

Chapter Three

Fostering Print Awareness Through Interactive Shared Reading

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Many speech-language pathologists (SLPs) use storybooks as an important tool to support their targeting of clinical goals with a child, such as supporting narrative and vocabulary development. In the current political climate, which places a high premium on ensuring children's readiness for reading success, many SLPs are interested in evidence-based strategies that can effectively develop children's skills in areas linked to later reading success. Importantly, evidence from a wide variety of research paradigms, including case studies, correlational studies, and experimental studies, show that storybook reading can be used in a variety of ways to support children's earliest reading accomplishments.

In this chapter, we focus on one area of early reading development, namely, print awareness, and discuss how interactive storybook-reading experiences can be used to support children's early achievements in this area. The chapter is organized to first provide a general definition of print awareness, followed by a more specific description of how SLPs can incorporate a set of techniques that promote print awareness, termed *print referencing*, into their storybook-reading interactions with children. Research conducted by the authors and others, much of which is cited throughout this

chapter, provides empirical support for the potential of this technique to serve as an evidence-based means for developing children's skills in an area critically linked to later reading success.

What Is Print Awareness?

Print awareness is an umbrella term that describes children's early knowledge about print, much of which is developed long before children are introduced to formal reading instruction. Just as young children gradually acquire competencies in oral language, they too gradually develop an increasingly sophisticated understanding about how print works and what it does (e.g., Adams, 1990; Goodman, 1984, 1986). Although there is considerable variability among children in the timing by which they achieve these understandings, many young children arrive at kindergarten with at least a general sense of how print works and what it does (e.g., Ferreiro & Teberosky, 1982; Goodman, 1986; Mason, 1980; Snow, Burns, & Griffin, 1998). For instance, by 5 years of age, a typically developing child may pretend to write notes to her friends (producing some random marks and letters), may read a few signs in the environment, and may know some letters of the alphabet; all these accomplishments provide evidence that the child has developed at least a general understanding of what print is all about. Some behaviors fairly typical of a child just entering kindergarten that show achievements in print awareness include:

Recites the alphabet

Names several letters of the alphabet

Identifies letters in signs and logos in the environment

Distinguishes uppercase and lowercase letters

Signs creative works with own name

Identifies own name from an array of words

Pretends to read favorite storybooks or own writing

Uses terms specific to print and writing (e.g., *write*, *read*, *word*, *letter*)

- Identifies the first letter in a word
- Identifies the space between two words
- Tracks print from left to right
- Shows interest in words in the environment

This list is an informal one, taken in part from developmental expectations delineated by Snow et. al. (1998) and studies of children's development or performance on print-related tasks (e.g., Hiebert, 1981; Justice & Ezell, 2001; Lomax & McGee, 1987; Lonigan, Burgess, & Anthony, 2000; Mason, 1980). However, this list is not exhaustive and many more behaviors could be included as representative of young children's development of print awareness. It is not currently clear whether some behaviors are more important than others, or whether these achievements follow some sort of specified developmental order. What most experts do agree on, however, is that one of the earliest print-awareness accomplishments occurs when children develop an interest in print and come to recognize the functional nature of print—that is, that it carries meaning (Goodman, 1984; Justice & Ezell, 2004; Morrow, 1997). From this base, children gradually move toward developing more specific, code-based knowledge about print, such as understanding the distinction between letters and words and learning the names of individual alphabet letters (Ferreiro & Teberosky, 1982; Goodman, 1984; Lomax & McGee, 1987; Mason, 1980). Thus, we can view an interest in print, or print orientation, as a particularly important achievement in print awareness, representing the child's recognition that print is not only a specific type of environmental stimuli (which differs from others, such as photographs or illustrations), but also is one that carries information.

Given the large range of achievements in print awareness, some researchers have attempted to differentiate them into separate domains of development: (a) learning the functions of print, (b) learning the conventions of print, and (c) learning the forms of print (Justice & Ezell, 2001; Morrow, 1997). We discuss these three domains separately here, but ask readers to keep in mind an important caveat—it is not currently known whether print awareness is a multidimensional construct comprising several different developmental domains or if it is a unidimensional construct in which these different achievements actually represent achievements in a single

construct (Hiebert, 1981; Justice, Bowles, & Skibbe, 2006; Lomax & McGee, 1987; Lonigan, Bloomfield, Anthony, Bacon, Phillips, & Samuels, 1999). For our present purposes, we discuss these three domains of achievement in print awareness as if they are separate (albeit interrelated) constructs, but our distinctions are theoretically driven rather than empirically based.

Print Functions

Children's knowledge of the function of print—that print carries meaning—emerges early in life for many children reared in literacy-rich homes (e.g., Heath, 1983; Purcell-Gates, 1996; Sulzby, Teale, & Kamberelis, 1989; Teale, 1986; van Kleeck, 1990). This aspect of print-awareness development refers to children's recognition that print has a specific purpose, which at the most basic level is one of attributing meaning to print (e.g., this sign has print on it, the print must tell me something) (Justice & Ezell, 2004; Morrow, 1997). We see an awareness of print functions in children who are able to recognize familiar logos, such as restaurant signs or food packages (Lomax & McGee, 1987); although children who recognize logos are not reading these words in the environment in a traditional sense (i.e., through decoding), they do realize the functional value of print as a communication device (Masonheimer, Drum, & Ehri, 1984; Purcell-Gates, 1996; Reutzel, Fawson, Young, Morrison, & Wilcox, 2003). For this reason, we see children making some normal errors in their "reading" of environmental print, as may occur when a young child points to a fast-food sign and says "hamburger," or looks at a food package in the grocery store and says "cookies" or "chips." At this point, children's knowledge of print is highly contextualized and occurs on an incidental basis, resulting from their general orientation to familiar objects that contain print (Gillam & Johnston, 1985). Yet, many experts consider children's interactions with environmental print as a salient learning context in which children may apply their increasingly sophisticated knowledge of print (Burns, Griffin, & Snow, 1999; Goodman, 1986; Masonheimer et al., 1984; Reutzel et al., 2003). Put another way, as children explore the meaningful aspect of print occurring in their environments, they pull in their knowledge about letters and words; thus environmental print provides opportunities for children to apply and refine their understanding about print.

Relevant to this chapter is that much of children's early learning about the functions of print occurs through their interactions with storybooks (e.g., Snow & Ninio, 1986; Sulzby, 1985; van Kleeck, 1990). Storybooks containing print help children learn the distinction between pictures and print, both of which are symbol systems but differ in the way meaning is encoded, with pictures presenting information visually and iconically and print presenting information linguistically using the alphabetic code (Ezell & Justice, 2005; Ferreiro & Teberosky, 1982; Justice & Ezell, 2004; Smolkin, Conlon, & Yaden, 1988). Children who are reared in homes where parents read to the children and engage in reading for pleasure themselves may learn very early that print is a specific symbol system that conveys meaning in storybooks (e.g., Crain-Thoreson & Dale, 1992; Sénéchal, LeFevre, Thomas, & Daley, 1998; Snow & Ninio, 1986; Sulzby, 1985). Perhaps their parents clarify that the print helps to tell the story by pointing to lines of print or identifying certain words or letters. Or, because their experiences with storybooks are frequent, these children have more opportunities to invoke an understanding of the functionality of print. Importantly, children's developing awareness of the functional nature of print gradually emerges from a general understanding to a more precise awareness of how print functions can vary across different book genres or for different communicative purposes. And, as children seek out print because of their interest in its functional value, they come to learn more about its conventions and forms.

