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An Enhanced Dialogic Reading Approach to Facilitate Typically Developing Pre-School
Children's Emergent Literacy Skills

A thesis
presented to
the faculty of the Department of Communicative Disorders
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Master of Science in Communicative Disorders

by
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May 2004

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Keyword: Dialogic Reading

ABSTRACT

An Enhanced Dialogic Reading Approach to Facilitate Typically Developing Pre-School Children's Emergent Literacy Skills

by

Sheri E. Davis

This study investigated an enhanced dialogic reading (DR) approach in facilitating emergent literacy skills in typically developing preschool children. Eight children from a Title One preschool and their parents participated in five weekly 90-minute training sessions that focused on phonological awareness, print awareness, and alphabet knowledge. First order effects were examined in parent questioning and interaction behaviors on pre- and post-training videotapes. Second order effects were examined in the children's outcomes from pre- to posttesting of preliteracy, speech, and language skills. Results indicated that parents made significant increases in their initiations and responses and a significant decrease in their Mean Length of Turns. Second order effects were obtained in children's significant increases in responses during storybook reading, as well as in their preliteracy skills. With the exception of MLU, there were no differences in children's oral language, speech, or receptive language skills, which support the modularity of emergent literacy skills.

DEDICATION

This thesis is dedicated to my parents, Robert and Sarah Davis. Their love and support have guided me through graduate school and life.

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TABLE OF CONTENTS

	Page
ABSTRACT	2
DEDICATION	3
ACKNOWLEDGEMENTS	4
LIST OF TABLES	8
Chapter	
1. INTRODUCTION	9
Review of Literature	9
Model of Emergent Literacy	11
Outside-In Process versus Inside-Out Process	11
Key Domains of Emergent Literacy: Inside-Out and Outside-In Processes	12
Oral Language	12
Phonological Awareness	13
Alphabet Knowledge	15
Print Awareness	17
Shared Storybook Reading: An Intervention Context for Teaching Inside-Out	
Processes	18
Specific Commenting	20
Dialogic Reading	21
Conclusion	27

Chapter

2. METHODS	29
Participants	29
Experimental Design	31
Procedures	31
Pretest/Posttest	31
Project PACT: Parents and Children Together	33
Components of the Enhanced Dialogic Reading Training Program	33
Enhanced Dialogic Reading Approach	36
Data Analysis	37
Reliability	38
3. RESULTS	40
Descriptive and Statistical Analyses	40
Weekly Audiotapes	40
Weekly Logs	41
Engagement Variables: Parent and Child Interaction Behaviors	42
Pretest/Posttest Comparisons	45
<u>PCTOPPP, PALS-Pre-K, and MLU</u>	46

Chapter

<u>PPVT-III</u> , <u>GFTA-2</u> , TNW, and NDW	46
Summary	47
4. DISCUSSION	50
Present Study Compared to Current Literature	50
Differences Between the Enhanced DR and Other Shared Storybook Approaches	52
Clinical Implications	55
Theoretical Implications	58
Areas for Future Research	59
REFERENCES	61
APPENDICES	67
Appendix A: SES Level	67
Appendix B: PowerPoint Weekly Handouts	68
Appendix C: Weekly Questionnaire	74
VITA	79

LIST OF TABLES

Table

1. Child Participant Characteristics	30
2. Areas Assessed and Measures Used	32
3. Book Selections, Toys, and Focused Emergent Literacy Skill by Week	34
4. Examples of CROWD Questions	35
5. Description of PEER Interaction Strategies	35
6. Dialogic Reading Focus by Week	36
7. Summary of Data Analysis for Each Parent-Child Interaction Variable	38
8. Parent Question Types: Weekly Audiotapes (Week 1-5)	41
9. Weekly Logs Data Over Five Weeks	42
10. Engagement Variables for Parent and Child Interaction Behaviors	43
11. Descriptive Statistics for Pre- and Posttest Measures of Children	45
12. <u>PCTOPPP</u> , PALS-Pre-K, and MLU	46
13. t-Test Results for <u>PPVT-III</u> , <u>GFTA-2</u> , TNW, and NDW	47

CHAPTER 1

INTRODUCTION

Review of Literature

With the recent No Child Left Behind (NCLB) (PL 107-110, 2001), educators are increasingly interested in addressing early prerequisite skills as a means to prevent later academic difficulties. One such area that has recently gained attention is emergent literacy because of its important role in reading acquisition (Whitehurst & Lonigan, 1998). Emergent literacy is defined as the “skills, knowledge, and attitudes that are presumed to be developmental precursors to conventional forms of reading and writing and the environments that support these developments,” such as shared book reading (Whitehurst & Lonigan, p. 849). Emergent literacy skills include oral language (vocabulary, expressive language, listening comprehension), phonological awareness (rhyming, blending, segmenting sounds, sound substitutions, sound deletions), print awareness (print conventions, tracking), and alphabet knowledge (letter recognition). These emergent literacy skills have also played an important role in a child’s early language development (Adams, 1990; Burns, Griffin, & Snow, 1999; Hart & Risley, 1995).

Statistics have shown that low income children are entering kindergarten with fewer skills than are required for their success in schools (Whitehurst et al. 1994). Bryant, Lau, Burchinal, and Sparling (1994) concluded that the ratings of language use in 32 Head Start classrooms in the southeastern United States were so low that the area should be targeted for improvement in the programs (as cited in Whitehurst et al.). Bryant et al. further reported that the children in their sample were leaving the Head Start Program and entering kindergarten around one standard deviation below national averages on standardized cognitive skills tests (as

cited in Whitehurst et al.). In another study, Edgar et al. (1992) examined 12 Head Start programs in the Pacific northwest of the United States over a course of one year and found that the pre- and posttest changes on various pre-academic and language measures represented small magnitudes in the children's gain in scores (as cited in Whitehurst et al.). Boudreau and Hedberg (1999) stated that speech-language pathologists are assessing and providing intervention for children with reading and writing difficulties in the first and second grades. By this time, children have already begun their experience in failure for their academic future. Data from one study showed that 87% of first grade children identified as poor readers continued to be identified as poor readers by the end of their fourth grade year (Juel, 1988). Therefore, emergent literacy skills provide a critical foundation for later academic development and success.

It is not surprising then that preschool environments are becoming a hot bed for literacy awareness. The idea is to build emergent literacy skills before children start their formal educational career. Therefore, prevention rather than intervention will facilitate these children's needs in a more effective and efficient way (US Department of Education, 2002). One context that has shown promise in providing children with the necessary skills that allow them to become successful readers throughout their educational experience and throughout life is dialogic reading.

This chapter will discuss studies that have used the dialogic reading approach to facilitate various aspects of emergent literacy skills. Specifically, two areas will be addressed in this review of the literature: (1) key domains of emergent literacy; and (2) introduction to shared storybook reading, including intervention agents in the dialogic reading method. Within each section, studies will be reviewed and discussed with regard to the aspects of emergent literacy that were examined and the methodologies that were utilized in the shared reading approach.

Model of Emergent Literacy

Outside-In Process versus Inside-Out Process

Whitehurst and Lonigan (1998) state that emergent literacy can be described as two co-dependent sets of processes, called outside-in and inside-out processes. These processes were created to help define the development of emergent literacy components and how these components affect each other as well as lead a child into reading and writing (Whitehurst & Lonigan).

The inside-out processes are described as representing the child's understanding of the rules for translating the writing in which they are attempting to read into the appropriate sounds (Whitehurst & Lonigan, 1998). It is the decoding aspect of reading. The inside-out process is the child's knowledge and understanding of letters and sounds, as well as the relationship between those letters and sounds, the grammar and punctuation, and the cognitive strategies incorporated by the child to help them actually read the sentence in the correct way. Some ways to facilitate the inside-out processes include phonological awareness activities, teaching alphabet knowledge, and print awareness activities.

The outside-in processes involve the child's understanding of the story. These processes represent the child's knowledge of the world, the semantic knowledge, and the knowledge of written context. The outside-in processes allow the child to understand the sentence concepts and the context in which these concepts are occurring. Ways to facilitate the outside-in processes include creating a language and literacy rich environment, including a print-rich environment, allowing for adult-child interactions, and incorporating a dialogic reading program.

Both inside-out and outside-in processes are involved in a child's ability to learn to read

and write. Whitehurst and Lonigan (1998) describe these processes as interdependent and simultaneously working together during a child's reading acquisition. They suggest that the outside-in processes are earlier developing abilities than the inside-out processes. Further, Whitehurst and Lonigan state that the inside-out processes must be explicitly taught.

Key Domains of Emergent Literacy: Inside-Out and Outside-In Processes

Emergent literacy is a term used to describe the idea that literacy acquisition is developmental throughout a number of different domains that occur early in a child's life (Whitehurst & Lonigan, 1998). This is a change from the traditional belief that children either read or they do not when they start school. It is also a break away from the traditional boundary of "pre-reading" and reading skills (Whitehurst & Lonigan). The term "emergent literacy", usually attributed to Clay, is based on the behaviors of pre-school children that are literacy-related (Whitehurst & Lonigan). The following are descriptions of the predominant skill areas incorporated in the inside-out and outside-in processes of emergent literacy that will be examined in this study.

Oral Language

Oral language, considered part of the outside-in processes, consists of the vocabulary and language structures that build on a child's ability to learn how to read, with particular importance in a child's reading comprehension ability. Oral language includes the production of language, the comprehension of language, and the vocabulary included in a child's language. Oral language is a crucial component of a child's reading success. One report published by the Carnegie Foundation for the Advancement of Teaching (1991) found that 35% of children

entering kindergarten lacked the skills in vocabulary and sentence structures that are required for a child to be able to participate in the educational process (Lonigan & Whitehurst, 1998). It is important to tap into the child's early use of oral language and expand the child's vocabulary before the child enters formal education. This can be accomplished through dialogic reading where the child is encouraged to formulate oral language. Anderson-Yockel and Haynes (1994) examined a joint book reading approach and the amount of spontaneous verbalization that took place during the reading of the book. Twenty working class mother and child dyads, divided into 2 groups of 10 (Caucasian and African-American) were instructed to read three children's books the way they would normally read to their child at home. Each storybook reading was videotaped and spontaneous exchanges between mother and child were analyzed. The findings indicated that both groups were not engaging in dialogue exchange often enough to promote the children's ability to formulate oral language, but there was also a significant difference in the amount of spontaneous exchange between the African-American dyads compared to the Caucasian dyads. This study indicates a need to instruct families, especially families of at-risk children, on how to read to their child in order to benefit the child's oral language formulation and expression, which will then benefit future literacy.

Phonological Awareness

Phonological awareness (PA), part of the inside-out processes, is the awareness an individual has of the sounds that are spoken in words. PA consists of the awareness of phonological strings, the awareness of syllables, the awareness of phoneme segments, and the awareness of phonetic features (Harbers, Paden, & Halle, 1999). Children who have developed phonological awareness are able to "detect, match, blend, segment, and manipulate speech

sounds” (Lane, Pullen, Eisele, & Jordan, 2002; p. 101). Studies have shown that phonological awareness is essential to the grapheme-phoneme (letter-sound) relationship (Lane et al. 2002). Therefore PA is essential to emergent literacy. There is a strong correlation between PA and the ability to become a strong reader in the future. Ball (1997) conducted a follow-up study examining PA and early reading skills with 90 kindergarteners. The original study by Ball and Blachman (1991) divided the kindergarteners into three groups. The first group received PA intervention and letter-sound training; the second group received the same letter-sound training and language intervention activities; while the third group received no intervention training. The first two groups met 20 minutes, 4 times a week for 7 weeks away from the classroom. At the end of the 7 week PA training, the two training groups receiving intervention had made larger gains in the areas of phoneme awareness, the ability to read phonetically regular words, and early spelling success when compared to the group who had received no training.

