The Goals Of Reading Instruction

Children must develop accurate and automatic recognition of individual words, as well as fluency in reading text appropriate to their grade level.

The ultimate goals of K-3 reading instruction are good reading comprehension, motivation to read and enjoyment of reading, and providing a foundation for lifelong habits of learning through literacy. In order to achieve these goals, children must develop (among other competencies) accurate and automatic recognition of individual words, as well as fluency in reading text appropriate to their grade level. When word identification is automatic and reading in context is fluent, the reader can concentrate more easily on the meaning of the text. (Comprehension instruction also should occur at the same time children are developing word-identification skills.) Phonics instruction is important to the achievement of automatic word identification and fluent text reading, not only because the process of storing words in memory involves using letter-sound correspondences, but also because the ability to decode unfamiliar words provides readers with an important set of strategies for learning new words (Ehri & Williams, 1995).

Anyone who has ever learned a complex skill, such as how to play baseball or how to play the piano, can probably appreciate the distinction between the ultimate goals of instruction and goals that are important not so much for their own sake, but because they are in the service of attaining an ultimate goal. For example, the ultimate goals of baseball coaching far exceed teaching children to catch a ball or get a hit, but youngsters who cannot catch or hit a ball are not likely to be able to learn complex baseball plays, concentrate on baseball strategy or enjoy the game. Likewise, children who struggle with recognizing words typically have poor reading comprehension (Pearson & Duke, 2000; Shankweiler et al., 1999), and are unlikely to enjoy reading or develop lifelong habits of reading (Cunningham & Stanovich, 1998).

Children vary a great deal in the ease with which they learn word-identification skills, that is, how to read individual words accurately and automatically. Children with serious reading difficulties may need particularly intensive teaching of these kinds of skills and more opportunities for practice than do other children (Torgesen, Wagner & Rashotte, 1994, 1997). However, most beginning readers, not just those at risk for poor reading, benefit from explicit, systematic instruction in word-identification skills (National Reading Panel, 2000; National Research Council, 1998). Including this kind of instruction as a standard component of beginning reading instruction, with more intensive teaching of word-identification skills for youngsters who require it, would help to prevent reading difficulties in many children.

Although learning to identify individual words accurately and automatically is essential, this does not mean word identification should be emphasized to the exclusion of comprehension competencies, or that children must "master" word identification before receiving instruction that enhances comprehension. Rather, all children need a comprehensive program of reading instruction.

A Comprehensive Curriculum Of Reading Instruction

A comprehensive curriculum of reading instruction at the K-3 level should address the following reading and reading-related competencies: **word-identification** skills (learning how to read individual words, including developing phonological and phonemic awareness), **fluent and accurate word identification in context** (reading words in text), **comprehension** (including oral-language comprehension as well as reading comprehension), **spelling** and **writing**. Each of these areas involves developing a number of different component abilities. **These five areas and their components, which will be described, must be standard in any K-3 reading curriculum.**

In this report, for the sake of clarity, the five areas are discussed separately. However, **it should be emphasized that these areas should not be taught as a set of disconnected parts**. Rather, for instruction to be most effective, the five areas must be coordinated and integrated. For example, in teaching spelling, teachers need to take into account what children are learning in terms of word identification (e.g., specific letter-sound correspondences and word patterns that children have learned to decode); choices of books for reading in context should be guided by considerations of what children have learned in word identification and comprehension; and, as discussed previously, writing should be used to reinforce and promote numerous abilities, including word identification and comprehension.

For most children, word identification skills need more emphasis at the kindergarten and first grade levels.

Although all five areas are extremely important, **the instructional emphasis on each area may vary depending on grade level and individual differences among children**. For example, for most children, word-identification skills need more emphasis at the kindergarten and first grade levels than at the third grade level (although they should be taught at all four grade levels). Conversely, an emphasis on writing lengthier pieces of work should increase as children progress from kindergarten to third grade (but again, writing should be taught at all four grade levels). A first grade reading curriculum should not look like a third grade curriculum with easier books; rather, there are shifts in instructional emphasis depending on children's levels of development in reading. Finally, the inclusion of all five areas in any K-3 reading curriculum certainly does not preclude the use of teacher judgment for individual children. Obviously, for example, teachers should not belabor phonics instruction with children who already decode well, or comprehension strategy instruction with children who already are highly strategic in reading. However, most children at these grade levels will benefit from instruction in the five areas and in their components.