Print Conventions

Children's development of print awareness also involves their learning about the conventions of print: that it is a systematic, rule-governed body of symbols (Chaney, 1994). At the broadest level of knowledge regarding book conventions, children learn the rules by which print is organized in storybooks. For instance, they learn that the print on the cover identifies the title and author and that the print on narrative pages moves from left to right and top to bottom (e.g., Chaney, 1994; Hiebert, 1981; Justice; Bowles, & Skibbe, 2006; Justice & Ezell, 2001; Lomax & McGee, 1987). As an illustration of what children are learning, the fourth author's 3-year-old daughter, Addie, recently displayed her own knowledge of print conventions when she was helping her mother prepare a list of

children to be invited to her fourth birthday party. After her mother wrote down the name of one child, Addie explained, "I'll tell you another name and you need to put it under that one." As this snippet shows, Addie recognized that print used for lists has its own set of rules for how print is organized. Whether this discovery comes at 3 or 4 or 5 years of age, children who come to realize that print has its own rules will attempt to follow these rules on their own, such as when they attempt to write their name from left to right or instruct their parents where to start reading on the page of a book. As most parents and clinicians will realize, however, children's awareness of print conventions is a gradually emerging process (Justice et al., 2006; Morrow, 1997). For instance, children may produce writing that moves from left to right (showing their awareness of the convention of directionality), but they may divide a word in an atypical place and continue it at the start of a new line:



As children gradually refine their understanding of print conventions, one often will witness their ability to consider print conventions at a metalinguistic level. Any metalinguistic ability, concerning either oral or written language, reflects an ability to consciously discuss, manipulate, and/or analyze an aspect of language (e.g., Chaney, 1998). Just as children can take a metalinguistic focus on other aspects of language, as seen when children correct grammatical mistakes in sentences, children with an awareness of print conventions may begin to display a meta-level of awareness in interactions with others, as in the following exchange:

Adult: Let's read this book.

Child: We can't, it's upside down.

Adult: It's upside down?

Child: Yeah, and you can't read it like that.

Print Forms

Just as important as children's knowledge of the functions and conventions of print is their increasing knowledge about the different forms or units of print. For many children, print-form accomplishments achieved during the preschool years include distinguishing printed words from letters, differentiating uppercase from lowercase letters, knowing some (if not all) of the alphabet letters by name, and even recognizing some punctuation units (e.g., Clay, 2005; Justice & Ezell, 2001; Snow, et al., 1998; Treiman, Tincoff, & Richmond-Welty, 1997; Worden & Boettcher, 1990). These achievements emerge gradually and, even in the early elementary grades, students are still learning some of the more nuanced units of print, such as use of quotation marks (Clay, 2005).

One important accomplishment in the area of print-form development is achievement of a "concept of word in print" (Justice & Ezell, 2004). This refers to a child's awareness of words as the basic units of print that map onto words in speech. Many children at 4 and 5 years of age will use the word *word* in reference to print (e.g., "Mommy, read these words here"), yet have difficulty distinguishing a word from a letter on a page. For example, when looking at a page of letters, a young preschool girl might point to the letter *D* and say "That's Derek," the letter *B* and say, "That's Bill," and the letter *C* and say, "That's Candy." (These were all names of children in her class.) But should the teacher ask the same child to point to each word in a storybook, she may not be able to engage in word-by-word pointing; rather, she might run a continuous finger across an entire line of print or point to a letter. Concept of word in print represents one of the most sophisticated discoveries about print forms (Morris, Bloodgood, Lomax, & Perney, 2003) and is an important milestone on a child's journey toward discovering the alphabetic principle (Ehri, 1998; Morris et al., 2003). As Morris et al. (2003) suggest, when children come to view words as invariant units of print, this provides a frame for looking inward to the internal structure of words for deeper analysis of the phonological and orthographic elements of written language.

In considering these three areas of print awareness, it is important for SLPs to understand that there is wide variation among children in the timing of their developments in each area (e.g., Hiebert, 1981; Lomax & McGee, 1987; Mason, 1980). For

instance, one child may recognize the functional nature of the title of a book at 18 months, whereas another child may not develop this understanding until 4 or 5 years of age. This variation occurs in large part due to the influence of environmental exposure on print-awareness development, with higher frequency and quality of exposure related to earlier achievements in all three areas (e.g., Adams, 1990; Feitelson & Goldstein, 1986; Mason & Allen, 1986; Purcell-Gates & Dahl, 1991; Sénéchal, 2006). Children reared in homes in which print is a highly salient characteristic may have incredibly sophisticated knowledge about print functions, conventions, and forms well prior to beginning kindergarten, whereas children reared in homes in which print is not a salient characteristic may have little such awareness of print. In the next section, we briefly review environmental influences on children's development of print awareness and discuss one particularly common and important adult-child activity, book reading that facilitates children's growth in this area.

Influences on Print-Awareness Development

Home and school environments that provide children with numerous and varied opportunities to explore print with the support and guidance of more literate role models are particularly important to fostering children's early development in print awareness (e.g., Heath, 1983; Morrow, 1997; Purcell-Gates, 1996; Sulzby et al., 1989). We refer to these environments as "print rich" to characterize both the quality and quantity of children's experiences with print in such environments. Children in print-rich environments observe adults engaging in a variety of print-related tasks, such as making grocery lists, paying bills, reading the newspaper, using a telephone book, surveying the TV guide, reading a menu, talking about something they read, or using labels and signs to get information (e.g., Goodman, 1984; Heath, 1983; Morrow, 1997; Sulzby et al., 1989; Teale, 1986). As children observe adults immersed in such activities, they become aware of the importance and utility of written language (Goodman, 1984). Also, as adults engage in literacy for their own pleasure and use literacy activities as a context for supportive, sensitive, warm interactions with children, children come to see literacy as something to enjoy (e.g., Bus & van IJzendoorn,

1997; Pianta, 2006). Children in such homes may model these adult behaviors by pretending to read to adults or to themselves, pretending to write a letter, pretending to order from a menu, or pretending to prepare a grocery list in their dramatic play. Children analyze, organize, and synthesize these experiences to construct an understanding of what print is and how print works (Goodman, 1984).

Adult-child storybook reading can be a highly supportive learning environment for young children in which children's interest in and motivation toward print is fostered. During these interactions, children's awareness of print functions, conventions, and forms emerges, possibly through their own internal interest or motivation, but also because of the supportive role of the adult in mentoring children's discoveries about print (Goodman, 1984; Justice & Ezell, 2004). The caveat to considering book reading as a tool to promote print awareness, however, is that simply reading aloud to children, with print as an *implicit* focus of the reading interaction, may have far less impact on children's print achievements compared to reading interactions in which print is an *explicit* focus. Specifically, when adults embed intentional strategies to introduce a print focus into their reading interactions with children, children's knowledge about print functions, print conventions, and print forms significantly increases (Justice, Chow, Capellini, Flanigan, & Colton, 2003; Justice & Ezell, 2000, 2002). Importantly, studies also suggest that inclusion of an explicit print focus occurs fairly infrequently when adults read storybooks with children, whether the adult is a parent (e.g., Ezell & Justice, 1998; Hammett, van Kleeck, & Huberty, 2003; Justice & Ezell, 2000), a speech-language pathologist (Ezell & Justice, 2000), or a teacher (Dickinson & Smith, 1994).

