

## Literacy in Early Intervention for Children with Visual Impairments: Insights from Individual Cases

*Karen A. Erickson, Deborah Hatton, Vicky Roy, DanaLee Fox, and Diane Renne*

---

Abstract: A qualitative case study design was used to investigate the ways in which two early interventionists supported emergent literacy development for infants and toddlers with visual impairment. Three themes are addressed: (1) the importance of a family-centered approach in addressing emergent literacy in early intervention; (2) the role of the early interventionist in language and concept development; and (3) the need to focus on the senses as they relate to literacy. The findings provide practical insights into the role of the early interventionist in supporting early literacy development.

---

This study is intended to be a partial remedy to the paucity of empirical information regarding emergent literacy in young children with visual impairment and blindness. Emergent literacy has been defined with respect to children with visual impairment and blindness (D'Andrea & Farrenkopf, 2000; Koenig, 1992; Stratton, 1996; Stratton & Wright, 1991), and practices for promoting emergent literacy in young children with visual impairment and blindness have been described (Swenson, 1999; Wormsley, 1997). The home literacy environments (Craig, 1999; Dote-Kwan & Hughes, 1994; Rock, Head, Bradley, Whiteside, & Brisby, 1994) and storybook reading practices of caregivers of children with visual impairment and blindness have been described (Craig, 1996; Crespo, 1990). Empirical evidence highlights experiences that promote literacy-learning success for school entry for children with visual impairment and blindness (Koenig & Farrenkopf, 1997), and the quality of instruction provided by teachers of school-age children with visual

impairment and blindness has been examined (Corn & Koenig, 2002; Koenig & Holbrook, 2000; Suvak, 1999). Despite this wealth of research, no empirical investigations of emergent literacy intervention practices of early interventionists who provide support to young children with visual impairment and blindness have been published to date.

In the present study, *emergent literacy* is defined as the developmental process beginning at birth in which children acquire the foundation for reading and writing (Teale & Sulzby, 1986; Whitehurst & Lonigan, 1998, 2002), including oral language and listening comprehension, concepts about print, alphabetic knowledge, phonological awareness, and the environments within which they develop (Sénéchal, LeFevre, Smith-Chant, & Colton, 2001; Strickland & Shanahan, 2004; Whitehurst & Lonigan, 1998, 2002). In early intervention, *emergent literacy* also includes areas of concept and motor development that relate directly to reading and writing skills in later childhood.

The recommended practice for the delivery of early intervention services involves working in the homes of young children with visual impairment and blindness. Part C of the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 provides legislative support for family-centered early intervention services for infants and toddlers (birth to age 3 years) with disabilities and their families. Family-centered intervention is a method of managing and delivering assistance, support, and services to families. Family-centered services take place in natural environments and are characterized by collaboration among professionals and family members (Hatton, McWilliam, & Winton, 2002). Effective family-centered practices honor diversity and view the family holistically. When well implemented, family-centered practices build on strengths and improve family functioning through flexible and individualized support (Dunst, 2002; Maroney & Davis, 2001; Trivette & Dunst, 2005). Family-centered practices acknowledge the heterogeneity

that exists within and among families and recognize that decisions, supports, and services will influence the entire family unit (Fazzi & Pogrund, 2002).

The importance of family-centered practices is reflected in the vital role caregivers play in the language and concept development of young children with visual impairment and blindness. For many children with visual impairment and blindness, language and concept development are delayed (Bigelow, 1987; Fraiberg, 1977; Preisler, 1995; Urwin, 1984), at least in part because of their early interactions with caregivers (Fraiberg, 1977; Preisler, 1995). Specifically, children with visual impairment and blindness babble less (Fraiberg, 1977), are delayed in the onset of first words and two-word combinations (McConachie, 1990; McConachie & Moore, 1994) and acquire language in qualitatively different ways than sighted children (Anderson, Dunlea, & Kekelis, 1984; Bigelow, 1987; Urwin, 1978). Whereas caregivers of sighted children rely on their children's eye gaze, gestures, and facial expressions to interpret their intended messages (Bates, 1979; Bretherton, 1992; Wetherby & Prizant, 1989), judge their engagement, and clarify early communicative signals (Loots, Devise, & Sermijn, 2003; Prizant, Wetherby, & Roberts, 2000), caregivers of children with visual impairment and blindness often miss or ignore the vocalizations and body movements of children in their care (Preisler, 1995). Difficulties in interpreting intentionality may be because children with visual impairment and blindness typically manifest limited facial expressions, do not maintain eye contact (Fraiberg, 1977; Preisler, 1995), and are unable to perceive nonverbal communication (that is, eye contact, facial expressions, and gestures) from their caregivers (Mills, 1988; Preisler, 1995). Children with visual impairment and blindness as young as 2 months of age, however, express communicative intent through subtle and difficult-to-interpret movements of their hands (Fraiberg, 1977).

