

Increasing Print Awareness in Preschoolers With Language Impairment Using Non-Evocative Print Referencing

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Longitudinal research investigating the relationships between language and literacy development consistently demonstrates that young children's language abilities contribute to later literacy achievement (Catts, Fey, & Proctor-Williams, 2000; Johnston et al., 1999). Indeed, investigations in early literacy development show that as a group, children with language impairment perform more poorly than their typical peers do across knowledge and skill areas that are important for literacy acquisition, including metalinguistic abilities, phonological awareness, letter-name knowledge, rhyming, and print awareness tasks (Boudreau & Hedberg, 1999; Dickinson & McCabe, 2001). Because the literature indicates that children with language impairment are likely to experience difficulties in later literacy attainment, and speech-language pathologists (SLPs) are often the primary interventionists working with young children

before formal education, it is critical that SLPs provide early support for the development of literacy skills needed for academic success.

SPEECH-LANGUAGE IMPAIRMENT AND EARLY LITERACY EXPERIENCES

Research has shown that impaired language abilities may negatively affect children's opportunities to interact with and benefit from literacy events (Marvin, 1994; Schuele & van Kleeck, 1987). In a study investigating literacy socialization practices of preschool children, Marvin and Wright (1997) found that for some children with language impairment, interactions with adults and print were

ABSTRACT: Purpose: This study examined the extent to which using non-evocative, explicit referencing of print concepts during shared storybook reading in the context of language therapy facilitated print concept knowledge in children with language impairment.

Method: Five children, ages 4 to 5 years, were provided scripted input on 20 print concepts during shared storybook reading that was incorporated into individualized 30-min language intervention sessions that were conducted in the children's classroom twice weekly. The children were not required to make any response to the input on print concepts, and the input was secondary to instruction in the language targets during the 10-min shared storybook reading activity.

Results: Using a single-subject, multiple probe design across subjects, results indicated that children's knowledge of print concepts improved markedly when the procedure was incorporated into shared storybook reading and that they continued to learn and maintain knowledge of print concepts with repeated input.

Clinical Implications: These findings suggest that children with language impairment may benefit from simple non-evocative, explicit referencing strategies that can be easily incorporated into the context of storybook reading during language therapy, thus providing speech-language pathologists with an additional tool for facilitating children's literacy skills.

KEY WORDS: explicit referencing, shared reading, print concepts, child language impairment

not well supported or encouraged in the home. They found that although caregivers reported engaging in literacy experiences that included both print and nonprint activities, parents of children with language impairment were less likely to ask their children questions during read-alouds, comment on nonprint activities, or engage in oral story telling. They also found that children with language impairment were less likely than children with other disabilities to listen to stories or ask or answer questions of an adult who is reading aloud. The authors suggested that the lack of interactions with adults and print was related to the linguistic nature of the literacy activities and not the lack of exposure. They concluded that children's poor literacy and language skills might be associated with the lack of meaning they take from opportunities to interact with print. These findings suggest that literacy socialization (i.e., interaction with and exposure to early experiences with print) and language impairment have a symbiotic relationship such that the presence of language impairment may negatively affect children's meaningful engagement with print.

Given that early social and cultural experiences with literacy are important for later literacy development, researchers have suggested that SLPs implement intervention strategies that highlight the communicative and linguistic nature of print while targeting children's specific oral language deficits (Marvin & Wright, 1997; Schuele & van Kleeck, 1987). In fact, Kadaravek and Justice (2002) have provided guidelines for using shared book reading as a language intervention strategy. Among a number of other strategies, it has been suggested that such intervention should stimulate verbal interaction, encourage talk about books, and help develop knowledge of print concepts (Snow, Burns, & Griffin, 1998).

THE IMPORTANCE OF PRINT CONCEPTS

Print concepts including print forms, print conventions, and book conventions are skills that provide contextual frameworks for interpreting printed information (Clay, 1993; van Kleeck, 2003). Knowledge of print forms is the understanding that print units can be named and differentiated (e.g., *p* is a letter; 3 is a number; words and letters differ). Understanding of print conventions is the knowledge that print has an organizational scheme (e.g., English print is read from left to right and top to bottom, and we "sweep" to read from one line to the next). Knowledge of book conventions is the understanding of how books are created, how they function, and how they are organized (e.g., the author writes the story; books have titles; books have a front and a back).

The distinction between print and pictures is one of the first concepts that children learn about literacy. Children need an orientation to print and meaning in some general sense as a foundation for learning more specifically about alphabet principles related to print and reading (Lomax & McGee, 1987; Mason, 1980). Researchers suggest that the distinction between print and pictures is important because it establishes a separate identity for print and allows children to begin learning about its function and structure (Christie, Enz, & Vukelich, 2003). In a study of young children's concepts about print and reading, Lomax and McGee (1987) found that the ability to discriminate letters and words visually depended on the development of print concepts. Their structural analysis also indicated that print concepts directly influenced grapheme–phoneme correspondence knowledge. These results lend support to the Tunmer, Herriman, and Nesdale (1988) findings that print

concept knowledge was significantly related to first-grade children's ability to recognize real words and decode pseudowords. In addition, Scarborough (1998) found that, along with a number of other indicators beyond phonological awareness, print-specific knowledge and skills were correlated with later reading achievement. In an analysis of predictive studies using traditional reading readiness tests and more functional types of measures that examine a child's knowledge about the purposes and mechanics of reading, she found an average correlation of .56 for the more traditional readiness measures and an average effect size of .46–.49 for the functional types of measures. Thus, it can be concluded from these studies that supporting children in their development of print concepts is important for literacy development.

Shared Book Reading

Shared book reading is regarded as an important activity for young children. It has been suggested that shared book reading helps to develop a number of early literacy skills including knowledge about print concepts, letter identification, vocabulary, and storytelling activities (Bus, Van Ijendorn, & Pellegrini, 1995; Snow, Chandler, Lowry, Barnes, & Goodman, 1991; Whitehurst & Lonigan, 1998). Wells (1985) found that the frequency of shared book reading with children in preschool was significantly associated with their performance on tests of literacy knowledge and reading comprehension in the early elementary grades. Whitehurst and Lonigan proposed that the quality and quantity of shared book reading enhances oral language skills and literacy knowledge, which indirectly contributes to school achievement. In a large study examining the impact of a book reading intervention targeting economically disadvantaged children, Neuman (1999) found that the quantity and quality of reading to children in preschool enhanced their literacy knowledge. Childcare providers of children in the experimental group received training in the development of literacy, reading aloud to children, techniques to enhance children's responses to stories, and book maintenance. Childcare providers of children in the control group received no training. Neuman found that children in the experimental group showed educationally meaningful gains on print concepts, letter-name knowledge, concepts of writing, and concepts of narrative. Six months following the intervention, gains were still evident in kindergarten.

