

Print Referencing During Read-Alouds: A Technique for Increasing Emergent Readers' Print Knowledge

Tricia A. Zucker, Allison E. Ward, Laura M. Justice

Daily classroom read-alouds provide an important context for supporting children's emergent literacy skills.

Daily classroom read-alouds provide a versatile context for supporting a range of emergent literacy skills. Yet most adults view read-alouds as a time to discuss story meaning or comprehension skills and rarely take advantage of opportunities to talk about print-related skills (Ezell & Justice, 2000). This article describes how early childhood educators can readily increase emergent readers' print knowledge by using an evidence-based technique called *print referencing* to ensure that classroom read-alouds include not only a focus on comprehension and meaning but also a complementary focus on print. Chief motivations for using print referencing with young readers include the following:

- Increasing children's print knowledge
- Developing children's metalinguistic understanding of print
- Fostering children's interest in print during a familiar and highly contextualized social activity

Print referencing is a technique that is integrated with one's existing language arts program and that provides a developmentally appropriate means for achieving curriculum and state standards that specify the importance of systematically addressing children's development of print knowledge.

This article describes how classroom teachers and reading specialists can effectively employ this technique. Because of the strong research base supporting use of print referencing, it was described in *The Reading Teacher* as one of three "particularly compelling approaches to reading aloud" (Lane & Wright, 2007, p. 670). This claim is well supported (see What Works Clearinghouse, Institute of Education Sciences, 2007); nonetheless, research makes a strong contribution to evidence-based practice when findings are put in a useable form and translated for end users (Teale, 2003). In what follows, we provide explicit guidance on translating use of print referencing to the classroom environment by defining print referencing, outlining evidence on the efficacy of print referencing, and providing suggestions for reading teachers and classroom teachers to successfully implement print referencing.

What Is Print Referencing?

Print referencing refers to techniques educators use to increase emergent readers' knowledge about and interest in print by highlighting the forms, functions, and features of print during read-alouds (see Justice & Ezell, 2002, 2004; Justice, Kaderavek, Fan, Sofka, & Hunt, 2009). To implement print referencing, educators call children's attention to print with verbal and nonverbal referencing techniques that include the following:

Questions

- How many words are on this page?
- There are words in the wolf's speech bubble; what do you think they say?

Requests

- Show me where I would start reading on this page.
- Point to a letter that's in your name.

Comments

- The illustrator wrote the word *bus* on this yellow school bus.
- These words are exactly the same.

Nonverbal techniques

- Track print from left to right while reading.
- Point to print.

For many years, researchers have argued that adults play an essential role in actively mediating children's attention to print during book reading (Adams, 1990; Snow & Ninio, 1986). Indeed, eye-gaze studies confirm that children spend very little time looking at print when adults do not use specific behaviors, like questioning about print and pointing to print, that elicit attention to print during read-alouds (Evans & Saint-Aubin, 2005; Justice, Pullen, & Pence, 2008). It is likely no surprise to teachers that pictures grab children's attention more often than the printed words; in fact, unless adults strategically and deliberately highlight print, young children spend less than 6% of read-aloud time looking at print (Evans, Williamson, & Pursoo, 2008). However, estimates suggest that when preschool-age children are read to with a print-referencing style every day for 10 minutes they may fixate on print 20,000 times more often than children who are read to in a way that does not draw their attention to print (Justice et al., 2008). As stipulated by Vygotskian theory, these studies indicate the importance of teachers for increasing children's interest in and knowledge about print through meaningful social interactions (Vygotsky, 1978).

What Aspects of Print Knowledge Are Taught?

The print-referencing technique is used primarily to develop children's emergent literacy skills and knowledge within the domain of print knowledge. Emergent literacy can be defined as the time before conventional reading and writing begins, including the skills, knowledge, attitudes, and experiences within a literate culture that precede conventional literacy (Sulzby & Teale, 1996). Marie Clay is credited as the leader of

the movement toward viewing emergent literacy as an important and observable period of reading development (see Clay, 2000). As discussed by Clay and others, children progress through a series of developmental stages as they acquire literacy; from ages 3 to 5 years, typically, children are in the emergent stage of reading (Chall, 1996). The emergent reader is developing important knowledge about the forms and functions of print that, coupled with developing skills in oral language and phonological awareness, will serve as a foundation for later achievements in word recognition and reading comprehension.

