# THE EFFECTS OF JOINT BOOK READING EMPHASIZING PRINT FOCUS ON PRINT AWARENESS IN PRESCHOOL CHILDREN WITH DOWN SYNDROME: A PRELIMINARY INVESTIGATION

by

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This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Ronald L. Taylor, Department of Exceptional Student Education, and has been approved by the members of her supervisory committee. It was submitted to the faculty of The College of Education and was accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

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# ABSTRACT

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Most typically developing children experience a wide variety of literary experiences before they ever learn to read. Young children with intellectual impairments may not be as fortunate due to multiple developmental delays and therapeutic needs. Research has supported joint book reading as an effective intervention technique for children with language impairments and other risks for developmental delays. Two research questions were explored in this preliminary investigation. First, to what extent does a specific joint book reading training program, emphasizing a print focus, increase verbal and nonverbal print referencing behaviors in parents during joint book reading? Secondly, to what extent does the same joint book reading program, emphasizing a print focus, affect the print awareness skills in children with Down syndrome?

Five mothers and their preschoolers with Down syndrome participated in this study. Two of the mother/child pairs were randomly assigned as controls. The mothers were taught to engage in joint book reading using verbal and nonverbal print references. The effects of this joint book reading technique on the development of print awareness skills in the children were then measured. Results indicated that all three mothers who received training increased their verbal and nonverbal print referencing behaviors. In addition, all three children whose mothers received training made some gains in print awareness skills, in particular in print knowledge. Two of the three children also made gains in alphabet knowledge and sound awareness. The results of this study support the benefit of literacy stimulation during joint book reading for young children with Down syndrome.

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## Introduction

The emergent literacy phase begins in infancy when a child first experiences, explores, and plays with literacy. Emergent literacy encompasses the acquisition of specific skills necessary in learning to read. These skills include understanding that print in a storybook is a representation of spoken language, knowing how to handle a book, and activities that involve playing at reading and writing (Justice & Pullen, 2003). Considered the period before conventional literacy (Boudreau & Hedberg, 1999; Justice & Ezell, 2002; Teale & Sulzby, 1986), emergent literacy is cumulative and develops from a variety of literacy experiences both observed and actively engaged in with others or alone. In other words, emergent literacy is a skill that gradually evolves and develops as a result of exposure and practice (Miller, 2000; Watkins & Bunce, 1996). Stratton (1996) explained that emergent literacy begins with verbal and nonverbal interactions with others, an overall awareness of the environment, and general exploration through play. Literacy development continues as the child gains intentional language, broadens exploration, builds concepts, and begins to understand symbols and the functions of language (Snow, Burns, & Griffin, 1998; Westby, 1988). Children develop and construct their own literacy by interacting with adults in literacy activities and by independently exploring and playing with print materials in their environment (Chang & Yawkey, 1998; Crain-Thoreson & Dale, 1998; Kuder & Hasit, 2002; Miller; Neuman, 2000; Oelwein, 1995; Rabidoux & MacDonald, 2000; Saint-Laurent, Giasson, & Couture, 1998; Snow,

Burns, & Griffin; Watkins). Although children need to interact with adults (Vygotsky, 1986), it is important that they are encouraged to be active learners and not just passive receivers of narratives and directions (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Kaderavek & Sulzby, 1998; Kliewer & Landis, 1999; Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999; Rabidoux & MacDonald; Watkins). Activities such as recurrent readings of a particular book, especially a predictive book, will increase a child's active participation (Justice & Ezell, 2000; Justice & Kaderavek, 2000; Miller; Owens, 2001; Ratner, Parker, & Gardner, 1993; Sussman, 1999; Whitehurst et al., 1988). Active engagement with print materials, through joint book reading with an adult will help a child begin to develop the components of emergent literacy. In addition, pointing out the print on the page and commenting about it while reading will draw the child's attention to the print (Justice & Ezell, 2002).

Recently, the No Child Left Behind Act (2002), and its Early Reading First component, has called for research to specifically address instructional methodology for emergent literacy skills including: oral language, phonological awareness, print awareness, and alphabet knowledge. Print awareness, in itself, stimulates the development of phonology by connecting spoken phonemes to those represented in print. This knowledge then sets the stage for phonics acquisition or direct sound/letter correspondence (Badian, 1998; Justice & Ezell, 2001; Justice & Pullen, 2003). In a supportive literacy environment the young child will be facilitated in the development of the emergent literacy components including: phonological awareness, phonemic awareness, print awareness, and book handling knowledge (Fang & Cox, 1999; Justice &

Ezell, 2000; Justice & Ezell, 2002; Kaderavek & Sulzby; Kuder & Hasit; Miller; Owens; Sussman, 1999; Whitehurst et al., 1988).

