



Information Books in Early Childhood

Nell K. Duke

The Mitten, Little Bear, Caps for Sale—What do these and so many other books in early childhood classrooms have in common? They are stories or narrative texts.

Research indicates that storybooks are indeed the most common type of text found in early childhood classrooms (Duke, Bennett-Armistead, & Roberts 2002). Literacy research and theory both provide lots of good reasons for including so many storybooks in young children's lives (e.g., Snow, Burns, & Griffin 1998). However, research and theory suggest that other kinds of books, in particular information books, also belong in early childhood classrooms.

Contrary to what many believe, there are numerous indications that informational text is appropriate for young children and can have significant benefits for them. Informational literacy can be developed from the very beginning.

What is informational text?

I define *informational text* as text written with the primary purpose of conveying information about the natural and social world (typically from someone presumed to be more knowledgeable on the subject to someone presumed to be less so) and having particular text features to accomplish this purpose. Features commonly found in informational texts include graphic

elements, such as diagrams and photographs; text structures, such as compare/contrast and cause and effect; access formats, such as headings and an index; language forms, such as use of timeless verbs and generic nouns (e.g., "Birds eat insects" versus "That bird is eating an insect"); and others.

Traditionally, informational text is the text that we *read to learn*, as distinguished from the text that we *learn to read*. Many educators believe that children begin to read to learn around fourth grade and that before this, children are only learning to read (Chall 1983). However, as I discuss in this article, research suggests that children are indeed able to read to learn (and be read to, to learn) from a much earlier age. Just as nonfiction is common in the everyday lives of adults, so too can it be part of the daily lives of children.

Informational text is developmentally appropriate for young children

Young children can interact successfully with informational text when given the opportunity to do so.

Perhaps the most important point to establish is that informational text *is* developmentally appropriate for young children. Although a number of influential theorists have argued that narrative is primary for young children (e.g., Moffett 1968; Bruner 1986), that it must "do for all" (Moffett 1968, x) in early

childhood, there is little research to support this contention. A variety of studies suggest young children can interact successfully with informational text when given the opportunity to do so. Several examples follow.

An often cited study by Christine Pappas (1993) notes that kindergarten children repeatedly read to from a set of information books were able to pretend to read those same books using many of the key linguistic features of

Nell K. Duke, Ed.D., is an assistant professor at Michigan State University in East Lansing. She has worked extensively with teachers on developing children's informational literacy. Her book on the subject—*Reading and Writing Informational Text in the Primary Grades: Research-Based Practices*—is due out later this year.

Illustrations © Diane Greenseid

Some books are to be tasted,

others to be swallowed, and
some few to be chewed and
digested."

— Francis Bacon

the books. In fact they could read them with as much skill as they read storybooks. The children showed strong interest in both types of text (see also Duke & Kays 1998).

Other research (Moss 1997) demonstrates that not only can children reproduce or reenact the language of informational text but also they can comprehend such texts with considerable skill. Eighteen of 20 first-graders Moss studied could produce retellings of information books read to them at a level of 3 (out of 5) or better on the challenging Richness of Retelling Scale (Irwin & Mitchell 1983).

Research also indicates that young children can respond to informational texts in sophisticated ways. Researchers document that first grade students can make intertextual connections—associations between one text and another with related content or style—during an informational text read-aloud (Oyler & Barry 1996). Some primary grade children are even able to talk about unique characteristics and purposes of informational texts, given exposure to them (Donovan 1996). One researcher chronicles the range and complexity of her daughter's responses to informational texts from age three to six (Maduram 2000).

The Maduram study is particularly important because it examines read-alouds and responses to read-alouds by a pre-K child. Almost all of the research related to informational literacy focuses on grades K and above. It is noteworthy that what little research exists on pre-K also suggests that informational text is developmentally appropriate.

Why informational text for young children?

But just because young children *can* interact with informational text, *should* they? Is this simply another case of "push down" curriculum? Available research and theory suggest otherwise. The next section outlines some long-standing beliefs about early childhood that actually suggest why informational text might be *particularly* appropriate during this period.