Although these and other studies clearly imply that shared book reading fosters many different skills, the utility of shared book reading has not been without controversy. Scarborough and Dobrich's (1994) findings that shared reading accounts for only 8% of the variance in children's later literacy achievement suggests that there are multiple ways that young children acquire knowledge that is essential for literacy development. Although it is certainly true that other skills may play a more critical role in literacy acquisition (e.g., phonemic awareness and letter-sound correspondence), researchers generally agree that shared book reading is an important contributor to both language development and literacy achievement. Specifically, it is perhaps the singular option for facilitating the development of print concepts, which is known to be an important dimension of written language (van Kleeck, 2003).

Shared Book Reading as an Intervention Context

Given that children with oral language deficits are at high risk for experiencing difficulty with literacy learning, and that shared book

reading contributes to language and literacy development, it follows that shared book reading may be an important intervention strategy for facilitating oral and written language skills, including the learning of print concepts. However, studies have shown that book reading strategies used by adults are diverse and not necessarily instinctual, particularly among caregivers of children who are considered to be at risk for later academic and language difficulties (Justice & Ezell, 2000; McNeil & Fowler, 1999). The literature suggests that adults rarely verbally reference print during book reading interactions with either typically developing children or those who are considered to be at risk for developing later literacy difficulties (Ezell & Justice, 1998, 2000; van Kleeck, Gillam, Hamilton, & McGrath, 1997) and that some adults require extensive training to use strategies that encourage children's interactions during book reading activities (McNeil & Fowler, 1999). These studies imply that the way book sharing is conducted is as important as the book reading event in facilitating the development of early literacy skills.

In response to the need for practical strategies to enhance children's interactions with print, Justice and Kaderavek (2004) identified an integrated model of emergent literacy intervention to help children attain the skills necessary for later literacy acquisition. This approach to early literacy intervention integrates aspects of *explicit* teaching used to direct a child's attention to literacy targets through the use of direct, sequenced instructional opportunities with aspects of an *embedded* approach where adults serve as facilitators of children's literacy learning. Two methods, dialogic reading and print referencing, have emerged as strategies that are used during shared book reading, which suggests that an embedded-explicit model of intervention may be effective in helping children acquire early literacy knowledge concurrently with oral language.

Dialogic reading (Whitehurst et al., 1988) is a method of reading aloud to young children that is designed to enhance language development by asking questions, providing feedback, and structuring responses that allow children to participate at their skill level. The corpus of work in dialogic reading indicates that the strategy does not address concepts of print directly, but its facilitation of language skills may aid the development of other skills and later literacy (Arnold, Lonigan, Whitehurst, & Epstein, 1994; Crain-Thoreson & Dale, 1999; Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Whitehurst et al., 1994; Whitehurst et al., 1988). These studies show that adult-child interactions during storybook readings increase children's positive orientation to and interest in literacy, which subsequently supports the development of early literacy skills needed for later literacy acquisition.

Explicit print referencing is an intervention that is structured specifically to increase children's print awareness. It refers to adults' use of verbal and nonverbal cues to direct children's attention to print concepts that are embedded into book reading interactions (Justice & Ezell, 2004). Ezell and Justice (2000) identified verbal references as comments, questions, and requests about print. Questions and requests about print are considered prompts or evocative techniques that obligate children to respond. Nonverbal references include pointing to print and tracking print. These nonverbal cues, along with comments, are references about print that carry no obligation for children to respond, and are described as non-evocative strategies.

Explicit print referencing has been found to improve children's knowledge of print concepts. Ezell and Justice (2000) demonstrated that adults' use of explicit references about print during book reading

increased youngsters' verbal utterances referring to print. In a follow-up study that included parent training in the use of print referencing strategies, results showed that when parents were trained to use a book reading strategy that incorporated nonverbal and verbal print referencing behaviors in a 4-week, home-based program, their use of explicit print referencing behaviors increased, and their preschoolers' print concept skills improved more than did the print concept skills of youngsters who did not receive the print referencing strategy (Justice & Ezell, 2000). In yet another study, Ezell, Justice, and Parsons (2000) found that children with communication disorders made notable gains in their acquisition of print concepts when caregivers used print referencing behaviors in a 5-week intervention.

Although research indicates that explicit referencing strategies may be effective in facilitating print awareness, the relative contribution of *evocative* versus *non-evocative* techniques is less clear. Although the use of evocative techniques has been found to elicit children's responses during book reading, literacy activities, and other contexts (Olsen-Fulero & Conforti, 1983; Whitehurst et al., 1994; Whitehurst et al., 1988; Yoder & Davies, 1990), Justice, Weber, Ezell, and Bakeman (2002) found that for print concepts, children were no more likely to respond to print referencing prompts (evocative) than to comments (non-evocative). It is, in fact, Justice and Ezell's (2002) nonsignificant findings for print concepts that provide the foundation for the present research. In a study of print awareness using print-focused versus picture-focused book reading sessions, the investigators found no significant differences in knowledge of print concepts between groups of at-risk preschoolers. Although all children demonstrated gains, the findings imply that, for children who are at risk for literacy development, an explicit, evocative focus on print during book reading may not be a requisite for learning concepts about print.

The potential for using non-evocative, explicit referencing of print concepts during shared book reading is appealing for SLPs who work with children with language impairment for two reasons. Given that children with language impairment may be hindered by their oral language deficits in responding to adult utterances during book reading interactions, it is often necessary to employ strategies other than evocative techniques (i.e., explicit questioning and prompts). Also, non-evocative strategies may prove to be an effective adjunct to oral language intervention because the strategies are relatively non-intrusive and can be embedded into book reading, which may already be in place for the purpose of improving children's oral language skills.

THE PRESENT STUDY

The line of research reviewed here suggests that, in addition to shared book reading, the adult use of specific strategies during the reading event is an effective means of facilitating the development of print concepts that are important for literacy acquisition. Although the literature has indicated that children's verbal responses increase when adult prompts or explicit questioning are incorporated in the book reading event, what remains unknown is the extent to which the primary use of comments about print, pointing to print, and tracking print improve children's print concept development in children who are at risk for later literacy difficulties. The present investigation sought to determine if providing cues that carried no

obligation for children to respond would stimulate development of knowledge of concepts of print. Specifically, this study addressed the following research question: To what extent does the use of non-evocative, explicit print referencing cues during shared book reading in the context of language intervention facilitate print concept knowledge in children with language impairment?

METHOD

Research Design

A single-subject, multiple probe design (Horner & Baer, 1978) replicated across participants was used to evaluate the learning of print concepts that were presented during language intervention sessions. In the context of this study, experimental control is demonstrated when an abrupt improvement in print concept knowledge occurs after the procedure for input on print concepts is implemented for each participant while performance of participants remaining in the baseline condition remains relatively constant.

Participants

School SLPs identified 11 preschool children who met prerequisite criteria for inclusion in the study, including (a) normal corrected vision, (b) hearing abilities within normal limits, (c) ability to attend to task for approximately 30 min when provided with some redirection, (d) presence of a language impairment as the primary disability, and (e) an individualized education plan (IEP) containing semantic goals. Students receiving intervention for semantic deficits were targeted for two reasons. First, demonstrating that print concept knowledge could be developed via a non-evocative, explicit referencing strategy during shared reading for children who, based on needs identified in the IEP, have difficulty acquiring concept knowledge would be a powerful demonstration of the effectiveness of the strategy. Second, the vocabulary words targeted in language intervention are depicted in many children's books and can be incorporated easily into shared book reading activities.