Word-Identification Skills

Word identification draws upon a wide range of competencies. Some of these competencies are foundational in nature—that is, they are prerequisites for developing fully accurate and automatic word-identification skills. These foundational competencies include **basic print concepts**, **phonological** and **phonemic awareness**, **letter-sound and spelling-sound knowledge**, and **understanding of the alphabetic principle.**

Basic print concepts involve knowledge of fundamental conventions about print, such as the knowledge that printed words on a page are separated by spaces and that words are read from left to right in English. Many children enter school lacking basic print concepts, especially if they have had limited preschool experiences with literacy. Understanding of basic print concepts should not be assumed, and basic print concepts should be taught to children who lack them.

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Phonological and **phonemic awareness** are essential to children's abilities to grasp the alphabetic principle and begin to decode words. As discussed earlier, phonological and phonemic awareness are specific oral-language competencies; they are not synonyms for phonics or word decoding, but rather are prerequisites for acquiring word-identification skills (Moustafa, 1997). Instruction in phonological awareness should begin with more rudimentary tasks (e.g., rhyming words and identifying initial and final sounds). As children develop increased phonological awareness, instruction should proceed to more advanced levels of phonemic awareness, including phoneme blending (e.g., "What is this word: /sh/ /i/ /p/?") and segmentation (e.g., "Say the sounds in 'crash' one at a time").

At the same time that children's phonological and phonemic awareness are developing, they should also be learning **letter-sound and spelling-sound correspondences**, not only sounds for single letters such as b, t and s, but also sounds for common letter patterns such as sh and oo, and eventually for larger orthographic patterns such as tion. Integrating instruction in phonemic awareness and letter-sound correspondences (e.g., in writing activities involving invented or conventional spelling) can help children gain **understanding of the alphabetic principle**, the idea that the letters in printed words have a systematic relationship to the sounds in spoken words.

These foundational competencies are essential for children to acquire accurate word-identification skills, that is, the ability to read individual words accurately out of context. Accurate word identification includes the use of **word decoding, structural analysis** and **sight-word knowledge.**

Word decoding is the process of reading words, especially new or unfamiliar words, by using the alphabetic principle and knowledge about common letter-sound and spelling-sound correspondences. Strategies that may be employed in word decoding include synthetic blending strategies (e.g., "sounding out" moon by blending /m/, /oo/ and /n/) and decoding by analogy (e.g., decoding moon based on its similarity to a known word such as soon). Beyond early stages of reading, children also need to be taught strategies for decoding long (multisyllabic) words. These strategies include **structural analysis** and looking within words for morphological units (letter patterns such as prefixes, suffixes and root words that have distinctive meanings, e.g., un in unhappy, or nation in national) and distinctive spelling patterns (e.g., /ful/ at the end of a long word is spelled ful, as in plentiful or beautiful). Many of these strategies are useful for building vocabulary and spelling knowledge as well as word-decoding ability.

Sight-word knowledge is important from the earliest stages of reading. Although the term "sight word" has been used in various ways, here it is used to mean a specific word that has been memorized without reference to word-decoding strategies or structural analysis. Common instructional strategies for teaching sight words include the use of flash cards and repeated tracing and saying of whole words. Although any word may be taught as a sight word, sight-word knowledge is especially important for words that are phonetically irregular (e.g., of, come, where, two)—that is, words that deviate from typical spelling-sound relationships in English.

Word decoding and structural analysis provide readers with mechanisms for figuring out unknown words.

Word decoding and structural analysis are particularly important word-identification competencies, because they provide readers with mechanisms for figuring out unknown words. For example, memorizing the word blue as a sight word enables children to read one word, but if they have the ability to decode by analogy, children can use their knowledge of blue to decode many other words: true, clue, due, etc. Likewise, if children know that the suffix -tion is pronounced /shun/, and if they have letter-sound knowledge and can use synthetic blending strategies, then they can use all of these competencies to read a wide range of words: action, fraction, station, invention, etc.