*Phonological Awareness*

Phonological awareness in its most basic form is the auditory discrimination of speech sounds, as opposed to other types of environmental sounds, and the discriminative features of these sounds in words (Harbers, Paden, & Halle, 1999; McGee & Richgels, 2000; Stoel-Gammon, 1985). Phonologic awareness develops naturally as children become enculturated in their native language (Stoel-Gammon). Initially speech is perceived as a continuous stream of sounds (Cunningham, 2000; Fox, 2000). With experience and exposure to the language around them, the infant and toddler begin to discriminate features such as similarities, differences, rhymes, and smaller units of sounds or syllables that form words (Heilman, 2002; McGee & Richgels). As phonological awareness develops, the child is more likely to understand that spoken words can be changed by differing individual sounds produced (Chard & Dickson, 1999).

*Phonemic Awareness*

Phonemic awareness, then, is the direct manipulation of sounds in print form. With instruction, children gradually gain skill in the identification, manipulation, and recognition of the rules for combining sounds in words (Cunningham, 2000; Heilman, 2002). Children learn the letter names and their corresponding sounds and with this knowledge slowly begin to gain control of the written word (Badian, 1998; McGee & Richgels, 2000). This ability to translate print into sound is a strong predictor of later reading success (Wise, Ring, & Sessions, 1997).

*Print Awareness*

In order to facilitate the development of print awareness a child needs exposure to a variety of examples of print. It becomes important to create a print rich environment to stimulate interest and functional use of print materials (Neuman, 2000; Watkins & Bunce, 1996). Incorporating print in play is a natural context in which children are exploring newly discovered concepts in a safe environment (Owocki, 2000; Westby, 1988). Print awareness refers to the understanding that the printed material in a book, picture, or other literary artifact corresponds to what is being said and spoken about (Catts & Kamhi, 1999). In addition, print awareness supports the growing awareness of literacy terms or the ability to talk about print, and the process of reading a book, also called book handling knowledge (Cunningham, 2000; Justice & Ezell, 2000).

*Legislation and Literacy Development*

Much interest has been directed to the earliest techniques in facilitating literacy in typically developing children. Far less research has been done to address the literary needs of children with cognitive impairments. In the advent of recent legislation, a gap has been recognized between the specific skills needed in the development of literary competence and children of underprivileged environments, children who are English language learners, and children with specific disabilities. With the inception of No Child Left Behind Legislation (2002), an emphasis has been placed on early intervention and enriched reading programs which have been given support through scientifically-based research. The Early Reading First Component to this legislation specifically addresses the components of emergent literacy in children at risk for developmental delays

including: phonological awareness, oral language, print awareness, and alphabet knowledge.

*Emergent Literacy and Children with Disabilities*

While there has been research done addressing the needs of children with significant developmental risk factors (Lonigan, Anthony, Bloomfield, Dyer, & Samuel, 1999; Whitehurst et al, 1988) and children with developmental language delays (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Ratner, Parker, & Gardner, 1993), very little research has been done in the area of early literacy development in children with cognitive impairments. Overall lack of expectation that these children will learn to read, as well as competing needs requiring other interventions, such as physical and speech therapy, reduce the time and effort made to expose children with disabilities to literacy activities (Oelwein, 1995; Saint-Laurent, Giasson, & Couture, 1998). Other factors identified include immature play skills and overall language delays (Kaderavek & Sulzby, 1998; Kliewer, 1988; Stoel-Gammon, 1998; Westby, 1988).

*Joint Book Reading*

Joint book reading is an interactive process that facilitates active engagement of both adult and child (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Justice & Ezell, 2002; Kuder & Hasit, 2002; Miller, 2000; Owens, 2001; Whitehurst et al., 1988). Catts and Kamhi (1999) viewed joint book reading as the most important literacy event in a child's early reading development because it combines the elements of enjoyment, language learning, literacy learning, and exploration of literacy features with a literate adult.

