EPS®
Literacy and Intervention

Research-Based Reading Comprehension

MAKING CONNECTIONS®
Build Essential Literacy Skills

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Introduction

Research consistently points to the direct relationship between comprehension instruction and success in learning to read. It is only fairly recently, however, that researchers have begun to understand how readers comprehend what they read and—more important from the standpoint of this program—how to break down this task of comprehension into steps that can be taught. *Making Connections*® is a direct, systematic, highly interactive comprehension program for students in grades 1–6 that incorporates the most current research findings in reading comprehension.

Student Books are organized thematically. Each unit also focuses on a comprehension skill and includes four texts written to give students practice with that skill. The texts are varied for genre; while they present a variety of engaging narratives and poems, they also cover a wide range of nonfiction topics. The first three texts in a unit gradually increase in the amount of student interactivity and independence required. The shorter length of the fourth text makes it an ideal in-book assessment. Practice the Skills pages follow each text, presenting questions, graphic organizers, and vocabulary or writing activities.

The comprehensive Teacher's Editions provide the necessary teacher instruction—including enough of a "refresher course" for teachers to firmly ground them in current science-based comprehension and the difference between skills and strategies. The Teacher's Editions provide scaffolded instruction-—from modeling to guiding to coaching—with variations to accommodate diverse learners across each unit. All lessons employ a series of strategies for interacting with a text before, during, and after reading. Teacher's Editions also include a fifth text for each unit in the form of a reproducible state-standards compliant assessment.

The Comprehension Library provides a "capstone" experience, or sixth text, for students to highlight their progress and reinforce skills and strategies in an authentic reading situation. These trade-like books, many written by widely published authors, feature target skills and strategies. Half of each level's Comprehension Library is fiction, and half is content-area nonfiction. All of the titles are enhanced by specially written questions and activities for before and after reading.

Comprehension as a Process

When one has read a text with understanding, one is said to have comprehended it. However, comprehension is probably better regarded as a process—rather than a particular outcome or product—through which a reader interacts with a text to construct meaning. This view of comprehension emphasizes the deliberate, strategic, problem-solving

"…systematic and explicit…"

"…incorporates the effective comprehension strategies identified in the Report of the National Reading Panel…"

"…strong enough to be used as the primary instructional method to develop comprehension skills…"

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processes of the reader as he or she engages with a text. Hence, the meaning a reader derives from a text is influenced by his or her own knowledge (including knowledge of language and print), experience, and perceived purpose for reading. This meaning-making process is what Durkin (1993) terms "the essence of reading."

The conceptualization of comprehension as a problem-solving process has guided much of the instructional research on the topic during the past 30 years. This research has provided us with a clearer vision of how best to help children acquire and use the strategies and skills that foster good comprehension. Several general characteristics of effective strategy instruction have arisen from this body of work. First, we know that it is important for instruction to be explicit (Duffy, 2002; Palinscar & Brown, 1984). The teacher needs to make covert thought processes obvious to the student through modeling, demonstrations, and guidance. Secondly, it is important for the teacher to provide temporary support, or "scaffolding," to help the student move toward independent application of strategies and skills, and the long-term goals of maintenance over time and generalization to related reading situations (Palincsar & Brown, 1984; Duke & Pearson, 2002). Next, it is important for instruction to be sustained over time (Klingner et al., 2004; Pressley & Wharton-McDonald, 1997). Effective strategy instruction is not a "quick fix"; rather, it needs to be an integral part of reading instruction on an ongoing basis. Finally, instruction should be differentiated (Mosenthal, 1984; Spiro, 2001). Readers approach texts in varying ways that reflect ability, purposes for reading, and the overall context. Teachers need to respond to the learning needs of individual students and provide varied reading experiences that foster students' abilities to use strategic approaches flexibly.

