or excessive time, interruptions

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Specialized knowledge of child's engagement or delay, book topic

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Voice fluctuation, physical contact, extraneous comments (directed at child), patience

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Confidence or comments that suggest routine book-reading

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Time: \_\_\_\_\_

Title: \_\_\_\_\_

Author: \_\_\_\_\_

Description: \_\_\_\_\_

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<i>Child</i>	<i>Y</i>	<i>N</i>	<i>Parent</i>	<i>Y</i>	<i>N</i>
Listening			Reading		
Asking			Asking		
Answering			Answering		
Looking at pictures			Positive comments		
Pointing at book			Negative comments		
Handling book			Deliberate instruction		
Turning pages			Handling book		
Choosing book			Turning pages		
Smiling			Choosing book		
Nonengagement			Smiling		
Other:			Positive physical contact		
			Other:		

Comments:

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Furnishings, lighting, seating, privacy, quietness, crowdedness

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Availability, accessibility, appropriateness, condition of print materials

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Presence/ absence of distractions, assistance (or lack of) of individuals in immediate vicinity

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Limited or excessive time, interruptions

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Specialized knowledge of child's engagement or delay, book topic

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Voice fluctuation, physical contact, extraneous comments (directed at child), patience

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Confidence or comments that suggest routine book-reading

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Time: \_\_\_\_\_

Title: \_\_\_\_\_

Author: \_\_\_\_\_

Description: \_\_\_\_\_

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<i>Child</i>	<i>Y</i>	<i>N</i>	<i>Parent</i>	<i>Y</i>	<i>N</i>
Listening			Reading		
Asking			Asking		
Answering			Answering		
Looking at pictures			Positive comments		
Pointing at book			Negative comments		
Handling book			Deliberate instruction		
Turning pages			Handling book		
Choosing book			Turning pages		
Smiling			Choosing book		
Nonengagement			Smiling		
Other:			Positive physical contact		
			Other:		

Comments:

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Furnishings, lighting, seating, privacy, quietness, crowdedness

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Availability, accessibility, appropriateness, condition of print materials

---

Presence/ absence of distractions, assistance (or lack of) of individuals in immediate vicinity

---

Limited or excessive time, interruptions

---

Specialized knowledge of child's engagement or delay, book topic

---

Voice fluctuation, physical contact, extraneous comments (directed at child), patience

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Confidence or comments that suggest routine book-reading

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Time: \_\_\_\_\_

Title: \_\_\_\_\_

Author: \_\_\_\_\_

Description: \_\_\_\_\_

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-The furnishings, lighting, seating, book storage, privacy, quietness, crowdedness, and presence/ absence of distractions of the space where the reading is occurring and *the way in which these characteristics seem to be affecting the reading session.*

[illegible]

-Print materials that are in the immediate surroundings and whether they are easily accessible to the child; the appropriateness and condition of the book that the child and parent are reading *the way in which these characteristics seem to be affecting the reading session.*

[illegible]

-People in the immediate vicinity of the reading session and the way they seem to be contributing to or hindering the reading; whether another person handles other household responsibilities so that the parent and child will not be interrupted *the way in which these characteristics seem to be affecting the reading session.*

[illegible]

-Limited or excessive time spent in literacy interaction, note child's restless behavior and/ or parent's method for maintaining child's involvement, interruptions that discontinue the interaction *the way in which these characteristics seem to be affecting the reading session.*

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-Any specialized knowledge the parent uses as s/he reads to the child including knowing how to engage the child in the reading, additional information communicated to the child connected to the book topic, knowledge about the child's delay that is shown during the reading session *the way in which these characteristics seem to be affecting the reading session.*

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-The affective quality of the interaction' note positive or negative departures from a neutral tone such as smiling or laughing, praise or another affectionate comments, affectionate physical contact, varied tone of voice while reading. Also note reprimands, impatience, a monotone while reading, negative physical contact *the way in which these characteristics seem to be affecting the reading session.*

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-Any indication that book reading is a routine engaged in by the parent and child, i.e., the child may appear very confident about how to participate in the book reading or the parent may make a comment that refers to a book read at a previous time *the way in which these characteristics seem to be affecting the reading session.*

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## Appendix B

### *Child and Parent Behavior Definitions*

#### Child Behavior Definitions

**Listening** – The focal child appears to be actively engaged in the book reading *only* (not extraneous comments or activities, such as watching television). This includes listening to reading, questions, and comments by the focal parent.