Children must have many opportunities to practice reading words, both in and out of context. With sufficient opportunities for practice, children's word-identification competencies become automatic as well as accurate. **Automatic word identification** involves fast and effortless recognition of individual words. In order to read fluently and with good comprehension in text, children must be able to recognize many common words automatically.

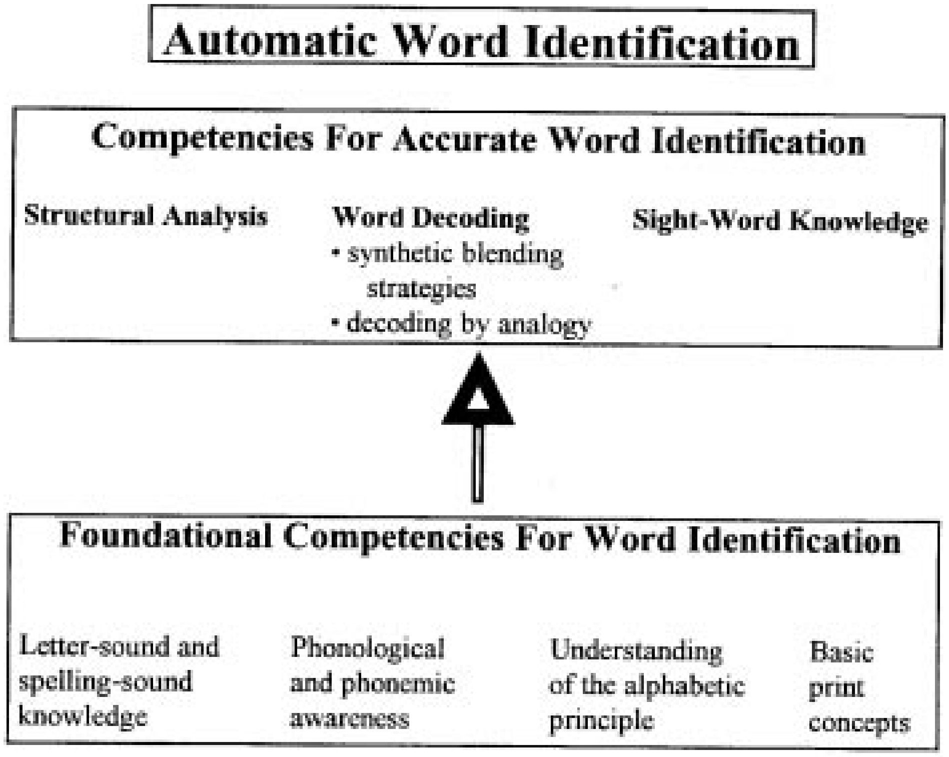
Because most children do not acquire word-identification competencies spontaneously, simply with exposure to books and print, **all of these competencies should be taught in an explicit, systematic manner**. "Explicit" means that children are not expected to infer knowledge such as letter-sound correspondences or spelling regularities independently; rather, care is taken to direct children's attention to them. "Systematic" means that instruction is planned, organized and sequenced according to individual children's needs and according to general linguistic and developmental principles (e.g., teaching one-syllable words with short vowels before combining them into multisyllabic words). Explicit, systematic teaching includes some practice reading words in isolation as well as in context. However, teaching word identification in an explicit, systematic manner does not eliminate taking advantage of spontaneous learning opportunities or "teachable moments."

Explicit, systematic teaching includes some practice reading words in isolation as well as in context.

In addition, explicit, systematic instruction of word-identification competencies does not require constant drill or an overemphasis on passive seatwork. Rather, **this instruction can and should be centered around manipulative, activity-oriented lessons that are engaging** (e.g., having children employ unifix cubes to segment phonemes in spoken words and use plastic letters or letter cards in word-building activities). And it can include **active discovery of word patterns**, as in a "word detectives" approach (see, e.g., Gaskins, Ehri, Cress, O'Hara & Donnelly, 1997). For suggestions for teaching word identification, readers may wish to consult sources such as Blevins (1998); Honig, Diamond and Gutlohn (2000); and Strickland (1998).