Another factor influencing language and concept development is

the decreased opportunity for young children with visual impairment and blindness to explore the world around them (Warren & Hatton, 2002; Wormsley & D'Andrea, 1997) and to learn incidentally from pictures, television, environmental print, or events occurring silently in their environments (Koenig & Farrenkopf, 1997). Increasing these opportunities requires encouragement of children with visual impairment and blindness to develop senses and hand skills that will be used functionally in later years. For example, infants and toddlers with visual impairment and blindness are likely to focus on body-centered sensations and must progress from initially responding positively to touch to reaching out to explore the environment through touch (Bigelow, 1987; Finello, Hanson, & Kekelis, 1992). In addition, young children with visual impairment and blindness often lack hand strength (Fullwood, 1987), explore only parts of objects (Berla & Butterfield, 1977), and generally experience delays in development of their fine motor and object manipulation skills when compared to their sighted peers (Ferrell et al., 1990; Rogow, 1978). Without a focus on the early development of senses and hand skills, young children with visual impairment and blindness may not be able to engage fully in emergent literacy learning.

## **Methods**

The study described here is one component of a larger study of emergent literacy in children (birth to 6 years) with visual impairment and blindness that seeks to identify (a) types of pre- and early conventional literacy intervention provided by teachers and early interventionists who provide specialized services and support to children with visual impairment and blindness and their families and (b) factors that contribute to successful conventional literacy learning by children with visual impairment and blindness. The purpose of this study was to investigate the emergent literacy intervention practices of early interventionists.

## **PARTICIPANTS**

Participants in this study were two early interventionists, Ms. Heather and Ms. Julia (pseudonyms), who worked exclusively with infants and toddlers with visual impairment and blindness. These early interventionists were recruited for participation through a process that began with an invitation to the director of two specialized agencies serving individuals with visual impairment, one in the southwestern and one in the northeastern United States. These administrators were asked to nominate early interventionists with known expertise in emergent literacy who would be willing to participate in this study.

Ms. Heather and Ms. Julia had 24 and 14 years, respectively, of experience in providing early intervention to young children with visual impairment and blindness. They were asked to select a child with whom they worked on a weekly basis and seek permission from the parents for participation in the study. Ms. Heather was observed working with Susie in the home where she lived with her mother. Ms. Julia was observed working with two children, J.R. and Millie. She worked with J.R. in the home where he lived with his mother and father and at the home of a respite care worker who cared for him regularly. Ms. Julia worked with Millie in her home, with both parents typically present.

The developmental status and the nature of visual impairment of the three children differed markedly. J.R. and Millie had visual impairment and other developmental delays. All three children appeared to have some useful vision, but the detailed descriptions of Susie's sensory behaviors suggest that she used tactile and auditory cues, rather than vision, to secure detailed information about her environment. J.R., who was 17 months old at the onset of the study, had retinopathy of prematurity, cortical visual impairment (CVI), and nystagmus. Millie, who was 22 months old at the onset of the study, had CVI, nystagmus, and astigmatism. Susie, who had optic nerve hypoplasia, was 26 months old at the onset of the study.

The institutional review board of the University of North Carolina

approved this study, and informed consent was obtained from the early interventionists and parents of the children involved. At the conclusion, the early interventionists were given \$25 gift certificates to a national chain bookstore, and each child was given a book in an appropriate medium.

## **PROCEDURES**

The qualitative case study was selected for its strength as a means of exploring, explaining, and describing (Yin, 1993) the contexts within which particular practices are employed. When the unique features of each case are compared with the experiences of others, each of the three cases has important atypical features, relationships, and situations that may be generalizable to other cases (Stake, 2000). Because of the dynamic nature of home visits and the lack of empirical information on this topic, the case study methods were deemed the most appropriate for the research question. The combination of participant observations, teacher interviews, and document reviews provided multiple sources of information, and supported the extraction of as much information as possible about the early intervention practices employed by the participants in the study (Stake, 2000).

## **DATA COLLECTION**

Field notes, interviews, and document reviews were used to collect data for this study. Data were collected in the homes of the children, transmitted to the first two authors, reviewed for completeness, summarized, and analyzed.

### ***Field notes***

Data collectors were recruited from graduate programs in early intervention and special education at universities in the communities where the early interventionists worked. A specially produced video on the process of collecting meaningful field notes by use of participant observation techniques was used to train data collectors (Adler & Adler, 1994; Bogdan, 1972; Bruyn,

1966; Spradley, 1997). They were taught to define their role as partial participants in a way that was comfortable to both collectors and participants alike (that is, the early interventionist, family, and child), because maintaining the perspective of completely detached onlookers in the intimate home settings would be impossible (Patton, 2002). Data collectors acknowledged and tried to limit the influence they had on the settings they observed.

After they completed their training, data collectors received specific feedback on their field notes, which were transcribed within 24 hours of each observation and sent to the authors of this study via e-mail. By the second observation, all of the data collectors had contributed complete, high-quality field notes. The first author monitored the quality of the field notes as they were submitted and provided feedback and direction to the data collectors as needed.