Regarding print knowledge, specifically, children learn concepts such as book handling and print conventions or that letters and words convey a message (see Clay, 2000). The following four broad domains of print knowledge may be addressed using print referencing (Justice & Ezell, 2000, 2002, 2004):

- (1) Print as an object of meaning
- (2) Book organization and print conventions
- (3) Alphabet knowledge
- (4) Concept of word

Although not a lockstep hierarchy, children typically understand early developing concepts, such as print conventions and functions of print, before later developing concepts, such as learning to recognize letters and words (Justice & Ezell, 2004; Lomax & McGee, 1987). Adults use print referencing to target different aspects of print knowledge according to children's level of understanding so that instruction occurs within the child's zone of proximal development (ZPD; Vygotsky, 1978), including increasing the complexity of talk about print as children's understanding of print increases. The four broad domains of print knowledge encompass 15 specific *print targets* (Justice, Sofka, Sutton, & Zucker, 2006). Table 1 provides a definition of each print target followed by specific examples that are ordered in the hypothetical progression of the four broad print knowledge domains.

A central goal of print referencing is to engage emergent readers in conversations about print that foster metalinguistic awareness. Metalinguistic awareness is one's ability to consider language—whether spoken or written—as an object of attention. When adults use print referencing in read-alouds, they promote children's metalinguistic awareness

Table 1
Print Targets Addressed Through Print-Referencing Read-Alouds in Early Childhood Settings

Print Targets	Definition/Examples
<i>Print Meaning Domain</i>	
Print Function	The function of print is to carry meaning; some special typefaces convey meaning. Sometimes print appears in illustrations (e.g., visible sound). <ul style="list-style-type: none"> ■ "These are fox's words—he's talking." ■ "These words are red because he's angry."
Environmental Print	Words present in the environment are portrayed in illustrations (e.g., signs, labels, lists, calendars, recipes, etc.). <ul style="list-style-type: none"> ■ "This jar has the word <i>Cookies</i> on it." ■ "Let's read these traffic signs."
Concept of Reading	The function of reading is to convey information or tell a story. There are many things we do when we read. <ul style="list-style-type: none"> ■ "If I want to find out how they solve this problem I will have to keep reading." ■ "Who can tell me some things we do when we read?"
<i>Book & Print Organization Domain</i>	
Page Order	The order in which book pages are read (i.e., the physical act of manipulating a book). <ul style="list-style-type: none"> ■ "I read this page first and this page next." ■ "Where is the front of the book?"
Title of Book	The role of the title as a label and to convey meaning. <ul style="list-style-type: none"> ■ "This is the half title page. It tells us the name of the book again." ■ "The title page tells us this was published in New York."
Top and Bottom of Page	Reading in English occurs from top of the page to the bottom of the page. <ul style="list-style-type: none"> ■ "This is the top of the page. The writing starts here." ■ (move finger down page) "I will read this top line, then this line, and then this last line."
Print Direction	Reading in English must occur from left to right. Some text is printed with unusual orientations or shapes to convey meaning. <ul style="list-style-type: none"> ■ (sweep finger under print) "When I read I go this way." ■ "These words are printed at an angle so they'll look like they're splashing into the water."
Author's Role	The role of the author(s)/illustrator(s). <ul style="list-style-type: none"> ■ "The author is the person who wrote the words in this book." ■ "The author wrote a dedication to his mother."
<i>Letters Domain</i>	
Names of Letters	There are names for all 26 letters. <ul style="list-style-type: none"> ■ "I see a word on this page that starts with an <i>R</i>!" ■ "Who can find a letter <i>S</i>?"
Concept of Letter	The purpose of letters in forming words. The same letters can be used in many ways. <ul style="list-style-type: none"> ■ "I see the same letter in these two words." ■ "There are three letters in the word <i>cat</i>."
Upper and Lower Case Letters	Letters come in two forms. <ul style="list-style-type: none"> ■ "This is a capital <i>D</i>. Damian has a capital <i>D</i> in his name." ■ "Uppercase <i>S</i> is the same shape as lowercase <i>s</i>."
<i>Words Domain</i>	
Concept of Word in Print	Words are distinct units of print and are different from letters. <ul style="list-style-type: none"> ■ "Let's count the words on this page." ■ "Who can show me just one word?"