Figure 1 on page 30 summarizes the word-identification competencies that have been discussed. Some cautions should be noted in interpreting Figure 1. First, the diagram does **not** represent a simple progression of developmental stages for children. Rather, individual children usually will have a variety of competencies for different kinds of words. For example, a typical beginning kindergartner may be acquiring foundational competencies for word identification, and may have very limited skills for reading most words, but may nevertheless recognize a few words automatically (e.g., his or her name). Conversely, although proficient adult readers recognize the vast majority of words automatically, they still may rely on word decoding and structural analysis to read technical or unusual words, such as unfamiliar medical terminology.

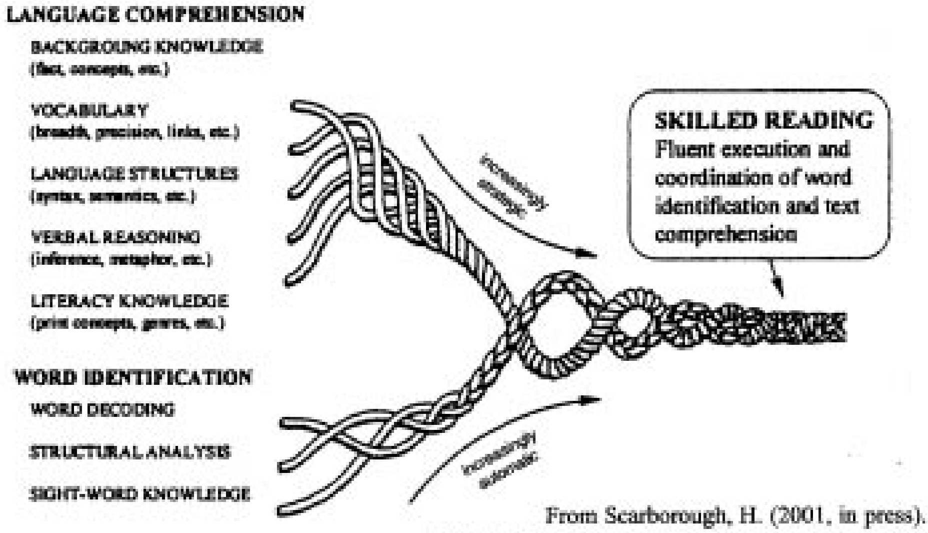
FIGURE 1
Some Important Competencies Involved In Word Identification


Automatic Word Identification
Competencies For Accurate Word Identification
Structural Analysis
Word Decoding
• synthetic blending strategies
• decoding by analogy
Sight-Word Knowledge
Foundational Competencies For Word Identification
Letter-sound and spelling-sound knowledge
Phonological and phonemic awareness
Understanding of the alphabetic principle
Basic print concepts

Second, children's word-identification competencies do not develop in a vacuum. At the same time children are acquiring the word-identification competencies outlined in Figure 1, they also are acquiring many other competencies critical for reading—most notably, comprehension abilities, to be discussed in detail in the pages that follow. Skilled reading requires the coordination of word identification (which becomes increasingly automatic over time) with a wide variety of language-comprehension competencies (which become increasingly strategic over time). Figure 2 on page 31 (adapted from Scarborough, 2001) illustrates the interwoven nature of word-identification and comprehension competencies in skilled reading.

FIGURE 2

The Many Strands That Are Woven Into Skilled Reading


LANGUAGE COMPREHENSION
BACKGROUND KNOWLEDGE
(facts, concepts, etc.)
VOCABULARY
(breadth, precision, links, etc.)
LANGUAGE STRUCTURES
(syntax, semantics, etc.)
VERBAL REASONING
(inference, metaphor, etc.)
LITERACY KNOWLEDGE
(print concepts, genres, etc.)
WORD IDENTIFICATION
WORD DECODING
STRUCTURAL ANALYSIS
SIGHT-WORD KNOWLEDGE
increasingly strategic
increasingly automatic
SKILLED READING
Fluent execution and coordination of word identification and text comprehension

From Scarborough, H. (2001, in press). "Connecting Early Language and Literacy to Later Reading (Dis) abilities: Evidence, Theory and Practice." In S. Neuman and D. Dickinson (eds.), *Handbook for Research in Early Literacy*. New York: Guilford Press. Adapted with permission from Hollis Scarborough.