In spite of the solid research support for comprehension instruction, large-scale studies of classroom practices in elementary schools have indicated that, on the whole, teachers devote very little time to it (Durkin, 1978-79; Taylor et al., 2000). As Kamil (2004) notes, effective comprehension instruction is far from simple. The problem may stem, at least in part, from a lack of training and a dearth of instructional resources. *Making Connections*, a comprehensive program for improving the reading comprehension ability of students in grades 1 through 6, was developed to respond to this need. The program directly addresses the themes identified above. Strategies for successful reading are initially introduced through explicit, teacher-led instruction. There is a clear procedure for scaffolding instruction as children practice newly learned strategies and skills in a variety of reading situations with increasing independence. The program is designed to help teachers sustain emphasis on comprehension instruction throughout a given school year and across grade levels. Finally, *Making Connections* offers teachers a manageable range of options to help them provide differentiated instruction for all learners.

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What Research Tells Us about Best Practices

In recent years, considerable national attention has been focused on interventions for preventing reading difficulties and fostering higher levels of literacy in all children. There have been two large-scale committee efforts to summarize the research on reading instruction. The first report was completed by the Committee on Prevention of Reading Difficulties in Young Children, a group appointed by the National Academy of Sciences at the request of the U. S. Department of Education and the U. S. Department of Health and Human Services. This group evaluated hundreds of studies in reading and related fields in order to take stock of the current status of our understanding of early reading development. In their published report, *Preventing Reading Difficulties in Young Children* (Snow, Burns, and Griffin, 1998), the group stressed the importance of formal instruction in both word recognition and comprehension during the early school years. They advocated explicit, systematic instruction in phonemic awareness, phonics, and common orthographic patterns in order to develop automatic word recognition. In the area of comprehension, they recommended activities to enhance vocabulary and conceptual

knowledge as well as systematic teaching of strategies: "Throughout the early grades, reading curricula should include explicit instruction on strategies such as summarizing the main idea, predicting events and outcomes of upcoming text, drawing inferences, andmonitoring for coherence and misunder-standings" (Snow et al., 1998, p. 323).

At around the same time, the National Reading Panel—a group of leading reading researchers appointed by the U.S. National Institute of Child Health and Human Devel-opment (NICHD)—carried out the most extensive research review to date (National Reading Panel, 2000). Their work has sparked a widespread interest in implementing those instructional methods that have been found to be effective and has played a key role in the creation of guidelines for the federal No Child Left Behind Act (U.S. Office of Education, 2004). On the basis of their evaluation of the instructional research in reading, the National Reading Panel recommended explicit, systematic instruction in five areas: phonemic awareness, phonics, fluency, vocabulary, and comprehension. In the area of comprehension, they recommended formal, explicit teaching of reading strategies.

The National Reading Panel chose not to include in their review of comprehension instruction any studies that dealt exclusively with students belonging to special populations, most notably those with learning disabilities (LD). However, several research syntheses and meta-analyses of the intervention research for students with LD have been conducted, some with support from the U. S. Department of Education, Office of Special Education Programs, and the National Center for Learning Disabilities. Several of these reviews focused on the effectiveness of reading interventions for students with LD (Fuchs et al., 2000; Gersten et al., 2001; Mastropieri et al., 1996; Swanson, 1999). Overall, there was solid evidence that explicit instruction in reading strategies, especially those involving self-monitoring and self-questioning, resulted in improved reading comprehension. Moreover, a large-scale meta-analysis of many different types of interventions indicated that reading comprehension instruction is one of the most effective instructional techniques for students with LD (Forness et al., 1997).

A common recommendation across all of these reports is comprehensive or "balanced" reading instruction that includes the vitally important development of automatic word recognition but that also addresses fluency, vocabulary, and comprehension. *Making Connections* addresses all of these components with emphasis on the latter three. Decoding skills that include phonemic awareness and phonics are practiced in the context of comprehension monitoring. Students are directed to circle words they can't decode and/or don't understand so they can get help with the words from their teacher or peers. In addition, vocabulary strategies taught in the program include attention to phonics and structural analysis.