(continued)

Table 1 (continued)
Print Targets Addressed Through Print-Referencing Read-Alouds in Early Childhood Settings

Print Targets	Definition/Examples
<i>Words Domain</i>	
Short vs. Long Words	Words have different structures. Some words are short, others are long. <ul style="list-style-type: none"> ■ “Dinosaur is a long word. It has lots of letters.” ■ “Which word is longer—vegetable or soup?”
Letters vs. Words	Letters make up words. <ul style="list-style-type: none"> ■ “This is the letter G. It is in the word grow and garden.” ■ “This is the word sun. S-u-n spells sun.”
Word Identification	Some familiar or meaningful words can be identified. <ul style="list-style-type: none"> ■ “This is a picture of a tomato. The word tomato is written beside it.” ■ “This is the word the. It’s in this book a lot!”

Adapted from Justice, Sofka, Sutton, & Zucker. (2006). Adapted with permission.

by encouraging children to consider written language (i.e., print) as an object of attention while also modeling specific words one may use to talk about and negotiate the forms and functions of written language. This vocabulary provides a “functional ‘tool’” (Vygotsky, 1934/1986, p. 107) that may further support children’s interests in and conversations about print as they internalize words describing written language (e.g., *read, write, story, word, page, book, letter, capital, spell*). Children who enter formal reading instruction with limited vocabulary concerning print may be at risk for reading difficulties because this vocabulary is entrenched in formal reading instruction (van Kleeck, 1990).

What Is the Scientific Basis for Print Referencing?

A large body of empirical work provides evidence for the potential value of print referencing, making it an appropriate technique for reading teachers seeking to use evidence-based practices. These studies have provided rich qualitative descriptions of the ways adults may mediate children’s interactions with print (Clay, 1991; Snow & Ninio, 1986) plus experimental investigations of how specific adult behaviors influence the amount of time children spend looking at print in books (Evans et al., 2008) or the frequency of children’s responses about print (Girolametto, Weitzman, Lefebvre, & Greenberg, 2007). Studies

have also used survey data to show that parental reports of how often they explicitly teach their children about print during literacy activities, including read-alouds, is positively associated with their children’s emergent literacy skills (Sénéchal, LeFevre, Thomas, & Daley, 1998).

Convincing evidence for the positive impact of print referencing comes from several recent studies that have sought to explicitly test whether print referencing improves children’s print knowledge using experimental methods in which one group of children receives print referencing and others do not. Experimental methods that feature random assignment provide strong evidence of the causal impacts of a particular instructional approach (in this case, children’s exposure to print referencing) and associated changes in child outcomes (in this case, children’s print knowledge growth over time). We provide an overview of these studies, and encourage readers to review the original works for specific details.

In an initial study of print referencing, published in 2000 by Justice and Ezell, researchers randomly assigned 28 parent–child pairs (14 in an experimental group, 14 in a control group) to implement a 16-session book reading program in their homes over a four-week period. The children were 4 years old and had typically developing language ability as assessed through standardized testing. Parents received one new book per week to use in their home reading sessions. Prior to the home reading program,

parents in the experimental group viewed a 10-minute video that modeled for them how to integrate verbal and nonverbal references to print into reading sessions. Parents in the control group were told only to read the books as they normally would with their children. Comparison of children's gains on an emergent literacy assessment battery conducted before and after their four-week reading programs showed that children in the experimental group exhibited sig-

Print referencing can be used alongside other techniques that can promote children's language growth within the read-aloud.

nificantly greater growth on measures of print concepts, concept of word, and word identification.

In a related study, Justice and Ezell (2002) randomly assigned 30 children (15 in an experimental group, 15 in a control group) to complete a 24-session book reading program held over eight weeks in a preschool center. The children ranged in age from 3 to 5 years, had typically developing language ability, and were from lower income households. Each child completed small-group reading sessions, and a total of eight book titles were rotated through the reading sessions. The single difference between the reading program for the children in the experimental group and those in the control group was that the former included nine references to print in each reading session whereas the latter included nine references to pictures. Children in the experimental group showed significantly greater growth from pretest to posttest on measures of alphabet knowledge, concept of word, and word identification.