Numerous studies have looked specifically at the effects of joint book reading on language acquisition and later reading success in typically developing and language delayed children. Whitehurst et al. (1988) developed a dialogic reading program that specifically instructed parents and preschool staff to engage the children in active story telling. By asking open-ended questions, expanding the child's comments, modeling, and recasting, the adults slowly turned over the book reading to the children. Through repeated readings of predictable and familiar books, the children learned to anticipate the story line and words and were able to make predictions about future events. Whitehurst et al. compared this method of joint book reading to traditional story book reading, with both techniques presented through preschool staff. Traditional story book reading is defined as relaying a story book verbatim and considered a more passive experience for the child. Results indicated that the children engaged in joint book reading were more active participants and made more language gains than the children in the traditional story-book reading group.

Using the dialogic reading training program developed by Whitehurst et al., (1988), Dale, Crain-Thoreson, Nortari-Syverson, and Cole (1996) examined its effectiveness with parents. The experimental group of parents, trained in the dialogic reading method was compared to a control group who engaged their children in conversation during play. They found that the parents using the dialogic reading program made significant changes in their reading techniques and this had a positive outcome for language increases in the children. It was also noted that an increase in response time, or brief pause before the next adult utterance, was important for children with language impairments, and had a positive impact on increasing children's verbalizations.

In a follow-up study, Crain-Thoreson and Dale (1999) adapted the dialogic reading program to address the needs of children with language delays by specifically teaching adults to pause and give children time to respond. They then compared staff-administered reading to parent-administered reading. Children's participation in story time was enhanced when adults slowed down, decreased their verbatim reading, decreased their information statements, and increased their acknowledgements of children's utterances. No significant differences were found between the parent and staff groups indicating both groups of adults were equally effective.

Adding to the literature, a study investigating joint book reading was conducted by Ezell and Justice (2000) in which they emphasized a print focus to interactive book reading. Parents were instructed to engage in print referencing behaviors during joint book reading in order to examine the effects of specific training for parents to increase print awareness in their children. These print referencing behaviors included: comments, questions, and requests about print, as well as, tracking print while reading and pointing to individual incidences of print. Although increases in the children's print awareness skills were modest, it did support the fact that parents could be taught specific strategies for home-based intervention.

*Purpose of the Study*

Given the importance of emergent literacy skills for future reading success and the inception of current legislation (No Child Left Behind, 2002), the door has been opened for literacy instruction for young children with intellectual disabilities. Current legislation supports the development of research-based early intervention programs to provide the emergent literacy skills necessary to ensure successful reading development.

The purpose of this study was to investigate the effectiveness of a specific early intervention technique to facilitate print referencing by parents and its subsequent effect on the development of emergent literacy skills in children with developmental delays. Using the general procedures of interactive joint book reading as described in the literature, (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Whitehurst et al., 1988), Justice and Ezell (2000) added the component of specific print-referencing behaviors. These two procedures were used as a model for the present study.

*Research Questions*

The research questions to be investigated in this study were two-fold. The effectiveness of a training program on parent performance and its effect on print awareness in the children were examined. Specifically the following two questions were investigated:

1. To what extent does a specific joint book reading training program, emphasizing a print focus, increase verbal and nonverbal print referencing behaviors in parents during joint book reading?

2. To what extent does the same joint book reading program, emphasizing a print focus, affect the print awareness skills in children with Down syndrome?

*Definitions*

The following definitions were used for this study.

*Emergent Literacy:* The period before formal instruction in reading.

*Phonological Awareness:* Awareness of the discriminative features between speech sounds and the ability to orally manipulate them.

*Phonemic Awareness:* Awareness that sounds represented in print can be manipulated.

*Print Awareness:* Awareness of the discriminative features of print versus pictures.

*Verbal Print References:* Commenting, Questioning, and Requesting action about print.

*Nonverbal Print References:* Pointing to and tracking print as one is reading the text.

*Joint Book Reading:* An interactive experience between a parent and a child requiring active participation on both parts.

*Hypotheses*

The hypotheses tested investigated the relationships between joint book reading with a print focus and the print awareness skills in children with Down syndrome. Specifically the hypotheses tested included:

1. There will be no change in verbal and nonverbal print referencing behaviors in parents as a result of a specific joint book reading training program emphasizing a print focus.

2. There will be no increase in the print awareness skills in children with Down syndrome as a result of joint book reading with a print focus.