Comprehension Strategies

Research indicates that good readers of all ages engage in conscious, active comprehension strategies before, during, and after reading (Pressley & Wharton-McDonald, 1997). Before reading, for instance, they may define their goals for reading and consider what they already know about a topic and the structure of a text. During reading, they typically activate relevant prior knowledge, make connections among important ideas, construct and test hypotheses, paraphrase key points, and try to resolve any comprehension difficulties that arise. As they read, they may make notes in the margins or underline portions of a passage. After reading, they may reread or skim the passage, summarize it, or take notes. Good readers often continue to reflect on the meaning of a text long after they have read it. Finally, good readers use strategies flexibly depending on the type of text they are reading and their purpose for reading it.

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The answer is a resounding "yes." From their analysis of 203 studies, the National Reading Panel (2000) concluded that there is solid research support for the following strategies:

Monitoring Comprehension: This includes a variety of instructional techniques for helping students learn to gauge how well they understand a passage and to apply "fix-up" strategies for correcting comprehension problems. The National Reading Panel (2000) reported that these strategies helped children throughout the elementary grades become more aware of their comprehension difficulties. Other evidence indicates that strategies involving comprehension monitoring are especially helpful for students with learning disabilities (Vaughn et al., 2000).

Question-generation has proven to be an especially beneficial strategy for students with learning disabilities (Vaughn et al., 2000).

As a strategy performed either during or after reading, summarizing helps readers to focus on main ideas or other key skill concepts that have been taught and to disregard less relevant ones.

Cooperative Learning: According to Kamil (2004), cooperative or collaborative learning can be considered both a strategy and a social organization that fosters learning. Many effective approaches to strategy instruction feature having students work on comprehension-related activities in small groups (e.g., Palincsar & Brown, 1984; Pressley & Wharton-McDonald, 1997; Vaughn & Klingner, 1999) or pairs (Fuchs et al., 2000). Recent research is indicating that cooperative learning may help improve the comprehension of students who are in the process of learning English (e.g., Fung, et al., 2003), including those who also have learning difficulties (Klingner & Vaughn, 1996; Saenz, 2005).

Graphic Organizers: Across many studies, graphic organizers have proven to be useful in helping students visualize relationships among structural elements in a text. Graphic organizers are known by a number of names, including story maps, concept maps, or semantic organizers. While most of the studies reviewed by the National Reading Panel (2000) involved students in the upper elementary and middle grades, evidence also indicates that use of graphic organizers as a component of a comprehension program is helpful for those with learning disabilities (Ae-Hwa et al., 2004), and young children at risk for reading difficulties (Williams, 2005). Much of the research on graphic organizers has focused on their use as a tool for helping students understand text structure. The use of graphic organizers is often accompanied by instruction on using "signal words" or transitional expressions to identify, for instance, a compare/contrast or cause/effect framework (e.g., Williams, 2005).

Story Structure: Much research on the reading comprehension of children in the elementary grades has focused on teaching strategies for identifying key information in narrative text (e.g., Baumann & Bergeron, 1993; Idol & Croll, 1987). These strategies have typically involved training children to ask themselves questions about the basic components of stories as they read: characters, setting, goals of the characters, actions taken, and outcome. In some studies, children were taught to record this information on graphic organizers. The National Reading Panel (2000) found evidence that these techniques improved comprehension and recall of stories, most notably for poor readers. Most children readily internalize the basic form of narratives as they read and listen to stories; struggling readers, however, are often slower to develop awareness of story structure (e.g., Montague, et al., 1990) and are particularly likely to benefit from explicit instruction.

Answering and Generating Questions: Many studies of strategy instruction have focused on teaching children strategies for answering questions or generating questions of their own before, during, or after reading. Questions help students actively engage with a text, check their comprehension, and construct memory representations. From a review of research on strategy instruction that involved question-generation, Rosenshine et al. (1996) concluded "students at all skills levels would benefit from being taught these strategies" (p. 201). Question-generation has proven to be an especially beneficial strategy for students with learning disabilities (Vaughn et al., 2000).