The 11 children who met the prerequisite criteria were administered the Concepts of Print Assessment (CPA), a measure of print concept knowledge that was prepared for use in this study and was administered by the first author. (Details about the CPA are found later in the Materials section of this manuscript and in Appendix B.) Only those children who scored at 35% or less accuracy on the CPA were eligible for inclusion in the study. Consent forms were sent to the parents of all 7 children who met the inclusion criteria. Although all consent forms were returned, only 5 of the children were enrolled in the study due to scheduling problems.

Participant description. Participants included 4 females and 1 male ranging in age from 4;0 (years;months) to 5;0. All children were Caucasian and were native English speakers. They were enrolled in different classrooms and received language intervention services in the classroom. Three participants also received services for articulation deficits, but all children were intelligible to the investigator.

To obtain more detailed information about the capabilities and specific IEP goals for these 5 children, school records were examined. Records showed that the Batelle Developmental Inventory (BDI; Newborg, Stock, & Wnek, 1984) was administered to

students before their enrollment in the preschool during the fall before implementation of the study. The BDI assesses key developmental skills in five domains: (a) personal-social, (b) adaptive, (c) motor, (d) cognitive, and (e) communication. Children who performed below the school's level of acceptance on any domain received supplemental assessments to determine the necessity for special services. All 5 participants performed below acceptable levels on the communication domain of the BDI and were subsequently evaluated by the school's SLPs. All participants were administered the Preschool Language Scale—3rd Edition (PLS-3; Zimmerman, Steiner, & Pond, 1992), and 3 participants were administered the Goldman-Fristoe Test of Articulation—2nd Edition (GFTA-2; Goldman & Fristoe, 2000). One participant was also given the Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1994/1995). Table 1 presents participants' scores on standardized language and speech tests.

Katrina, age 5;0, received intervention for articulation and language deficits. Her performance on the BDI was summarized as commensurate with similar-aged peers in the personal-social, adaptive, motor, and cognitive domains and below expected levels in the communication domain. *Ivan*, age 4;0, received intervention for articulation and language deficits and occupational therapy services for sensory deficits. His performance on the BDI was described as commensurate with similar-aged peers in the personal-social, adaptive, and cognitive domains and below expected levels in the communication and motor domains. *Monica*, age 4;2, received intervention for language deficits. Her performance on the BDI was summarized as slightly below her peers in the personal-social, adaptive, and motor domains; commensurate with similar-aged peers in the cognitive domain; and below expectations in the communication domain. *Vivian*, age 4;5, received intervention for articulation and language deficits. Her performance on the BDI was described as below that of similar-aged peers in all domains. Her PLS-3 total language standard score was judged to be an overestimate of her language abilities. Vivian was unwilling to separate from her mother, who assisted her during testing. Results of the Vineland Adaptive Behavior Scales (Sparrow et al., 1994/1995), which were administered due to concerns about overall development, placed Vivian in the fifth percentile. Near the end of the school year, Vivian was referred for an evaluation to assess the need for additional services. *Brooke*, age 4;6, received language intervention. Her performance on the BDI was summarized as significantly below her similar-aged

Table 1. Participant scores on standardized language and speech tests.

Participant	Sex	Age (years;months)	PLS-3		GFTA-2	
			Standard score	Percentile	Standard score	Percentile
Katrina	F	5;0	75	5	64	2
Ivan	M	4;0	81	10	73	6
Monica	F	4;2	81	10		
Vivian	F	4;5	81	10	74	9
Brooke	F	4;6	72	3		

Note. PLS = Preschool Language Scale—3rd Edition (Zimmerman, Steiner, & Pond, 1992); GFTA-2 = Goldman-Fristoe Test of Articulation—2nd Edition (Goldman & Fristoe, 2000). Standard scores for the PLS-3 ($M = 100$, $SD = 15$); Standard scores for the GFTA-2 ($M = 100$, $SD = 15$).

peers in the personal–social, motor, and cognitive domains and moderately below her peers in the communication and adaptive domains.

Setting

The study was conducted at an early learning center that offers districtwide preschool and kindergarten programs to approximately 700 children. The center operates in a child-centered, inclusive environment that offers high-quality, innovative programs that serve as models for other programs in the state. Program eligibility is based on reduced family income or identified need for special services, with limited enrollment available for typically achieving children who pay tuition. The children, ranging in age from 3 to 6 years old, attend school for 3 hr 4 days per week. Special services such as speech-language pathology, occupational therapy, and physical therapy are typically offered in the classroom.

The first three baseline probes and the generalization probes were conducted individually in the speech-language therapy room. Language intervention sessions and all other probes were conducted in participants' classrooms. Approximately 20 children, a certified teacher, and three student teachers or adult assistants were present in the classrooms. Classrooms were organized into learning centers such as art, home, library, and toys. The curriculum included both teacher-led and child-selected activities, and children engaged in hands-on learning through the use of manipulative items and experiential activities. During the language intervention and probe sessions, other children in the classroom were engaged in activities of their choosing, and some children, on occasion, observed the intervention and probe sessions.

Materials

Books. Sixteen books were used during the study. The criteria for making our book selections were that the books (a) were age appropriate; (b) told a story; (c) contained illustrations with bright colors; (d) included the title, author's name, and illustrator's name; and (e) illustrated targeted language concepts. Table 2 lists the books that were used and the IEP language concepts that were targeted.

CPA. Percentage accuracy on the 20-item CPA served as the dependent variable. The CPA, which was developed for this study, was an adaptation of Clay's (1972) Concepts About Print task, a criterion-referenced tool that examines children's knowledge of print concepts in the context of shared book reading. Because Clay's task was developed for children who are already reading, it was modified for use in this study by removing the most difficult items and expanding the number of items pertaining to pre-reading skills. The CPA is similar to tools that have been used in other literacy studies (Clay, 1972; Justice & Ezell, 2000) to assess print and book concept knowledge. It contains four items that assess print forms, six that assess print conventions, four that assess book conventions, and two that assess both print forms and print conventions.

The CPA, which was administered during baseline and intervention probes, asked participants to perform tasks (e.g., "Show me a page in this book") and answer questions (e.g., "What does *author* mean?") that were posed by the investigator while examining a storybook together. Participants received a point for each acceptable response, for a possible total score of 20. The CPA, including the target concept, concept type, instructions for the investigator, and acceptable responses, is shown in Appendix A.

General Procedures

Before implementation of the study, participants received individual language intervention in the classroom from school SLPs. These sessions targeted IEP speech and language goals and were provided twice weekly for 30 min each, as stated in the IEP. Intervention sessions did not address the acquisition of literacy skills, including the print concepts targeted in this study. During the study, intervention provided by the school SLPs was suspended.

The study was conducted for 13 weeks during the spring semester of the school year. The first author conducted all sessions. After collecting baseline data, the experimental condition was implemented for 2 participants; the remaining participants stayed in the baseline condition. Probes were administered to each participant after every fourth language intervention session. When a participant met the established criterion of learning six print concepts more than was obtained during the final baseline probe, intervention was implemented

Table 2. Books and targeted language concepts.