**Asking** – The focal child inquires about any topic (related to the book or otherwise) to the focal parent. This can also include questions for clarification (for example, “what did you say?”).

C: “Is daddy here?”

YES

C: “This is the cow, right?”

YES

C: “Daddy, will you read with us, too?”

NO

(This is not directed to the focal parent)

C: “Why?”

YES

**Answering**– The focal child verbally responds to the focal parent’s question (related to the book or otherwise).

P: “Where is the cow?” C: *points to cow*

NO

(This is not verbal)

P: “What sound does a cow make?” C: “Moo.”

YES

P: “Do you want to eat ice cream when we are done?” C: “Yes!”

YES

P: “Do you like this cow?” C: “I like her red bow.”

YES

(Although this is not a direct answer, the child is providing an indirect response which is related to the question).

**Nonengagement** -- The focal child is not in the interaction area or in the interaction yet is actively playing with an object or doing another activity. The focal child’s visual or auditory attention is markedly directed at a distracter or an unspecified (or varied) location.

**Looking at pictures** – The focal child’s attention is focused in the direction of the book (inside or cover). This may be accompanied by verbal cues (i.e., child is looking at a picture of a dog in the book and asks about the dog).

**Pointing at book** – The focal child is actively using a finger, hand, or object to target a specific word or object in the book. This may be accompanied by verbal cues (i.e., “look at that car”). This is *not* considered handling the book.

**Handling book** – The focal child is physically holding and/ or moving the book. Note: There needs to be some form of grasping—simple touch or page turning would not be recognized as ‘handling book’.

**Turning pages** – The focal child is changing the focus page; however, the page can be before the one previously read or another one that is not in order. This is *not* considered handling the book. If the focal child is grasping the corner of the page in *preparation* for turning the page, this is NOT considered turning the page.

**Choosing book**—The focal child is reaching for or briefly looking at a book or books that were not utilized in the interaction. They may have been preceded by a verbal cue to choose a book from the parent. It is potentially followed by reading of that book.

**Smiling**—The focal child is displaying some form of enjoyment with his or her mouth-- the corners need to be upturned. Note: only a full smile will be recorded, the possibility of one will not.

**Other:** Any other action worth noting that can be recorded in a YES or NO category at a later time.

Examples:

C: *sings Old McDonald*  
YES

### Parent Behavior Definitions

**Reading** – The focal parent is verbally relaying the written word of the book to the child. No extraneous comments are included in this category. This will usually be accompanied by looking at the book (but this, in and of itself, does NOT indicate reading).

Examples:

P: “I do not like them Sam I am...” when the book is Green Eggs and Ham  
YES

Singing “Old McDonald had a farm...” when the book they are reading is Old McDonald  
YES

The parent is looking at the child, but saying words that are from the book  
YES

(The parent may be very familiar with the book and therefore, know the words)

The parent saying “there is a cow and a pig”  
NO

**Asking** – The focal parent inquires about any topic (related to the book or otherwise) to the focal child. This can also include questions for clarification (for example, “what did you say?”).

Examples:

P: “Where is the cow and the pig?”; “What sound does a pig make?”  
YES

P: “Do you need to go potty?”  
YES

P: “Did you have fun seeing the pigs at the farm?” while reading Old McDonald  
YES  
(make a note in the qual. portion if questions, similar to this one, relate to the book)

P: (to other parent) “What time is basketball practice?”  
NO

**Answering** -- The focal parent verbally responds to the focal child’s question (related to the book or otherwise).

Examples:

P: "That is a pig, you're right" (when child answers parent's question about animal)

NO

(This is a positive comment—it is not providing any new information that the child did not already know to some degree)

C: "When is bedtime?" P: "At 8."

YES

C: "When is the cow's bedtime?" P: "The same time as your bedtime."

YES

(make a note in the qual. portion if answers, similar to this one, relate to the book)

*Other parent:* "When is [child] going to bed tonight?" P: "At 8."