Another study conducted by Byrne and Fielding-Barnsley (1991) examined the effects of PA intervention on preschoolers. The 126 children were pretested on their knowledge of the alphabet and their corresponding sounds, their ability to recognize rhyming words, and their ability to identify phonemes. The children were divided into 2 groups; Group 1 received 12 weeks of training with 9 phonemes, and Group 2 received no training. The children who received training made greater gains in the posttest measures when compared to their pretest scores, specifically in the areas of their ability to identify phonemes and word recognition.

Alphabet Knowledge

Alphabet knowledge, another inside-out process, includes a child's ability to recognize and print letters of the alphabet (Whitehurst et al. 1999). A child's future reading abilities will be dependent on the ability to recognize that "b" is the letter "b" (Whitehurst et al.). Children who have exposure to many different forms of letters (i.e., puzzles, blocks, ABC's posted on the wall, ABC books, letter cards) and can name the letters they are seeing may have greater readiness to succeed in reading when they enter school. Studies have shown the importance of alphabet knowledge on emergent literacy and how teaching the alphabet has become an important aspect in a child's early literacy (Whitehurst et al.). Ways in which alphabet knowledge can be taught can include tracing the letters, sensory input from touching the shape of letters (such as with alphabet puzzle pieces), recognizing specific letters when they are grouped with other letters, ability to say what the letters are, and the ability to understand what the letters are when spoken by someone else.

In a pilot investigation, Ezell, Justice, and Parsons (2000) examined the effects a shared storybook reading program had on four parents and their preschool children's knowledge of print and their expressive and receptive alphabetic knowledge. The children were pre- and posttested on their emergent literacy skills. The parents were also measured on their satisfaction with the intervention program. Parent satisfaction was assessed through telephone interviews within one week of completion of the program in which parents were asked to rank their satisfaction on a Likert-type scale. The program lasted five weeks, with the first session serving as the pretesting and orientation, the next three sessions involving group training and individual practice reading sessions, and the last session being reserved for posttesting and a reception for the families. During the three training sessions, the focused reading behavior was trained. The first training

session focused on print referencing behaviors using comments, questions, and requests about the print, pointing to the print, and tracking the print. The second training session focused on evocative techniques such as repetitions, praise, a pause for responses, expansion on child's utterance, and open-ended questions. The third training session focused on book management strategies, including linking the text to the child's life and previewing the book by allowing the child to explore the book and turn the pages. The training lasted approximately 30 minutes and was accomplished through instructional video and a training manual. The parents were also given eight children's books to read in the instructed way to their children. Gains were made in the area of alphabetic knowledge, although they were not statistically significant due to the small number of participants. Gains were also observed in three of the four children's scores in the area of print awareness. The results for parent satisfaction were ranked high on the scale and the parents all agreed they felt their children benefited from this type of program.

Boudreau and Hedberg (1999) compared early literacy skills in 18 children with specific language impairment (SLI) to children matched for age, gender, and socioeconomic status that were typically developing. Pretest measures showed one of the largest significant differences was in the inability the SLI child had in recognizing the letter name as compared to typically developing children. This implication could have lasting effects on the child's ability to read later in school.

Alphabet knowledge is an important skill for children, whether they are typically developing or have SLI. The ability to facilitate alphabet knowledge in preschool children through a shared storybook reading approach has not been demonstrated; so further research is needed in this area.

Print Awareness

Print awareness, an important outside-in process, involves a child's ability to recognize print. It is the child's awareness of the function of print and that there is a relationship between the written and oral language (Justice & Ezell, 2000). Print awareness also includes the knowledge of print conventions such as reading from left to right and top to bottom (Whitehurst et al. 1999). Children who have had high levels of print awareness at the beginning of first grade have been found to be better readers by the end of their second grade school year (Whitehurst et al.). Justice and Ezell studied the effect of a shared storybook reading program on 28 parent/child dyads with a print focus to stimulate the child's print awareness. Before the study began, all parents were given a pretest reading session, which was videotaped. The participants were separated into two groups based on education (a broad measure of SES) and the child's receptive vocabulary skills. The experimental group received videotaped training, which described and demonstrated five print referencing behaviors for parents to use to promote their child's interactions with print. The training behaviors included three verbal references to the print (question, comments, and requests) and two non-verbal references (pointing and tracking the print). Each behavior was then demonstrated by an adult reading to a child two times. The parents were then allowed a practice session using each of the five target behaviors while reading a book with their child. Then verbal feedback regarding the parent's use of the five print referencing behaviors was provided. After training, the parents were to implement the five behaviors over a course of 4 weeks with eight different books. The control group was given the same eight books and received a general orientation yet received no instruction on the five print referencing behaviors. At the end of the 4 weeks, all parents returned for a posttest reading

session. Gains in the area of print awareness were made in both experimental and control group, yet the greatest gain was in the group that received the five print referencing behaviors.

Whitehurst et al. (1994) examined the effects of a dialogic reading approach combined with a PA training program on 4 different Head Start programs involving 167 four year olds. Children in the control classrooms received no PA intervention, while the children in the experimental classroom received dialogic reading in the class and at home several times a week for one year. Both parents and teachers received instruction on how to read using the dialogic approach via videotape, picture books to go along with reading, written material which accompanied the books, and classroom activities accompanying each book that were for teachers to use. Results at the end of the year showed the experimental group had made substantial gains in the concepts of writing and the concepts of print knowledge necessary for emergent literacy.

In summary, all the components of emergent literacy are important skills for children to acquire. Studies have shown that shared storybook reading can facilitate the emergent literacy skills, particularly oral language and print awareness, that are necessary for a child to achieve success in reading at the formal educational level. A limitation of these studies is their examination of only one or two of the emergent literacy skills, not across a broader spectrum of emergent literacy skills. An interesting research question would be whether all of these emergent literacy skills could be facilitated within an expanded dialogic reading approach.

Shared Storybook Reading: An Intervention Context for Teaching Inside-Out Processes

Shared storybook reading is one strategy that has been used to facilitate children's emergent literacy skills especially for the outside-in processes of oral language. Shared storybook reading expands simply reading a story to a child into a more interactive reading

approach. According to Morgan and Goldstein (2002), shared storybook reading approaches enhance a child's language development, increase a child's participation, and target abstract language. Bus, van Ijzendoorn, and Pellegrini (1995) stated that joint parent-child book reading (another term for shared storybook reading) in the first 6 years of life is "related to outcome measures like language growth, emergent literacy, and reading achievement" (p. 1).

There are many reasons to incorporate shared storybook reading into language intervention. Morgan and Goldstein (2002) listed several benefits of shared storybook reading, including the ease in implementation, it is a widely accepted way of teaching, it contains repetitive modeling for the child, it targets multiple skills, treatment outcomes are easy to monitor, and it can facilitate positive interaction patterns for adult and child.

Additionally, shared storybook reading has been used to facilitate multiple domains of oral language. Morgan and Goldstein summarized the aspects of emergent literacy that have been targeted to include vocabulary skills (Anderson-Yockel & Haynes, 1994; Lonigan & Whitehurst, 1998), increased participation in the book-reading activity (McDonnell, Friel-Patti, & Rollins, 2003), and additional skills such as print awareness (Justice & Ezell, 2000; Whitehurst et al. 1994; Whitehurst et al. 1999). Studies that have used a shared storybook approach to address these emergent literacy skills will be reviewed in the following sections. In addition, there are different approaches to shared storybook reading, including specific commenting and dialogic reading. Both approaches use shared interactive reading of stories. Studies that used these approaches will also be reviewed below.

Specific Commenting

Specific commenting involves the way in which parents or teachers engage the child during storybook reading by using dialogue that relates the story to the child's personal experience (Hockenberger, Goldstein, & Hass, 1999). An example of this would be when reading the book *The Cow That Went Oink* (Most, 1990) and asking the child if he or she remembers going to Grandpa's farm and seeing all the cows in the field. Hockenberger et al. studied specific commenting and its effects on parent-child interactions. The study used dyads of mother and child who were all from low socioeconomic status (SES). They found that the children responded to the specific commenting, engaged in dialogue more often when the mothers used specific commenting, and they increased the number of utterances with each interaction. Although the results of this study indicate that specific commenting is an effective approach to engage the child in abstract thinking and promote language and interaction during adult and child storybook reading, the focus is limited to a narrow aspect of emergent literacy.

Another study conducted by Whitehurst et al. (1988) examined the effects of specific commenting on a young child's expressive language ability. Thirty children and their families in suburban Long Island, New York were divided equally by the number of boys and girls in each group into an experimental and control group. The experimental group received instruction lasting 25-30 minutes two different times within 4 weeks. In these sessions, parents were taught specific commenting skills such as open-ended questions, function and attribution questions, and expansion, as well as appropriate responses to their child's attempts to answer these types of questions and how to read without asking questions the child could answer simply by pointing. The experimenter and the assistant demonstrated how to perform these specific commenting techniques, then the parent and assistant performed short role-play and received verbal feedback

on their technique. The control group was instructed to read as they normally would with their children. Posttesting revealed the experimental group was ahead in language development, including Mean Length Utterance (MLU) when compared to the children in the control group. The children were tested 9 months later and the experimental group continued to have a 6 month advantage over the control group on two expressive tests (PPVT-R and EOWPVT).

Dialogic Reading

Dialogic reading (DR) developed by Whitehurst and colleagues, is another approach to shared storybook reading (Arnold, Lonigan, Whitehurst, & Epstein, 1994; Lonigan & Whitehurst, 1998; Valdez-Menchaca & Whitehurst, 1992; Whitehurst & Lonigan, 1998). Similar to specific commenting, it changes the traditional role of the adult from reader to active listener. Although DR shares similar components to specific commenting, it expands the focus. Dialogic reading does not focus solely on the decontextualized language. Instead, dialogic reading focuses more broadly on language skills, especially vocabulary. According to Whitehurst and Lonigan, the role of the child as a passive listener is changed by the adult asking questions, adding information, and also by prompting the child to increase the complexity of his or her descriptions of the material contained in the picture book. According to Crain-Thoreson and Dale (1999), dialogic reading provides a systematic approach for parents or teachers to interact with the child through discussion while reading the text. It is a method for parents or teachers to facilitate a child's language and pre-literacy skills through interactive book reading.

Specifically, DR incorporates question strategies (CROWD) and interaction strategies (PEER) (Burns, Griffin, & Snow, 1999). CROWD includes five different types of prompts for the adult to incorporate while reading the book. In this approach, the adult follows the child's

answers with additional questions, and provides a model if the child requires it. PEER provides a framework for adults to interact with a child while discussing the story. Using PEER strategies, the adult gives praise and encouragement, follows the child's lead and interests, and expands on the child's utterances. Sophisticated responses are encouraged by expanding on the child's utterances and increasing the complexity of the questions asked by the adult. Praise and repetition encourage the child's responses throughout dialogic reading (Whitehurst & Lonigan, 1998).