When the study began, weekly 30-minute observations were scheduled across a minimum of 8 weeks with each interventionist-child pair. In the end, however, the early interventionists were observed for a combined total of 22 hours, with the average length of each observation being 1 hour. This dramatic increase in hours of observation came as a result of the setting and the manner in which observers defined themselves as partial participants. Coming and going with the early interventionists was far less intrusive when they stayed longer than the 30 minutes of the scheduled session.

### ***Interviews***

Face-to-face, structured interviews were completed with the early interventionists before field observations began. In addition, data collectors conducted informal interviews after observations to ask questions and seek clarification as needed. The initial interviews were tape recorded and transcribed. Notes taken during the informal interviews were submitted in conjunction with the field notes.

### ***Document reviews***

Reviewed documents included books used by the early interventionists during their sessions as well as each child's individualized family service plan. The individualized family service plans were reviewed to identify goals and services related to communication and emergent literacy.

### **DATA ANALYSIS**

The transcribed field notes and formal interviews were first analyzed deductively to provide an overview of factors determined a priori to be relevant to the research questions. The deductive coding immediately led to the inductive coding process. Analyzing the field notes inductively helped us identify the practices being used by the early interventionists and the responses of the children and families. Inductive codes emerged by way of repeated reading and review of the data and attempts to view and interpret the scene from the perspective of the participants. The inductive process was driven by the principal investigators and their knowledge of recommended practices in early intervention, literacy, and very young children with visual impairment and blindness. [Box 1](#) provides a summary of all of the deductive and inductive codes used in the analysis. After lists of codes were identified, they were examined in detail and grouped into categories, which led to the overarching themes described below.

### ***Member checks***

On completing their analyses, the early interventionists were asked to provide feedback regarding the accuracy of the themes that were identified. Ms. Heather and Ms. Julia agreed that the themes and proposed findings provided an accurate reflection of their experience. During one conversation subsequent to this member check, Ms. Heather told the first author, "It was strange to read about myself. I'd be reading along and just forget that it



was me I was reading about." She went on to explain that then she had read something that struck very close to home and was reminded again that she was the subject.

## Findings

Three themes relating directly to the manner in which early intervention specialists supported emergent literacy learning for the three children emerged from the data: (1) family-centered practices, (2) language and concept development, and (3) focus on senses as they relate to literacy. Although these themes are not exhaustive, they do provide a view of the depth and breadth of skills that are required to promote emergent literacy in infants and toddlers with visual impairment and blindness.

### **FAMILY-CENTERED PRACTICES**

Ms. Heather and Ms. Julia were acutely aware that their role involved much more than direct work with the children. Ms. Heather reported that she saw her role not just as Susie's teacher but also as the person who might inspire Susie's mother to become her teacher. For example, Ms. Heather gave Susie's mother an imagination kit, a box containing scrap materials and other arts-and-crafts supplies, that she could use to create materials for and with Susie. Ms. Heather reported that Susie's mother valued the kit and the opportunity it provided to create literacy materials and games she could play with Susie between Ms. Heather's visits. After one visit when Susie and Ms. Heather had a particularly productive session with a texture book, Ms. Heather reported that she had "no doubt" that Susie's mother would create a texture book using the materials in the imagination kit before her next visit. The data collector did not attend the subsequent session, but the number of homemade materials noted during observations supported Ms. Heather's claim.

Awareness of caregiver needs extended across all intervention sessions. In general, sessions began with brief conversations between caregivers and early interventionists. The adults would

discuss the child's progress, events of the preceding week, and activities the early interventionist had suggested for the week between each home visit. These conversations appeared to be very important to the creation and maintenance of alliances with the families. On the basis of the range of topics (for example, employment, personal relationships, and difficulties with siblings), it was clear that the early interventionists and caregivers had formed trusting relationships consistent with a family-centered approach (Bailey et al., 1998; Dunst, 2002; Dunst, Trivette, & Deal, 1988).

The early interventionists brought books and literacy materials with them to many sessions, such as the imagination kit which Ms. Heather gave Susie's mother. Books and teacher-made materials that promoted effective use of hands and tactile exploration also played an important role in their interactions, as suggested by the following excerpt from an observation in Susie's home:

Ms. Heather says, "Let's read." Susie complies, allows herself to be buckled [into the highchair], and Ms. Heather attaches tray. Susie's mother puts book on tray and hovers nearby. Susie voraciously begins to scan book with hands and fingers and is eagerly trying to turn pages. Ms. Heather asks, "Can I see your book please?" Susie looks like she doesn't want or need help, she looks so hungry to investigate the book. Ms. Heather says title, repeats title, and turns to title page. "See it?" Ms. Heather asks. Susie feels the cover of the book with her hands. Her mother is at the counter, puttering in the kitchen. Susie says, after feeling the tray, "Roly Poly Man, sticks!" Ms. Heather and Susie's mother both proclaim, "Very good!" Ms. Heather asks Susie's mother if she's been doing a lot of reading with Susie. She nods and smiles, as does Ms. Heather. Ms. Heather looks back to Susie, and Susie is busy scanning the first spread of the book.