NO

**Positive comments** -- The focal parent is responding with encouraging words either in reaction to a child's behavior or comment. The focal parent may utilize positive comments even if the child answers a question incorrectly (for example, a parent's response may be "it is a dog, but that was a good try"). These comments are reassuring or reinforcing. Many of these comments will be accompanied by voice fluctuation, smiling, etc—please make a note of this in the qual. portion.

Examples:

P: "That is a pig, you're right"

YES

P: "You know so many letters!"

YES

P: "Give me high five" (comment that leads to action that may reinforce behavior)

YES

P: "That is a pig"

NO

(This is simply clarifying child's response)

P: "You are sitting so still...I like it when you sit still"

YES

P: "You are sitting so still"

NO

(Unless you are confident that the parent deems this a positive behavior through voice fluctuation, hug, etc.)

**Negative comments** – The focal parent is responding with discouraging words either in reaction to the focal child's behavior or comment. An example is "Would you sit up, you're hurting my leg?" The comments are demeaning and dejecting. Many of these comments will be accompanied by voice fluctuation, negative facial features, etc—please make a note of this in the qualitative portion.

Examples:

P: "You *only* know two letters"

YES

(Although the child knows two letters, the parent is doting on the lack of knowing the other 24)

P: "You are sitting *too* close to me"

YES

P: "Your *dad* won't stop coming in the room"

NO

P: "That is wrong, try again"

YES

P: "Try again"

NO

**Deliberate instruction--** The focal parent is adamantly pushing a certain learning perspective (most of the time about appropriate book use—if not, then it will probably be related to specialized knowledge on topic). The focal parent may not be reading the words, but is constantly asking or telling about certain attributes of the book. E.g. “Where is the cover, who is the author, where is the bear?” Asking will also need to be checked. General instructions are not included—it must be directed at teaching.

P: “Turn the page”

NO

P: “Let’s turn the book this way because that is the front”

YES

(This comment is teaching the child the correct way to read books)

P: “Dr. Suess wrote this book”

YES

P: “Where is the cow?”

NO

P: “What kind of horse is that?” C: “A Black Stallion”

YES

(The family may live on a farm and the parent wants the child to learn specifics about animals—these forms of specific questions typically will not be evident in other books with less specialized knowledge. If they are, then consistently report yes, but make a note of the high degree of knowledge on several topics in the qualitative portion)

**Handling book** – The focal parent is physically touching, holding, or moving the book. Note: there needs to be some form of grasping—simple touch or page turning would not be recognized as ‘handling book’.

**Turning pages** – The focal parent is changing the focus page; however, the page can be before the one previously read or another one that is not in order. This is *not* considered handling the book. Preparation of turning the pages (i.e., fingers grasping the corner of the page) is *not* coded.

**Choosing book**—The focal parent is reaching for or briefly looking at a book or books that were not utilized in the immediate interaction. They may have been preceded by a verbal cue to choose a book from a child. It is potentially followed by reading of that book.

**Smiling**-- The focal child is displaying some form of enjoyment with his or her mouth-- the corners need to be upturned. Note: only a full smile will be recorded, the possibility of one will not.

**Positive physical contact** – Contact between the parent and focal child that, in some way, potentially resembles affection. This includes, but is not limited to, hugging, an arm around the focal child, or permitting a child to rest on the parent’s leg. There should be little signs of visible discomfort on the parent’s part. NOTE: If there is *any* overlap of arms, hands, etc. this would be considered positive physical contact; however, this would need to be expanded on in the qualitative portion.

**Other:** Any other action worth noting that can be recorded in a YES or NO category at a later time.

Examples:

P: “That is a pretty horse”

YES

This can be considered a comment

**Appendix C**  
***Interview Questions***

1. Think about the storybook reading session that just occurred...
  - A. Would you say that what happened was typical of what usually happens when you read to your child?
  - B. If not --how was the session different?  
--what do you think caused it to be different?
  - C. How frequently do you typically read to your child? (For how long?)
2. Resources – Consider the physical space...
  - A. Can you think of anything about the furnishings, lighting, seating, book storage, or location of this space relative to literacy materials that *helps you* as you begin and continue reading?  
  
Hinders you?
  - B. Would you like to change something about the space to make reading easier and more enjoyable?  
  
What would it be?
  - C. Are there places outside of the home where you read to your child?
  - D. How do you think the children's books you have on hand *contribute* to the reading you do with your child?  
  