The CROWD and PEER strategies of the dialogic reading approach have been used with both teachers and parents to facilitate a variety of emergent literacy skills. Research has shown that dialogic reading can facilitate a child's vocabulary, growth in language, and literacy (Crain-Thoreson & Dale, 1999). Whitehurst and his colleagues have conducted several investigations on the effectiveness of this approach in facilitating emergent literacy skills primarily with low-income preschoolers.

Lonigan and Whitehurst (1998) conducted a 6-week intervention study in which parents from low incomes and teachers in the Nashville, Tennessee area were trained by an interactive videotape on how to read dialogically to ninety-one 3 and 4 year old children. The children were separated into four different experimental classrooms: 1. school reading, 2. home reading, 3. school plus home reading, and 4. no treatment. Children were pre- and posttested using three standardized tests (PPVT-R, EOWPVT, and ITPA) of their oral language ability. Parents and teachers were trained in the dialogic reading approach by videotape with specific guidelines to follow and examples of how to perform these guidelines. The teachers received additional training by video on how to use specific guidelines when reading to children. The teachers were then asked to role-play and the examiner displayed specific child behaviors and they were

provided feedback on their dialogic reading guidelines used. Parents and teachers were asked to keep daily logs on who conducted the readings and what children were involved in each reading session. They found significant positive changes in oral language and demonstrated that parents and teachers can produce positive results in a child's emergent literacy skills using a brief dialogic reading training approach.

Whitehurst et al. (1994) examined 167 4-year olds in four Head Start programs in New York for one year. Children were divided into an intervention classroom or a control classroom. Classrooms were rated on the Early Childhood Environment Rating Scale (ECERS; Harms & Clifford, 1980). Children were then pretested using the Peabody Picture Vocabulary test-Revised (PPVT-R, Dunn & Dunn, 1981) for receptive vocabulary, the Expressive One Word Picture Vocabulary Test (EOWPVT, Gardner, 1981) to test expressive vocabulary, the expressive subscale of the Illinois Test of Psycholinguistic Abilities (ITPA, Kirk, McCarthy, & Kirk, 1968), a test of verbal fluency in describing common objects, and the Developing Skills Checklist (DSC; CTB, 1990) which measures emergent literacy skills (i.e., naming letters, segmenting words into sounds, and identifying the function of words and numbers). Intervention in the experimental groups received small group reading in the school and at home in the dialogic reading approach. Parent and teacher training in the dialogic reading approach occurred at the beginning of the school year. Instruction in the dialogic reading approach followed the question type acronym CROWD. Parents and teachers were trained to encourage their children to become active participants in the 30 books, which were available throughout the school year. In the experimental classrooms a phonemic awareness curriculum developed by Byrne and Fielding-Barnsley (1991) was used in which children were introduced to seven consonant sounds (s, m, p, g, l, t, sh) in initial and final position of words and two vowel sounds ([a, e]) in initial

position only. These introductions to each sound individually lasted weekly. Due to the number of assessments conducted, researchers reported their results in the form of language concepts, writing concepts, linguistic awareness, and print concepts. Gains were made in the experimental classroom children's posttest scores in all areas with the most significant gains in the areas of print and writing concepts. Therefore, by instructing parents and teachers in dialogic reading program, which did not dictate much time, they found positive outcomes in the children's emergent literacy skills.

Valdez-Menchaca and Whitehurst (1992) showed that a dialogic reading program had a positive effect on the language abilities of 2 and 3 year old children at a high risk daycare facility. This study focused on the dialogic reading approach in which teachers implemented the approach and the results had positive effects in the children's vocabulary development. Another study by Whitehurst et al. (1988) also confirmed that the dialogic reading program enhanced the language skills of 2-year-olds from middle class families as well. In this study, the mothers were instructed in the dialogic reading program individually for two 30 minute sessions two weeks apart.

In a study by Hockenberger et al. (1999), the effects of dialogic reading were examined with mothers of low socioeconomic status. Hockenberger et al. found that all the mothers increased their talking during story reading. They also found that the children produced more utterances and showed more assertiveness. In a study by Justice and Ezell (2000), a dialogic reading approach was used in a home-based intervention program involving parents and their four-year-old children. Their results demonstrated gains in the children's print and word awareness, including words in print, alphabetical knowledge, print recognition, word segmenting, and print concepts.

Cronan, Cruz, Arriaga, and Sarkin (1996) examined the effects of a dialogic reading approach on children's production and conceptual language skills. The intervention involved 225 families from a Head Start program. They focused on the number of instructional visits, 18, 3, or 0, required for parents to see an increase in a young child's language and conceptual development. During these instructional visits, parents were taught through modeling how to read dialogically to their child. Tutors then taught the parents how to teach different concepts to the child such as up/down or colors. After the concepts, tutors sang a song with the parent and child. Parents were asked to read daily and use language and ask questions in the dialogic reading method taught to them. Each visit parents were given a new book as well as material used in the concept instruction and a copy of the song that was sung. In the lower frequency group, families received three instructional visitations corresponding to the 1st, 6th, and 18th visit in the higher frequency group. The 0 frequency group received no instruction. They found that the best intervention was the high-intensity community based program. The results showed an increase in reading to their children and a change in reading style involving more questions (Cronan et al.). They found the children's language comprehension and production increased as well as their general knowledge of concepts.

Crain-Thoreson and Dale (1999) compared the effects of dialogic reading instruction that was given to parents and early childhood special education teachers by comparing 32 children's vocabulary growth in three different contexts: (1) Parent instruction with one-on-one dialogic reading; (2) Special education instruction with one-on-one dialogic reading; and (3) Special education instruction without one-on-one dialogic reading. Each child was given the PPVT-R (Dunn & Dunn, 1981) and the EOWPVT-R (Gardner, 1990) at the beginning of the study. The children were also videotaped with a familiar adult participating in shared book reading at the

beginning of the study and at the end of the study. After pretesting parents and teachers participated in two 90-minute dialogic reading instruction classes that took place 4 weeks apart. Training sessions involved a videotaped instruction on effective dialogic reading strategies, watched a demonstration of the strategies, were given an opportunity to ask questions, and practiced role playing with the dialogic reading strategies. Parents and teachers read at least four times a week using the dialogic reading approach. At the end of the intervention period, posttesting using the same videotaping, and the PPVT-R and EOWPVT-R were administered. Results indicated that both parents and teachers changed their style of reading as a result of the dialogic reading training. Children also responded to the change in parent and teacher reading style with the use of more expressive language and more elaborate use of expressive language. Receptive and expressive language had no statistically significant change. This could be due to the short intervention time given in this study and not on the effectiveness of the dialogic reading approach developed by Whitehurst et al. (1994).

Collectively, these studies demonstrate that there are several benefits of the dialogic reading approach. Through the dialogic reading approach, adults can check for children's understanding of the vocabulary through questions and build on the child's vocabulary through the use of the illustrations (Crain-Thoreson & Dale, 1999; Rogoff, 1990). Dialogic reading also creates links from the child's personal experiences and relates them back to the story (Crain-Thoreson & Dale; Rogoff). Finally, the repetition of words and context in the book facilitates children's language acquisition (Ninio & Bruner, 1978; Senechal et al. 1996; Snow & Goldfield, 1983; Snow & Ninio, 1986). By using these dialogic reading techniques, an adult can expand a child's language and build on the child's world knowledge.

A limitation of these studies is the narrow focus on specific domains of emergent literacy, particularly the vocabulary skills within the domain of oral language. It is not known whether a DR approach can be used to facilitate multiple domains of emergent literacy, especially the inside-out processes of phonological awareness, print awareness, and alphabet knowledge. One trend noticed across these studies is that the home-based intervention programs demonstrated greater gains than the school-based programs. It supports the importance of incorporating parents as intervention agents. Finally, the DR approach, as developed by Whitehurst and his colleagues, involved a time-limited parent-training component of two 30 minute videotaped instructional sessions two weeks apart with emphasis only on the CROWD and PEER strategies. An interesting question is whether the DR approach can be modified to have a larger parent-training component that teaches parents to use CROWD and PEER strategies to facilitate a broad range of their children's emergent literacy skills that includes the inside-out processes.

Conclusion

The purpose of this study was to see if parents can use an enhanced dialogic reading approach to facilitate multiple aspects of emergent literacy skills in their preschool children. Specifically, in this study, an enhanced dialogic reading approach that incorporates both inside-out and outside-in processes was used with low income parents and their children to facilitate several domains of emergent literacy (oral language, phonological awareness, print awareness, and alphabet knowledge). The parents were involved in a more intensive training program that met weekly for five weeks for 90-minute sessions. Toys were also incorporated with the storybooks to supplement and extend the play activities associated with the reading activities.

The research questions addressed in this study include:

1. Will an enhanced dialogic reading approach increase parent's frequency and type of questions (i.e., interaction behavior) asked during shared storybook reading? [1st order effect]
2. Will there be an increase in children's initiations, responses, and mean length of turns (i.e., interaction behavior) during shared storybook reading activities? [2nd order effect]
3. Will there be a corresponding increase in children's emergent literacy skills (i.e., phonological awareness, oral language, print awareness, and alphabet knowledge)? [2nd order effect]

CHAPTER 2

METHODS

Typically developing children from a Tennessee Title One preschool classroom and their parents participated in this study that investigated the effectiveness of an enhanced dialogic reading training program to facilitate several domains of emergent literacy skills.

Participants

Selection of participants for this study was based on inclusionary criteria taken from a case history completed by the parents. The inclusionary criteria included: 1) normal hearing, based on parent and teacher reports; 2) full-time enrollment in preschool; and 3) English as the native language and English as the only language spoken in the home.

Based on the inclusionary criteria, eight children and their parents participated in this study. The children included four boys and four girls, with a mean age of 5.0 (range = 4.6 - 5.5). Parents who were involved in the DR training included six mothers, one father, and one mother and father dyad. Ethnicity of parents included one African-American father, one African-American mother, and the remaining six parent participants were Caucasian. One set of parents included an interracial marriage between a Caucasian mother and African-American father. The parents completed a case history form, which included a section containing demographic information. Socioeconomic status (SES) levels were derived according to Eilers et al. (1993) (See Appendix A). A Home Screening Questionnaire (HSQ; Frankenburg & Coons, 1986) was also given to the parents with questions regarding discipline practices and home environment. Home environment questions focused specifically on language opportunities, organization and

schedule of the home, types of discipline, toys in the home, and family activities. Scores on the questionnaire were reported as either “non-suspect” or “suspect” based on the parent’s answers. A “suspect” rating means the child is considered “at risk” for language and learning problems based on his/her home environmental characteristics. Two of the eight children received a rating of “suspect”. Table 1 describes the child participants according to age, gender, SES level based on the case history completed by parents, and HSQ results.