Chapter 2

Review of the Literature

Emergent literacy is a concept that has evolved in recent educational history (Clay, 1979; Holdaway, 1979; Teale & Sulzby, 1986) and has replaced the notion of reading readiness (Kuder & Hasit, 2002). The concept suggests that there is no discrete time at which an individual is ready to begin literacy instruction. Literacy is cumulative and develops through observing others engaged in literacy activities (reading, writing), being exposed to literacy materials, and engaging in joint book reading activities with a literate adult (Crain-Thoreson & Dale, 1999; Dale, Crain-Thoreson, Nortari-Syverson, & Cole, 1996; Saint-Laurent, Giasson, & Couture, 1998; Stratton, 1996; Watkins & Bunce, 1996; Whitehurst et al.,1988). Mason (1980) outlined several areas of literacy knowledge developed during this time: concepts about print (words and pictures have meaning, words tell a story, environmental symbols); form and structure of print (letter shapes and sounds); and conventions about print (cover of the book, turning pages, reading from left to right). Through consistent and frequent exposure to written language, typically developing children gradually connect written and spoken language and acquire the components necessary for conventional literacy (Saint-Laurent, Giasson, & Couture). The components of emergent literacy are numerous and interrelated. They consist primarily of phonological awareness, phonemic awareness, print awareness, including alphabet knowledge, and concepts about print such as book handling knowledge, and literacy terms (Ezell & Justice, 1998, 2000; Justice & Ezell 2000, 2002;

Snow, Burns, & Griffin 1998). Joint book reading is a natural vehicle to address all of the components of emergent literacy (Crain-Thoreson & Dale; Dale, Crain-Thoreson, Nortari-Syverson, & Cole; Ezell & Justice; Justice & Ezell; Saint-Laurent, Giasson, & Couture).

*Phonological Awareness*

Phonological awareness is the perception of discriminative features of speech sounds (Harbers, Paden, & Halle, 1999) and syllables in words, and words in sentences (Ball, 1997; Cunningham, 2000; Marshalla, 1994; McGee & Richgels, 2000; Olofsson & Niedersoe, 1999; Owens, 2001; Stoel-Gammon, 1985; Wise, Ring, & Sessions, 1997). Phonological awareness begins early in infancy when the first sounds are produced reflexively. These sound productions are in turn shaped through social responses, imitation, and the pleasures of sensation (Marshalla). Perception of individual sounds is more than just an auditory process, it is also tactile, kinesthetic, visual, and proprioceptive (Wise, Ring, & Sessions). Young children play at speech, producing a variety of sounds for the sake of practice, only gradually realizing the impact their sounds have on others (Stoel-Gammon; Wise, Ring, & Sessions). Prelinguistic sounds, according to Stoel-Gammon, include vegetative sounds such as gurgles, burps, coughs, and reflexive sounds made in the back of the mouth. As infants get older, sounds become less reflexive and begin to take on the characteristics of the sounds they hear around them. In order to produce these sounds and purposefully change the sounds they babble, infants need to be aware of their distinguishable features. Several authors (e.g., Harbers, Paden, & Halle; Stoel-Gammon) reported a positive relationship between using a more varied phonemic repertoire as an infant and earlier language acquisition. Marshalla refers

to the feedback loop, when explaining sound exploration, wherein the infant is able to relate his/her own tactile sensations of oral movements to the acoustic feedback he/she receives. By practicing phonation, oral movement, respiration, and sound combinations, the infant builds up an inventory of phonemes to be used later for words. Through experience and enculturation, the sound system is formed and increasingly manipulated as cognition grows (Stoel-Gammon). Children hear speech as a continuous stream of sounds. If they are unable to break up the words, associate sounds with letters, discriminate, and hear similarities of sounds in words, they will not be able to understand the concept of the written word (Fox, 2000). While phonological awareness evolves throughout infancy, seemingly naturally, phonemic awareness is a more sophisticated skill, necessary for reading, and usually requires instruction to be acquired (Heilman, 2002). Numerous authors support the idea that more sophisticated levels of phonemic awareness and reading develop concurrently, each enhancing the acquisition of the other (Catts& Kamhi, 1999; Fox; Miller, 2000; Morrow, 2001; Yopp, 1992).

*Phonemic Awareness*

Phonemic awareness, in its simplest form, is the ability to manipulate individual sounds in printed words (Catts & Kamhi, 1999; Kuder & Hasit, 2002; McGee & Richgels, 2000). Phonological awareness is necessary to begin to understand and discriminate words, to build a vocabulary and knowledge base (Ball, 1997; Harbers, Paden, & Halle, 2000). Understanding that visual representation of sounds, in the form of letters, make up words and that these letters can be identified and manipulated is the basis of phonemic awareness (Harbers, Paden, & Halle; Morrow, 2001; Smith, 1998; Wise, Ring, & Sessions, 1997). More sophisticated skills of phonemic awareness require