<i>Week</i>	<i>Book</i>	<i>Concept</i>
Baseline	<i>The Very Hungry Caterpillar</i> (Carle, 1994)	
Baseline	<i>May There Always be Sunshine</i> (Gill, 2001)	
Baseline	<i>There's Something in my Attic</i> (Mayer, 1992)	
1	<i>The Napping House</i> (Wood, 1984)	Above/below
2	<i>Big Red Barn</i> (Wise Brown, 1989)	Above/below
3	<i>All by Myself</i> (Mayer, 2001)	Together/apart
4	<i>If You Give a Mouse a Cookie</i> (Numeroff, 1985)	Together/apart
5	<i>There's an Alligator Under my Bed</i> (Mayer, 1987)	Around/through
6	<i>Owen</i> (Henkes, 1993)	Around/through
7	<i>When Dinosaurs Go to School</i> (Martin, 1999)	Part/whole
8	<i>If You Give a Moose a Muffin</i> (Numeroff, 1991)	Part/whole
9	<i>Meet Gator</i> (DePrisco, 2002)	Smooth/rough
10	<i>The Kissing Hand</i> (Penn, 1993)	Smooth/rough
11	<i>If You Take a Mouse to the Movies</i> (Numeroff, 2000)	Above/below
12	<i>Wemberly Worried</i> (Henkes, 2000)	Above/below
13	<i>There's a Nightmare in my Closet</i> (Mayer, 1968)	Together/apart
Generalization	<i>Spot Can Count</i> (Hill, 1999)	

with another participant. Participants remained in the experimental condition until the study concluded at the end of the semester.

Full baseline probe. Before intervention, each participant was probed for knowledge of print concepts three times, 1 week apart, using the CPA. These 10-min sessions were conducted individually in the therapy room. Seated to the right of the child, the investigator placed the book on the table in front of the child and said, "Today we are going to look at this book. I will ask you to do some things and then we will read the book." After completing the CPA, the investigator read the book aloud. A different book was used for each baseline probe, and the list of these books is found in Table 2. Praise was provided for attending behaviors only.

Baseline condition. Language intervention sessions focused on participants' IEP goals, including developmentally appropriate, relational words. The words were presented cyclically; that is, five pairs of concepts were targeted in succession for 2 weeks and were recycled (i.e., re-presented) after 10 weeks. Concept pairs included above/below, together/apart, around/through, part/whole, and smooth/rough. The investigator collected data about concept attainment weekly for the purposes of monitoring IEP goals.

The participant and investigator worked at a table, on the floor, or at learning centers. Focused stimulation in the context of object manipulation, experiential activities, and storybook reading was used to facilitate learning of targeted IEP language concepts. Focused stimulation consisted of arranging intervention sessions where the SLP provided a high density of models of language targets and opportunities for the child to produce targets in obligatory contexts (Paul, 2001).

During the final 10 min of each session, the investigator read a storybook aloud. The investigator and participant sat next to each other on the floor or at a table, and the book was positioned so that both the investigator and participant could see the book easily. The books were carefully evaluated and selected so that those providing multiple depictions or opportunities to discuss the targeted IEP language concepts were used. While the investigator read the book, she provided input on language concepts multiple times in the context of the story. For example, when targeting the concepts *above* and *below*, a page from the storybook *The Napping House* (Wood, 1984) was read in the following manner: "And on that child there is a dog, a dozing dog on a dreaming child on a snoring granny...look, the dog is *above* the boy and the granny is *below* the boy." Using the same story, the investigator continued to comment on pictures and text that demonstrated the concepts *above* and *below*, asked questions about the pictures and story to elicit target concepts from the participant, and used the story as a starting point for discussing other examples of *above* and *below*. Two books were read for each concept pair, one book per week.

Experimental condition. In the experimental condition, intervention was conducted as described in the baseline condition with the exception that explicit, scripted input on concepts of print was incorporated during storybook reading along with input on targeted IEP language concepts. The scripted input included the non-evocative strategies of commenting, tracking, and pointing to examples of 20 print-related concepts. The targeted concepts were those found on the CPA, but the order of presentation was different. In contrast to the CPA, which requires participants to demonstrate print concept understanding by following directions or providing verbal explanations, participants were not expected to respond to input regarding the print concepts during the experimental condition. However, spontaneous comments regarding print concepts

were acknowledged by the investigator by agreement with the comment or corrective feedback. The script is provided in Appendix B.

Periodic probes. The CPA was administered to assess students' knowledge of print concepts after each participant's fourth language intervention session using a book that was not previously read. The book that was used for the periodic probe was always the same book that was to be used for the next week of intervention. For example, the book that was used for the probe at the end of the first four sessions at the end of the second week was *All by Myself* (Mayer, 2001), which was the book that was to be used during the third week of the intervention. Table 2 shows the list of books that were used. The CPA was conducted in the classroom and introduced by saying, "This is our new book. I will ask you to do some things with it and then we will read it." Verbal praise was provided for attending behaviors only.

Generalization probe. To assess generalization, items on the CPA were modified to assess print concepts in a different order using different tasks. For example, the participant was given a marker and a copy of a page from a book and instructed to "draw a circle around just *one word*." In another example, the participant was given a book and asked to "tell me something you see on the *front* of this book." The book genre was changed from a storybook to *Spot Can Count* (Hill, 1999), a counting book with pop-ups, and copied pages from the counting book were used for some tasks. The generalization probe was conducted individually in the therapy room. While seated at a table to the right of the child, the investigator placed the book, pages printed from the book, and manipulatives on the table in front of the child and said, "I am going to ask you to do some things while we look at this book." Praise was provided for attending behaviors only.

Reliability

The second author collected reliability data for the dependent measure and for fidelity to procedures through direct observation. These observations were distributed across participants and across the duration of the investigation.

A point-by-point method was used to calculate interrater reliability for CPA scoring. Using this method, the investigator and the observer scored participants' responses concurrently for 23% of the probe sessions. Completed scoring forms were compared, and percentage reliability was calculated by dividing the total number of scoring agreements by the total number of agreements plus the number of disagreements between the investigator and observer and multiplying the total by 100. Dependent measure reliability data yielded a mean percentage agreement of 97% (range = 95%–100%).

Procedural reliability for the intervention sessions was calculated by dividing the number of scripted nonverbal and verbal investigator behaviors that were noted by the observer by the total number of scripted behaviors required according to the script and multiplying by 100 (Billingsley, White, & Munson, 1980). The second author observed 27% of the baseline sessions and 25% of the experimental sessions and recorded the presence of required behaviors on the script scoring sheet. This percentage was selected based on the recommendation by Wolery and Holcombe (1993) that procedural reliability be calculated for 25% of the sessions. Procedural reliability was calculated at 100% for baseline sessions and at a mean of 96% for the experimental sessions (range = 92%–100%).

Procedural reliability for probe administration was collected for 23% of the probe sessions by dividing the number of scripted nonverbal and verbal investigator behaviors noted by the observer by the total number of behaviors required according to the CPA script and multiplying by 100. Mean percent agreement was calculated at 98% (range = 95%–100%).