Of particular relevance to the present audience, a recent replication involved testing the impact of print referencing when implemented by preschool teachers during whole-group, classroom read-alouds over an entire academic year. This large scale multistate study is called Project STAR (Sit Together and Read) and will ultimately involve replication tests in 90 early childhood classrooms and 90 early childhood special education classrooms. Results from an initial cohort involving 106 4-year-old children randomly sampled from 23 need-based Project STAR classrooms indicated that children who experienced daily whole-group read-alouds in which teachers used print referencing

showed significantly greater gains on three measures of print knowledge (name-writing ability, alphabet knowledge, print concepts) from fall to spring compared with children who received "business-as-usual" read-alouds with the same set of books and the same schedule of reading (see Justice et al., 2009). The major difference between this study and previous experimental studies of print referencing is that this study involved implementation of print referencing by classroom teachers for an entire academic year in their whole-group read-alouds; additionally, the 106 children studied showed more diversity than prior samples with respect to cultural backgrounds and level of achievement.

Other researchers have found similar positive effects for print referencing. Notably, Lovelace and Stewart (2007) studied the effectiveness of using non-evocative print-referencing (i.e., commenting, tracking, and pointing) with preschoolers with language impairment. This study involved a single-subject research design and five 4- to 5-year-old children who participated in regular one-on-one read-alouds conducted in the classroom setting by research personnel. Children in this study made significant growth in knowledge of print concepts over the intervention period. Taken together, the convergent findings across research studies involving various implementers (e.g., parents, teachers, research personnel), various recipients (e.g., children who are developing typically, children who have developmental disabilities), and various settings (e.g., classrooms, homes, clinics) provide strong and consistent evidence that use of print referencing within the familiar contexts of read-alouds is a useful method for improving emergent readers' knowledge about print.

Suggestions for Print Referencing

Thus far we have explained the "what" and the "why" behind print referencing; that is, we have defined what techniques adults can use to reference 15 print targets (see Table 1) and we have summarized several research studies demonstrating the effectiveness of print referencing for increasing emergent readers' print knowledge. Now we turn to important questions about when, how, and with what texts print referencing should be used to derive suggestions for reading teachers and classroom teachers to effectively

integrate print referencing into their larger curriculum. We offer suggestions from previous research and from our own study of transcripts of teachers who have strategically encouraged their 4-year-old students to engage with print during Project STAR read-alouds (Justice et al., 2009).

When and How Do Teachers Integrate Print Referencing?

Instructional time is a precious commodity in classrooms; accordingly, teachers want to know how to make the most of every minute. Thus, teachers may wonder how often they ought to reference print when reading. As a general guideline, our suggestion is that print referencing should be used when it seems to add value to a read-aloud experience in terms of furthering children's print knowledge. What this means is that when teachers are reading books with children with the intent of promoting their literacy development, print referencing can be incorporated. For instance, many preschool classrooms start their day with a group read-aloud that serves explicit instructional purposes relevant to the classroom curriculum or state learning standards. In such cases, this read-aloud provides an exemplary opportunity to incorporate print referencing as a means to heighten children's attention to and learning about print. Most of the available work on benefits attributable to adult use of print referencing has featured children's participation in only one read-aloud per day for three or four days per week (e.g., Justice & Ezell, 2002; Lovelace & Stewart, 2007). Consequently, it seems that in the typical preschool classroom, if children could participate in one small- or large-group read-aloud per day that involves opportunities to learn and talk about print, benefits to their print knowledge would be apparent.

Within these read-alouds, it is reasonable to ask how much attention, exactly, the teacher should direct to print. Generally, teachers must be strategic in considering how much attention to print should occur to promote children's learning about the forms and functions of print while not detracting from the reading experience or other benefits that might be gained from that experience (e.g., learning new vocabulary words, developing content knowledge). In Project STAR, teachers deliberately highlighted two specific print targets during a read-aloud (e.g., print function, page order) and addressed these using

varying combinations of techniques to highlight print (e.g., commenting, tracking) and varying amounts of scaffolding to differentiate for individual students' understandings of the print target. In instances when it seems that children just do not want to talk about print, teachers can rely on nonverbal techniques to draw children's attention to interesting aspects of print within texts because adults' verbal references to print (i.e., questions and comments) and nonverbal references to print (i.e., tracking print) both increase the amount of time children spend looking at print during read-alouds (Justice et al., 2008).

Let's look at an excerpt from a read-aloud of *The Way I Feel* (Cain, 2000) that shows how a teacher leverages a combination of print referencing techniques to evoke children's attention to and consideration of print in the book. The teacher is discussing the heading on a page about feeling shy; the word *shy* is printed in a thin, pink typeface against a pastel background.