Building on young children's inherent curiosity

Young children are inherently curious about the world around them. One need only witness children's fascination with cars and trucks passing, a puppy playing in the park, or worms that wash up after the

rain to recognize the young child's great interest in the natural and social world. Thus books whose purposes are to convey information about the natural and social world—like Caroline Bingham's *Big Book of Trucks*, Gail Gibbons's *Dogs*, or Linda Glaser's *Wonderful Worms*—seem a natural for young children (see Reese & Harris 1997; Yopp & Yopp 2000).

The dominance of narrative text in early childhood may be inconsistent with children's own preferences. Although the research in this area is riddled with problems (Kletzien 1999), taken as a whole it suggests that children do not show overwhelming preferences for narrative to the exclusion of other text forms. Rather, children often select nonfiction, informational texts when given a choice.

Notably, one study indicates that younger primary children are particularly likely to show preference for informational text (Kletzien & Szabo 1998). In this study children in first, second, and third grades preferred information books at least as often as narratives when asked to choose between them (with book topic held constant). Fourth-, fifth-, and sixth-graders, however, more often selected narratives. Boys in general were more likely to select informational texts, but as with nearly any study in this area, there were substantial individual differences. Some children, both boys and girls, exhibited a strong preference for narrative texts, some for informational texts, others for neither.

When children's preference is for narrative, they fit well with the typical text offerings of early childhood classrooms. When their text choice is informational, children fit considerably less well. For children at risk for or struggling with learning to read, there is particular reason to pay attention to research on reading interests and preferences. Interest has an important influence on children's enthusiasm for reading and can even support children's reading development (Schiefele, Krapp, & Winteler 1992). As teachers we also know that struggling readers typically show less interest in and motivation to read than do their more successful peers (Guthrie & Wigfield 1997). One might suspect then that making high-interest reading material available to students at risk or struggling to learn to read may be particularly important.

In case studies conducted with my colleague Linda Caswell (Caswell & Duke 1998), we examined the progress of two boys struggling substantially with their

Some children, both boys and girls, exhibited a strong preference for narrative texts, some for informational texts, others for neither.

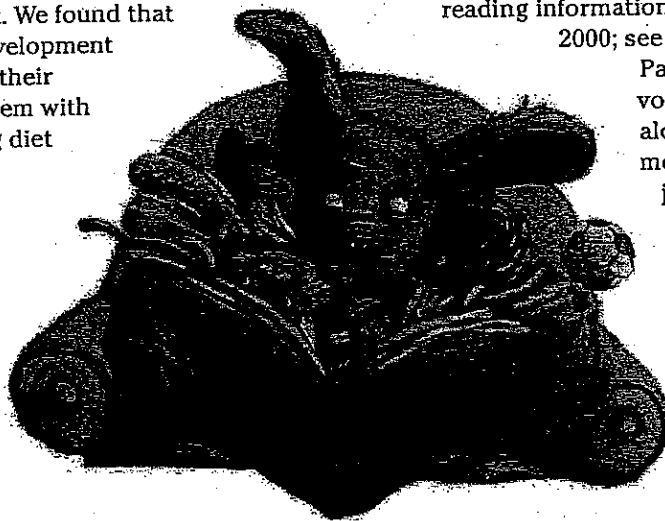
reading development. We found that the boys' reading development finally took off when their teachers provided them with a reading and writing diet rich in informational text—a type of text these boys strongly preferred. Although providing these children with informational reading material was by no means the only factor contributing to their progress, we argue that it was one important factor.

Research involving highly successful adults with dyslexia shows that one factor the adults had in common was a childhood history of high-volume reading in topic areas of passionate interest to them—areas quite often addressed in informational texts (Fink 1995/1996). While not definitive on the point of interest, these studies do suggest that young readers at risk or struggling will benefit from high-interest materials, including informational texts. For many young learners the high-interest nature of informational texts is one argument for their inclusion in early childhood education.

Supporting vocabulary and world knowledge development

There are substantial individual differences in children's development and learning, but there is no question that early childhood is a time of notable growth of vocabulary and world knowledge (Shonkoff & Phillips 2000). By definition, informational text is written to convey information about the world around us and contains specialized vocabulary toward that end (e.g., Purcell-Gates & Duke 2001). Thus informational texts may be particularly well-suited to contributing to young children's development of vocabulary and world knowledge.