The data made clear that Ms. Heather had a very close and respectful relationship with Susie's young mother. Often, near the end of the visits, Susie's mother would mention how much she thought Susie could see or would ask a question such as "Do you think she will need a cane?" Ms. Heather always provided an encouraging but clear response, affirming Susie's impressive abilities while noting that the cane may eventually help her move

more independently and that braille might be more efficient than large print in the future.

Throughout most of the observations, Susie's mother and Ms. Heather shared pride in Susie's accomplishments. The two women were colleagues who collaborated on an equal basis--an impressive example of family-centered practices. When transition from early intervention to preschool services became the primary concern during several of the visits, it was apparent that both Susie's mother and Ms. Heather were saddened that Ms. Heather would not be Susie's primary interventionist or teacher much longer.

Though slightly different, the relationship between Ms. Julia and Millie's parents also appeared to be strong. When Ms. Julia introduced books during a session, she and the caregivers were surprised by Millie's positive response. Bringing out the book again the next week, Ms. Julia asked, "Does she have other books?" Millie's father replied, "No, she does have one we use in the bathtub. We have others, but I don't feel like having her rip them up." Rather than offering the father a multitude of reasons for having books in the home, Ms. Julia shared a story from another family with triplets, acknowledging that young children do rip books and suggesting that, given time and opportunity, children learn not to do so. Ms. Julia did not press the matter beyond this one interaction. By the end of the session, Millie's father had shared an idea about buying materials such as felt at a fabric store in order to make books that Millie could not destroy. Ms. Julia continued to use books during her intervention, and Millie's parents eventually came to see that they could read with Millie without worrying about her ripping or otherwise destroying the books. By the seventh observation, Millie's parents had obtained a book for her.

The acquisition of a single book marked an important turning point for Millie. When it became clear that Millie was responding positively to books, Ms. Julia explained to the data collector that

being part of the study was the impetus for introducing books. Although Millie had no individualized family service plan goals related to literacy, once the family saw the value of the books firsthand, they began reading them and making up interactive games based on them. For example, during one observation, Millie was a bit restless and Ms. Julia asked,

"Would you rather read your favorite book?" While she asked the question, she pulled out *I See You, You See Me: A Touch-and-Feel Book with Mirror* (St. Pierre & Cartwright, 2002). She held up the book with the mirror in front of Millie and said, "There's Millie in the mirror." Then Mom said, "There she is. Did you see Millie?" By this time, Millie had begun to calm down and was visually focusing on the book. She held it with both hands and appeared to be trying to lift it over her head. Ms. Julia read, "Elephants have ears, like you and me." There was a pause, and then Mom said, "Where's your ears?" As Ms. Julia guided Millie's hand to one ear, Mom said, "There's one." Then Millie reached over the top of her head to her other ear, and Mom said, "There's the other!"

The interaction between Ms. Julia and Millie and her mother continued throughout the book as they engaged in what had clearly become a routine of relating Millie's body parts to those in the book. Millie's recognition of the book, her emotional state, and her interest during the book sharing, as well as the ease of the routine, suggested that reading was becoming a routine interaction.

## **LANGUAGE AND CONCEPT DEVELOPMENT**

The three children in this study had very different receptive and expressive language abilities. Ms. Heather reported that Susie had language skills that were "typical" for a child her age. A child Susie's age, however, is expected to have an expressive vocabulary of more than 100 words and spontaneous production of two-word combinations (Brown, 1973; Fenson et al., 1994; Nelson, 1973). She should also ask and answer simple questions, follow simple commands, and use the pronouns *I*, *you*, and *me* correctly (Boone & Plante, 1993; Shipley & McAfee, 1998). Specific examples of Susie's expressive language abilities supported previous research indicating that language skills of

children with visual impairment and blindness are delayed (Anderson et al., 1984; McConachie & Moore, 1994; Preisler, 1995). As captured during observations, Susie's speech consisted of repetitions of adults' previous utterances and requests for objects or actions, with the former making up the majority of her utterances. Her mean length of utterance was approximately 2.0 words; however, this value is inflated because Susie added the social phrase "please," to the end of many of her utterances (for example, "Milk, please," "Kix, please," "Book, please"). Although Susie's spontaneous language production was limited and frequently unintelligible, she did produce rare, spontaneous utterances of four to five words such as, "Mom have water to splash me?" and, "It's not a triangle."

J.R.'s expressive language changed markedly during the course of the study. Initially he engaged in vocal play, imitating the early interventionist as she made consonant-vowel sounds (for example, "Mma," "Bba," "Llu") and spontaneously producing these types of vocalizations (for example, "Gaga," "Oh," "Ma-ma-ma") during the first three weeks of observation. By the fourth week he began to spontaneously say "No" and "Uh-oh," while imitating whole words like "Bye." In the final weeks, he responded "OK" when his mother suggested "Let's burp" after a bottle, and he initiated a request for the family dog by saying, "Good girl, woof, woof." The early interventionist noted that he would "imitate almost any word you say" by the end of the observation period.