Editor's Note: The block of text at the lower-left of the original Scarborough diagram was titled *Word Recognition*. Listed under the original word-recognition title were the following elements: *phonological awareness, decoding* and *sight recognition.*

Fluent And Accurate Word Identification In Context

Reading in context—that is, reading texts comprised of sentences and paragraphs, as opposed to reading words in isolation—must be another component of any curriculum of reading instruction. Appropriate texts include a wide variety of materials, such as "big books" and predictable texts, decodable texts (texts with a high proportion of specific word patterns that children have learned to decode), authentic children's literature, and nonfiction (informational) texts. Children should be exposed to many different kinds of text, but the text that is most appropriate in a given situation depends in part on children's levels of development in reading and on the goals of instruction. For example, "big books" and predictable texts can be very useful in developing basic print concepts in emergent readers; decodable texts can be very useful in giving beginning readers practice applying word-decoding skills in context; and authentic children's literature (which may be read *to* children or *by* children) can be useful for developing comprehension abilities in children at all reading levels (Brown, 1999-2000).

The text that is most appropriate in a given situation depends in part on children's development in reading and on the goals of instruction.

Practice in reading text is extremely important to developing **fluency**, that is, the ability to read with ease, without excessive attention to decoding individual words, so that the reader is free to focus on the meaning of the text. Fluency requires the integration of **automatic word identification** (i.e., fast and effortless recognition of individual words) and **on-line monitoring of comprehension** (i.e., children must be thinking about meaning as they read).

Building fluency requires grade-appropriate and reading-level-appropriate texts that are varied and engaging. It is extremely important that children not be placed in texts that are too difficult for them, an especially common problem with poor readers. Individual children's independent, instructional and frustration reading levels should be differentiated. For example, a second-grader who is a struggling reader may need to be placed for instruction in texts written at a middle-first-grade level, may read independently only at a beginning-first-grade level, and may not be able to read at all in a second-grade text (because this material is at his or her frustration level). Conversely, an unusually high-achieving second grader may be bored by many second-grade texts and may need to be provided with more difficult books in order to be appropriately challenged.

Beginning readers need many opportunities to practice reading in text.

Beginning readers need many opportunities to practice reading in text. Having children read aloud in reading-level appropriate text, with explicit feedback and coaching from the teacher, promotes reading achievement (National Reading Panel, 2000). The texts children are reading should provide them with frequent opportunities to apply both the word-decoding and comprehension skills that they are learning (Beck & Juel, 1995; Pearson & Duke, 2000). Repeated readings of familiar texts (Clay, 1985; Samuels, 1979) can be useful in building fluency.

Helping children to develop fluent and accurate word identification in context requires a knowledge base about available children's books and magazines and, of course, access to a wide range of those texts. School and public librarians can serve as an especially valuable resource in this area, as will be discussed further.

Comprehension

Comprehension includes both **oral-language comprehension** and **reading comprehension**. At beginning levels of reading achievement, reading aloud to children is essential in developing comprehension, because the books that children can actually read themselves typically are far below their oral-comprehension levels. For example, in a typical second-grade class, only a small number of children might be able to read *Charlotte's Web* themselves, but many more could understand and learn from it if the teacher read it aloud to them. Reading comprehension should receive increasing emphasis as children's reading abilities develop. However, **the value of reading aloud to children does not diminish throughout the K-3 years.**

Comprehension abilities are fostered by classroom discussions that engage students and encourage them to reflect on the meaning of a text.