Teacher: Now you can barely see the **word** *shy*. It's in light pink. You see it right there? (Points to word)

Child: Yeah.

Teacher: (Tracks letters as she spells) **S-H-Y**. It's hiding in the page, because even the **word** is shy. (She hides her face behind the book as if she is shy.) Shy is an interesting word that we should talk about. We read a book about a shy character last week. Do you remember what we said *shy* means?

This excerpt is useful for consideration, as it illustrates how print referencing can be used alongside other techniques that can promote children's language growth within the read-aloud. There is tremendous value in read-alouds that focus on narrative events or vocabulary in the book (Sipe, 2008; Teale, 2003); teachers should ensure that inclusion of a focus on print does not preclude other opportunities for talking about interesting words, text structures, or story content.

How Can Teachers Fully Engage Children When Using Print Referencing?

Print referencing read-alouds require teachers to pay careful attention to individual characteristics of

children, including their orientation toward literacy and their desire and need for active engagement in interactions with teachers. Particularly for those at-risk for later reading difficulties, it is important to use social activities like read-alouds to foster a positive orientation to literacy. When adults embed print references into book reading, lively discussions about print unfold because young children typically find print as interesting as other text stimuli, such as illustrations; this can promote children's positive orientation toward literacy. Project STAR teachers used a variety of methods to make discussions exciting and fun. Many teachers, for example, linked the printed text to meaningful print in the children's lives. In this excerpt from a discussion of *Rumble in the Jungle* (Andreae, 1996), the teacher points to the word *tiger* and connects the print to children's own names (all names are pseudonyms).

Teacher: Look at this **word** boys and girls. This **word** begins with a **T**, like Tim's name begins with a **T**. Can you think of any other **words** that begin with **T**—like *Tim* and *tiger*?

Research has indicated that children's names constitute a unit of print that is of great interest to young children (Clay, 2000; Treiman & Broderick, 1998).

In other sections of this read-aloud this teacher demonstrates sensitivity to students' attentional focus by finding creative ways to actively engage students with print. She encouraged a kinesthetic response to print by asking students to "skywrite" the letter Z during *Rumble in the Jungle* (Andreae, 1996).

Teacher: Now who do we have?

Children: Zebras!

Teacher: The zebras. That's right. Look, here's the **letter Z**. Put your finger up and let's make the **letter Z**. (Teacher and children point their index finger in air and move their arms together, the teacher with her back to the children so as to not confuse the orientation of the letter.) Across, slant down, and then back across.

In addition, Project STAR teachers asked children to come forward and point to print or turn pages during reading, thereby actively involving children with print.

Young children will comment on or ask questions about print, particularly when print is made salient through features like speech bubbles or as environmental print embedded in illustrations (Smolkin, Conlon, & Yaden, 1988). Teachers should encourage children's spontaneous comments about print during read-alouds by spending time following a child's lead when print is discussed; this communicates that the child's point of view is valuable.

What Are Appropriate Texts for Print Referencing?

As we turn to the question of which texts are best suited to print referencing, it is important to take a step back and consider why the print itself is worthy of our attention. Sipe (2008) explained that children's picture books provide a sophisticated visual aesthetic experience that in many ways is like an art form in which print is a key aspect:

Navigating picturebooks requires that we pay attention to every feature, from the front cover and the dust jacket to the back cover...We should speculate (along with children) on why the illustrator, designer, or editor made these choices, communicating to children that every single detail of the book—down to the typefaces, the size and shape of the book, and the placement of the illustrations on the pages—is the result of somebody's calculated decision. (p. 15)

As Sipe pointed out, all elements of a book's design communicate meaning and warrant attention for reasons beyond learning how to handle a book or name its parts; there is interdependence between the printed text and the pictures in creating the full story. When considering features of print within children's books, it is often possible to see how the illustrator or author use a visual "language" through such features of typeface as colors (e.g., bright colors suggest happiness/optimism), lines (e.g., jagged fonts suggest anxiety/pressure), and orientations (e.g., horizontal is stable, whereas diagonal words suggest motion). In high print salience books, a term which describes children's books with a high frequency of interesting print features, texts and pictures are completely interdependent because print is embedded in illustrations through speech balloons, visible sounds, or environmental print labeling objects in illustrations (e.g., the word *honey* on a jar). Print salient books are particularly amenable to creating a context in which

print referencing is a natural fit to the read-aloud experience.