Millie vocalized to express delight and cried when frustrated, uncomfortable, or otherwise upset. By the final observation, she was beginning to babble and was observed saying "Maaaa," which her mother and Ms. Julia interpreted as a request for more. Millie's parents and Ms. Julia regularly acknowledged, repeated, and encouraged Millie's efforts to babble, vocalize, and communicate through movement.

Despite their differences, all three children engaged in active

exploration of their home environments. Both Susie and J.R. were observed on multiple occasions moving around their environment, exploring, and vocalizing. Although Millie was unable to move very far independently, she was also observed exploring her immediate environment, particularly with her feet. An excerpt from an observation of Susie provides an excellent example of exploration:

Mom lowers Susie to the floor, and Susie begins to toddle about the kitchen. She drops pop boy [a plastic toy] in favor of a [different] toy that she has picked up from the floor. She waves it around a bit and then drops it and begins to motor around the kitchen. She keeps her arms pretty stiff, with her hands parallel to the ground. She bends down and picks up toys and debris that are scattered about, puts a measuring cup in her mouth, and continues to explore.

J.R. was also observed in this type of exploration, particularly when his caregiver changed the arrangement of his play area from a highly organized space to a more free-flowing space with toys spread about to encourage J.R. and his brother to explore. During one 10-minute period of observation, the data collector noted the following:

There were a lot of different small toys lying around on the floor in the living room, such as shapes, blocks, people, etc. J.R. was busy creeping all around, picking up different toys, but always having one.... J.R. was now prone and chewing on a blue koosh ball. He crept to the kitchen and tried to open a cabinet.... J.R. was banging the toy frog.

Within the confines of their homes, these two children did not appear to be lacking opportunities to manipulate and explore objects. Adults, however, seldom talked with the children about the objects of interest during these interactions. In other words, the children's concept development and language were limited not by their own inability or disinclination to explore the environment but by the fact that the adults did not build concepts and language during the exploration.

In contrast, there were dozens of examples of early interventionists assigning meaning to the children's attempts to communicate during their direct interactions. When Millie began

vocalizing "Mmmm," Ms. Julia immediately took that vocalization as an attempt to say *More*, modeled the word *more*, imitated Millie's "Mmmm," and encouraged the parents to recognize this as a communicative act. This initial action evolved into a continuous process of both teacher and parent assigning meaning to vocalizations and behavior whenever possible, as in the following:

As Ms. Julia pulled the book out, she also pulled out the peg poppers and told Millie, "You have a decision to make. Do you want the poppers or the book?" Millie looked for a moment and then grabbed both objects while smiling as both adults laughed and Mom said, "Okay, she wants both." Millie is smiling and then releases the poppers. Ms. Julia interprets this: "Maybe you were just seeing what they were. Okay, let's try the book."

Consistent with previous research examining interaction styles of caregivers of children with visual impairment and blindness (Kekelis & Anderson, 1984; Kekelis & Prinz, 1996), most of the language interactions between the children and early interventionists involved labeling objects and actions with some simple descriptions. Ms. Heather and Ms. Julia were not observed expanding upon children's previous utterances by providing additional information on the same topic, providing rich descriptions of objects and actions directly linking children's prior knowledge and experiences to their current focus of interest, or asking questions that encouraged children to infer meaning and make predictions: all strategies that are known to promote higher-level language and concept development (Dote-Kwan, 1995; Sénéchal & LeFevre, 2001).

### **FOCUS ON SENSES AS THEY RELATE TO LITERACY**

For Ms. Heather, literacy provided a context for addressing functional outcomes and optimal use of all senses. When asked about the use of books in her interactions with Susie, Ms. Heather explained, "I emphasize concepts. With these guys, early literacy is pre-teaching for life.... Blind kids don't get knowledge of stuff delivered to their doorsteps the way sighted kids do. I just use early literacy as a chance to deliver background knowledge."

When asked about a book she had used during several observations, Ms. Heather replied, "The books I choose tend to factor in some other, larger goal. Like the clay in *Roly-Poly Man* (Wright, 1991). I want her to develop hand strength and stamina."

In interviews, both early interventionists expressed interest in helping children achieve functional outcomes. Ms. Julia articulated goals for J.R. and Millie that focused on the concerns and priorities of their families and that reflected her keen awareness of the need to encourage the children to progress from responding positively to touch to reaching out to explore the environment through touch. For example, she said, "Our overall goal [for Millie] is to get her comfortable with moving through space. Looking at stuff and appropriate play. Her family is focused primarily on movement." For J.R., "Our goal is to get him focusing on objects, movement, tolerating textured foods, appropriate play, and wearing his glasses." Early in the observation period, when Millie was not reaching out at all, Ms. Julia addressed her goals by repeatedly introducing toys and helping Millie first learn to respond positively to touch and eventually begin to reach out to explore her immediate environment. Although Ms. Julia stated in her interview that "we don't have any specific goals for either related to literacy," as the observations progressed she explained to the data collector that involvement in this study had led her to reconsider literacy as an important, functional goal.