Table 1
Child Participant Characteristics

Subject	Age	Gender	SES Level	HSQ
1	5.2	M	4	NS
2	5.5	M	3	NS
3	5.0	M	2	S
4	5.0	F	3	S
5	4.4	F	3	NS
6	5.5	F	4	NS
7	4.8	F	1	NS
8	4.6	M	4	NS

The Early Childhood Environmental Rating Scale (ECERS; Harms & Clifford, 1980) was completed in the preschool classroom before the study began. ECERS is a rating scale used to assess the preschool environment, curriculum, teaching style, and teacher/child interactions. The scores range from *low* (1) to *high* (7). All the areas at this preschool received high markings (between 6 and 7). According to the ECERS scale, a score of at least 5.0 is the level for a developmentally appropriate classroom and learning environment.

Experimental Design

A pretest-posttest design was used in this study. The children were pre- and posttested using a battery of speech, language, and pre-literacy tests. The parents also completed pre- and post-training videotapes that involved them reading a non-trained book to their child. The independent variable was the dialogic reading training approach given to the parents. The child dependent variables were the gains in scores on the following measures: speech production, preliteracy measures, PA measures, receptive vocabulary measures, and morphosyntactic language measures from pretest to posttest. In addition, child interaction variables were examined on the video and audiotapes. Parent variables were also examined on the video and audiotapes. A description of these variables is provided in a later section on “Data Analysis”.

Procedures

Pretest/Posttest

Pre- and posttest data were collected over a two-week period prior to and following the parent training program. Graduate students in speech-language pathology who were trained on the test procedures conducted the pretest and posttest procedures. Testing took between 1 ½ to 2 hours and was conducted at the child’s school in the speech-language pathologist’s classroom. The Phonological Awareness Literacy Screening-Pre-Kindergarten (PALS-Pre-K) (Invernizzi, Sullivan, & Meier, 2001), the Goldman-Fristoe Test of Articulation-2 (GFTA-2) (Goldman & Fristoe, 2000), the Peabody Picture Vocabulary Test-III (PPVT-III) (Dunn & Dunn, 1997), and the Preschool Comprehensive Test of Phonological and Print Processing (PCTOPPP) (Lonigan et al. in press) were administered to each child at the beginning and end of the study. A 20-minute language sample was collected from each child using a standard set of toys to elicit the

sample. The specific toys were a dollhouse for the girls and a farm set for the boys. The language sample was then analyzed using the *Systematic Analysis of Language Transcripts (SALT)* (Miller & Chapman, 2000). The areas assessed and the measures used are summarized in Table 2.

Table 2
Areas Assessed and Measures Used

Area Assessed	Tests
Speech	<u>Goldman-Fristoe Test of Articulation-2 (GFTA-2)</u> <ul style="list-style-type: none"> • Percentile • Established reliability measure
Receptive Vocabulary	<u>Peabody Picture Vocabulary Test-III (PPVT-III)</u> <ul style="list-style-type: none"> • Standard Score • Established reliability measure
Language	<u>Language Sample Analyzed in SALT</u> <ul style="list-style-type: none"> • Total number of words (TNW) • Total number of different words (NDW) • Mean Length Utterance (MLU) • Percent correct use of bound morphemes
Pre-Literacy	<u>Phonological Awareness Literacy Screening-Pre-Kindergarten (PALS-Pre-K)</u> <ul style="list-style-type: none"> • Raw Score • Screening measure
Phonological Awareness	<u>Phonological Awareness Literacy Screening-Pre-Kindergarten (PALS-Pre-K)</u> <ul style="list-style-type: none"> • Raw Score • Screening measure <u>Preschool Comprehensive Test of Phonological and Print Processing (PCTOPPP)</u> <ul style="list-style-type: none"> • Raw Score • Experimental version-In print

At the end of the child’s testing session, parents were videotaped reading an unfamiliar book at the beginning and the end of the study to analyze any changes in reading style. The two unfamiliar books were *When I Am Old With You* (Johnson, 1990) and *Fortunately* (Charlip, 1993). Half of the parents read *When I Am Old With You* (Johnson) first and then *Fortunately*

(Charlip), while the other half read *Fortunately* (Charlip) first and then *When I Am Old With You* (Johnson).

Project PACT: Parents and Children Together

The study was named Project PACT: Parents and Children Together and was conducted by two parent trainers, two graduate student assistants, with additional assistance from students in a graduate seminar who participated in Project PACT as a semester-long project. The first parent trainer was a professor in the Department of Communicative Disorders at East Tennessee State University, and the second parent trainer was a professor from the Department of Human Development and Learning from the same university. The two student assistants were graduate students in the Department of Communicative Disorders. As part of a semester-long class project, 23 graduate students from the Clinical Phonology seminar were given a variety of responsibilities that enabled this study to be carried out within the semester time frame. Each graduate student was assigned a specific responsibility, which included initial or final testing, videotaping initial or final parent/child readings, initial or final report writing, creating demonstration videos, creating weekly handouts for parents, providing childcare for the weekly meeting, or providing snacks for the weekly meetings.

Components of the Enhanced Dialogic Reading Training Program

The enhanced dialogic reading approach was based on Whitehurst and colleagues' approach as described in Whitehurst and Lonigan (1998) and elsewhere. Parent training sessions in the enhanced dialogic reading approach took place once a week for 90 minutes over five weeks. The training took place in a classroom where the children attended preschool. Childcare

was provided for the children in a nearby classroom at the school. Snacks and drinks were also provided for both the children and the parents. Each week a new topic in dialogic reading was introduced. Parents were given a new book each week along with toys to supplement play with the specific book. All items were given to the families. The books were selected on the basis of the emergent literacy skill targeted for the week and toys were selected to correspond with the books. Table 3 displays the books, corresponding toys, and the emergent literacy target for the week.

Table 3
Book Selections, Toys, and Focused Emergent Literacy Skill by Week

Week	Book	Toy	Emergent Literacy Skill
Week 1	<i>Cock-A-Doodle-Moo</i> by Bernard Most	Set of plastic farm animals	Phonological Awareness Specifically: Sound Substitution and Rhyming
Week 2	<i>The Hungry Thing</i> by Jan Slepian and A. Seidler	Set of plastic food	Phonological Awareness Specifically: Rhyming and Sound Substitution
Week 3	<i>The Cow that Went Oink</i> by Bernard Most	No new toy, parents encouraged to use same set of plastic farm animals	Phonological Awareness Specifically: Sound Awareness and Rhyming
Week 4	<i>The Disappearing Alphabet</i> by Richard Wilbur	Set of plastic/magnetic alphabet letters	Print Awareness and Rhyming
Week 5	<i>Henny Penny</i> by Paul Galdone	No new toy, parents encouraged to use same set of plastic farm animals	All Phonological Awareness Skills

Based on Whitehurst et al. (1988), question types using CROWD were used. A description of these question types is provided in Table 4.

Table 4
Examples of CROWD Questions

Types of Questions	Example of Questions
C= Completion questions about the structure of language used in the book	“The cow said “Cock-a-doodle-_____ (moo).”
R= Recall questions relate to the story content of the book	“Do you remember when you went to a farm and saw the cows?”
O= Open-ended questions to increase the amount of talk about a book and to focus on the details of the book	“What is happening on this page?”
W=“Wh” question to teach new vocabulary	What, where and why questions “What is roaring?” or “Why is he wet?”
D= Distancing questions that help the child bridge the material in the book to real-life experiences	“Do you remember hearing the chickens clucking on the farm?”

Interaction strategies, using PEER, were also incorporated in the enhanced DR approach.

A description of the PEER strategies is presented in Table 5.

Table 5
Description of PEER Interaction Strategies

P	Parent or adult initiates an exchange about the book, and
E	Evaluates the child’s response,
E	Expands the child’s response, and
R	Repeats the initial question to check that the child understands the new learning

Handouts containing PowerPoint slides with the focused topic for the week were given to the parents at the beginning of each training session. Samples of the PowerPoint slides are included in Appendix B. The focus of each week is displayed in Table 6.

Table 6
Dialogic Reading Focus by Week

Week	Focus
Week 1	Introduction and description of shared book reading; Strategies for reading including CROWD & PEER questions; Activities for the week
Week 2	Review of shared book reading; Additional strategies; Activities for the week
Week 3	Phonological Awareness (PA) (rhyming, matching, isolation and deletion, substitution, syllable counting, segmentation); Activities for the week
Week 4	Print Awareness; Activities for the week
Week 5	Review of CROWD & PEER, strategies, PA, and print awareness; Activities for the week; Wrap up with reception

Enhanced Dialogic Reading Approach

The parent trainers discussed the different types of questions and student assistants role-played the types of questions the parents were to ask while reading the books. Sample questions developed by speech-language pathologist graduate students were given to each family to help them with questions for each of the five books. A demonstration videotape of a parent and child reading the selected book for the week with sample questions was shown to guide parents in their own readings at home. Questions were encouraged throughout the session. At the end of each session, a book and set of toys were given to the parents. In addition, a weekly log was given to the parents to complete each week on the frequency and type of questions asked, number of times the book was read, and whether the toys were used with the book. There was a section on the weekly log to express what the parent thought worked well or did not work well with each reading and if they had any questions or suggestions. A sample of the weekly log is found in Appendix C.

Data Analysis

Statistical analyses were completed using an internet statistical program (*StatPages.net*, 2003) to analyze the child and parent variables. Child pretest/posttest measures on the speech, language, and pre-literacy measures were examined using a paired t-test (please refer to Table 2).

In addition to these test measures, parent and child measures were examined from the pre-post videotapes and the weekly audiotapes of the parents reading to their children. The audiotapes were examined for the frequency and type of CROWD questions used during a weekly reading. Descriptive statistics using means and ranges were used to summarize these variables over the course of the 5-week program.

With the pre-post videotapes, an engagement variable was adapted from McDonnell et al. (2003) that included three parent behaviors and three child behaviors. These behaviors included parent and child initiations, parent and child responses, and parent and child mean length of turn (MLT). The engagement variables provide an indicator of change in the parent and child interactions. Initiation is when the reader, in this case the adult, leads the interaction and includes the introduction of a new topic, eliciting completion of the text, initiation of a routine, and topic maintenance (McDonnell et al.). A child's initiation is their own tendency to initiate topics for discussion. Responses include any responses made to the speaker while still maintaining the topic, completing the text requested, and engagement in the routine (McDonnell et al.). The child's response is any response made when requested by the adult. Mean length of turn is the extent to which the parent and child participate in turns that are taken (McDonnell et al.). One hopes as the adult turns decrease, the child turns will increase.

A paired t-test was used to compare each of the pre-post behaviors of the engagement variable, which was converted to percentages for the children. A statistical significance level was established at $p = .05$ or less.

Finally, the weekly logs were examined with regard to the number of times parents read the book to the child each week, the number of questions the parent asked the child during each reading, the types of CROWD questions the parents asked during each reading, and the number of times toys were used to encourage play along with the book. These data are described descriptively in terms of the most frequently reported response set (i.e., mode). Each of the parent-child interaction variables is summarized in Table 7.