In this transcript, the teacher discusses how two different typefaces in *The Way I Feel* (Cain, 2000) carry noteworthy meaning. She discusses the heading word *silly* that is written in a rainbow of colors with a curly font that follows a wavelike orientation. The *S* and the dot of the lowercase *i* have small eyes drawn within so that they appear cross-eyed.

Teacher: Look at that **word** *Silly*. How does that **word** look?

Several children: Silly

Teacher: It looks silly! (Points to plainer typeface below) Do those **words** look the same?

Children: No.

Teacher: (Points to silly again) What do they have on these **letters**?

Children: Eyes!

Teacher: Eyes!

Child: Eyes in S.

Teacher: So the **letters** look like the **words** feel in this book...They look silly. That's the word *silly*.

Child: The word's silly?

Teacher: Yes, and that's the way he feels on this page.

Teachers should use print referencing with high print salience texts as well as with texts that do not have particularly interesting print features. Nonetheless, high print salience texts, like the one in this example, can provide a natural springboard for talking about print targets such as how print carries meaning or functions in the environment (Zucker, Justice, & Piasta, in press). There are many examples of high-quality children's literature that contain print salient visual aesthetic elements, including popular titles and classics; and print salient texts extend beyond the genre of alphabet books, which are also known to promote talk about print (e.g., Bradley & Jones, 2007). Table 2 provides a simplified version of a rubric we have used to analyze the occurrence of print salient features in texts, and Table 3 lists some high print salience texts coded on this rubric. It is likely that analyzing your library collection with an eye toward the important ways that print carries meaning will produce several titles through which meaningful discussions about print can occur.

Get More From a Read-Aloud

Daily classroom read-alouds provide an important context for supporting children's emergent literacy skills, particularly children's developing knowledge of print forms and functions. Although read-alouds are a fairly commonplace activity within most early childhood classrooms, evidence suggests that this activity is most often used as a time to discuss story

Table 2
Print Salient Features

Print in Illustrations					Print in Body of Text	
Labels	Environmental Print	Visible Speech	Visible Sound	Letters in Isolation	Font Changes	Bold or Unique Fonts
Diagrams, figures, or photos contain a print label.	Object has a label, word, or letter on it, often on everyday objects (e.g., jar labeled "Cookies" or "Stop" sign).	Character has words or speech balloons nearby indicating it is speaking.	Character or object has a sound written nearby (e.g., /grrr/ near a tiger, "clunk" near a wheel).	Letters are printed in isolation, as may occur in an alphabet book.	Changes to font color/size/orientation (e.g., words are written at an angle or in an arc or swirl instead of standard horizontal).	Font changes (e.g., from serif to block or artistic) including bold, italics, or underlining.

Table 3
Texts Containing Print Salient Features

Text (Author)	Illustrations					Text	
	Labels	Environmental Print	Visible Speech	Visible Sound	Letters in Isolation	Font Changes	Bold or Unique Fonts
<i>Big Plans</i> (Shea & Smith, 2008)		+				+	+
<i>Bunny Cakes</i> (Wells, 2000)		+				+	+
<i>Fancy Nancy</i> (O'Connor, 2006)		+				+	
<i>Growing Vegetable Soup</i> (Ehlert, 1993)	+	+					+
<i>I Stink</i> (McMullan, 2002)			+	+	+	+	+
<i>Miss Bindergarten Gets Ready for Kindergarten</i> (Slate, 1996)		+			+	+	+
<i>The Noisy Airplane Ride</i> (Downs, 2005)	+			+		+	+
<i>Rumble in the Jungle</i> (Andreae, 1996)				+		+	+
<i>Truck</i> (Crews, 1997)		+					
<i>The Way I Feel</i> (Cain, 2000)	+					+	+

meaning or comprehension skills; too often, educators do not take advantage of this activity as an opportunity to develop children's print-related skills. This article provides guidance to educators, including reading specialists, regarding how print referencing may be used to increase children's knowledge about print, and, as importantly, to support children's development of an interest in print as a salient feature of many texts.

In the present educational climate, educators are being pressed to use instructional techniques that do many things at once. Regarding emergent literacy instruction, educators are asked to use techniques that are linked to state standards of learning and that have scientific support with respect to demonstrated increases in students' learning, while simultaneously

ensuring that these techniques are developmentally appropriate, engaging and motivating, and sensitive to the diverse needs of their students. These are indeed tall orders! In the present article, we discussed a simple, inexpensive, and likely high-yield technique that early educators may easily implement and that we believe achieves all of these aims. Educators can take a few small steps such as the following to get started tomorrow on making print referencing a systematic component of their literacy instruction.