## **Conclusion**

The two early interventionists demonstrate the complexity of supporting emergent literacy for young children with visual impairment and blindness. Their use of family-centered practices served to establish a collaborative relationship with parents who shared responsibility for supporting their child's emergent literacy development. Evidence of this includes Susie's independent exploration of a book and the books and materials her mother made with the imagination kit; Millie's father's idea for creating a



fabric book; and J.R.'s caregiver's rearrangement of the environment to support his exploration.

The two early interventionists supported children's language and concept development in a variety of concrete ways. The direct efforts observed focused on teaching labels and attributing meaning during interactions. Indirectly, the early interventionists balanced the need to provide family-centered practices that are driven by family concerns and priorities with their own perceptions of the needs of children. They juggled the need to discuss topics that parents seemed motivated to discuss with opportunities to point out the child's language and concept development and how it could be facilitated. At the same time, they demonstrated that promoting emergent literacy also promotes the achievement of other important functional outcomes.

This field study provides an important glimpse of the emergent literacy intervention practices of early interventionists serving infants and toddlers with visual impairment and blindness. It is clear that Ms. Heather and Ms. Julia are highly skilled interventionists who successfully establish alliances with families and use those alliances to support young children with visual impairment and blindness. Although a study that focuses only on two early interventionists and three children is inherently limited, much can be learned from Ms. Heather, Ms. Julia, Susie, Millie, J.R., and their families.

## References

- Adler, P. A., & Adler, P. (1994). Observation techniques. In N. Denzin and Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 377-392). Newbury Park, CA: Sage.
- Anderson, E. S., Dunlea, & Kekelis, L. S. (1984). Blind children's language: resolving some differences. *Journal of Child Language, 11*, 645-664

- Bailey, D. B., McWilliam, R. A., Darkes, L. A., Hebbeler, K., Simeonsson, R., Spiker, D., & Wagner, M. (1998). Family outcomes in early intervention: A framework for program evaluation and efficacy research. *Exceptional Children, 64*(3), 313-328.
- Bates, E. (1979). *The emergence of symbols: Cognition and communication in infancy*. New York: Academic Press.
- Berla, E., & Butterfield, P. (1977). Tactual distinctive features analysis: Training blind students in shape recognition and in locating shapes on a map. *Journal of Special Education, 11*(3), 335-346.
- Bigelow, A. (1987). Early words of blind children. *Journal of Child Language, 14*, 47-56.
- Bogdan, R. (1972). *Participant observation in organizational settings*. Syracuse, NY: Syracuse University Press.
- Boone, D., & Plante, E. (1993). *Human communication and its disorders* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Bretherton, I. (1992). Social referencing, intentional communication, and the interfacing of minds in infancy. In S. Feinman (Ed.), *Social referencing and the social construction of reality in infancy* (pp. 57-77). New York: Plenum Press.
- Brown, R. (1973). *A first language*. Cambridge, MA: Harvard University Press.
- Bruyn, S. (1966). *The human perspective in sociology: The methodology of participant observation*. Englewood Cliffs, NJ: Prentice-Hall.
- Corn, A., & Koenig, A. J. (2002). Literacy for students with low vision: A framework for delivering instruction. *Journal of Visual Impairment & Blindness, 96*, 305-321

- Craig, C. (1996). Family support for the emergent literacy of children with visual impairments. *Journal of Visual Impairment & Blindness*, 90(3), 194-200.
- Craig, C. (1999). Home literacy experiences of a child with visual impairment. *Journal of Visual Impairment & Blindness*, 93(12), 794-797.
- Crespo, S. (1990). Storybooks for blind infants and children. *Journal of Visual Impairment & Blindness*, 84, 39-40.
- D'Andrea, F. M., & Farrenkopf, C. (2000). Introduction: Paths to literacy. In F. M. D'Andrea & C. Farrenkopf (Eds.), *Looking to learn: Promoting literacy for students with low vision* (pp. 1-9). New York: American Foundation for the Blind.
- Dote-Kwan, J. (1995). Impact of mothers' interactions on the development of their young visually impaired children. *Journal of Visual Impairment & Blindness*, 89(1), 46-58.
- Dote-Kwan, J., & Hughes, J. (1994). The home environments of young blind children. *Journal of Visual Impairment & Blindness*, 88(1), 31-42.
- Dunst, C. J. (2002). Family-centered practices: Birth through high school. *Journal of Special Education*, 36(3), 139-147.
- Dunst, C., Trivette, C., & Deal, A. (1988). *Enabling and empowering families: Principles and guidelines for practice*. Cambridge, MA: Brookline Books
- Fazzi, D. L., & Pogrund, R. L. (2002). *Early focus: Working with young children who are blind or visually impaired and their families*. New York: AFB Press.
- Fenson, L., Dale, P., Reznick, S., Bates, E., Thal, D., & Pethick, S. (1994). Variability in early communicative development. *Monographs of the Society for Research in Child Development*,

59 (Serial No. 242).

Ferrell, K. A., Trief, E., Dietz, S. J., Bonner, M. A., Cruz, D., Ford, E., & Stratton, J. M. (1990). Visually impaired infants research consortium (VIIRC): First-year results. *Journal of Visual Impairment & Blindness*, 84(8), 404-410.