Table 7
Summary of Data Analyses for Each Parent-Child Interaction Variable

Child Interactions (videotapes)	<ul style="list-style-type: none"> • Frequency of initiations • Frequency of responses • MLT
Parent Interactions (videotapes)	<ul style="list-style-type: none"> • Frequency of initiations • Frequency of responses • MLT
Parent Interactions (audiotapes)	<ul style="list-style-type: none"> • Frequency and type of CROWD questions asked
Weekly Logs	<ul style="list-style-type: none"> • Number of times each book read/week • Frequency of questions asked • Types of questions asked (CROWD) • Use of toys in extended play

Reliability

Reliability was obtained on 20% of the pre- and post-videotaped parent/child storybook readings. Reliability was also obtained on 20% of the audio-recorded parent/child weekly reading. These transcriptions were re-coded according to type of questions asked by a second

transcriber familiar with CROWD questions. There was 90% or greater agreement between the two transcribers.

CHAPTER 3

RESULTS

The purpose of this study was to see if parents can use an enhanced dialogic reading approach to facilitate multiple aspects of emergent literacy skills in their preschool children. Specifically, in this study, an enhanced dialogic reading approach that incorporated both inside-out and outside-in processes was used with low income parents and their children to facilitate several domains of emergent literacy (oral language, phonological awareness, print awareness, and alphabetic knowledge). The results will be discussed in terms of: 1) descriptive analysis in terms of mean and range of parent question types from the weekly audiotapes and the mode of most frequently reported responses on the weekly logs; 2) descriptive and statistical analyses of the engagement variable, specifically parent and child interaction behavior changes from pre- and post- videotapes using a paired t-test; and 3) statistical analysis in terms of the change in pre- and posttest scores using a paired t-test.

Descriptive and Statistical Analyses

Weekly Audiotapes

Weekly audiotapes were analyzed for type and frequency of questions asked by parents during the five week enhanced dialogic reading program. Table 8 shows the results according to the mean and range of parent question types based on the weekly audiotapes. The total number of questions asked ranged from 17-144, with a mean of 71.9 questions across the five-week enhanced dialogic reading program. The mean number of questions asked per book was 14. This represents dense questioning, particularly given the developmental level of the books,

which had only a few lines of print on each page. Regarding the types of questions that parents asked, Wh-questions were used most frequently with a mean of 29.14. As summarized in Table 8, the next most frequent question type asked was Completion with a mean of 21, while Open-ended and Recall question types were the least asked question with a mean of 5.29 and 6.0, respectively.

Table 8
Parent Question Types: Weekly Audiotapes (Week 1-5)

	Mean	Range
Completion	21	8-38
Recall	6.0	0-19
Open-Ended	5.29	0-13
Wh-Questions	29.14	4-60
Distancing	10.42	0-31

Weekly Logs

Parents were also asked to complete weekly logs that included questions about the frequency and types of questions asked (CROWD) during each week, the number of times the book was read each week, and the use of toys to extend play-based reading activities each week. Questions on the weekly log regarding frequency were simplified so that parents only had to circle the range that best reflected what they did that week. For example, parents could indicate the number of times a book was read each day as 1-2; 3-4, etc. Therefore, the data are reported as the most frequently reported response. Table 9 summarizes the results of the weekly logs completed by the parents.

Table 9
Weekly Logs Data Over Five Weeks

Question Types	Mean	Range
Completion	4.64	0-7
Recall	4.17	0-7
Open-ended	3.87	0-7
Wh-questions	4.05	0-7
Distancing	3.30	0-7
Frequency Questions	Mode	Range
Number of times read per day	1-2	1-2 to 4-5
Number of questions asked per book	4-5	4-5 to 6-8
Number of days per week used toys	2	0 to 7

According to the weekly logs, the most frequently reported number of times (i.e., mode) parents reported that they read the book a day was 1 to 2 times, with a range of 1-2 to 4-5. The most frequently reported number of questions that parents asked was 4 to 5 questions, with completion being the most frequently asked question type and distancing being the least frequently asked question type. These findings were relatively consistent with what the parents actually did during the weekly audiotapes. That is, parents reported that they asked completion questions most often and open-ended and distancing questions least often. This parental report generally concurs with the actual data from the audiotapes of parents reading to their children. Finally, the most frequently reported number of days that parents indicated they incorporated the toys with the book was 2 days a week, with a range of 0 to 7 days a week.

Engagement Variables: Parent and Child Interaction Behaviors

The engagement variable was analyzed from the pre- and post-videotapes of parents reading an unfamiliar book to their child. The engagement variable included the proportion of

parent and child initiations and responses, and the MLT. The results are summarized in Table 10.

Table 10
Engagement Variables for Parent and Child Interaction Behaviors

Interaction Behavior	Pre-Videotape	Post-Videotape
Parent Initiations	10.87	36.5
Child Initiations	4.12	8.5
Parent Responses	6.12	19.75
Child Responses	5.62	22.25
Parent MLT	10.02	5.88
Child MLT	2.82	2.56

Figure 1 illustrates the parent and child initiations during the pre- and post-videotapes using a bar graph. It is interesting to note parent initiations increased significantly ($t = 3.01$; $p = .02$) from pre- to post-videotapes, while the number of child initiations increased slightly, although the change was not statistically significant ($t = .57$; $p = .58$).

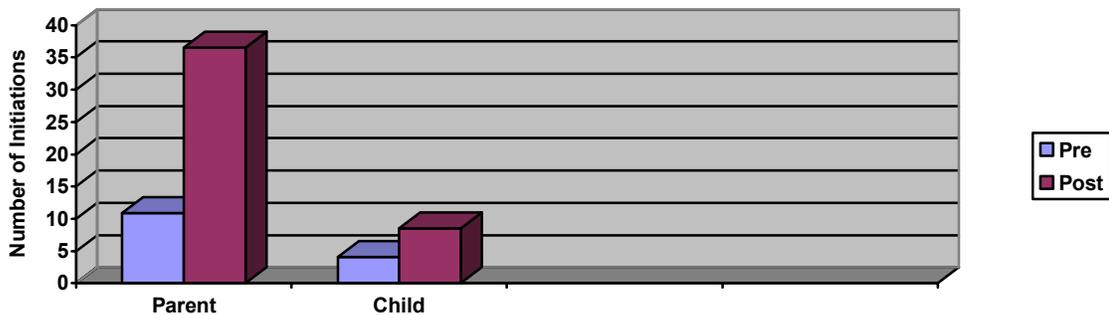


Figure 1
Parent and Child Initiations (Pre-Post Videos)

Figure 2 represents the parent and child responses on the pre- and post-videotapes. Again, the number of parent responses increased significantly ($t = 3.15$; $p = .016$) and the

number of child responses also significantly increased during the post videotapes ($t = 3.05$; $p = .02$).

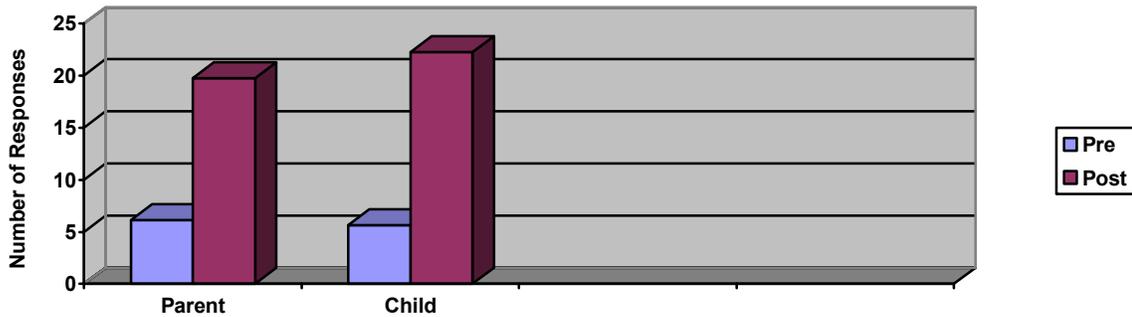


Figure 2
Parent and Child Responses (Pre-Post Videos)

Figure 3 represents the parent and child MLT for the pre- and post-videotapes. Interesting, parent MLT was significantly lower from initial to final videotape ($t = 2.42$; $p = .05$) while there was relatively no change in child MLT ($t = .28$; $p = .79$). The decrease in parent MLT represents the fact that parents generally read the entire story in one turn during the initial videotape, but took turns asking questions and responding to their child during the final videotape.

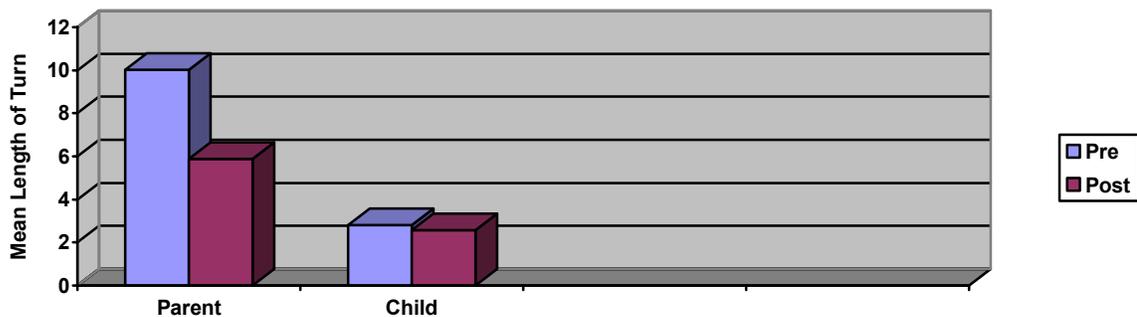


Figure 3
Parent and Child MLT (Pre-Post Videos)

Pretest/Posttest Comparisons

The pretest and posttest mean and standard deviation for each test is summarized in Table 13. A composite score for the PCTOPPP and PALS-Pre-K was determined by adding together the raw scores of each subtest. Standard scores were calculated for the PPVT-III and percentile ranks were reported for the GFTA-2. Mean scores were calculated for MLU, NDW, and TNW.

In Table 11, notice the significant increase in posttest scores on the PCTOPPP and PALS-Pre-K, which measure pre-literacy and phonological awareness. Interestingly, the expressive language measures of TNW and NDW went down slightly from pre- to posttesting, which may reflect sampling differences. There was, however, a significant increase in the children's MLU from the initial to final language sample.

Table 11
Descriptive Statistics for Pre- and Posttest Measures of Children

Test Measures	Number of Children	Pretest Mean	Pretest Standard Deviation	Posttest Mean	Posttest Standard Deviation
<u>PCTOPPP</u> *	8	69.0	10.2	80.0	7.85
<u>PALS-Pre-K</u> **	8	84.5	9.6	91.8	5.45
<u>PPVT-III</u>	8	107	10.2	105	5.32
<u>GFTA-2</u>	8	66.5	25.2	69.1	25.9
MLU***	8	4.26	.55	4.88	.85
TNW	8	522	116	498	126
NDW	8	175	22.9	168	20.6

* significant at p= .02

** significant at p= .01

***significant at p= .04

PCTOPPP and PALS-Pre-K (raw scores with PCTOPPP ceiling at 130 and PALS-Pre-K ceiling at 131); PPVT-III and GFTA-2 (standard scores); MLU, TNW, and NDW (mean scores)

Statistical analyses, using paired t-tests, were used to compare differences between the pre-test and post-test scores for the children. The results for each test are summarized below.