Even before children can read independently, there is evidence that they learn vocabulary from texts read aloud to them (e.g., Elley 1989). Although studies on this point have been conducted primarily with storybooks, it is reasonable to think the same would hold true with information books (Dreher 2000). In one study kindergarten teachers included more discussion of vocabulary and text concepts when reading aloud informational texts than when reading aloud narrative texts. A first grade teacher in another study devoted more attention to comprehension in general when



reading informational text aloud (Smolkin & Donovan 2000; see also Mason et al. 1989).

Parents may interact more around vocabulary and concepts when reading aloud informational text. A study of mothers of Head Start children did find just that; the mothers asked more questions and introduced more vocabulary when reading aloud informational rather than narrative texts (Pellegrini et al. 1990; see also Lennox 1995). If anything, we might expect reading aloud informational text to have a greater effect on the development of vocabulary and concept knowledge.

With respect to development of world knowledge in general, research is also suggestive. One study shows evidence that kindergarten children develop content knowledge from information books read to them (Duke & Kays 1998). Children's journal entries regularly contained content linked to information books that were read aloud. For example, after hearing the book *Potato*, by Barrie Watts, about how potatoes grow, one child drew a cross-section of a sprouting potato plant. After hearing books about spiders, a child drew a spider and spider web complete with entangled prey (an idea discussed in one of the books). Research involving third grade children whose science unit contained both firsthand observation and informational texts shows they learned more than those children whose science unit contained only firsthand observation (Anderson & Guthrie 1999).

With regard to intervention on behalf of children who might have difficulty learning to read or who were already struggling to build literacy skills, using informational text as a means of developing early vocabulary and world knowledge may be significant. Researchers find that on average these children's vocabulary knowledge is weaker than that of their peers (Snow, Burns, & Griffin 1998), and they are more likely to struggle with reading later in school when substantial informational reading is a demand (Chall, Jacobs, & Baldwin 1990).

Encouragingly, one study of poor readers notes they are particularly

Informational texts may be particularly well suited to contributing to young children's development of vocabulary and world knowledge.

likely to improve vocabulary development from repeated read-alouds (Elley 1989). Thus, while more direct research is needed, the evidence suggests that incorporation of information books in early childhood settings may lead to improved development of vocabulary and world knowledge.

Developing children's concepts of reading and writing

In the United States and other relatively literate societies, early childhood is a time to build children's conceptions of the purposes and nature of reading and writing (e.g., Harste, Woodward, & Burke 1984; Clay 1993). These conceptions may differ depending on the nature and uses of literacy to which children are exposed (e.g., Heath 1983; Purcell-Gates 1995, 1996). Thus if early childhood settings do not offer informational texts, children may not learn that literacy is a means of obtaining or communicating information.

In research I conducted in first grade classrooms, teachers offered children very little experience with informational text: an average of 3.6 minutes per day, even less for children in low socioeconomic-status settings (Duke 2000). As a result, the idea that one important purpose of reading and writing is to obtain or communicate information about the natural or social world did not get attention within these classrooms.

In addition, no one conveyed the notion that text can be read nonlinearly. Children had not learned that we can read just parts of a text, not necessarily in order, often using tools such as the index, headings, and table of contents to guide us. The literacy to which children in my study were exposed was almost exclusively linear, proceeding from the beginning to the end of the text, in order, and in its entirety. This experience stands in sharp contrast to much of the reading that adults do in their daily lives, which in fact is nonlinear in nature (Venezky 1982). Nonlinear reading will become more dominant with increased use of technology (Kamil & Lane 1998).

Hynes (2000) illustrates the possible impact of this restricted representation of literacy in early childhood by describing a struggling student who did not consider himself a reader because he did not read narrative literature for pleasure. This student and others were described by Hynes as "living outside the dominant

genre of school." Their views of what constitutes reading and literacy were shaped accordingly.

Research demonstrates that kindergartners and first and second grade students who have had little experience with informational text at home or at school show limited knowledge of such text; their literacy knowledge is directly tied to the types of literacy they have experienced (Kamberelis 1998). Limited knowledge of the multiple purposes and types of literacy is particularly likely to be a problem among children who get most of their literacy knowledge and experience at school.