Hinder you?
  - E. Do you have enough books in the home that are suitable for your child?  
  
Do you have enough books in the home that you and your child enjoy reading?
  - F. Where do you get your books?  
  
Is it difficult or easy to attain them?
3. Resources - preferences

- A. What is your child's favorite book?  
How do you feel about that book?
  - B. Are there books that make it especially enjoyable for you to read to your child?
  - C. Are there any books that you particularly dislike?
4. Resources - storage
- A. Where are your child's books kept?
  - B. Are there any books that your child likes to look at that are generally inaccessible to him/ her unless an adult is present?
  - C. Are some book kept outside of the home (e.g., in the car) for your child to use?
5. Resources – other literacy materials
- A. What other types of print materials do you and your child use?  
Where do you obtain those materials?
  - B. Do you ever use literacy-related TV programs or computer software with your child?
  - C. Are any of the print materials you use with your child related to his/ her specific delay?
  - D. What other print materials would you like to have?
6. Routine
- A. Can you describe a typical day in the life of you and your family?  
How do the weekends differ?
  - B. Would you say that your schedule is fairly predictable or unpredictable?
  - C. How much leisure time do you spend with your child?

When does it occur?

- D. How do you arrange your schedule so there is time to read to the child?

How difficult is that to do?

- E. Are there any activities that should not precede a reading session—i.e., that make it very difficult for your child to settle down and concentrate on a book?
- F. Is there anything about your schedule that makes it very difficult to read to your child regularly?
- G. What would you change about your schedule that would allow more time for reading?

7. Family participation

- A. What family members read to your child regularly?

- B. Does your spouse read to your child?

How often?

- C. Does anyone else participate in the reading?

Would you say that this is a help or a hindrance?

- D. While you are reading, does another family member handle other responsibilities (such as answering the phone or caring for another child) so that you are not interrupted?

8. Specialized knowledge

- A. While you are reading, do you sometimes find that you are communicating your own knowledge to your child (i.e., things related to your work, hobbies, words from a second language)?

Please, give some examples?

- B. Have you ever taken a class or workshop on child development or children's literature?

Attended any community events or watched television programs on these topics?

- C. Have you received any information about the importance of reading or how to read from people who are providing services related to your child's delay?
- D. What type of knowledge would be helpful to you in reading to your child?

9. Affective quality

- A. Tell me about a time when you were reading to your child and both of you were having a wonderful time.

Why is this a memorable experience for you?

- B. Tell me about a time when you and your child were having a very unpleasant experience with books.  
What made it so negative?

- C. How much do you usually enjoy reading to your child?  
Pick a number from 1-7 to describe your response—1 indicates no enjoyment and 7 is a great deal of enjoyment.

- D. How do books fit into *your* life right now?  
Has this changed since you had children?

10. Routine – book reading

- A. Would you say that reading to your child is a regular, planned routine in your home?

Could you describe that routine?

What is important about it for your family?

- B. Does your child behave in ways that let you know that s/he knows the routine?
- C. What did you do to set up this routine?
- D. Does your child ever bring you a book to read spontaneously, at unplanned times?

11. External influences

- A. Are there any particular family traditions or customs that may be affecting the way in which you read to your child?
  - B. Do you think that your job, type of education, church participation, or any other activities, or any other activities you're involved with in the community have an impact on the way in which you read to your child?
12. Future research – It would be helpful to us if you would think for just a minute about the ways in which we have been gathering information in your home...
- A. Is there anything you think we should change about our methods?
  - B. Is there anything we could do differently to make families feel more comfortable?
  - C. Are there any more questions you think we should ask about this topic?

**Appendix D**  
***Reliability Items***

**Draft – Possible format for judging agreement on home observations**

Answer each question with *YES, NO, DON'T KNOW, or NA*

There is comfortable seating for the adult and child.

There is sufficient lighting to support book reading.

Books can be obtained easily without leaving the immediate area.

People are not crowded while reading.

The room is quiet enough so that the adult and child can hear one another.

Furniture allows the adult and child to lean against and touch one another.

There is an area in the house that can be recognized as a book or reading area.

The TV, radio, and other sources of distraction are turned off during reading.