PCTOPPP, PALS-Pre-K, and MLU

Table 12 summarizes the t-test for the PCTOPPP, PALS-Pre-K, and MLU. As indicated, there was a significant change between the pre- and posttest scores ($t = 2.84, p = .025$) on the PCTOPPP. The PALS-Pre-K also showed a significant difference between the pre- and posttest scores ($t = 3.27, p = .014$). There was a significant difference between the pre- and posttest scores ($t = -2.38, p = .049$) on MLU.

Table 12
PCTOPPP, PALS-Pre-K, MLU

	t value	Degrees of Freedom	Probability
<u>PCTOPP</u>	2.84	7	.025
<u>PALS-Pre-K</u>	3.27	7	.014
MLU	2.38	7	.049

PPVT-III, GFTA-2, TNW, and NDW

The scores on the PPVT-III, GFTA-2, TNW, and NDW showed no significant change in scores from pre- to post-testing. The t values, degrees of freedom, and probability are summarized in Table 13.

Table 13
t-Test Results for PPVT-III, GFTA-2, TNW, and NDW

	t value	Degrees of Freedom	Probability
<u>PPVT-III</u>	.394	7	.705
<u>GFTA-2</u>	1.89	7	.100
TNW	.427	7	.682
NDW	.740	7	.483

Summary

1. Did an enhanced dialogic reading approach increase parents' frequency and type of questions (i.e., interaction behavior) asked during shared storybook reading? [1st order effect]

Yes. Based on analysis of the weekly audiotapes, the frequency of questioning was dense with an average of 14 questions asked per book. The type of questions all showed some increase over the initial week in frequency and diversity of question types. It was interesting to note the type of book influenced the particular question type (i.e., according to parent report, *The Disappearing Alphabet* (Wilbur, 1997) was the most difficult book because of the "advanced vocabulary" and "lengthiness" and therefore it influenced the type of question as well as the frequency of questions asked). Further, analysis of the initial and final videotapes demonstrated that parents significantly increased their initiations (questioning) and responses during shared storybook reading, which corresponded to a significant decrease in their MLT.

2. Was there an increase in children's initiations, responses, and mean length of turns (i.e., interaction behavior) during shared storybook reading activities? [2nd order effect]

Yes. Based on the initial and final videotapes, children had a significant increase in their number of responses. Although scores increased slightly, the difference in the children's number of initiations was not statistically significant. There was no significant change in MLT. The increase in responses was directly related to the parents' increase in initiations using CROWD questioning strategies.

3. Was there a corresponding increase in children's emergent literacy skills (i.e., phonological awareness, oral language, print awareness, and alphabet knowledge)? [2nd order effect]
 - a. There was a significant difference in children's preliteracy skills, as measured by the tests PCTOPPP and PALS-Pre-K, which assess phonological awareness, alphabet knowledge, and print awareness skills. These skills represented the inside-out processes that were taught to parents in the enhanced dialogic reading program, thus supporting the validity of the intervention program.
 - b. While there was a significant increase in MLU, there was no significant difference in the other aspects children's oral language skills, as measured by TNW and NDW. The difference in MLU may be a reflection of sampling differences that resulted from different clinicians eliciting the language samples before and after the intervention. There also were no differences in children's speech, as measured by the GFTA-2, or in their receptive vocabulary skills, as measured by the PPVT-III. These represent

the outside-in skills that were not specifically addressed within the enhanced dialogic reading program.

CHAPTER 4

DISCUSSION

The purpose of this study was to see if parents can use an enhanced dialogic reading approach to facilitate multiple aspects of emergent literacy skills in their preschool children. Specifically, in this study, an enhanced dialogic reading approach that incorporated both inside-out and outside-in processes was used with low income parents and their children to facilitate several domains of emergent literacy (oral language, phonological awareness, print awareness, and alphabet knowledge). In this study using eight preschool children and their parents, there was a significant change in the children's preliteracy skills, specifically phonological awareness, print awareness, and alphabet knowledge, which were measured on the PCTOPPP and PALS-Pre-K tests. A significant change was also noted in the parent-child engagement variables. These findings will be discussed in relation to current literature, clinical and theoretical implications, and areas for future research in this chapter.

Present Study Compared to Current Literature

Significant changes were obtained for parents (first order effect) and children (second order effect) through the enhanced dialogic reading approach. These findings expanded the results from previous studies that an outside-in dialogic reading approach can be used to facilitate children's emergent literacy skills (Bus et al. 1995; Ezell et al. 2000; McDonnell et al. 2003; Morgan & Goldstein, 2002; Whitehurst & Lonigan, 1998; Whitehurst et al. 1994).

This study, however, differs from the others in that it is the first study to incorporate a dialogic reading approach that focused on facilitating the inside-out processes. Numerous studies

(Anderson-Yockel & Haynes, 1994; Bus et al.; Ezell et al.; McDonnell et al.; Morgan & Goldstein 2002; Whitehurst et al.) have shown that other contexts, primarily classroom intervention activities that incorporate explicit instruction on the inside-out skills, are effective in facilitating these skills, but the current investigation extends the available contexts and intervention agents for training these skills in young children. Thus, this study showed a cross-over of incorporating an outside-in approach to teach inside-out skills.

The results of this study also support the outcomes from other studies that have included at-risk children from lower SES backgrounds (Cronan et al. 1996; Hockenberger et al. 1999; Lonigan & Whitehurst, 1998; Valdez-Menchaca & Whitehurst, 1992). Specifically, the results of this study show that significant gains in at risk children's emergent literacy scores, as well as parent-child engagement behaviors, can be achieved by training these children's parents. These results represent an extension of previous studies with at risk children in which the focus was either on children's emergent literacy skills or parent-child behavior variables (Cronan et al.; Hockenberger et al.; Lonigan & Whitehurst; Valdez-Menchaca & Whitehurst).

With regard to parent and child engagement variables, the results indicated that the interactive storybook reading produced a positive increase in parent initiations and parent and child responses, which supports findings by Bus et al. (1995) and McDonnell et al. (2003).

The present study supports the results of Bus et al. (1995) regarding the importance of parent-child book reading and extends it by showing the significance of parent-child engagement variables, and its positive effects on preliteracy skills. McDonnell et al. (2003) reported that parents can increase their child's engagement naturally, although not significantly. In the present study, there were significant changes observed in parent initiations and MLT, as well as parent and child responses. An important difference to note about the McDonnell et al. study relative

to the current study was the fact that the parent-child dyads received no dialogic reading instruction. Parents were simply asked to read the same book four times over the course of two weeks in order to assess any differences in reading styles and thus engagement variables that might occur as a result of repeated readings. Although McDonnell et al. did not observe a significant change in parent and child behaviors, they did observe “steady linear increases or decreases” in parent-child initiations/responses and MLT (p. 335). This means that some change can occur naturally (i.e., without training) but not enough of a change to be significant. The absence of a direct parent training component might explain why no significant changes were noted in the engagement variables as demonstrated in the present study. Therefore, the results of this study expand and demonstrate that with only a short training period, significant changes in parent-child engagement variables (i.e. parent initiations, parent and child responses, and parent MLT) are possible. These differences emphasize the importance of a direct parent training approach, such as used in the enhanced dialogic reading, to effectively change parents’ reading styles with children.

Differences Between the Enhanced DR and Other Shared Storybook Approaches

It is important to note the differences between the enhanced dialogic reading approach used in this study and DR approaches that have been reported in the literature. These differences include amount of time involved in the training program, incorporation of toys, and facilitation of a broad spectrum of inside-out skills. Traditionally, dialogic reading approaches are taught through short videotaped sessions (Hoceknberger et al. 1999; Lonigan & Whitehurst, 1998; Valdez-Menchaca & Whitehurst, 1992; Whitehurst et al. 1994). This study focused on longer training sessions from trained professionals over five weeks. The extended training time

appeared to be beneficial in terms of the significant change in children's test scores on the items that were taught to the parents during the enhanced dialogic reading program. The sessions appeared to be reasonable in the length and the five weeks provided sufficient time to see significant changes in the children's inside-out skills.

A unique aspect of this study was the incorporation of toys to extend play opportunities in order to facilitate the child's language or as a way to draw the child into the story if uninterested in reading. Toys were also incorporated to provide another context for the story. Kaderavek and Sulzby (1998) suggest that different book reading strategies, such as incorporating toys, are important to foster a family's individual style to reading and enjoying the story. Some examples of how toys were used in the present study to extend play include phonological awareness activities with the book *The Hungry Thing* (Slepian & Seidler, 1967). Parents and children were given plastic food and a paper bag in which the parent looks into the bag and says, "Ah, mogurt! I love mogurt!" The child is then encouraged to guess what "mogurt" is. Once the child has figured out that "mogurt" is "yogurt", the parent takes it out of the bag to show them and ask how they knew. Another example of toys extending play is with the book *Cock-a-Doodle-Moo* (Most, 1996). After reading the story, parent and child can get the plastic farm animals and relate how the sheep, goat, horse, and other barnyard animals might have snored in the book. Although toys were not reported by the parents as being frequently used each week, parents did report at the beginning of each weekly session that the toys extended the children's play related to the stories or provided an alternative to reading if the child was not interested. Parents also reported the children enjoyed playing with the toys and often the child and a sibling would play with the toys on their own. The parental report on the weekly logs of limited use of the toys each week may be misleading given the verbal reports parents made each

week about the use of toys for extended play. The lower report of use of toys each week might also reflect the parents' interpretation of the question on the weekly logs to include only the number of times that they specifically used the toys with the child in reading the book.

This study also provides an extension to previous studies in that inside-out skills were incorporated in the enhanced dialogic reading approach. Further, this study focused on training multiple areas of inside-out skills, specifically phonological awareness, print awareness, and alphabet knowledge. Previous studies have utilized dialogic reading to enhance a child's outside-in skills, particularly vocabulary (Crain-Thoreson & Dale, 1999; Cronan et al. 1996; Lonigan & Whitehurst, 1998; Senechal & Cornell, 1993; Whitehurst & Lonigan, 1998). Whereas Lonigan and Whitehurst's (1998) results focused solely on the at risk child's changes in oral language, this study looked further into changes in the child's phonological awareness, knowledge of the alphabet and print, as well as oral language changes. Crain-Thoreson & Dale (1999) studied the changes in children's vocabulary knowledge as well as the child's language use (MLU, question types, and expansions) and the effectiveness of the dialogic reading intervention (specifically, changes in the adult style of reading). Again, these studies did not focus on the broad spectrum (inside-out skills as well as parent-child engagement variables) in which this study focused.

This study provided support for the social valence of an enhanced dialogic reading approach with parents. Although Lonigan and Whitehurst (1998) reported parents to be more effective in the increase of their children's language skills, they state getting parents involved in the dialogic reading program would be more difficult. This was not the case in this study. Parents were extremely interested and many signed up immediately after learning about the program. Parents reported they enjoyed the program in the final evaluation and this was also

reflected in their attendance each week for the training sessions. It is noteworthy that very few parents missed a session and the absences were related to family emergencies, including death of an immediate family member and hospitalization of one parent participant.