Some SLPs are surprised to hear that an explicit print focus is not observed more frequently when researchers study the shared reading interactions of adults and children. Some SLPs (and parents and teachers) do include an explicit print focus when reading to children, but this appears to be the exception rather than the norm (Ezell & Justice, 1998, 2000; Justice & Ezell, 2000). This is not that surprising, given that adult use of explicit strategies targeting other aspects of language and literacy, such as vocabulary, also occur fairly infrequently (Dickinson & Smith, 1994; Hammett et al., 2003). For instance, observations of teachers reading to children suggest that they infrequently stop to discuss rare words (Dickinson, McCabe, & Anastasopoulos, 2003; Dickinson & Smith, 1994), even though

studies suggest that this is a salient strategy for promoting children's vocabulary development (e.g., Justice, Meier, & Walpole, 2005; Penno, Wilkinson, & Moore, 2002). Thus, the SLP who works with a young child for whom increasing print awareness is a clinical goal may want to determine the extent to which she or he includes an explicit print focus when reading with that child. Likewise, SLPs who work with parents and teachers in collaborative-consultation roles may also examine the print focus of their reading interactions and provide suggestions for increasing the quality and quantity of print referencing when reading. In the next sections, we provide a more in-depth discussion of the print-referencing technique.

Print Referencing During Interactive Shared Reading

Principles of Print Referencing

When reading books with young children, adults can play a substantial role in promoting children's interest in print and their learning of the functions, conventions, and forms of print through the use of print referencing. With print referencing, adults make print a salient focus within their reading interactions with children by talking about print—that is, by *referencing* it. Of course, print referencing is more than just talking about print in the same manner that vocabulary intervention is more than just using words around a child. There are four important principles to keep in mind when using print referencing:

1. *Systematic*: Systematic literacy intervention has a clear scope and sequence of targets that are addressed over time to ensure that the child moves along an orderly and progressive sequence of learning. In a given activity, the interventionist has a specific goal in mind consistent with the scope and sequence of specified targets. When using print referencing, the implication is that the SLP has a goal in mind for the child concerning the development of print awareness, and targets a specific aspect of print awareness in a reading session that is linked to recent

and future targeted goals. In short, *systematic* print referencing occurs when one intentionally chooses specific print targets prior to reading and consciously addresses these targets during book reading.

2. *Explicit*: Explicit literacy intervention means that specific aspects of print are identified and discussed with the child using a clear and consistent terminology, so that it is evident to the child what he or she is to be learning. Explicit print referencing occurs when adults use either verbal remarks or gestures to draw children's attention to the print targets; these clarify what it is the interventionist wants the child to notice or learn, whether it is something related to the functions, conventions, or forms of print.
3. *Practice and repetition*: For a child to learn a novel concept, particularly one that is challenging, practice with the concept is required. In a Vygotskian framework, the child requires multiple opportunities with a learning target or a new concept for that target or concept to move from a state of dependence (in which the child's understanding is dependent upon adult mediation) to independence (in which the child can utilize the concept independently on her own). With print referencing, SLPs provide children with practice learning and applying knowledge about the functions, conventions, and forms of print during repeated readings of storybooks and provide multiple opportunities to listen, consider, and talk about print throughout a given book-reading session.
4. *Integration*: When using print referencing, it is important not to overburden children with a focus on print such that it detracts from the socio-emotional climate of the reading session, or the structure of the book's content. Attention to print can be readily integrated into book-reading interactions when it is highlighted as one of many important and interesting aspects of books. This is achieved by pointing to print periodically throughout the book, at places where the book and print invite a discussion, while balancing the talk during story time to include a discussion of interesting words, characters, and events.

In the next sections, we first discuss approaches to achieving the first two principles discussed above, namely, ensuring the

systematic and explicit principles of literacy intervention, as applied to the use of print referencing. We then discuss the use of scaffolding to provide practice and repetition that supports children's print-awareness growth during repeated readings using print referencing. In the final section, we discuss how to maintain the overall quality of storybook reading to ensure that print attention is integrated into a larger high-quality experience for children.

Systematic and Explicit: Print-Related Targets for Intervention

When targeting print-awareness development during shared reading interactions, SLPs may support children's achievements in all three areas of print awareness: print functions, print conventions, and print forms. To ensure that intervention is systematic, we recommend that SLPs develop a general scope and sequence of targets to be addressed over a specific course of intervention. Intervention is explicit when the SLP clarifies for children in a given session what it is she or he wants them to learn with respect to print (rather than leaving children to figure it out on their own). We can use our own work in this area to provide some guidance.

We developed a 30-week book-reading program for preschool teachers to use over the academic year. Each week, the teachers read a storybook (which we selected based upon its inclusion of salient print characteristics) four times to his or her class in a whole-group or small-group format. In each reading, the teacher incorporated attention to two specific print targets from one of the three areas of print-awareness development identified previously: print functions, print conventions, and print forms. In Appendix 3-A, we provide these book titles as ordered in our program, as well as the specific print-related targets to be explicitly incorporated into each reading session. Because there is a clear scope and sequence for addressing these many aspects of print awareness over a 30-week period, this intervention is systematic. SLPs need not follow our specific scope and sequence, but we include it here to demonstrate the concept of systematic planning of targets and how specific targets can be addressed over a given period of time to promote children's print-related skills in a range of areas.

Print Functions

SLPs can incorporate attention to print functions in their reading interactions to support children's emerging understanding of the meaningful nature of print. Three ways in which print functions can be incorporated into reading sessions include discussions of (a) *print function*, (b) *environmental print*, and (c) the *process of reading*.

Adult references to *print function* are those that emphasize the meaning-related aspects of print—in essence, that it gives us information. In the following example, print is referred to as *saying* something and as providing the reader information. (Note that in this excerpt, as well as in subsequent excerpts illustrating the print targets, the particular lines relevant to the target are italicized.)

Adult: Look at all these letters! S-S-S-S (pointing to the letters coming out of a flattened ball).

Adult: *What do all the S's by the ball mean?*

Adult: That the balls have a hole in them and all the air's coming out of them, and the S's tell us the sound coming out of the ball.

References to *environmental print* draw attention to print embedded into everyday surroundings, such as print on signs, logos, on labels of boxes, and so forth. In the following example, the clinician points out the print on a cereal box in an illustration in a storybook, modeling how print helps us interpret this sign's meaning.

Adult: I wonder what kind of cereal this is.

Adult: *Look here on the box. What does it say?*

Adult: What's the kind of cereal that talks to you?

Child: Rice Krispies.

Adult: Rice Krispies! (Gestures to box.)

References to the *process of reading* contextualize the act of reading as a communicative process between the reader and print. The idea that print provides information or entertainment is emphasized, as in the following excerpt.

Adult: *Do you remember what our story is about?*

Child: Bear hunt.