Comprehension abilities are fostered by classroom discussions that engage students and encourage them to reflect on the meaning of a text (Beck, McKeown, Sandora, Kucan & Worthy, 1996). This kind of discussion requires teachers to ask the right kinds of questions—not questions too narrowly focused on retrieval of details but, rather, questions that encourage understanding, interpretation and elaboration. A number of specific instructional interventions involving this kind of discussion and questioning have been developed, including *Questioning the Author...* (Beck et al., 1996; Beck, McKeown, Hamilton & Kucan, 1997), "Reciprocal Teaching..." (Palincsar & Brown, 1984) and "Instructional Conversations..." (Goldenberg, 1992). Discussions that foster comprehension can be based on books the teacher has read aloud to children, as well as on books children have read themselves.

A particularly important aspect of comprehension is **vocabulary**. Again, vocabulary instruction should include both oral and reading vocabulary. Direct instruction is very useful in developing vocabulary, especially if it is "rich instruction" that requires students to manipulate words in a variety of ways (e.g., relating new words to their own experiences) and that includes much discussion of words (Beck, McKeown & Omanson, 1987). As opposed to traditional vocabulary instruction in which students study a set of new words each week from a workbook, rich vocabulary instruction should provide students with many encounters with new words and should require them to use words outside of vocabulary lessons.

Because the number of new vocabulary words that might potentially be taught is so large, words targeted for rich instruction must be carefully selected with regard to their general utility and their relationship to the overall curriculum. Consider, for example, a third-grade class in which some of the children are reading Ursula LeGuin's *Catwings*, a fantasy about the adventures of a group of cats who can fly. Words from the book, such as wings, children and chin, are what Beck et al. (1987) term "first-tier" words, that is, common words that probably are familiar to most children and therefore do not need to be taught. Words such as thrush, owlet and talons are what Beck et al. call "third-tier" words; they might well be unfamiliar to children, and they should be taught sufficiently for children to be able to understand the story, but they tend to be found in relatively restricted contexts and have somewhat limited general utility. Rich instruction should emphasize "second-tier" words, those likely to be unfamiliar to some children, necessary for understanding the text and useful in a wide variety of contexts. In *Catwings*, "second tier" words might include words such as alarmed, discouraged, lame and quarreling.

Encouraging independent learning of new vocabulary also is highly desirable. One way to accomplish this goal is through independent reading, a very important source of exposure to new words (Cunningham & Stanovich, 1998). However, because struggling readers not only do less independent reading than do good readers, but may also be less skilled at inferring word meanings from context, other ways of encouraging independent learning of words should not be ignored. Teachers should create a classroom environment that places a strong emphasis on thinking and talking about words; on challenging children to note and discuss new words; and on encouraging children to draw relations between words (Beck et al., 1987).

Another very important aspect of comprehension involves the use of **comprehension strategies**. For example, as mentioned earlier, skilled readers are strategic; if something they have read does not make sense, they actively try to figure it out, perhaps by rereading or using their knowledge base about a topic. Important comprehension strategies include summarization, prediction, the use of student-generated questions, the use of graphic and semantic organizers, and the use of story structure (Pearson & Duke, 2000). Teaching a combination of reading-comprehension strategies is more effective in improving comprehension than is reliance on one or two strategies (National Reading Panel, 2000). "Thinking aloud" and modeling by the teacher can be especially useful in the teaching of comprehension strategies.

Children need books not only at appropriate levels of difficulty, but also of different genres.

As with building fluency, developing comprehension requires that children have adequate access to a wide variety of books. Children need books not only at appropriate levels of difficulty, but also of different genres. For example, many popular children's books—such as E. B. White's *Charlotte's Web* or J. K. Rowling's *Harry Potter* series—are narratives; that is, they tell a story. Other books are informational (e.g., nonfiction books about snakes or the solar system). Informational books typically have an expository text structure, which differs from narrative text structure. Narrative text structure revolves around such features as a setting, characters and a plot line, whereas expository text structure more often provides main ideas and details. In addition, informational texts usually differ from narrative texts in vocabulary, syntax and conceptual level. Children need experience in reading and listening to both types of text, and they should have their attention drawn to different text structures. **Sensitivity to text structure** plays a role not only in comprehension, but also in writing, as discussed on pages 35 and 36.