Children's books are generally in good condition.

Children's books are appropriate for their ages.

There are several genres of books visible (picture storybooks, alphabet, poetry, information).

The space where reading occurs is generally free of traffic and activities that could interrupt the reading.

Books and other literacy materials are stored in various locations in the house.

It appears that there are several places where reading occurs in and outside of the home.

Children's books are within their easy reach.

There are children's books out of their reach but that they can see.

Drawing and writing materials are available to children.

There is an area that is clearly devoted to drawing and writing.

There is a computer with software appropriate for children.

There is print in the home related to everyday living (newspapers, cookbooks, calendars).

Child was not too active, excited, or upset by a previous event when the reading began.

Family members spend several hours at home together each day.

There is a predictable routine or schedule of daily events.

Parents and children share uninterrupted leisure time.

It appears that someone knows or plans the family schedule.

Parents' work schedules allow for predictable time with family during daylight hours.

Both parents read to the child regularly.

An older sibling reads to the child regularly.

Relatives or friends read to the child regularly.

The child has literacy experiences in out-of-home care.

If another adult is present during the reading, s/he attends to any distractions or interruptions.

No one interrupted the reading with misbehavior, loud noises, or repeated bids for attention.

The adult appears to be able to read.

There was evidence during the reading of some type of specialized adult knowledge beyond "common knowledge".

There is evidence that one of the parents skillfully manages household and child care responsibilities so that there is time to read regularly.

It appears that the relationship between parent and child facilitates book reading.

Some type of positive emotion was expressed between parent and child during the book reading.

If guidance or discipline was needed, it occurred in such a way that it did not detract from the book reading.

It appears that reading together is enjoyable for parent and child.

The child is clearly accustomed to being read to and knows how to participate.

The parent appears confident about reading to the child.

Reading is clearly a valued routine in this family; it tends to occur in similar ways across time.

There is at least one regularly scheduled time when reading to the child occurs.

The parent or child mentioned or described a previous reading event.

Parents obtain books for the child at the public library.

The child accompanies the parent to the library.

At least one of the parents reads for pleasure.

Reading is used as a therapeutic technique for the child.

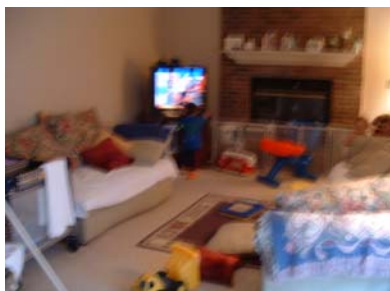
There are print materials in the home related to community/cultural events.