Adult: We had a book earlier about a bear hunt. This isn't the bear hunt story though.

Adult: *Who remembers what this story is about?*

Adult: The title says *Somebody and the Three Blairs*.

Adult: *Let's start reading and see.*

Print Conventions

References to print conventions help children learn how print is organized within storybooks, and that print has its own set of specific rules. We discuss here four possible targets: (a) *page order*, (b) *title and author*, (c) *top and bottom of page*, and (d) *print direction*. References to *page order* highlight the fact that readers look at the left then right page of a book and that pages are turned from left to right. In this example, the clinician has the children manipulate the book to show an understanding of page order.

Adult: Let's open the book and see what happens inside.

Adult: *Kelley, can you come show me which way we open the book?*

Adult: Very good. That is exactly how we open the book.

Adult: Oh, my goodness, look at all the words on both these pages!

Adult: *Ronald, which page should I begin reading on?*

Adult: Come show me.

Adult: Very good, Ronald.

Adult: Let's read the story.

References to the *title* show children where to find a title and can include discussion of the meaning of the word *title*. References to the *author* indicate that the book was written by a person and shows children where the author's name usually appears in a book.

Mentioning the title and author typically are the most common references teachers or clinicians make to book and print organization and they usually occur together, as in this example. This clinician not only uses the terms *title* and *author*, but reinforces the meaning and importance of these two aspects of the book.

Adult: I'd like for you boys and girls to help me read the title of the story today.

Adult: *There's a Dragon at My School* (reading with children).

Adult: *That's the name of the story.*

Adult: *That's the title of the story.*

Adult: Should we open the book and look?

Child: Yeah . . .

Adult: You know what we forgot to do?

Adult: We forgot to talk about the author.

Adult: *The author's name is Philip Hawthorn . . . so what does he do?*

Child: He writes the book.

Adult: *Yes, he is the writer of the book, he's the author.*

References to the *top and bottom of the page* reinforce the way in which reading occurs on a page. This target also helps build children's orientation to the concepts of top and bottom, providing children with the language to discuss these aspects of book organization. In the following example, it is evident that the child grasped the idea of where to read, but struggled with the language terms.

Adult: *So where does Miss Kelly start reading?*

Child: At the top . . . down.

Adult: Down?

Adult: *At the top (gestures) or bottom (gestures)?*

Child: Top.

Finally, references to the *print direction* show that reading a line of text occurs left to right. Explicit mentioning of this concept is important for building children's knowledge of left to right orientation.

Adult: *We start reading right here* (points to the first word on the page).

Adult: *We go from here to here* (gestures left to right).

Print Forms

A variety of concepts concerning print forms can readily be addressed through print referencing. These can focus on both letters and words. For letters, print referencing can discuss (a) *upper- and lowercase letters*, (b) *names of letters*, and (c) *concept of letter*. To emphasize upper- and lowercase letters, an SLP may use the opportunity of a book title or author's name to distinguish the "big" from "little" letters. A natural extension of distinguishing upper- and lowercase letters is to provide or ask the letter name. Additionally, extending talk about letters to something familiar to a child is an important way to foster generalizations about this form of print. Talk of letters often touches on all three targets during an exchange.

Adult: Who can show me an uppercase letter?

Adult: *Keily, come show me an uppercase letter.*

Child: (Points to a letter).

Adult: Good. *That's an uppercase T.*

Adult: *Whose name starts with an uppercase T?*

(Children raising hands).

Adult: (Clinician is scanning the group). That's right, Tyrone, and Tara . . . oh, and I almost forgot Terence. We have a lot of T names!

Aspects related to words as units of print are also readily incorporated into book-reading interactions. These might consider the following: (a) *short and long words*, (b) *letters versus words*, and

(c) *concept of word*. References to short and long words draw children's attention to differences among words, such as the different number of letters in words. In this example, the teacher shows how a word that is long to say is also long in print:

Adult: What is this animal? Does anyone remember?

Child: Hippo.

Adult: Very good! *This word says "Hippopotamus."*

Adult: *Hippo is a shorter word* (covers up the last part of hippopotamus).

Adult: *See this says Hippo. This says Hippopotamus. It's longer.*

References to how letters make up words are important for children distinguishing the two print forms: letters versus words. In this example the teacher addresses two concepts: *letters make up words* and *concept of word*.

Adult: There are a lot of words on this page.

Adult: Lot of words (gesturing). *Kim, can you point to a word?*

Adult: *Point to a word on this page for me.*

Child: (Points to a letter).

Adult: *That is a letter, it's a B. B is the first letter in the word Baby.*

Adult: *See, this word* (runs her finger under the whole word) *says Baby.*

Adult: Kim, show me the word baby.

Child: (Imitates teacher).

Adult: Very good!

The examples presented were used to illustrate specific targets in print functions, conventions, and forms that the SLP may incorporate into print-focused reading sessions, reflecting targets used in our 30-week book reading program (see Appendix 3-A). However,

there was also variability in these examples in how teachers supported children's participation. Print referencing as an intervention technique goes beyond simply introducing the targets into book reading; it also requires supporting children's maturation of these concepts with repetition and practice. Thus, we now discuss the use of *scaffolding* and how SLPs and others may effectively support children's discoveries about print.

Scaffolding Children's Interactions with Print Through Repetition and Practice

The use of scaffolding as a means to differentiate instruction for children has long been a topic in intervention, and it is an important concept for understanding how best to target print concepts during storybook reading. Broadly speaking, scaffolding is an instructional action taken by an interventionist to facilitate a child's learning. This action takes into account the way in which children incrementally build a base of knowledge. It also considers the differing levels of support required by each child during a particular activity (e.g., O'Connor, Notari-Syverson, & Vadasy, 1998). A good analogy is that of a sweeping staircase offering the only access to the front door of a grand building. Entry to this building cannot be made until each step has been taken. This analogy is appropriate when considering children's experiences in learning about print. Children come to storybook reading with varying levels of background knowledge and experience with storybook reading and print concepts (Ezell & Justice, 2005). Some are poised at the front door ready to throw it open, yet others remain looking up, needing additional guidance and support to begin the climb. It is important to note that not every child will need help with every step. Perceptive and careful observation of children guides effective scaffolding. Employing these observations to meet a child's individual needs requires talent and practice and is the role of scaffolding.

To consider how scaffolding supports effective use of print referencing, it is useful to look closely at what happens during an instructional episode in which an adult presents a child with a task that is beyond her or his independent capabilities at the moment. The adult's careful observations of the child guide the task presen-

tation, so that it falls just within the child's *zone of proximal development* (Vygotsky, 1978). A task in a child's zone of proximal development may be difficult for the child to complete alone, but success may be reached with the assistance of a more knowledgeable partner, thus facilitating the child's acquisition of the skill. In more common definitions of scaffolding, a clinician or other adult provides help to a child during an unfamiliar or difficult task until the child can perform the task on her or his own; as the child gains mastery on a task, the clinician gradually withdraws support, moving from *high* levels of support to *low* levels of support (Diaz, Neal, & Vachio, 1991; O'Connor et al., 1998). Importantly, the zone of proximal development should not be understood as something the child brings or does not bring to the educational table, nor should it be recognized as an isolated teaching technique (Moll, 1990). Scaffolding in the true Vygotskian sense has its focus "on the social system within which we hope children learn, with the understanding that this social system is mutually and actively created by teacher and students" (Moll, 1990, p. 11).