Summarizing: Summarizing involves identifying the main idea in a paragraph or composing a concise statement of the central concepts from a longer passage, either orally or in writing. As a strategy performed either during or after reading, summarizing helps readers to focus on main ideas or other key skill concepts that have been

taught and to disregard less relevant ones. It may encourage deeper engagement with a text and encourage students to reread as they construct a summary (Kamil, 2004). Summarizing taught either alone (e.g., Armbruster et al., 1987) or as one of several strategies (e.g, Palincsar & Brown, 1984) has been shown to improve comprehension and memory for what was read (National Reading Panel, 2000). Summarizing is a complex activity that involves paraphrasing and reorganizing text information. Research indicates that children, particularly struggling readers, benefit from explicit instruction on identifying main ideas as a step in the process of constructing a summary (e.g., Weisberg and Balajthy, 1990).

Multiple Strategies: Many studies of strategy instruction have involved a combination of two or more of the above techniques (e.g., Palincsar & Brown, 1984; Pressley & Wharton-McDonald; Vaughn & Klingner, 1999). Proficient reading obviously involves more than use of a single strategy, and a considerable amount of research has demonstrated the effectiveness of integrating several strategies. The emphasis in multiple strategy instruction is on adapting strategies and using them flexibly (Kamil, 2004). Many approaches to multiple strategy instruction such as "reciprocal teaching" (Palincsar & Brown, 1984) include cooperative learning or peer tutoring.

Comprehension in *Making Connections* incorporates the strategic approaches recommended by the National Reading Panel (2000) as vehicles for teaching comprehension skills. At Level 1, there are four units, and at Levels 2–6, there are six units, each unit consisting of five texts, four of which are found in the Student Book. This consumable book also includes graphic organizers, follow-up questions, and other activities. The fifth text, which assesses target skill development, is housed in the Teacher's Edition. There is also a sixth text for each unit, found in the Comprehension Library that accompanies the program.

A particular comprehension skill is targeted and practiced in each unit. However, the idea is constantly reinforced that these skills (e.g., Main Idea, Compare and Contrast, Fact and Opinion) are not to be viewed as ends in themselves but rather are to be used strategically in the service of comprehension. Units are also organized around a common theme (e.g., the city of San Francisco, undersea life), which provides opportunities for students to make connections among several related texts.

Children often find expository texts with their varying organizational structures more challenging to read than sequentially organized narrative text (Carlisle & Rice, 2002). The texts in *Making Connections* represent a range of genres including both narrative and expository text. Students thus practice applying strategies in a variety of reading situations. The texts are well organized and coherent with ideas explicitly linked by signal words and transitional expressions. When addressing the targeted skills, teachers help students to identify common discourse structures such as sequencing and cause/effect, and the graphic organizers included in the Student Books help students visualize these organizational frameworks. The texts provided in *Making Connections* help students learn to recognize the typical characteristics of various discourse frameworks and to use this knowledge strategically. Although "authentic" texts are often not so precisely structured, research suggests that after practice with carefully crafted, "considerate" texts, students are generally able to apply the strategies they have learned to other material such as textbooks and trade books (e.g., Williams, 2005).

The Teacher's Edition accompanying each level of the program contains recommended strategic procedures for before, during, and after the reading of each text. These include activating prior knowledge, establishing a purpose for reading, monitoring comprehension, generating and answering questions, completing graphic organizers, and summarizing. One of the features of *Making Connections* that differentiates it from most other programs on the market is the emphasis on strategic behavior during reading, especially monitoring comprehension to identify "trouble spots." Children are encouraged to interact with the text and each other by circling

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unfamiliar words and phrases as they read, in an attempt to resolve these comprehension difficulties. The constant reinforcement that children receive to think strategically as they reflect on previously read texts in the Background Knowledge part of a lesson, as well as on all the texts in a unit via a feature called Text Connections, should help prepare them to view all reading tasks as problem-solving opportunities. There is support for combining multiple strategies children have learned and adapting them for different reading purposes.