Data Analysis

To assess the effectiveness of the procedure in improving participants' knowledge of print concepts, data were examined individually and collectively. Percentage correct performance on the CPA was calculated and graphed using acceptable graphing procedures for multiple probe research designs across subjects (Holcombe, Wolery, & Gast, 1994) so that comparisons within and across participants could be readily observed. Visual inspection was used to compare participants' performance and to provide evidence of experimental control. Specifically, graphs were examined for stability and levels of performance during baseline, abrupt improvements in performance following implementation of the experimental procedure, performance trends for probes subsequent to implementation of the experimental procedure, and results on the generalization probe. Percentage of non-overlapping data (PND; Scruggs, Mastropieri, & Casto, 1987). was calculated as an additional measure of effectiveness of the experimental procedure. Finally, performance on each of the 20 print concepts was aggregated and examined to identify trends in concept learning across participants.

RESULTS

Participant data are shown in Figure 1. The sessions conducted are shown on the *x* axis, and percentage accuracy on the CPA is shown on the *y* axis. Each data point represents CPA probe results. The vertical bars indicate changes in condition (baseline, experimental, generalization). Line breaks between data points also indicate a change of condition, and participant absences between probes within a condition are indicated by a dotted line.

Visual inspection shows that the use of non-*evocative*, explicit referencing during shared book reading resulted in improved print concept knowledge for all participants. In every case, children's performance on the CPA during the baseline condition remained low and stayed at or near the percentage correct obtained during the full baseline probe. Upon implementation of the print concept procedure, all children demonstrated an immediate, abrupt improvement in their performance on the CPA, and performance stayed above baseline levels for all remaining probes and for the generalization probe. Visual inspection also shows that the experimental procedure resulted in a PND of 100% for each participant (i.e., no treatment data points overlapped with baseline data points).

Examination of the group data shows that the mean accuracy for probes that were administered during the baseline condition ranged from 14% to 30% across participants. Overall mean accuracy for the 5 participants on final baseline probes that were conducted immediately before implementation of the experimental condition was 24% (range = 15%–35%).

Following implementation of the experimental condition, performance on the CPA increased markedly for every participant, with overall mean accuracy for the first probe in the experimental

condition nearly double that of the final baseline probe at 46%. Interestingly, participants performed similarly on the first probe in the experimental condition at either 45% or 50% accuracy, regardless of their performance on the final baseline probe. Performance on subsequent probes was somewhat variable, with participants showing improvement overall.

Analysis of participant performance over time during the experimental condition is difficult because 1 participant (Brooke) completed only one probe in the experimental condition, another (Vivian) completed two probes, a third (Monica) completed three probes, and only 2 participants (Katrina, Ivan) completed five probes. Performance on the final intervention probe was quite variable (range = 35%–80%), which might be expected because participants were in the experimental condition for varying lengths of time. Nevertheless, mean accuracy for the final probe for the 4 participants who were in the experimental condition for more than one probe trial was 58.76%, which represents improvement over the first intervention probe. The 3 participants who were in the intervention condition the longest obtained the highest scores on the final intervention probe.

Overall mean accuracy on the generalization probe declined from the final intervention probe to 46% (range = 35%–50%), although every participant performed better on the generalization probe than on baseline probes. Two participants (Brooke, Vivian) obtained identical scores on the generalization and final experimental probes, but the remaining participants declined in their performance on the generalization probe. Although the length of time between the final experimental probe and the generalization probe differed due to absences, increased length of time between probes did not predict the amount of reduction in performance.

Although failure of participants to participate in every experimental probe makes it difficult to identify patterns of performance on specific print concepts, some general observations can be made. Table 3 shows the probe type, number of participants who completed each probe, and a list of print concepts that were identified correctly by all or none of the participants. It should be noted that the number of participants taking the experimental probes declined from 5 to 2 over the course of the study. Because the number of participants varied across the experimental probes, percentage accuracy for concepts that were identified correctly by only some participants does not yield meaningful comparisons across probes and, therefore, is not provided.

In general, the number of concepts that were identified correctly between the final baseline and the first experimental probe by all participants increased, and the number of concepts that were identified incorrectly by all participants decreased. No concepts were identified correctly during the final baseline probe by all participants, but nine concepts were identified incorrectly by all participants. These concepts included book conventions, print conventions, and print forms. Six print concepts were identified correctly by all participants at the onset of the experimental condition, with five of them representing book conventions.

The number of correctly identified concepts continued to increase over the remaining experimental probes and then declined on the generalization probe, whereas the number of incorrectly identified concepts remained relatively steady. The 2 participants who completed all five experimental probes correctly identified the same 11 concepts at the end of the experimental condition, including 6 of 10 book concepts, 2 of 8 print conventions, and 1 of 2 print forms. They correctly identified concepts that required knowledge of both

Figure 1. The percentage of correct responses for all participants during baseline, experimental, and generalization probe sessions.