Finello, K. M., Hanson, N. H., & Kekelis, L. S. (1992). Cognitive focus: Developing cognition, concepts, and language in young blind and visually impaired children. In R. L. Pogrud, D. L. Fazzi, & J. S. Lampert (Eds.), *Early focus: Working with young blind and visually impaired children and their families* (pp. 34-49). New York: American Foundation for the Blind.

Fraiberg, S. (1977). *Insights from the blind*. London: Souvenir Press.

Fullwood, D. (1987). The hand and finger strength of visually impaired boys and girls. *British Journal of Visual Impairment*, 2, 63-66.

Hatton, D. D., McWilliam, R. A., & Winton, P. J. (2002). Infants and toddlers with visual impairment: Suggestions for early interventionists. (Report No. EDO-EC-02-14). Arlington, VA: Eric Clearinghouse on Disabilities Gifted Education. (ERIC Document Reproduction Service No. ED473829).

Kekelis, L. S., & Anderson, E. S. (1984). Family communication styles and language development. *Journal of Visual Impairment & Blindness*, 78(2), 54-65.

Kekelis, L. S., & Prinz, P. M. (1996). Blind and sighted children with their mothers: The development of discourse skills. *Journal of Visual Impairment & Blindness*, 90(5), 423-436

Koenig, A. J. (1992). A framework for understanding the literacy of individuals with visual impairments. *Journal of Visual Impairment & Blindness*, 86(7), 277-284.

- Koenig, A. J., & Farrenkopf, C. (1997). Essential experiences to undergrid the early development of literacy. *Journal of Visual Impairment & Blindness*, 91, 14-24.
- Koenig, A. J., & Holbrook, M. C. (2000). Ensuring high-quality instruction for students in braille literacy programs. *Journal of Visual Impairment & Blindness*, 94(11), 677-694
- Loots, G., Devise, I., & Sermijn, J. (2003). The interaction between mothers and their visually impaired infants: An intersubjective developmental perspective. *Journal of Visual Impairment & Blindness*, 97(7), 403-417.
- Maroney, D., & Davis, D. L. (2001). Parenting a child with special needs: The emotional reactions and adjustments of parents and the support that caregivers can offer. *Mental Health Issues for Infants and Toddlers with Special Health Needs*. Retrieved September 16, 2002, from [http://www.jfkpartners.org/Emotional\\_Responses.pdf](http://www.jfkpartners.org/Emotional_Responses.pdf)
- McConachie, H. R. (1990). Early language development and severe visual impairment. *Child: care, Health and Development*, 16, 55-61.
- McConachie, H. R., & Moore, V. (1994). Early expressive language of severely visually impaired children. *Developmental Medicine and Child Neurology*, 36, 230-240.
- Mills, A. (1988). Visual handicap. In D. Bishop & K. Mogford (Eds.), *Language development in exceptional circumstances* (pp. 150-164). New York: Churchill Livingstone.
- Nelson, K. (1973). Structure and strategy in learning to talk. *Monographs of the Society for Research in Child Development*, 38 (Serial no. 149).
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.

- Preisler, G. M. (1995). The development of communication in blind and in deaf infants--similarities and differences. *Child: Care, Health and Development*, 21, 79-110.
- Prizant, B. M., Wetherby, A. M., & Roberts, J. E. (2000). Communication disorders in infants and toddlers. In C. Zeanah (Ed.), *Handbook of infant mental health* (2nd ed.). New York: Guilford.
- Rock, S. L., Head, D. N., Bradley, R. H., Whiteside, L., & Brisby, J. (1994). Use of the HOME inventory with families of young visually impaired children. *Journal of Visual Impairment & Blindness*, 88, 140-151.
- Rogow, S. M. (1978). *The development of play skills and communicative competence in visually impaired children with additional handicaps*. Handicapped and Gifted Children (EC120569). Eric Document Reproductive Services Web Site. Retrieved July 3, 2002, from <http://ericae.net/ericda/ED176494.htm>, Scientific Software, 2002.
- Sénéchal, M., & LeFevre, J. (2001). Storybook reading and parent teaching: Links to language and literacy development. In J. Brooks-Gunn & P. Rebello (Eds.), *Sourcebook on emergent literacy* (pp. 39-52). San Francisco: Jossey-Bass.
- Sénéchal, M., LeFevre, J., Smith-Chant, B. L., & Colton, K. (2001). On refining theoretical models of emergent literacy: The role of empirical evidence. *Journal of School Psychology*, 39, 439-460.
- Shipley, K., & McAfee, J. G. (1998). *Assessment in speech-language pathology: A resource manual* (2nd ed.). San Diego: Singular Publishing Group.
- Spradley, J. P. (1997). *Participant observation*. New York: Holt Rinehart & Winston.