Clinical Implications

This study has several implications in the clinical setting. One implication is that parents can be trained to facilitate inside-out skills following a short term, focused training. Not only were parents able to make significant changes in their interactions with children during shared reading activities, but significant changes were also obtained in children's inside-out skills (i.e., phonological awareness, print awareness, and alphabet knowledge) after only five 90-minute training sessions. This is a change from earlier studies in that it combined a dialogic reading approach (outside-in) to teach the inside-out skills. Due to this important difference in the enhanced dialogic reading approach, one clinical implication involves the cost effectiveness of incorporating parents as the intervention agent. This approach is also time efficient in that significant changes were observed in only a five-week intervention time. The training also only took place once a week, in the evenings for 90-minute sessions.

Another major clinical implication in this study is the fact that training did not focus solely on one process model but incorporated a crossover in both the inside-out and outside-in processes. Although these processes are separate, they are interdependent and necessary for the development of a child's emergent literacy skills. The enhanced dialogic reading program used in Project PACT: Parent and Children Together incorporated both processes. Although Whitehurst and Lonigan (1998) stated that inside-out processes are developmentally later acquired skills than the outside-in processes, the results from this study indicate that the children

benefited from an enhanced dialogic reading approach that focused on the inside-out processes. The crossover came in the incorporation of the enhanced dialogic reading approach, a context for facilitating outside-in processes, being used to teach phonological awareness, alphabet knowledge, and print awareness, which are inside-out processes. By using this enhanced program, we are essentially addressing both processes together, and in a shorter period of time. By having this crossover of inside-out skills facilitated through an outside-in process, this study expands Whitehurst and Lonigan's idea that inside-out and outside-in skills are acquired at different stages and should be taught at different times.

Future dialogic training programs may benefit from the information obtained from this study with regard to the density of questioning. Specifically, focused feedback to parents on the density of questions asked during shared storybook reading should strive for a minimum of 10 questions per book, but fewer than 25 questions. Findings from this study suggest that excessive questioning during shared storybook reading (i.e., >25 questions per book) may result in the child "tuning out".

This study has clinical implications for the at-risk population of children in that they can show an increase in their preliteracy skills using a relatively brief dialogic reading intervention. This at-risk population, such as the Title One preschool that was included in this study, may show an increase in the necessary preliteracy skills in only a few short weeks of training. Therefore the emphasis with this at-risk population is on prevention of later reading difficulties rather than remediation (U.S Department of Education, 2002). Studies have shown the lasting effects of dialogic reading programs on children from middle-class (Whitehurst et al. 1988) as well as children from low-income or at risk families (Arnold et al. 1994; Valdez-Menchaca & Whitehurst, 1992).

Another important clinical implication is the idea of “Train the Trainers.” Once the parents have been trained in a dialogic reading program, they can then be considered “literacy mentors”, in which they can be leaders of future dialogic reading programs to teach others, in their church or neighborhood. This idea allows for a larger number of adults and children to have access to the enhanced dialogic reading program, therefore possibly decreasing the number of children with learning and reading difficulties over time.

A further consideration is the tests used may not be sensitive to measure changes in emergent literacy skills, especially over short periods of time. Therefore, the clinician may need to use a combination of tests, such as this study incorporated, to provide a more sensitive and richer assessment of a child’s emergent literacy abilities. More tests may need to be developed to assess more specific preliteracy skills, as well as a larger domain of these preliteracy skills. Justice et al. (2003) suggest the need for multiple measures, especially to account for cultural diversity, when assessing emergent literacy skills. Clinicians may also need to develop their own protocols of assessment in order to incorporate all the areas of emergent literacy skills targeted. Another important clinical implication is when to assess the child. A good assessment period could be at the beginning and end of the child’s school year.

A further clinical implication is the need for longer periods of time to promote emergent literacy skills (Phelps, 2003). This study focused on a 5-week intervention period, but a longer intervention time that focused on more skills, such as oral language and vocabulary, might further address those aspects of emergent literacy in addition to the phonological awareness, print awareness, and alphabet knowledge skills.

Theoretical Implications

The theoretical implications in this study relate to Lonigan’s (2003) proposal of a modular model for emergent literacy skills. Lonigan reported that studies show that oral language and phonological sensitivity are both necessary for reading comprehension. Studies further suggest that oral language is not directly related to decoding, although phonological sensitivity may be facilitated indirectly through increased vocabulary. To illustrate the modularity of emergent literacy skills, Lonigan’s model is presented in Figure 4.

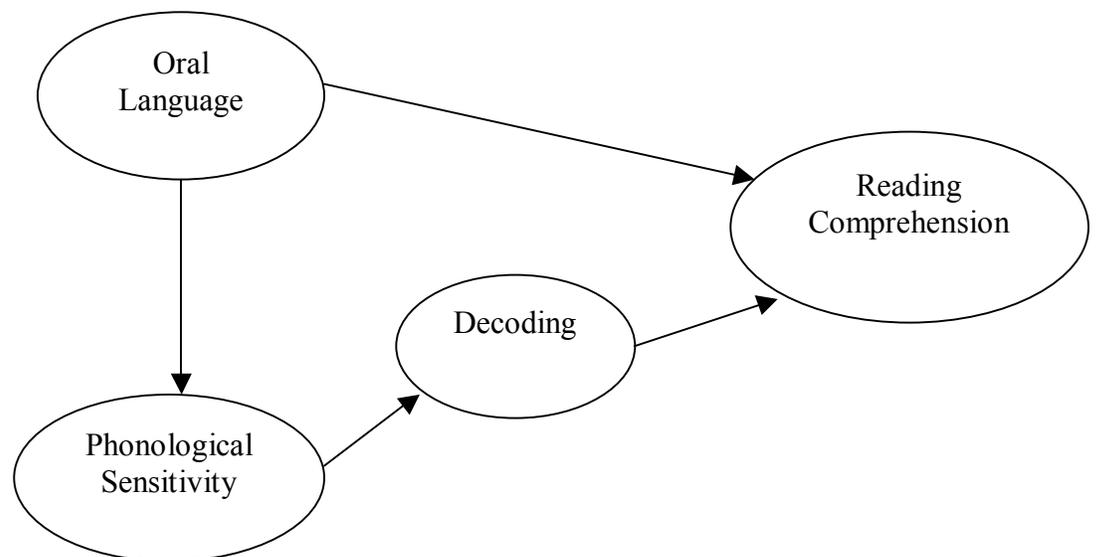


Figure 4
“Model of the Role of Oral Language and Phonological Sensitivity in Reading” (Lonigan, 2003)

This shows that although oral language and phonological sensitivity are both necessary components for emergent literacy, one is not learned simply by teaching the other. Thus, each

aspect needs to be trained separately. The findings from this study support the theoretical predictions of this model. That is, the children in the present study made significant gains in the areas that were trained (i.e., inside-out skills: phonological awareness, print awareness, and alphabet knowledge) and no gains were made in areas that were not specifically trained (i.e., oral language).

Areas for Future Research

Limitations to this study include the small sample size ($n = 8$) and no control group to show the benefits of the intervention program. With these limitations in mind and the fact that this is a relative new area of inquiry, there are several areas for future research. One such area would be to use a larger sample size. Further, the study should incorporate a control group to compare the relative benefits of the intervention approach. Another area for future research would be to conduct comparative investigations with a population of atypical children. It would be interesting to see how well children with specific language impairments or phonological disorders would benefit from this type of early intervention. With this same approach, comparative investigations of children with different learner characteristics related to outcomes with an enhanced dialogic reading approach would also be an interesting study. Specifically, are there differential outcomes based on differences in children's temperament? Future research should include the dependent variables of the child's reading fluency and reading comprehension. This should be incorporated in a longitudinal design. It would be interesting to see how well this enhanced dialogic reading program facilitates the child's reading ability later in the child's school career.

Along these same lines would be a comparison of an enhanced dialogic reading approach using different intervention agents, such as teachers or clinicians compared to parents. An

additional comparison could be to examine the effectiveness of parents who have been trained by other parents in an enhanced dialogic reading program (i.e., “Train the Trainers”) and their effectiveness of emergent literacy skills in their children.

Finally, in regards to the actual intervention approach, research that compares a traditional dialogic reading approach, as described by Whitehurst and Lonigan (1998), to an enhanced dialogic reading approach would be useful in understanding the comparative benefits of training inside-out versus outside-in processes.

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APPENDICES

Appendix A
SES Levels

SES Level	Education	Work	Family
5 (Low SES)	High school not completed	Unskilled worker	Single parent, unstable family
4	At least one parent completed high school, college not attempted	Blue collar employment	
3 (Middle SES)	Some college attempted, but no college degree	Transitional white collar, non-management positions	
2	One parent has a college degree	White collar, middle management, teachers, nurses, mid-scale proprietors	Two-parent home
1 (High SES)	Both parents have a college degree	Professional of high-level management	Stable, two-parent home

SES Assignment, adapted from Eilers et al. (1993)

Appendix B PowerPoint Weekly Handouts

Project PACT: Parent and Children Together

Week 1
Shared Book Reading

What Will We Talk About Tonight?

- What is “shared book reading”?
- How is regular book reading different from interactive shared book reading?
- Is there a difference in shared book reading with 2-3 year old children and 4-5 year old children?
- What are the types of questions to ask in shared book reading? What is “CROWD”?
- How can I interact with my child while reading a book? What is “PEER”?
- What activities should I do with my child for this week? What book will we read together this week?

What is “shared book reading?”



- In typical reading, adults read and the child listens
- But, in interactive shared book reading, the child becomes an active participant

What is “shared book reading?”



- In interactive shared book reading, the adult:
 - ✓ Asks questions
 - ✓ Listens to the child’s response
 - ✓ Adds information
 - ✓ Prompts the child to increase what they say about the story
 - ✓ Praises the child
 - ✓ Repeats what they have said
 - ✓ Expands what the child says

Shared Book Reading for 2-3 year olds



- Adult asks questions that focus on the individual pages in the book by asking the child to describe objects, actions, or events
- For example:
 - "What is this?"
 - "What color is the duck?"
 - "What is the duck doing?"

Shared Book Reading for 4-5 year olds



- Adult asks questions that focus on the story as a whole or on relations between the book and the child's life
- For example:
 - "Why do you think the boy ran home?"
 - "Do you remember seeing a lion when you went to the zoo? What did it look like?"

5 types of questions to use in shared book reading



- C R O W D
- Completion questions
 - Recall questions
 - Open-ended questions
 - Wh-questions
 - Distancing questions

5 Types of Questions (CROWD)

1. Completion questions
"Something went bump, and that made us ___?"
2. Recall questions
"Can you remember some things that happened to Lena when she went to school?"
3. Open-ended questions
"What is happening on this page?"
4. "Wh" questions (what, where, and why questions)
"What's this called?" or "What is 'roaring'?"
5. Distancing questions
"Did you ever play in the snow like Peter did? What did it feel like?"

Interacting with your child and the book...



- You want to follow your child's interests and expect slightly more of your child each time through the book
- Keep your interactions light and fun

Tips to Keep the Interactions Going



- P E E R Sequence:
- P Parent initiates talk about the book
 - E Evaluates the child's response
 - E Expands the child's response, and
 - R Repeats the question to check child's understanding

PEER Interactions

- Parent initiates talk about the book
“What is Mrs. Bear doing?”
- Evaluates the child’s response
- Expands the child’s response
“Yes, she’s standing on her toes (evaluation)
and picking apples (expansion)”
- Repeats the initial question
(Next time through the book): “What is Mrs.
Bear doing? Do you remember?”