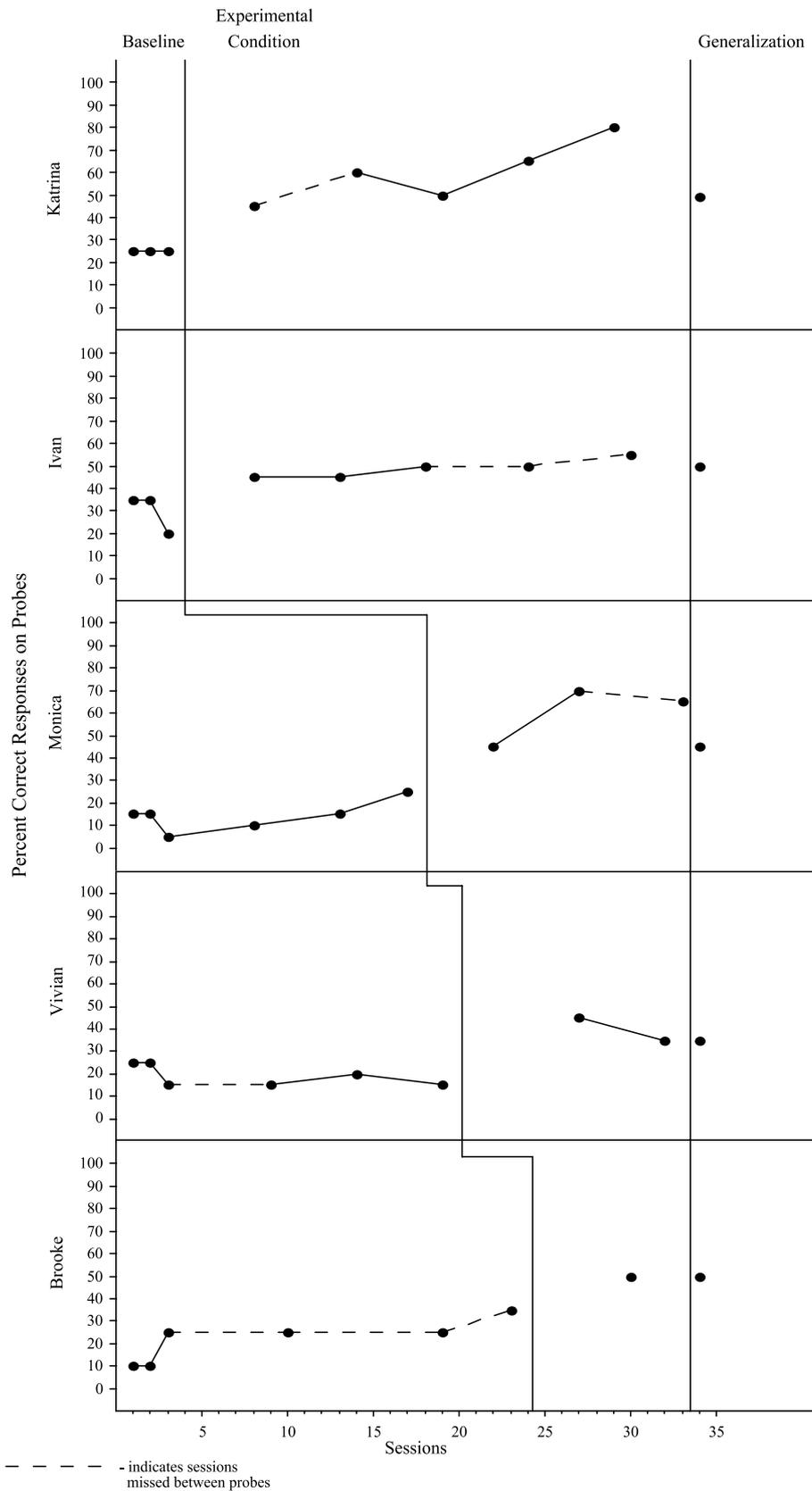


Table 3. Print concepts identified by all or none of the participants for each probe.

<i>Print concept</i>	<i>Final Baseline</i> (n = 5)	<i>Exp Probe 1</i> (n = 5)	<i>Exp Probe 2</i> (n = 4)	<i>Exp Probe 3</i> (n = 3)	<i>Exp Probe 4</i> (n = 2)	<i>Exp Probe 5</i> (n = 2)	<i>Gen Probe</i> (n = 5)
Illustration		All		All	All	All	All
Print							
Page		All	All	All	All	All	All
Front		All	All	All	All	All	
Top		All		All		All	All
Bottom				All	All	All	
Begin reading	None				None	None	None
Left to right	None		All			None	None
Top to bottom		None					
First line print on next page	None		All	All	All	All	None
Letter	None			None	None	All	None
Word		All			All		
First Letter				All		All	
Last Letter	None			None		All	
Title	None	None	None	None		None	
Beginning of story	None		None	None			
End	None		None	None	None	All	None
Author	None	None	All	None	None		
Illustrator		All		All	All	All	All
Back							
Total concepts identified by:							
All participants	0	6	5	8	7	11	4
No participants	9	3	3	5	4	4	5

print conventions and print forms. Both erred on one book convention, three print conventions, and one print form item. All other concepts were identified by only 1 of the 2 participants. An examination of the concepts that were identified according to concept type (book convention, print convention, print form) reveals no clear pattern in the concept types that were learned most easily. In fact, concepts representing all three types were found among the concepts learned by all participants and among those that were never learned.

All 5 participants completed the generalization probe. Interestingly, all four concepts that were identified correctly by all participants pertained to book conventions. All participants missed both print form concepts, one book convention concept, and two print convention concepts.

Individual Performance

Figure 1 shows that Katrina consistently scored at 25% accuracy on baseline probes. Her score increased to 45% accuracy on the first probe following implementation of the experimental condition, representing a clear increase in learning of print concepts. Although she was absent between the first and second experimental probes, she continued to improve to 60% accuracy on the second probe. Her performance on subsequent probes was somewhat variable, but she continued to improve overall, earning a score of 80% on the final probe. Katrina's final experimental probe score was the highest of any participant. However, her performance on the generalization probe declined to 50%, which was only slightly higher than her score on the initial experimental condition probe, but twice as high as in the baseline condition. The decline from 80% to 50% accuracy was the largest drop of any participant, and it should be noted that the gap (five sessions) between the last experimental probe and the generalization probe was the most for any participant.

Ivan showed a decelerating trend during baseline, with an overall mean of 30% accuracy and 20% accuracy on the final baseline probe. Following implementation of the experimental condition, Ivan's score more than doubled to 45% accuracy on the first probe. His performance on the remaining experimental probes showed gradual improvement, with a score of 55% accuracy on the final probe. Although the effect of Ivan's absences before the final two experimental probes is unknown, the performance trend remained similar across all experimental probes. His performance declined slightly to 50% accuracy on the generalization probe.

Monica stayed in the baseline condition while the experimental phase was initiated for Katrina and Ivan. Monica's baseline performance was variable but showed a slight accelerating trend, with a mean accuracy of 14% and 25% accuracy on the final baseline probe. Although this accelerating trend during baseline is worth noting, results of the first experimental probe showed a sharp improvement to 45% accuracy, which was beyond what would have been expected based on the baseline trend. Following the first experimental probe, Monica's therapy schedule was changed to an earlier time in an attempt to reduce off-task behavior. Her behavior improved, and she continued to improve dramatically to 70% accuracy on the second experimental probe. Her score declined slightly to 65% accuracy on the final probe following her only absence. On the generalization probe, Monica declined to 45% accuracy, the same score that was achieved on the first intervention probe.

Vivian demonstrated a variable, but slightly decelerating, trend during baseline, with a mean score of 19% accuracy and 15% accuracy on the final baseline probe. Once in the experimental condition, Vivian missed three sessions before administration of the first experimental probe. Nevertheless, Vivian's score tripled to 45% accuracy on the first probe. This increase between the final baseline probe and the first experimental probe was the greatest of any

participant. Her performance declined to 35% accuracy on the second experimental probe and on the generalization probe.

Brooke was frequently absent, missing a total of eight sessions. Her performance during baseline showed an accelerating trend, with an average of 22% accuracy. She increased from 10% to 25% accuracy between the second and third baseline probes, and it was later learned that the improvement followed instruction related to two probe concepts (front, back). Her performance rose to 35% accuracy on the final probe. It should be noted that the final baseline probe was administered after three sessions instead of four in order to implement the experimental procedure before conclusion of the study. Following introduction of the experimental condition, Brooke improved to 50% accuracy on the first probe, despite two additional absences. The improvement in accuracy exceeded what would have been expected based on the baseline trend. Brooke's performance on the generalization probe remained at 50% accuracy.

In summary, a reliable demonstration of experimental control was shown as all participants demonstrated a change in correct responding to the concepts of print upon entering the intervention. In addition, some participants spontaneously demonstrated learning of new print concept information during the shared book readings that were conducted in the experimental condition. For example, when reading the book *If You Take a Mouse to the Movies* (Numeroff, 2000), Monica responded, "There's no *print* on this page." Similarly, unaware that a probe was to be completed before reading the book, Katrina responded, "No, we have to start reading at the *beginning*." Neither participant demonstrated knowledge of these concepts during baseline probes, suggesting that they began to understand the distinction between the characteristics of print and pictures, which is necessary to literacy learning.