The storybook context creates a learning environment in which the interaction between the adult and child is the foundational mechanism of learning. It is the adult's ability to encourage the child's active exploration of various print concepts, through scaffolding, which fosters the child's learning. A child may come to the book-reading session without knowledge of print concepts, but by questioning, modeling, and coaching, the adult can assist the child in acquiring these essential early reading skills. Through active discussion and joint participation, children come to understand the literacy process in which they are engaged, become fluent in its articulation, and begin to internalize the concepts. By utilizing the shared nature of storybook reading, teaching concrete print concepts becomes a holistic activity, rather than a lesson on balkanized skills without actual application.

When a child approaches a new and potentially difficult task, it is the responsibility of the adult to provide just the right amount of support that the child needs to further his or her development of the targeted skill or concept. As noted, support progresses along a continuum from high to low, with the amount of support sensitively withdrawn as children move toward maturation or mastery of a given skill or concept. High support is required for tasks that are very difficult for the child and that he or she is far from being

able to do on his or her own (O'Connor et al., 1998). In essence, the adult actually provides the child with the answer to the problem or demonstrates ways to find that answer, while at the same time providing discussion around the solution. The clinician's response to the child's answer is just as important as the initial questioning. When providing high support, an adult questions the child about a challenging print concept, but always incorporates modeling behavior or the exact answer before turning to the child for response. In the following example, the teacher employs high support to teach the title of a book.

Adult: This is the title of the book (pointing to title). The title tells us the name of the book. David, can you tell me what the title of the book tells us?

Child: It tells us the name!

Adult: Exactly. The title is right here (pointing) and it tells us the name of the book.

In this example, the adult not only asks a specific question about a targeted print concept while providing the answer, but also repeats the answer after the child, thus reinforcing the child's knowledge. Should the child provide the incorrect answer, the clinician is given notice that the concept has not been mastered and use of high levels of support will need to continue.

Effective scaffolding incorporates interactions marked by "demonstration, leading questions, and by introducing the initial elements of the task's solution" (Moll, 1990, p. 11). It is just this technique through which the clinician in the above example elicits the child's participation and scaffolds the child's understanding.

As children approach independence, scaffolding moves along the continuum of support toward the low end. When a child has beginning mastery of a task, the adult adjusts her or his level of support to accommodate the child's increasing skill level (e.g., Baker, Sonnenschein, & Gilat, 1996; Pratt, Kerig, Cowan, & Cowan, 1988; Wood & Middleton, 1975). It is during this time that low support should be applied. Essentially, during book reading, low support consists of open-ended questions that children answer without having been provided the supports of either the answer itself or having the solution modeled. Again, the clinician extends the child's response,

and adds clarification and details. Here, an interventionist is targeting the concept of print meaning and the process of reading.

Adult: The title of this book is *Rumble in the Jungle*. Who can tell me what this book might be about?

Child: There's going to be monkeys in the book! And big cats!

Adult: I think you are right. Monkeys, like gorillas, live in the jungle and so do big cats, like tigers. The title of the book, *Rumble in the Jungle*, helps tell us that this book is about a jungle and a rumble. A rumble is a fight.

High-Support Techniques

We have drawn heavily from work by O'Connor, Notari-Syverson, and Vadasy (1998) in considering approaches for providing high support when print referencing, and we refer readers to this work for additional applications of these techniques to early literacy intervention. As discussed earlier, high support always involves providing the child with the answer or modeling how to find the answer *prior* to asking the specific question on print concepts; however, the approach to supporting the answer can vary in ways that help to maintain a child's interest in the task and prevent a rote approach to learning about print concepts. Four specific techniques fall under the construct of high support: (a) *modeling the answer*, (b) *eliciting the answer*, (c) *coparticipation*, and (d) *reducing alternatives/giving choices*. A number of storybook titles are used to describe these techniques, the titles of which are presented in Appendix 3-A.

Modeling the Answer

One technique to consider is modeling the answer. When employing this technique, the adult may engage in self-talk or may provide the child with a guide as to how to find the answer. After the child's response, the adult must be sure to state the correct answer to the question. During self-talk, the adult asks a question and then talks through the solution. Once this modeling is complete, the adult

should then ask the child the same question he or she has just answered. For example (targeting the concept of title using *How to Speak Moo!*):

Adult: I'm going to look for the title of this book and I know I am going to find it on the front. Here it is. *How to Speak Moo!* Who can tell me where I can find the title? Jeremy, come on up and show me where the title is.

Child: (Points to the title.)

Adult: Exactly right. Here is the title of the book (pointing again to the title).

When providing a guide as to answering the question, the adult does not point out the exact answer, but discusses a similar print concept and then asks the question surrounding that concept. For example (targeting the concept of environmental print using *My First Day of School*):

Adult: We see words and letters at the bottom of this page (pointing to the sentences). Who can show me where we see words and letters somewhere else?

Child: Here? (Points to the tray of food.)

Adult: Almost. Here are some letters and words on the cereal box telling us what kind of cereal it is. (Reads "*Snappy Snax*," then moves to the calendar and the bread bag.) So not only do we see words in sentences at the bottom of the page, we see them in other places on the page.

Notice that during each conversation the adult supports the child's answer, whether correct or incorrect, and supplies the appropriate answer.

Eliciting the Answer

Eliciting the answer is a simple approach to high support when building children's print awareness. Essentially, the adult draws attention to the desired target, and then, after directly providing the answer to the ensuing question, asks the child for his or her

answer. Once again, after the child responds, the adult reiterates the answer. For example (targeting letter names and helping children think about the purpose of letters in forming words using *I Stink!*):

Adult: Take a look at the title of this book. It says "*I Stink!*" And in the title I see the letter *I* here and here (pointing to both *I*s in the title). Can anyone show me where the letter *I* is in both words?

Child: (Points to the letters and then to the exclamation point.)

Adult: You are right on the first two, but the last one is called an exclamation point. That is not a letter. This is the letter *I* and this is the letter *I*. You recognized both of them!

Coparticipation

Coparticipation actively involves children in the storybook reading, while at the same time targeting concepts of print. This technique may entail everything from physical participation, such as forming letters in the air together, to having the child hold and manipulate the book while looking for the author's name. For example (targeting names of letters using *Animal Action ABC*):

Adult: This is the letter *J* (pointing to the letter). Tiquan, can you point to the letter *J* for me?

Child: It looks like a line (pointing to the *J*)!

Adult: You are right! It does look like a line. That is a *J*. Let's make a *J* together with our fingers. Watch me!

In the example provided above, there are two modes of coparticipation occurring. First, the adult has asked the child to point directly to the letter, just as she has done when initially pointing the letter out to the child. Next, the adult invites the child to form the letter in the air, just as she is doing. Another example of coparticipation follows (targeting short words vs. long words using *Growing Vegetable Soup*):

Adult: These three words look shorter than the word *sprout*, don't they? Let's count the letters in the shorter words together (begins counting the letters in *and*, *all*, and *the* with children). Now let's count the letters in *sprouts* together (begins counting with children). Seven letters in *sprouts*, and only three letters in each of these words. Who can tell me which word is longer, *sprouts* (pointing to *sprouts*) or *the* (pointing to *the*)?