- **Determine which read-aloud within your classroom will regularly involve your use of print referencing techniques.** These may be large-group or small-group sessions. Just be sure that every child in the classroom is involved!

- **Examine the 15 targets presented in Table 1. Order these over the remaining weeks of school so that one or two targets are addressed in each reading session.** There are many ways to organize the targets: you might rotate these daily (a different target each day) or by week. It's up to you—the important thing is to ensure that all of the targets receive attention during an academic year and that you revisit print targets as necessary to ensure children's understanding of print.
- **Examine your classroom library or school library to select books that feature a high level of print salience.** You might use the rubric in Table 2. Try to secure a collection of 20 or 30 books that you can read aloud repeatedly over the year to address your selected targets. You might rotate books daily or use one book for a week. Regardless, be sure that children have multiple opportunities to hear each book, as this seems an important component of most print referencing studies to date.

Note

This research was supported by Grant R305F050124 from the U.S. Department of Education, Institute of Education Sciences.

References

- Adams, M.J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Bradley, B.A., & Jones, J. (2007). Sharing alphabet books in early childhood classrooms. *The Reading Teacher*, 60(5), 452–463. doi:10.1598/RT.60.5.5
- Chall, J.S. (1996). *Stages of reading development* (2nd ed.). Fort Worth, TX: Harcourt Brace.
- Clay, M. (2000). *Concepts about print: What have children learned about the way we print language?* Portsmouth, NH: Heinemann.
- Clay, M.M. (1991). Introducing a new storybook to young readers. *The Reading Teacher*, 45(4), 264–273. doi:10.1598/RT.45.4.2
- Evans, M.A., & Saint-Aubin, J. (2005). What children are looking at during shared storybook reading: Evidence from eye movement monitoring. *American Psychological Society*, 16(11), 913–920.
- Evans, M.A., Williamson, K., & Pursoo, T. (2008). Preschoolers' attention to print during shared book reading. *Scientific Studies of Reading*, 12(1), 106–129. doi:10.1080/10888430701773884
- Ezell, H.K., & Justice, L.M. (2000). Increasing the print focus of adult-child shared book reading through observational learning. *American Journal of Speech-Language Pathology*, 9(1), 36–47.
- Girolametto, L., Weitzman, E., Lefebvre, P., & Greenberg, J. (2007). The effects of in-service education to promote emergent literacy in child care centers: A feasibility study. *Language, Speech, and Hearing Services in Schools*, 38(1), 72–83. doi:10.1044/0161-1461(2007/007)
- Justice, L.M., & Ezell, H.K. (2000). Enhancing children's print and word awareness through home-based parent intervention. *American Journal of Speech-Language Pathology*, 9(3), 257–269.
- Justice, L.M., & Ezell, H.K. (2002). Use of storybook reading to increase print awareness in at-risk children. *American Journal of Speech-Language Pathology*, 11(1), 17–29. doi:10.1044/1058-0360(2002/003)
- Justice, L.M., & Ezell, H.K. (2004). Print referencing: An emergent literacy enhancement strategy and its clinical applications. *Language, Speech, and Hearing Services in Schools*, 35(2), 185–193. doi:10.1044/0161-1461(2004/018)
- Justice, L.M., Kaderavek, J.N., Fan, X., Sofka, A., & Hunt, A. (2009). Accelerating preschoolers' early literacy development through classroom-based teacher-child storybook reading and explicit print referencing. *Language, Speech, and Hearing Services in Schools*, 40(1), 67–85. doi:10.1044/0161-1461(2008/07-0098)
- Justice, L.M., Pullen, P.C., & Pence, K. (2008). Influence of verbal and nonverbal references to print on preschoolers' visual attention to print during storybook reading. *Developmental Psychology*, 44(3), 855–866. doi:10.1037/0012-1649.44.3.855
- Justice, L.M., Sofka, A.E., Sutton, M., & Zucker, T.A. (2006). *Project STAR: Fidelity coding checklist*. Charlottesville: Preschool Language and Literacy Lab, University of Virginia.
- Lane, H.B., & Wright, T.L. (2007). Maximizing the effectiveness of reading aloud. *The Reading Teacher*, 60(7), 668–675. doi:10.1598/RT.60.7.7
- Lomax, R.G., & McGee, L.M. (1987). Young children's concepts about print and reading: Toward a model of word reading acquisition. *Reading Research Quarterly*, 22(2), 237–256. doi:10.2307/747667
- Lovelace, S., & Stewart, S.R. (2007). Increasing print awareness in preschoolers with language impairment using non-evocative print referencing. *Language, Speech, and Hearing Services in Schools*, 38(1), 16–30. doi:10.1044/0161-1461(2007/003)
- Sénéchal, M., LeFevre, J., Thomas, E.M., & Daley, K.E. (1998). Differential effects of home literacy experiences on the development of oral and written language. *Reading Research Quarterly*, 33(1), 96–116. doi:10.1598/RRQ.33.1.5
- Sipe, L.R. (2008). *Storytime: Young children's literary understanding in the classroom*. New York: Teachers College Press.
- Smolkin, L.B., Conlon, A., & Yaden, D.B. (1988). Print salient illustrations in children's picture books: The emergence of written language awareness. In J.E. Readence & R.S. Baldwin (Eds.), *Dialogues in literacy research* (37th yearbook of the National Reading Conference, pp. 59–68). Chicago, IL: National Reading Conference.
- Snow, C.E., & Ninio, A. (1986). The contracts of literacy: What children learn from learning to read books. In W.H. Teale & E. Sulzby (Eds.), *Emergent literacy: Writing and reading* (pp. 116–137). Norwood, NJ: Ablex.
- Sulzby, E., & Teale, W. (1996). Emergent literacy. In R. Barr, M.L. Kamil, P.B. Mosenthal, & P.D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 727–757). Mahwah, NJ: Erlbaum.
- Teale, W.H. (2003). Reading aloud to children as a classroom instructional activity: Insights from research to practice. In A. van Kleeck, A.A. Stahl, & E.B. Bauer (Eds.), *On reading books to children: Parents and teachers* (pp. 109–133). Mahwah, NJ: Erlbaum.
- Treiman, R., & Broderick, V. (1998). What's in a name: Children's knowledge about the letters in their own names. *Journal of Experimental Child Psychology*, 70(2), 97–116. doi:10.1006/jecp.1998.2448