DISCUSSION

Results of this study demonstrate that preschool children with language impairment learned print concepts that were presented in a non-evocative, explicit referencing format during shared book reading within the context of language intervention. Specifically, data for all participants revealed that correct responding on print concepts improved markedly on the first probe administered after only four 10-min shared book reading sessions that included the print referencing procedure. Participants continued to learn print concepts with repeated input. Although performance declined for the generalization probe, results showed that children applied their knowledge of some print concepts across book genre, task, and setting.

This study strengthens and extends the emerging body of research regarding the use of explicit print referencing procedures in the context of shared book reading (Justice & Ezell, 2000, 2002; Ezell et al., 2000) to include use by SLPs for children with language impairment in the context of language intervention. Study findings also go beyond previous research that used both evocative and non-evocative strategies (Ezell & Justice, 2000; Ezell et al., 2000; Justice & Ezell, 2000, 2002, 2004; Justice et al., 2002) by showing the effectiveness of a strictly non-evocative, explicit referencing approach that is non-intrusive and is implemented secondarily to intervention on targeted language goals. Finally, this study indicates that learning print concepts is not explicitly tied to adult use of evocative behaviors, and is consistent with the Justice and Ezell (2002) findings that children learned print concepts equally well regardless of whether input was evocative or non-evocative.

Results of this study also suggest that print concept learning in children with language impairment requires implementation of a systematic, explicit print referencing procedure. The children in this investigation, which commenced during the second semester of the school year, knew an average of only four print concepts that were assessed at the onset of this study. This suggests that, although the teachers regularly engaged in shared reading activities, their use of a print focus during book reading was either infrequent or ineffective, at least for these children. Further, when the children engaged in twice weekly, shared book reading with the investigator without explicit print referencing during the baseline phase, knowledge of print concepts did not improve. Although it was predicted that repeated administration of the CPA might result in increased accuracy by drawing repeated attention to print concepts, children still failed to improve. It is important to note that children's performance improved dramatically *only* after implementation of the print referencing strategy, indicating that explicit reference to print was necessary in order for children to acquire print concepts.

An examination of the specific print concepts that were learned suggests that some concepts are more amenable to learning when they are presented during storybook reading than others. For example, children seemed to quickly learn and largely maintain concept knowledge related to the orientation of books (front, top, bottom, back). Conversely, children continued to demonstrate difficulty with selected print conventions (where to begin reading, reading from left to right). Also of interest is the finding that the only print concepts that were responded to correctly by all children on the generalization task pertained to book conventions (illustration, page, top, back).

There are several possible reasons why participants learned some print concepts more readily than others. First, it is likely that some print concepts or concept types are developmentally acquired earlier than others so that the later developing or more obscure print concepts may require more direct, explicit instruction. Second, it is possible that some concepts are more easily demonstrated in a non-evocative, explicit referencing format than others. For example, holding the book and saying, "Let's look at the *front* of this book," may have been less ambiguous than indicating that one reads from *top-to-bottom* on a page by tracking with an index finger while reading aloud. A third explanation may be that some concepts are more salient in the routines of preschool children. For example, several of the concepts that were learned by the participants included terms that are commonly used in the classroom. When transitioning between activities that require children to form a line (e.g., going to the cafeteria), there is often a line leader who is "first" or at the "front" of the line and a child who is at the "end" or "back" of the line. These familiar routines provide multiple opportunities to interact with the concepts in various contexts, which may facilitate learning. Finally, the ability to demonstrate print concept knowledge may have been influenced by the topography of the required response on the CPA. For example, it may be easier for a child to point to the *top* of the page than to close a paper curtain to show the *last* letter of a word or tell what an *illustrator* does.

LIMITATIONS

This study has several limitations. The first limitation involves participant attendance. Three participants (Katrina, Ivan, and Monica) missed one session; Vivian missed four sessions, with three

of them occurring between the final baseline and first experimental probe; and Brooke missed eight sessions. The effects of absences on the results are unknown; however, it is clear that more probes could have been administered with improved attendance.

A second limitation involves the measure that was used to assess the learning of print concepts. Serving as the dependent measure, the CPA was designed specifically to measure the concepts targeted in this study, and thus is an informal, nonstandardized instrument. This measure was a modification of tools informed by extant literature, and administration of this instrument to “typical” preschool children revealed that they responded correctly to most items. However, test–retest reliability and validity have not been established. In addition, careful attention to a more equal distribution of concept types might have made the tool more useful in the analysis of types of concepts learned.

The use of different books during the baseline and periodic probes is a third limitation to the study. These books were the same as those that were used during the intervention, but they were used for the probes before being used for the intervention. Although book selection was based on certain criteria, as noted in the Materials section, there clearly are differences between books, and these differences may have been a factor in participants’ performance on the CAP.

Although inconclusive, a fourth potential limiting factor may be that the findings of this investigation may have been different with children who were less motivated toward book reading activities. Previous research suggests that even in a potentially print-rich environment where caregivers provide numerous literacy socializing experiences, children with impaired language skills may avoid situations that tax their cognitive abilities (Lundberg, 1998; Marvin & Wright, 1997). A fifth limitation may be that all books did not feature large, contextualized print. Although explicit reference to print was a major focus of this investigation, it is not known if the findings would have been different if all books were similar in their print features.

A final limiting factor is the generalization measure. The investigators simultaneously altered several aspects of the task, including the book type, setting, and tasks required, thus making it difficult to identify which factors may have contributed to lowered scores on the generalization task.

CLINICAL IMPLICATIONS

This investigation provided evidence that early literacy skills can be taught in the context of book reading during language intervention. In fact, the consistent use of explicit, non-*evocative* cues for a relatively short time period (i.e., twice weekly during 10-min shared reading activities) can be sufficient in stimulating the development of concepts that are important for literacy acquisition for children who are at risk for literacy achievement.

For SLPs, use of the non-*evocative*, explicit referencing strategy described in this study provides a means for assisting young children with language impairment to acquire emerging literacy skills. This is particularly important because children who exhibit delayed language skills often demonstrate delayed literacy development (Boudreau & Hedberg, 1999; Gillam & Johnston, 1985; Marvin & Wright, 1997) and thus may benefit from intervention that targets processes that are crucial to both oral and written language.

Research in children’s language impairment regarding adult utterance types along with some theories of language and literacy

intervention (Fey, 1986; Lundberg, Frost, & Peterson, 1988; Olsen-Fulero & Conforti, 1983; Paul, 2001; Yoder & Davies, 1990) suggest that strategies that are used to facilitate early literacy and language development incorporate requests and prompts in a type of hierarchy, particularly for children with delayed language. With respect to this orientation of intervention strategies, the results of this investigation are particularly important given that the very nature of language impairment may adversely influence children’s verbal interactions or ability to respond. Consequently, using explicit, non-*evocative* strategies during book reading events may reduce the demand for children with limited linguistic abilities to feel obligated to respond to questions or requests that are beyond their capability.