Child: Sprouts!

Adult: Exactly. We counted the letters in *sprouts* and it had seven. The other words only had three letters in them. *Sprouts* is definitely the longest word. Seven is more than three!

While looking for the long word with the adult, the children are actively engaged in counting with her, thus participating in a fun and often noisy way to distinguish short words from long words. This technique also offers children a concrete way of comparing word length.

Reducing Alternatives/Giving Choices

By reducing alternatives and giving the child a choice between two possible answers, the adult provides a high level of scaffolding as the answer is being provided prior to the child's response. The task is made a bit more difficult than the technique of eliciting, for instance, as the child must compare information that has been provided before selecting an option, rather than simply repeating what the adult has offered. One example of this technique follows (targeting uppercase vs. lowercase letters using *The Dandelion Seed*):

Adult: Which one is an uppercase letter? This one (points to an uppercase *D*) or this one (points to a lowercase *c*)?

Child: (Points to *c*.)

Adult: That one is a lowercase *c*. This is an uppercase letter. This is an uppercase *D*.

Here is another example of reducing alternatives and giving choices (targeting concept of word in print using *My Backpack*):

Adult: I'm looking for a word on this page. Is this a word (points to a word) or is this a word (points to one of the items in the backpack)?

Child: That's not a word. The boy put that in there!

Adult: He did put that in the backpack. It's a picture, not a word. This is the word.

Notice that in these cases, as in all the examples, the adult provides or repeats the correct answer to reinforce the information. An incorrect answer should not be allowed to stand without discussion and the child's acknowledgement of the correct answer.

Low-Support Techniques

Based on the work of O'Connor et al. (1998), as a child begins to exhibit mastery over print concepts once unfamiliar to him, the adult can begin the process of *sensitive withdrawal* by employing techniques that characterize low support. Unlike the high-support techniques that focus on providing the answer or modeling how to find the correct response, low-support techniques primarily make use of open-ended questions. The adult is less of a model and more of a guide as the child navigates her or his way toward full independence in performing the task. Four techniques fall under this construct: (a) *prediction*, (b) *explanation*, (c) *relating to the child's experience*, and (d) *encouragement*. Each of these methods acknowledges that the child, although not yet a master, has been exposed to the targeted print concepts and may be able to supply the answer on his own. Again, though, as in using high support, the adult repeats and extends the child's responses to continue the feedback loop which is at the heart of the interactive nature of storybook reading.

Prediction

By engaging in prediction, the adult requires the child to access, or pull forth, information she has seen before and apply it to the

current question. Children enjoy the process of “guessing” at print concepts with which they are already familiar. Here is one example of prediction (targeting page order using *We’re Going on a Bear Hunt*):

Adult: Here I am on the first page of the story. If I want to sneak to the end of the book to see the last page which way do I turn the pages?

Child: This way to peek (turns pages to the end of the book).

Adult: Now I can sneak a peek at the last page of the story! And to get there, I turn the pages just the way you showed me.

Here the adult first allows the child to actively test out her answer, then supports her answer by repeating and reinforcing her reasoning.

Explanation

This technique also employs open-ended questioning with the addition of pointing out to children the print features that support their answers. Along with reinforcing the answer to a specific question, the adult draws the child’s attention back to the text for confirmation. An example (targeting environmental print using *Mouse Mess*):

Adult: Can you point to a word on this page?

Child: Here (points to words on jar)!

Adult: That’s right! The words on this jar say *peanut butter*. That tells us this is the peanut butter jar.

Here is another example of this technique (targeting short words versus long words using *Growing Vegetable Soup*):

Adult: Without counting the letters in these words, who can tell me which word is the longest?

Child: (Points to *vegetable*.)

Adult: That’s right. *Vegetable* is a very long word compared to the other words on this page. The words *to* and *for* and *us* we see a lot when we read. They are short words.

Relating to the Child's Experience

Utilizing a child's own experiences and background knowledge is a powerful way to reinforce learning, especially when concepts have already been introduced and the child is moving toward a fluid, automatic mastery of the concept. Relating print concepts to extratextual features and ideas is what places this technique within the construct of low support. The child is required to supply the answer to an open-ended question without necessarily having direct support from the storybook itself. Here is an example (targeting the concept that letters make up words using "*More, More, More,*" said the Baby):

Adult: The word *baby* has two *b*'s in it. Can you think of another word that has the letter *b* in it? Bobby, I bet you'll be able to!

Child: Bobby!

Adult: That's right! Your name has three *b*'s in it. That letter is very busy helping to make your name.

Another way to employ this technique is to revisit the print concept lessons the child has already experienced. An example (targeting uppercase vs. lowercase letters using *My Backpack*) follows:

Adult: We've spent some time talking about two different kinds of letters—uppercase and lowercase letters, and we've worked on figuring out which is which. Before we start reading this page, who can show me the uppercase letter *S* on this page?

Child: (Points correctly to the *S* in *She*.)

Adult: Yes, that is the uppercase letter *S*. Now who can point to the lowercase *m*?

Child: (Spends time finding all the lowercase *m*'s on the page.)

Encouragement

When using encouragement during storybook reading, the adult poses questions that they know the child can answer given previous

readings with successful targeting of print features. The language used when employing this technique expressly reminds children that they have given the correct answer before, or that they have direct knowledge of the answer, such as being able to spell their name. Here is an example (targeting print direction using *There's a Dragon at My School*):

Adult: Samantha, can you show me which way I should read this page? I bet you know this since you showed us last time.

Child: This way (runs finger in correct direction).

Adult: I knew you would remember. Good job!

Scaffolding through high- and low-support techniques is an important aspect of making a book-reading experience a fruitful, rich learning context; these techniques are the means of building children's interest, understanding, and independence as they explore and develop an awareness of print. Yet, the ability to draw children's attention to print during book reading and effectively use these scaffolding techniques, in many ways, is first dependent upon an existing pattern of adult-child interactions that create a warm and inviting atmosphere for learning. The book-reading context as a whole must be one such that the adult stimulates children's interest in books generally, and encourages children's active learning and participation. In the next section, we discuss aspects of quality book-reading sessions, emphasizing the interactions between adults and children during book reading as a fundamental component of encouraging children's learning about print.

Targeting Print Quality Reading Experiences: An Integrated Experience

There is great variability in the way that adults read to children, ranging from the enthusiastic reader piquing the listener's curiosity and delight by vividly describing every action and noise a character makes to a droning verbatim reading of a text with an occasional perfunctory question or comment. Shared storybook reading is most effective for fostering a love of reading and devel-

oping children's abilities to appreciate and understand the beauty of stories when it involves far more than a reader simply reading aloud the text (e.g., Teale & Sulzby, 1987). The extratextual comments and questions that occur among readers and listeners in response to the words and illustrations found in a children's storybook are a critical part of the overall quality of the story-time experience. Even a bland, nondescript storybook can come alive and grab the attention of a child when a skilled reader reads with lively animation that genuinely invites the child to physically and verbally interact with the story.