Activities for Week 1



- ✓ Ask “what” questions (not yes/no or pointing questions)
- ✓ Follow answers by child with questions
- ✓ Repeat what your child says
- ✓ Help your child as needed
- ✓ Praise and encourage
- ✓ Follow your child’s interests
- ✓ Have fun!

Project PACT: Parents and Children Together

Review Shared Book Reading
Week 2

What We Will Talk About Tonight?

- How did Week 1 activities go?
 - What went well with the first story and activities?
 - What “bumps” happened with the first story and activities?
- Review interactive shared reading activities
 - Review CROWD questions
 - Review PEER interaction tips
- Are there additional strategies that I can use in reading to my child?
- What are the shared reading activities for this week?
What book will I be reading to my child this week?

Review: CROWD Questions



- C R O W D
- Completion questions
 - Recall questions
 - Open-ended questions
 - Wh-questions
 - Distancing questions

Review: PEER Interactions



- P E E R Sequence:
- P Parent initiates talk about the book
 - E Evaluates the child’s response
 - E Expands the child’s response, and
 - R Repeats the question to check child’s understanding

Some additional strategies



- Slow down and give your child time to respond
- Help your child as needed

Activities for Week 2



- ✓ Ask open-ended questions
 - ✓ “What’s happening?”
- ✓ Expand what your child says
 - ✓ Child: “shoes on”
 - ✓ Parent: “Yes, he’s putting his shoes on”.
- ✓ Pause and give your child time to respond to your questions

Project PACT: Parents and Children Together

What is “Phonological Awareness”?
Week 3

What We Will Talk About Tonight?

- How did Week 2 activities go?
 - What went well with the second story and activities?
 - What “bumps” happened with the second story and activities?
- What is “phonological awareness”?
- How is phonological awareness related to learning to read?
- What can I do to facilitate my child’s phonological awareness skills?
- What are the shared reading activities for this week? What book will I be reading to my child this week?

What is “Phonological Awareness”?



- Phonological awareness is the awareness that words are made up of sounds and syllables. It is awareness that speech is a sequence of sounds.

Phonological Awareness



Phonological awareness includes the ability to:

- Identify/create rhyming words
- Match words by initial or final sounds
- Isolate a sound in a word
- Delete a sound in a word
- Substitute sounds in a word
- Count syllables in a word
- Segment a word into sounds

Activities for Week 3



- ✓ Read "The Cow that went Oink"
 - ✓ Use CROWD/PEER strategies to ask some questions about:
 - ✓ Rhymes (e.g., "What rhymes with 'rain'?")
 - ✓ Initial Sounds of words (e.g., "What sound does 'pig' start with?")
 - ✓ Counting # syllables in words (e.g., "How many beats are in the word 'rooster'?")
- ✓ Extended Play Activities
 - ✓ "Clap the Beat" game
 - ✓ Count the number of syllables of family members' names, pets' names, etc.
 - ✓ Scavenger Hunt with animals
 - ✓ Rhyme Game

Project PACT: Parents and Children Together

What is "Print Awareness"?

Week 4

What Will We Talk About Tonight?

- How did Week 3 activities go?
 - What went well with the third story and activities?
 - What "bumps" happened with the third story and activities?
- What is "print awareness"?
- How is print awareness related to my child learning to read?
- What can I do to help my child develop print awareness skills?
- What are the shared book reading activities for this week? What book will I be reading with my child this week?

What is "print awareness"?



- Ability to recognize print
- Aware that print has meaning
- Ability to map letters to sounds they make

Activities for Week 4



- ✓ Read "The Disappearing Alphabet"
 - ✓ Use "tracking" as you read
 - ✓ Pointing to print/words
 - ✓ Use CROWD/PEER strategies:
 - ✓ Ask questions about print (e.g., "Where is a word on this page?", "Where's the title?")
- ✓ Extended play activities
 - ✓ Restaurant game (use menus)
 - ✓ Letter box game ("Letter of the Day")
 - ✓ Sorting game (use index cards to sort letters from numbers)
 - ✓ Word games with alphabet letters

Project PACT: Parents and Children Together

Wrap-up and Review

Week 5

What Will We Talk About Tonight?

- How did Week 4 activities go?
 - What went well with the fourth story and activities?
 - What “bumps” happened with the third story and activities?
- Review interactive shared book reading activities
 - CROWD questions
 - PEER interaction tips
- Review phonological awareness activities
- Review print awareness activities
- What are the shared book activities for this week?
What book will I be reading with my child this week?
What activities can I continue to do with my child in the future?

Activities for Week 5



- ✓ Read “Henny Penny” using CROWD/PEER and ask questions about:
 - ✓ 4 phonological awareness skills
 - ✓ Print awareness
 - ✓ Point out a word
 - ✓ Use tracking as you read
- ✓ Extended Play Activities
 - ✓ Use farm animals and give them rhyming names (e.g., “Horsey-Borsey”, “Piggy Wiggy”, “Cowie Lowie”, etc.)
 - ✓ Clap, snap, stomp out the syllables
 - ✓ What sound does each word start with?
 - ✓ Name game song (see handout)

What you can continue to do with your child ...



- ✓ Re-read books (and other favorite books) and use CROWD/PEER strategies
- ✓ Use the JC Public Library (see pamphlet) or visit
 - ✓ Preschool story times
 - ✓ Family story times
- ✓ Have fun with phonological awareness and print awareness activities
 - ✓ During daily routines (driving, shopping, walking, cleaning house, bathtime), PLAY: rhyming games, letter of the day games, name-game song
 - ✓ Clap, snap, stomp out the syllables
 - ✓ What sound does each word start with?
 - ✓ Name game song
- ✓ Play with the alphabet (shaving cream, alphabet pancakes, alphabet cookies, etc.)

Appendix C
Weekly Questionnaire

Cock-A-Doodle-Moo Week 1

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Please indicate the number of times you read the book each day	1-2 times 3-4 times 4-5 times						
Please indicate the types of CROWD questions you asked each day	Completion Recall Open-ended Wh-ques. Distancing questions						
How often did you ask questions during each reading?	4-5 ques. 6-8 ques. 9-10 ques.						
Did you use toys after reading?	Use toys? Y/N						
Did play with the toys extend your child's language and play with the story?	Extend language play? Y/N						

Let us know what worked or didn't work with this week's reading activity.

Give us any comments about reading activity that you think are useful to know.

What questions do you have about the shared reading activity for this week?

The Hungry Thing Week 2

	Wednesd ay	Thursd ay	Friday	Saturday	Sunday	Monday	Tuesda y
Please indicate the number of times you read the book each day	1-2 times 3-4 times 4-5 times	1-2 times 3-4 times 4-5 times	1-2 times 3-4 times 4-5 times	1-2 times 3-4 times 4-5 times	1-2 times 3-4 times 4-5 times	1-2 times 3-4 times 4-5 times	1-2 times 3-4 times 4-5 times
Please indicate the types of CROWD questions you asked each day	Completion Recall Open-ended Wh-ques. Distancing questions	Completi on Recall Open- ended Wh-ques. Distancin g questions	Completion Recall Open-ended Wh-ques. Distancing questions	Completion Recall Open-ended Wh-ques. Distancing questions	Completion Recall Open-ended Wh-ques. Distancing questions	Completion Recall Open- ended Wh-ques. Distancing questions	Completi on Recall Open- ended Wh- ques. Distanci ng questions
How often did you ask questions during each reading?	4-5 ques. 6-8 ques. 9-10 ques.	4-5 ques. 6-8 ques. 9-10 ques.	4-5 ques. 6-8 ques. 9-10 ques.	4-5 ques. 6-8 ques. 9-10 ques.	4-5 ques. 6-8 ques. 9-10 ques.	4-5 ques. 6-8 ques. 9-10 ques.	4-5 ques. 6-8 ques. 9-10 ques.
Did you use toys after reading?	Use toys? Y/N	Use toys? Y/N	Use toys? Y/N	Use toys? Y/N	Use toys? Y/N	Use toys? Y/N	Use toys? Y/N
Did play with the toys extend your child's language and play with the story?	Extend language play? Y/N	Extend language play? Y/N	Extend language play? Y/N	Extend language play? Y/N	Extend language play? Y/N	Extend language play? Y/N	Extend language play? Y/N

Let us know what worked or didn't work with this week's reading activity.

Give us any comments about reading activity that you think are useful to know.

What questions do you have about the shared reading activity for this week?

The Cow That Went Oink Week 3

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Please indicate the number of times you read the book each day	1-2 times 3-4 times 4-5 times						
Please indicate the types of CROWD questions you asked each day	Completion Recall Open-ended Wh-ques. Distancing questions						
How often did you ask questions during each reading?	4-5 ques. 6-8 ques. 9-10 ques.						
Did you use toys after reading?	Use toys? Y/N						
Did play with the toys extend your child's language and play with the story?	Extend language play? Y/N						

Let us know what worked or didn't work with this week's reading activity.

Give us any comments about reading activity that you think are useful to know.

What questions do you have about the shared reading activity for this week?

What PA skills did you use: Identify/create rhyming words; Match words by initial/final sounds; Isolate a sound in a word; Delete a sound in a word; Substitute sounds in a word; Count syllables in a word; Segment a word into sounds. Which were hard/easy?

The Disappearing Alphabet Week 4

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Please indicate the number of times you read the book each day	1-2 times 3-4 times 4-5 times						
Please indicate the types of CROWD questions you asked each day	Completion Recall Open-ended Wh-ques. Distancing questions						
How often did you ask questions during each reading?	4-5 ques. 6-8 ques. 9-10 ques.						
Did you use toys after reading?	Use toys? Y/N						
Did play with the toys extend your child's language and play with the story?	Extend language play? Y/N						

Let us know what worked or didn't work with this week's reading activity.

Give us any comments about reading activity that you think are useful to know.

What questions do you have about the shared reading activity for this week?

What PA skills did you use: Identify/create rhyming words; Match words by initial/final sounds; Isolate a sound in a word; Delete a sound in a word; Substitute sounds in a word; Count syllables in a word; Segment a word into sounds. Which were hard/easy?

Henny Penny Week 5

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Please indicate the number of times you read the book each day	1-2 times						
	3-4 times						
	4-5 times						
Please indicate the types of CROWD questions you asked each day	Completion Recall Open-ended Wh-ques. Distancing questions						
	4-5 ques.						
	6-8 ques.						
How often did you ask questions during each reading?	9-10 ques.						
	Use toys?						
	Y/N						
Did play with the toys extend your child's language and play with the story?	Extend language play?						
	Y/N						
	Y/N						

Let us know what worked or didn't work with this week's reading activity.

Give us any comments about reading activity that you think are useful to know.

What questions do you have about the shared reading activity for this week?

What PA skills did you use: Identify/create rhyming words; Match words by initial/final sounds; Isolate a sound in a word; Delete a sound in a word; Substitute sounds in a word; Count syllables in a word; Segment a word into sounds. Which were hard/easy?

VITA

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