- St. Pierre, S., & Cartwright, C. (2002). *I see you, you see me: A touch-and-feel book with mirror*. New York: Metro Books.
- Stake, R.E. (2000) Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 435-454). Thousand Oaks, CA: Sage.
- Stratton, J. M. (1996). Emergent literacy: A new perspective. *Journal of Visual Impairment & Blindness*, 90(3), 177-183.
- Stratton, J. M., & Wright, S. (1991). On the way to literacy: Early experiences for young visually impaired children. *RE:view*, 23(2), 55-63.
- Strickland, D. S., & Shanahan, T. (2004). Laying the groundwork for literacy. *Educational Leadership*, 61(6), 74-78.
- Suvak, P. A. (1999). What do they really do? Activities of teachers of students with visual impairments. *RE:view*, 30(4), 181-190.
- Swenson, A. (1999). *Beginning with braille: Firsthand experiences with a balanced approach to literacy*. New York: American Foundation for the Blind.
- Teale, W., & Sulzby, E. (1986). *Emergent literacy: Writing and reading*. Norwood, NJ: Ablex.
- Trivette, C. M., & Dunst, C. J. (2005). Evaluation of the *Tune In* video practice guide for increasing young children's engagement with caregivers. *Centerscope*, 4(2), 1-5.
- Urwin, C. (1978). The development of communication between blind infants and their parents. In A. Lock (Ed.), *Action, gesture and symbol: The emergence of language* (pp. 79-108). London: Academic Press.
- Urwin, C. (1984). Communication in infancy and the emergence

- of language in blind children. In R. L. Schiefelbusch & J. Pickar (Eds.), *The Acquisition of communicative competence* (pp. 479-524). Baltimore: University Park Press.
- Warren, D. H., & Hatton, D. D. (2002). Cognitive development in visually impaired children. In I. Rapin & S. Segalowitz (Eds.), *Elsevier's handbook of neuropsychology* (2nd ed., pp. 439-538). New York: Elsevier.
- Wetherby, A., & Prizant, B. (1989). The expression of communicative intent: Assessment guidelines. *Seminars in Speech & Language, 10*(1), 77-91.
- Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development, 68*, 848-872.
- Whitehurst, G. J., & Lonigan, C. J. (2002). Emergent literacy: Development from prereaders to readers. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 11-29). New York: Guilford Press.
- Wormsley, D. P. (1997). Fostering emergent literacy. In D. P. Wormsley & F. M. D'Andrea (Eds.), *Instructional strategies for braille literacy* (pp. 17-57). New York: American Foundation for the Blind.
- Wormsley, D., & D'Andrea, F. (1997). *Instructional strategies for braille literacy*. New York: American Foundation for the Blind.
- Wormsley, D. P., & D'Andrea, F. M., eds. (1997). *Instructional strategies for braille literacy*. New York: American Foundation for the Blind.
- Wright, S. (1991) *Roly-poly man*. Louisville, KY: American Printing House for the Blind.
- Yin, R. (1993). *Applications of case study research*. Beverly Hills, CA: Sage.



**Karen A. Erickson, Ph.D.**, associate professor and director, Center for Literacy and Disability Studies University of North Carolina at Chapel Hill, CB#7335, Chapel Hill, NC 27599; e-mail: <[karen\\_erickson@med.unc.edu](mailto:karen_erickson@med.unc.edu)>. **Deborah Hatton, Ph.D.**, senior scientist, principal investigator and project director, Early Intervention Training Center, Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill, CB#8180, Chapel Hill, NC 27599; e-mail: <[deborah\\_hatton@unc.edu](mailto:deborah_hatton@unc.edu)>. **Vicky Roy, Ph.D.**, research associate, CCC/SLP, Center for Literacy and Disability Studies, University of North Carolina; e-mail: <[vicky--poston@med.unc.edu](mailto:vicky--poston@med.unc.edu)>. **DanaLee Fox, M.Ed.**, content specialist, Early Intervention Training Center, Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill; e-mail: <[dana.fox@nc.mail.net](mailto:dana.fox@nc.mail.net)>. **Diane Renne, Ed.D.**, assistant professor, Special Education, College of Teacher Education and Leadership, Arizona State University, P.O. Box 37100, Phoenix, AZ 85069; e-mail: <[diane.renne@asu.edu](mailto:diane.renne@asu.edu)>. Address correspondence to Dr. Karen A. Erickson.

· · · [Download braille-ready file](#)

 [Download ASCII text file](#) (ASCII files are for download only)

 [Download PDF file](#)

[Previous Article](#) | [Next Article](#) | [Table of Contents](#)

*JVIB, Copyright © 2006 American Foundation for the Blind. All rights reserved.*

[Search JVIB](#) | [JVIB Policies](#) | [Contact JVIB](#) | [Subscriptions](#) | [JVIB Home](#)

If you would like to give us feedback, please contact us at  
[jvib@afb.net](mailto:jvib@afb.net).

[www.afb.org](http://www.afb.org) | [Change Colors and More](#) | [Contact Us](#) | [Site Map](#) |

Site Search

Go

[About AFB](#) | [Press Room](#) | [Bookstore](#) | [Donate](#) | [Policy Statement](#)

---

**Please direct your comments and suggestions to [afbinfo@afb.net](mailto:afbinfo@afb.net)**  
**Copyright © 2006 American Foundation for the Blind. All rights reserved.**