## Appendix E

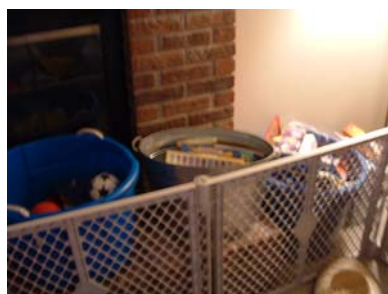
### *Photos for Family A and Family B*

#### FAMILY A

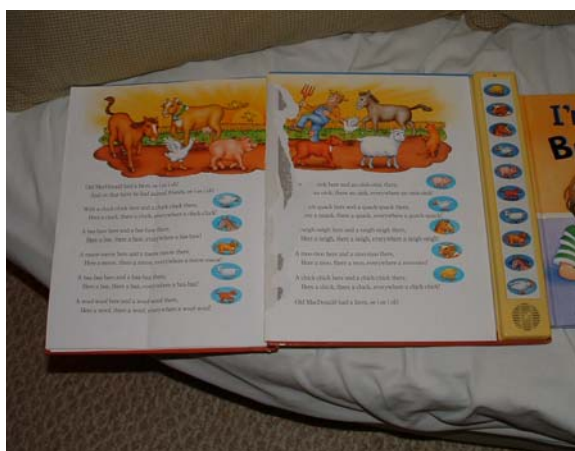
##### Room Characteristics



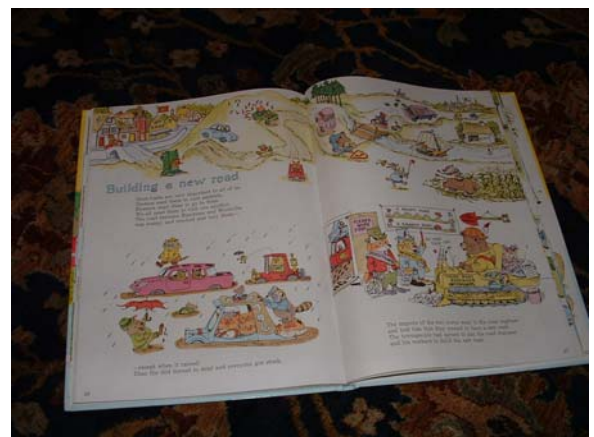
##### Book Storage

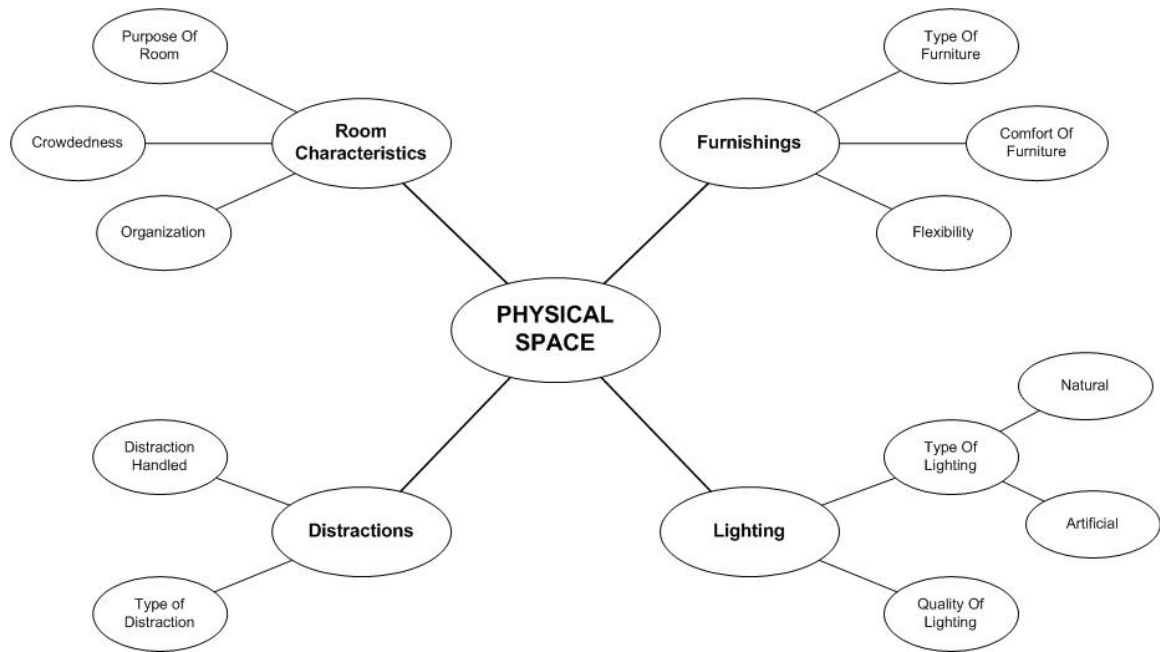


##### Book Characteristics



## FAMILY B

Room CharacteristicsBook StorageBook Characteristics

**Appendix F**  
**Diagram**

**Appendix G**  
*Tables*

Table 1  
*Resource Matrix*

0 = No mention, 1 = Minimal Mention, 2 = Moderate Mention, 3 = Integral to the study