FUTURE DIRECTIONS

The present study indicates a number of areas for future research. First, the impact of the procedure on the acquisition of targeted oral language intervention goals needs to be determined. Although the periodic data that were collected by the investigator showed that all children made progress on their IEP semantic-language objectives while concurrently learning print concepts, the present study was not designed to ascertain whether the presentation of print concepts impacted children’s learning of targeted language goals. Although the presentation of print concepts was intended to be non-*intrusive* and to function as a “value-added” activity during language intervention, it is possible that the procedure was distracting to children and hampered progress on their IEP goals. Future research designed to assess the acquisition of print concepts *and* targeted language goals will be important in assessing the benefit of this strategy in the context of language intervention.

Second, additional research is needed to determine which concepts are most amenable to this approach to instruction and to determine how much repetition is required to learn concepts. Because implementation of the procedure sequentially across subjects was necessary to demonstrate experimental control, participants did not receive equal numbers of intervention sessions. In addition, the instrument used to assess concept attainment—the CPA—represented several types of print concepts (book conventions, print conventions, print forms), but there was no attempt to ensure that the concepts were represented equally. Future research that more carefully addresses the types of concepts assessed and that provides the same number of intervention sessions for all participants will help in determining which concepts and types of concepts may be easily learned using this procedure and which may require more direct instruction.

Third, a more systematic assessment of generalization is needed. The utility of the procedure is largely dependent on whether learning can be maintained and generalized to other settings and stimuli. Results of this study showed reduced accuracy on the generalization measure. However, the generalization task involved changes in the setting, book type, and test stimuli, so it is not possible to determine which aspects of the generalization task were most problematic. Because this study ended at the conclusion of the school year, it was not possible to establish whether print concept knowledge was maintained once the intervention ended.

Fourth, although the experimental design controlled for influence of teacher input on print concepts during the course of the investigation, it was impossible to gauge the influence of home experiences on individual participants. Marvin and Wright (1997)

suggested that parents of children with language impairment may be less likely to engage in the linguistic nature of literacy activities at home. Thus, there is a need for a more complete understanding of how literacy experiences at both home and school influence literacy development for children with language impairment. Finally, systematic replication of this work is required to more fully assess the use of a non-evocative, explicit referencing strategy to facilitate print concept knowledge across settings and populations.

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APPENDIX A. CONCEPTS OF PRINT ASSESSMENT

<i>Concept</i>	<i>Type</i>	<i>Investigator task</i>	<i>Investigator verbal instruction</i>	<i>Acceptable response</i>
Illustration	BC	Open book to page that has illustrations & print.	Look. Show me an illustration.	Points to picture
Print	BC	Open to another page that has illustrations & print.	Show me the print.	Points to text
Page	BC	Turn to page 3.	Show me a page in this book.	Holds on to or grasps a page
Front	BC	Present book upside down & backward.	Show me the front of this book.	Rights book & indicates front
Top	BC	Turn to another page.	Show me the top of this page.	Points to top edge or toward top
Bottom	BC	Turn to next page.	Show me the bottom of the page.	Points to bottom portion of page
Begin reading	PC	Show page to child. Page has more than 1 line of text.	Show me with your finger where I should begin to read.	Points to first line on page
Left to right	PC	Continue to show page to child.	Show me which way I go to read the page.	Gestures left to right movement on page
Top to bottom	PC	Same as above	Where do I go next to keep reading?	Gestures top to bottom movement on page
First line of print on next page	PC	Find page with print on both pages.	Where do I go when I finish this page (point to bottom of 1st page)?	Points to 1st line of print on next page
Letter	PF	Show child how to use card to close "curtains" over window.	Let's put some of the story in this window. Close the curtains until I can just see 1 letter.	Closes curtain to display 1 letter
Word	PF	Open "curtains."	Close this until we can see just 1 word.	Closes curtain to display 1 word
First Letter	PF/PC	Open "curtains."	Use this to show the 1st letter in a word—any word.	Closes curtain to show only 1st letter of word
Last letter	PF/PC	Open "curtains."	Use this to show the last letter in a word—any word.	Closes curtain to show only last letter of word
Title	BC	Close book & pass to child.	Show me the title of this book.	Points to title on cover, fly leaf, or title page
Beginning of story	PC	Child holds book.	Show me the beginning of the story.	Opens book to 1st page & points to 1st line of text
End	PC	Child holds book.	Show me the end of the story.	Opens book to last page & points to last line of text
Author	BC	Show title page & point as you read.	It says here (read title aloud) & the author is (read author name aloud). What does author mean?	Says: She/he wrote it; made up the story (book)
Illustrator	BC	Show title page & point as you read.	It says here (read title aloud) and the illustrator is (read illustrator's name aloud). What does illustrator mean?	Says: She/he drew the pictures
Back	BC	Close book again.	Show me the back of the book.	Indicates back or last page

Note. BC = book convention, PC = print convention, PF = print form.

APPENDIX B. SCRIPT FOR INPUT ON CONCEPTS OF PRINT

<i>Print concept</i>	<i>Examiner activity & verbal comments</i>
Front	Hold book facing front. Say, "Let's look at the <i>front</i> of the book to see the name of it."
Title	Point to the title. Say, "The <i>title</i> of this book is (read aloud)."
Author	Point to author's name, then to illustrator's name. Say, "The <i>author</i> who wrote this book is (read name), and the <i>illustrator</i> who drew the pictures is (read name)."
Illustrator	
Page	Turn a page and say, "Now I'll turn the <i>page</i> ."
Beginning of story	Point to print at the top of the page. Say, "This is the <i>beginning</i> of the story."
Begin reading	I'm going to <i>begin</i> reading the story here." (Begin reading.)
Left to right	Read aloud while moving index finger <i>left to right</i> &
Top to bottom	<i>top to bottom</i> to indicate direction of reading.
First line on next page	At the end of the page, go to print on next page. Using finger, indicate <i>first line of print on the next page</i> . Say, "When I finish reading this page, I have to go to the next page."
Illustration	Point to a picture of targeted language concept and then to the print. Say, "This is a picture or <i>illustration</i> of (language concept)." Then say, "This is the <i>print</i> ."
Print	
Word	Point to or draw hand under word in text. If possible, find the printed language concept. Say, "Here is a <i>word</i> . This word says (word)."
Letter	Point to letters in a target word & count while pointing. Say, "Here are some <i>letters</i> —1, 2, 3."
First letter	Then point to the first letter and say, "The <i>first letter</i> in this word is (letter name)."
Last letter	Point to letter at the end of a word. Say, "Look, the <i>last letter</i> in this word is (letter name)."
Top	Point to an item at the top of the page. Say, "Look, ___ is at the <i>top</i> of this page."
Bottom	Point to an item at the bottom of the page. Say, "___ is at the <i>bottom</i> of the page."
End	Point to the last word in the book and say, "The <i>end</i> . The story is finished."
Back	Close the book and turn to the back. Say, "Let's see if there's anything on the <i>back</i> of the book."

Note. Activities and comments are made while reading the story aloud and providing multiple opportunities for input on the language target.

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