Steps toward bringing informational text to young children

The joint position statement of the International Reading Association (IRA) and NAEYC (1998) clearly calls for young children to experience a variety of texts, including informational texts, in child care and preschool settings. Early childhood educators have an important role to play in increasing the availability of informational texts for young children. Here are some of the things we can do:

1. Be aware of the types of text to which we are (and are not) exposing our children.

Look at your classroom libraries, at the books you send home with children, at what you read aloud every day. How much is informational? Do children experience a wide array of texts in your classroom? Do you have colleagues who would benefit from increased awareness about this issue?

2. Devote some funds for books and other materials to the purchase of informational texts.

For a while we may need to overcompensate, spending a larger portion of funds on nonfiction to help balance our collections. Information books, children's nature magazines, and many other nonstorybook texts can increase the diversity of our libraries and their appeal to a greater number of children with varied needs and interests. Find out from children the kinds of texts and topics they would like to see in their classroom library.

In early childhood settings do not offer informational texts children may not learn that literacy is a means of obtaining or communicating information



3. Raise parents' awareness of the appropriateness and value of informational texts.

Parents magazine recently listed "The 50 Best Children's Books" (Seid 2002). All 50 books are stories, and all but one are fictional. We need to supplement these resources with suggestions for informational and other types of books for young children. When lending children's books for home reading, include information books as well as storybooks.

4. Include more informational texts in classroom activities.

Although there is limited research identifying an accepted set of best practices for using informational texts with young children, I have seen a number of activities work effectively. Some have a basis in research.

There is much early childhood educators can do to incorporate informational text into our classrooms. And as more early childhood educators develop ways of using information books in their classrooms, early childhood researchers will need to study their impact on children's learning. Researchers need to look especially at what happens when children are exposed to a significant amount of informational text from very early on and throughout several years of schooling. Currently we know little about the outcomes. Early childhood researchers and educators have important contributions to make in developing informational literacy.

References

- Anderson, E., & J.T. Guthrie. 1999. Motivating children to gain conceptual knowledge from text: The combination of science observation and interesting texts. Paper presented at the Annual Meeting of the American Educational Research Association, 19-23 April, in Montreal, Canada.
- Bruner, J. 1986. *Actual minds, possible worlds*. London: Harvard University Press.
- Caswell, L.J., & N.K. Duke. 1998. Non-narrative as a catalyst for literacy development. *Language Arts* 75: 108-17.
- Chall, J.S. 1983. *Stages of reading development*. New York: McGraw-Hill.
- Chall, J.S., V.A. Jacobs, & L.E. Baldwin. 1990. *The reading crisis: Why poor children fall behind*. Cambridge, MA: Harvard University Press.
- Clay, M.M. 1993. *An observation survey of early literacy achievement*. Portsmouth, NH: Heinemann.
- Donovan, C.A. 1996. First graders' impressions of genre-specific elements in writing narrative and expository texts. In *Literacies for the twenty-first century*, eds. D.J. Leu, C.K. Kinzer, & K.A. Hinchman, 183-94. Chicago, IL: National Reading Conference.
- Dreher, M.J. 2000. Fostering reading for learning. In *Engaging young readers: Promoting achievement and motivation*, eds. L. Baker, M.J. Dreher, & J. Guthrie, 94-118. New York: Guilford.
- Duke, N.K. 2000. 3.6 minutes per day: The scarcity of informational texts in first grade. *Reading Research Quarterly* 35: 202-24.
- Duke, N.K., V.S. Bennett-Armistead, & E.M. Roberts. 2002. Incorporating informational text in the primary grades. In *Comprehensive reading instruction across the grade levels*, ed. C. Roller, 40-54. Newark, DE: International Reading Association.
- Duke, N.K., & J. Kays. 1998. "Can I say 'Once upon a time'?" Kindergarten children developing knowledge of information book language. *Early Childhood Research Quarterly* 132: 295-318.
- Elley, W.B. 1989. Vocabulary acquisition from listening to stories. *Reading Research Quarterly* 24: 174-87.
- Fink, R.P. 1995/1996. Successful dyslexics: A constructivist study of passionate interest reading. *Journal of Adolescent and Adult Literacy* 39: 268-80.
- Guthrie, J.T., & A. Wigfield, eds. 1997. *Reading engagement: Motivating readers through integrated instruction*. Newark, DE: International Reading Association.
- Harste, J.C., V.A. Woodward, & C. Burke. 1984. *Language stories and literacy lessons*. Portsmouth, NH: Heinemann.
- Heath, S.B. 1983. *Ways with words*. Cambridge, UK: Cambridge University Press.
- Hynes, M. 2000. "I read for facts": Reading nonfiction in a fictional world. *Language Arts* 77: 485-95.
- IRA (International Reading Association) & NAEYC. 1998. Learning to read and write: Developmentally appropriate practices for young children. A joint position statement. *Young Children* 53 (4): 30-46.