The socioemotional quality of shared storybook reading is so important that it may alter the effects of reading frequently to a child (e.g., Dunning, Mason, & Stewart, 1994). The amount of time a parent reads to a child in kindergarten is not as strongly associated with children's reading achievement as is the time children spend actively and positively engaged in the reading process (e.g., Meyer, Wardrop, Stahl, & Linn, 1994). To ensure that adult-child reading sessions create a warm and positive socioemotional climate, we developed the Book Reading Assessment Scoring System (BRASS; Justice, Sutton, Sofka, & Pianta, et al., 2005) to both monitor and support the quality of adult-child reading interactions. The BRASS is based on Pianta and colleagues Classroom Assessment Scoring System, which examines global qualities of classroom interactions (Pianta, La Paro, & Hamre, 2005). In the next sections, we discuss several of the BRASS scales and provide data concerning the variability that can occur on these dimensions of adult-child shared reading when adults use print referencing. Our purpose in including this information is to highlight the need to consider not only the quality and quantity of print referencing during reading as a means to support children's early reading development, but also to consider more globally the context in which this occurs.

Book Delivery

Book delivery provides an estimate of the global quality of adult-child shared storybook-reading sessions, particularly the adult's success at making the story entertaining, engaging, and interactive through his or her verbal and physical delivery. This scale of the BRASS focuses on the adult's comments and questions relating to the interesting characters, words, content, setting, and illustrations

throughout the storybook. The following excerpt provides an example of a high-scoring book-reading interaction on this BRASS scale. The teacher is eliciting participation from the children by drawing attention to an interesting character, the lion, and asking the children questions about the lion.

Adult: (reading) *"The lion is the king of the jungle who quietly sits on his paws but everyone quivers and shudders and shivers as soon as he opens his jaws."*

Adult: How wide do you think that lion can open his jaws?

Children: Big!

Adult: Very wide . . . Yes!

Adult: Opens her mouth wide like a lion and the children imitate her.)

Adult: I bet the lion can open his that far too.

Adult: Oh goodness, Conner!

Children: *(The children all begin to roar like a lion.)*

Adult: Oh, my goodness! You make the sound like the lion did!

Adult: I'm going to turn the page because you're scaring me!

Clearly, this teacher is warm and responsive to all the children's attempts at communication during her storybook reading and has an active, captive audience. The children become very engaged and excited when she invites them to participate, such as when she asks the children how wide the lion can open his jaws. This particular teacher consistently varies her tone and uses physical hand motions to illustrate the story for dramatic effect. She calls on children individually, by name, throughout the reading session and grants them many opportunities to interact physically with the book.

Data that we are collecting on preschool teachers' reading practices suggest considerable variability in delivery of storybook-reading sessions. These data were collected from nine teachers in Head Start classrooms, a program that serves primarily lower-income 3- and 4-year-old children. All the teachers were implementing the 30-week book-reading program discussed earlier in this

chapter and were incorporating a print focus into the reading sessions. The teachers videotaped themselves in their classrooms during large-group storybook-reading sessions and these sessions were coded in our laboratory using the BRASS scales. Across BRASS scales, a score of 1 or 2 characterizes low quality; 3, 4, or 5 characterizes mid-quality; and 6 or 7 characterizes high quality. As the data in Figure 3-1 show, the teachers varied considerably on Book Delivery, with three teachers in the high range, four in the mid range, and two in the low range. As can be seen, incorporating a print focus need not detract from overall quality of storybook-reading sessions, in terms of physical delivery, but some of the teachers would benefit from consultation and collaboration on approaches to improve their delivery to provide a more enticing session.

Adult Sensitivity

Adult sensitivity encompasses the adult's responsiveness to and awareness of children's needs and abilities (Pianta et al., 2005). In a book-reading session, a sensitive adult consistently and thoughtfully responds to children's questions or comments, as well as asks questions and makes statements consistent with children's needs and abilities. The sensitive reader varies the type and amount of scaffolding provided to individual children as they participate in reading-focused interactions. A sensitive reader focuses on the learning process and scaffolds instruction to allow a child to perform a complex task that he or she would not be able to do alone. The BRASS Adult Sensitivity scales code adult sensitivity when reading on a global seven-point scale; again, with scores falling in the

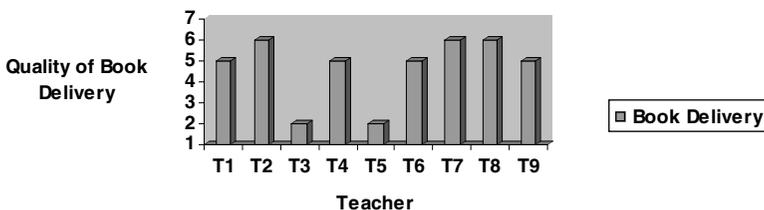


Figure 3-1. Individual teacher's quality of book delivery (on a 7-point scale) during a book-reading session.

low (1, 2), mid (3, 4, 5), and high ranges (see Figure 3-2). Here is an example of a low-scoring teacher:

Adult: (reading) *“The seed landed when snow began to fall. It listened in silence as peace covered it like a blanket.”*

Adult: Is everybody going to look at the pictures?

Adult: Trevor, you’re not looking at the pictures.

Adult: (reading) *“Finally spring came. Sunshine warmed the air and the soil, and the little seed began to grow tiny leaves and roots.”*

Adult: Callie, look at the pictures. (The majority of children are not paying attention)

Child: Where is it? (referring to the seed)

Adult: It’s floating in the air. (The teacher does not make eye contact with the children.)

Child: Can I have a vision?

Adult: We are not talking out we are listening right now.

Adult: Our lips are zipped.

Adult: We will talk about it when we are done.

As this transcript shows, this teacher is dismissive when the child asks a question about the whereabouts of a seed and even tells the children not to talk when they ask a question having to do with the

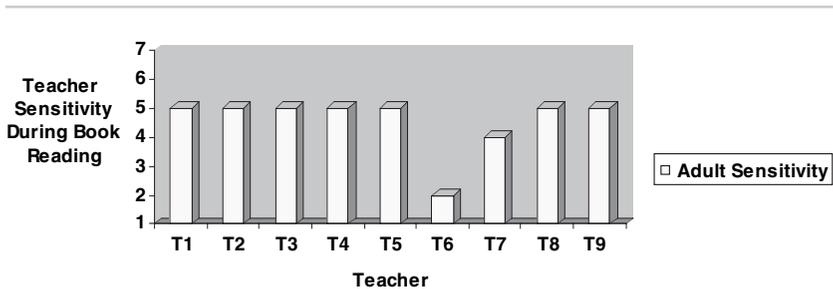


Figure 3-2. Individual teachers’ sensitivity (on a 7-point scale) during a book-reading session.

story content. The children could not see the seed and wanted her help finding it. This would have been an excellent opportunity to provide assistance to the children and experience the joy of sharing of ideas with one another. Another missed teaching opportunity is when the child uses the word “vision,” which happens to be a fairly advanced vocabulary word for a four-year-old. An example of high sensitivity and scaffolding is as follows:

Adult: What is this last letter, Daniel?

Child: An N.

Adult: Try again. It’s a . . .

Child: Z!

Adult: Yes! It’s a Z. It’s like an *N* if it was another way (*as she turns the page sideways to show the Z as N*)

Adult: Great job Daniel. Thank you.