- van Kleeck, A. (1990). Emergent literacy: Learning about print before learning to read. *Topics in Language Disorders, 10*(2), 25–45.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds. & Trans.). Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1986). *Thought and language* (A. Kozulin, Trans.). Cambridge, MA: MIT Press. (Original work published 1934)
- What Works Clearinghouse, Institute of Education Sciences. (2007, January). *Interactive shared book reading*. Retrieved June 20, 2008, from http://ies.ed.gov/ncee/wwc/pdf/WWC_ISBR_011807.pdf
- Zucker, T.A., Justice, L.M., & Piasta, S.B. (in press). Pre-kindergarten teachers' verbal references to print during classroom-based large-group shared reading. *Language, Speech, and Hearing Services in Schools*.
- Cain, J. (2000). *The way I feel*. Seattle, WA: Parenting Press.
- Crews, D. (1997). *Truck*. New York: HarperCollins.
- Downs, M. (2005). *The noisy airplane ride*. Berkeley, CA: Tricycle Press.
- Ehlert, L. (1993). *Growing vegetable soup*. San Diego: Harcourt.
- McMullan, K. (2002). *I stink!* New York: HarperCollins.
- O'Connor, J. (2006). *Fancy Nancy*. New York: HarperCollins.
- Shea, B., & Smith, L. (2008). *Big plans*. New York: Hyperion.
- Slate, J. (1996). *Miss Bindergarten gets ready for kindergarten*. New York: Dutton.
- Wells, R. (2000). *Bunny cakes*. New York: Puffin.

Zucker is a postdoctoral research fellow at the University of Texas Health Science Center—Houston, USA; e-mail tricia.zucker@uth.tmc.edu. Ward is a doctoral student at the University of Virginia, Charlottesville, USA; e-mail aew9b@virginia.edu. Justice teaches at The Ohio State University, Columbus, USA; e-mail ljustice@ehe.osu.edu.

Children's Literature Cited

- Andreae, D. (1996). *Rumble in the jungle*. London: Little Tiger Press.

Copyright of Reading Teacher is the property of International Reading Association and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.