Some Information Books for Children

- Barton, C. 1989. *Dinosaurs, dinosaurs*. New York: HarperCollins.
- Bingham, C. 1999. *Big book of facts*. London: Dorling Kindersley.
- Gibbons, C. 1996. *Boys, Friday, and the*
- Glasser, L. 1992. *Wonderful things*. Brookline, MA: Millbrook.
- McIntyre, P. 1992. *From bear to lion*. New York: Random House.
- Walsh, M. 1997. *Do monkeys dance?* Boston: Houghton Mifflin.
- Walsh, M. 2000. *Do dolphins dance?* Boston: Houghton Mifflin.
- Walsh, M. 1998. *Do birds dance?* Chicago: Niles.

Classroom Activities Using Information Books

• Interactive read-alouds.

Reading aloud informational texts, especially with a great deal of teacher-child and child-child interaction, is likely to have many benefits. Some, such as building vocabulary and developing knowledge of the linguistic features of information book language, are discussed in this article. It is especially important to ask higher-order questions—questions that require going beyond information given directly in the text to reading between the lines, thinking ahead, making connections between the text and prior knowledge or experiences, and so on. Questions that ask “Why do you think . . . ?” “How does . . . ?” “Have you ever . . . ?” “Does this remind you of . . . ?” “What does the author mean by . . . ?” “What if . . . ?” can easily lead to higher-order discussions.

• **Interest groups.** Children who share an interest in particular topics—such as ocean animals, cars and trucks, or farming—can gather for a group activity involving both information books and hands-on experience. Groups might look through informational texts on their topics and listen to a text read aloud or played on tape. Children might watch a relevant video (many free or low-cost videotapes related to science and social studies are available through PBS and other sources),



explore materials firsthand, or go on a field trip. As groups become experts on topics, they can share what they learn with their classmates or with families and the community at school-family nights.

• **Purposeful writing.** Because one purpose of informational text is to convey information about the natural or social world, children should whenever possible write informational text to convey information to others who want or need it. Children could write brochures about exhibits for use at the local science center. They can create posters about the school garden to display in school hallways or write books on underrepresented topics to donate to the school library. For very young children, parents or other family members, adults in the child care setting, and familiar groups in the community (police officers, grocers, librarians) can all become meaningful audiences for information children are learning about the world around them.

• **Innovations.** Children can use an existing text plus their innovations to create a new text. For example, I've seen innovations on the

storybook *Brown Bear, Brown Bear, What Do You See?* by Bill Martin, that start with a title like “Ms. Smith's Class, Ms. Smith's Class, What Do You See?”

Similarly we can create innovations on information books with young children. The information board book *Do Monkeys Tweet?* by Melanie Walsh, could be rewritten to feature other animals. A book about the development of an apple from seed to fruit (there are several books on this topic) could be a model for children's writing about the development of a pumpkin from seed to vegetable. A book about one cultural celebration could be a model for new text about another type of celebration.

• **Teaching about text.** Children may need help understanding differences in the purposes and features of different kinds of text. Some children may not have used a book as a reference or may be unfamiliar with the wide range of text features—index, table of contents, page numbers, headings, captions—that help us find information we are looking for. Children may notice that some books use photographs as illustrations without realizing that those photographs depict real animals, people, objects, or events. Teaching children about text through hands-on use, demonstration, and explanation can promote literacy development.