Using the same set of teachers for whom we presented BRASS scores in Figure 3-1, Figure 3-2 provides teachers’ scores on the sensitivity scale. A teacher who rates high on sensitivity is consistently responsive to the children and takes steps to engage children who are not engaged. The teacher notices when a child needs extra support and scaffolds as needed. The children will appear comfortable sharing ideas with the teacher and the teacher responds freely to their questions. With the exception of one teacher, the teachers’ scores fell in the mid to high range indicating that the teachers responded to some of the children’s questions or statements, but at other times were unresponsive. It could also indicate that some of the statements or questions that a teacher asked were inconsistent with the children’s abilities or that the quality of feedback to the children’s communication attempts was moderate.

Language Encouragement

Language encouragement is an additional and important aspect of shared storybook-reading sessions to monitor when using print referencing. This construct captures the quality and quantity of adults’ use of language facilitation methods used during book reading. Components of high-quality language encouragement include open-ended

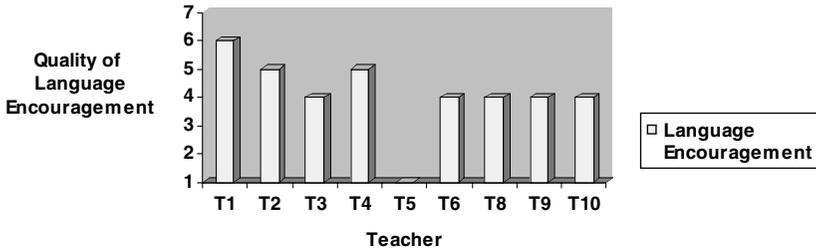


Figure 3-3. Individual teachers' use of language encouragement (on a 7-point scale) during a book-reading session.

questions, repetition, expansion, and extension, self- and parallel talk, use of advanced language, and quality of feedback (Pianta et al., 2005). Variations in adult reading behaviors, such as asking open-ended questions and praise during book reading, can accelerate language development (Crain-Thoreson & Dale, 1999; Whitehurst, Epstein, Angell, Payne, Crone, & Fischel, 1994). In order to score high on this construct, the adult should be asking novel, open-ended questions about the content or vocabulary, using advanced language, and repeating and extending children's questions and comments. In general, teachers tend to score in the mid-range in this construct as seen in Figure 3-3, again presenting data from our nine Head Start teachers.

Summary

Using print referencing during shared book reading exposes children explicitly to the functions, conventions, and forms of print in a context that is naturalistic and engaging. To be effective, print referencing should be *systematic* and *explicit*. The clinician should develop a scope and sequence of print-related goals that will guide children to a broad and solid understanding of the functions, conventions, and forms of print. Reading with these goals in mind infuses intentionality toward print into the book-reading session, providing children targeted exposure to aspects of print, rather than simply implicit or incidental print experiences. Effective print referencing also provides children *repetition* and *practice*. Above all else, print referencing is a process engaged in by both the clini-

cian and the child, as a means of fostering children's learning about print. The repetition and practice provided to children is not rote, but dynamically builds the child's ability through supportive adult guidance, or *scaffolding*. Print referencing relies on the adult's use of a continuum of high- and low-support techniques, such that the child's experiences in learning about print are successful and meaningful learning opportunities. Finally, it is important to remember that print referencing is *integrated* into the context of storybook reading, a learning context that is meant to be warm, engaging, and interactive, providing children a rich language and literacy experience. Of primary importance is the adult-child relationship and the clinician's ability to respond sensitively to the child's needs and interests during the storybook session. The references to print occur in addition to conversation about the story or vocabulary, rather than replacing vocabulary discussions and extensions and repetition of child-talk during storybook reading.

Print referencing is one technique for teaching children about print. As such, it should be used in concert with other print-focused techniques and should be considered a means of addressing one aspect of children's emerging literacy abilities. Moving toward literacy requires children's growth in numerous areas, including an interest in literacy, oral language skills, and phonological awareness, as well as print awareness. This technique is meant to foster children's growth in print awareness, which is important, although not sufficient, for children's eventual success in reading. As such, print referencing should be considered one of many techniques used by clinicians infusing a literacy-rich emphasis into their program.

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APPENDIX 3–A**List of Storybooks and Print Referencing Targets**

Books	Print Referencing Targets
<i>My First Day of School</i> (Skarmeas, 2001)	Environmental print Process of reading
<i>There's a Dragon at My School</i> (Tyler & Hawthorn, 1997)	Print direction Concept of word in print
<i>I Like It When . . .</i> (Murphy, 1997)	Author Print function
<i>The Dandelion Seed</i> (Anthony, 1997)	Uppercase versus lowercase letters Top and bottom of page
<i>Down by the Cool of the Pool</i> (Mitton, 2001)	Title of book Word identification
<i>"More, More, More," Said the Baby</i> (Williams, 1990)	Concept of letter Top and bottom of page
<i>Jamboree Day</i> (Greene, 2001)	Page order Names of letters
<i>Rumble in the Jungle</i> (Andreae, 2002)	Word identification Concept of letter
<i>David Gets in Trouble</i> (Shannon, 2002)	Author Letters versus words
<i>The Way I Feel</i> (Cain, 2005)	Short words versus long words Print function
<i>Spot Bakes a Cake</i> (Hill, 1994)	Concept of letter Environmental print
<i>We're Going on a Bear Hunt</i> (Rosen, 1989)	Uppercase versus lowercase letters Page order
<i>Dear Mr. Blueberry</i> (James, 1991)	Title of book Print function
<i>Growing Vegetable Soup</i> (Ehlert, 1987)	Top and bottom of page Short words versus long words

APPENDIX 3–A *continued*

Books	Print Referencing Targets
<i>Froggy Gets Dressed</i> (London, 1992)	Names of letters Process of reading
<i>I Stink!</i> (McMullan & McMullan, 2002)	Concept of letter Page order
<i>Animal Action ABC</i> (Pandell, 1996)	Letters versus words Names of letters
<i>My Backpack</i> (Bunting, 1997)	Uppercase versus lowercase letters Concept of word in print
<i>Baghead</i> (Krosoczka, 2002)	Short words versus long words Print direction
<i>Somebody and the Three Blairs</i> (Tolhurst, 1990)	Top and bottom of page process of reading
<i>To Market, To Market</i> (Miranda, 1997)	Word identification Print direction
<i>Hey, Little Ant</i> (Hoose & Hoose, 1998)	Title of book Uppercase versus lowercase letters
<i>Mouse Mess</i> (Riley, 1997)	Environmental print Page order
<i>In the Small, Small Pond</i> (Fleming, 1993)	Concept of print in word Print direction
<i>The Grumpy Morning</i> (Edwards, 1998)	Names of letters Process of reading
<i>The Noisy Airplane Ride</i> (Downs, 2003)	Letter versus word Print function
<i>How to Speak Moo!</i> (Fajerman, 2002)	Title of book Word identification
<i>Never Spit on Your Shoes</i> (Cazet, 1990)	Author Environmental print
<i>The Recess Queen</i> (O'Neill, 2002)	Short words versus long words Author
<i>Miss Bindergarten Gets Ready for Kindergarten</i> (Slate, 1996)	Concept of word in print Letters versus words