	<i>Physical Materials</i>	<i>Time</i>	<i>Space</i>	<i>Social People</i>	<i>Knowledge</i>	<i>Emotional Relationships</i>	<i>Symbolic Routines</i>	<i>Community Society Culture</i>
Cohen (1997)	0	0	0	1	0	0	1	2
Craig (1996)	2	0	0	1	0	0	0	0
Crain-Thoreson & Dale (1999)	0	0	0	0	0	0	1	0
Dale & Crain-Thoreson (1996)	0	0	0	0	0	3	0	0
Ezell et al. (2000)	0	0	0	1	0	0	0	0
Fitzgerald et al. (1995)	2	1	1	1	2	1	0	1
Gioia (2001)	2	0	0	0	0	0	0	2
Goin et al. (2004)	3	1	0	2	0	1	2	2
Hockenberger et al. (1999)	0	0	0	0	1	1	0	1
Justice & Kaderavek (2003)	0	0	0	0	3	0	0	0
Kuo et al. (2004)	0	0	0	0	1	0	1	2
Light & Kelford-Smith (1993)	2	2	1	1	0	0	2	0
Marvin (1994)	2	0	1	0	0	0	1	0
Marvin & Wright (1997)	1	0	1	0	0	0	1	0
Paulson et al. (2004)	0	0	0	0	1	0	3	3
Schneider & Hecht (1995)	0	0	0	0	1	3	0	1
VanderWoude & Barton (2003)	3	0	0	0	1	0	0	0

Table 2  
*Comparison of Rating Percentages*

	<i>Typically Developing Children</i>	<i>Children w/ Special Needs</i>
<b>Resource</b>		
<i>Physical</i>	<i>30.6%</i>	<i>16.3%</i>
Materials	64%	33%
Time	22%	8%
Space	5%	8%
<i>Social</i>	<i>34.2%</i>	<i>16.9%</i>
People	36%	14%
Knowledge	47%	20%
Emotional Relationships	19%	18%
<i>Symbolic</i>	<i>27.8%</i>	<i>25.4%</i>
Routine	23%	24%
Community, Society, and Culture	33%	27%

Table 3  
*Family Demographics*

	<b>Age (Mother)</b>	<b>Race (Mother)</b>	<b>Level of Education (Mother)</b>	<b>Employment (Mother)</b>	<b>Residential location</b>	<b>Income</b>	<b>Siblings in the home*</b>
<i>Family 1</i> Family A	35	Caucasian	Bachelors	Stay-at-home mother	Rural	\$15-30,000	2 (male triplets) 1 (female infant)
<i>Family 2</i>	28	Caucasian	Bachelors	Stay-at-home mother	Suburban	\$30-45,000	1 (male toddler)
<i>Family 3</i>	43	Caucasian	Bachelors	Registered nurse/ part- time	Suburban	\$60-75,000	1 (female schoolage) 1 (male adolescent)
<i>Family 4</i> Family B	42	Caucasian	Masters	Stay-at-home mother	Suburban	\$75,000 +	None
<i>Family 5</i>	31	Caucasian	Some College	Stay-at-home mother/ student*	Suburban	\$15-30,000	1 (female schoolage) 1 (male schoolage)
<i>Family 6</i>	36	Caucasian	Bachelors	Childcare worker/ full- time	Rural	\$45-60,000	1 (female schoolage)

Table 4  
*Child Demographics*

	<b>Reading frequency (children are read to)</b>	<b>Gender</b>	<b>Age (at time of observation)</b>	<b>Race</b>	<b>Diagnosis</b>	<b>Age child began receiving therapy services</b>	<b>Services child still receiving at completion of questionnaire*</b>	<b>Adopted status</b>
<i>Family 1</i> Family A	1-3x/ week	Male	3 years, 10 months	Caucasian	Developmental Delay	20 months	OT	No
<i>Family 2</i>	Daily	Female	3 years, 8 months	Other	Developmental Delay	2 months	SLP/ OT/ PT	Yes
<i>Family 3</i>	Daily	Female	4 years, 4 months	Asian	Speech/ Hearing Disorder	4 months	SLP/ OT	Yes
<i>Family 4</i> Family B	Daily	Male	4 years, 10 months	Caucasian	Developmental Delay	10 months	OT/ PT	No
<i>Family 5</i>	Daily	Male	4 years, 10 months	Caucasian	Speech/ Hearing Disorder	24 months	Vision	No
<i>Family 6</i>	1-3x/ week	Male	4 years, 7 months	Caucasian	Developmental Delay	24 months	SLP	No

## VITA

Juli Dolezal graduated in 2000 from Morristown-Hamblen High School West in Morristown, Tennessee. She attained her Associate of Science degree from Walters State Community College in 2002 with a general major. Also, she attained her Bachelor of Arts degree from the University of Tennessee, Knoxville in 2004 with a major in Audiology and Speech Pathology. She intends to pursue a PhD in Human Ecology after some time in the professional field.