Vocabulary

The texts represent a variety of genres and content areas to help children expand their fund of general knowledge and related vocabulary.

A strategic approach to vocabulary development is encouraged at every level of *Making Connections*.

Vocabulary knowledge and reading comprehension are strongly related. This is true at all grade levels and in all languages throughout the world, with correlations on the order of .6 to .7 (Anderson & Freebody, 1983). Moreover, the size of a child's vocabulary in the early school years is predictive of his or her reading comprehension in high school (Cunningham & Stanovich, 1997). There are several likely reasons for this relationship (Nagy, 2005). First, vocabulary may reflect a reader's background knowledge. Word knowledge and world knowledge develop simultaneously and together influence comprehension. Secondly, the extent of a reader's vocabulary may reflect his or her aptitude for learning and using language. Finally, depth and breadth of word knowledge may enable readers to construct meaning quickly and easily as they read. Of course, there is a reciprocal relationship between vocabulary and comprehension: being a good reader contributes to having a larger vocabulary. This may be because good readers tend to do more reading. Not surprisingly, research indicates that individuals who read extensively generally have larger vocabularies and a greater fund of general knowledge (Stanovich et al., 1998). Avid readers encounter more words, receive more practice at using context to infer and refine meanings, and over time grow cognitively and linguistically "richer" (Stanovich, 1986).

Good word reading skills, of course, facilitate the learning of new words from text. However, there is also evidence that the reverse is true: that vocabulary knowledge contributes to phonemic awareness (e.g., Metsla, 1999) and to word recognition (Dickinson et al., 2003; Nagy et al., 2003; Nation & Snowling, 2004). As Kamil (2004) notes, "Understanding text by applying letter-sound correspondences to printed material occurs only if the word read orally is a known word in the learner's vocabulary" (p. 214).

There are several groups of children for whom vocabulary development should be a priority. These include children with language-based learning disabilities, those from underprivileged backgrounds, and those learning English as a second language. Children with language impairments or learning disabilities usually have a more difficult time acquiring new vocabulary than their normally achieving peers (McGregor, 2004). On entering school, children from different socioeconomic backgrounds differ widely in their exposure to language in the home, in the size of their vocabularies, (Hart & Risely, 1995; Snow, et al., 1998), and in the extent of their world knowledge (Neuman, 2001). Finally, it is typical for students who are in the process of learning English to have limited second-language vocabulary (Calderón et al., 2005), an obstacle that adversely affects their reading comprehension.

It is estimated that, on average, children learn about 3,000 new words per year during their school years (Nagy & Anderson, 1984). Because this number is far more words than can possibly be taught directly, it is assumed that children learn most new words incidentally through exposure to oral and written language; therefore, direct teaching of vocabulary is unnecessary. However, the National Reading Panel (2000) concluded from its analysis that both indirect instruction and direct teaching of specific words may be effective in improving both vocabulary and comprehension. Teachers can foster incidental word learning by ensuring that children have frequent encounters with words, especially words that they are likely to encounter in a variety of contexts (Beck et al., 2002). Children can be encouraged to make connections between words and their

own knowledge and experience. Such instruction is aimed not just at teaching new words but also at helping students think and talk about language to promote "word consciousness" (Nagy, 2005). The National Reading Panel (2000) concluded that explicit instruction of vocabulary is more effective when words are encountered in context rather than on lists of unrelated words. They noted that techniques to encourage active engagement are likely to be beneficial. These include inferring meanings (e.g., Jenkins et al., 1989), forming mental pictures, acting out words, using words in writing (Dole et al., 1995), and incorporating group learning formats (e.g., Malone & McLaughlin, 1997).

Nagy and Anderson (1984) estimated that for every new word a child learns, "there are an average of one to three additional related words that should be understandable to the child, the exact number depending on how well the child is able to utilize content and morphology to induce meanings" (p. 304). Although the context of a passage often does not provide enough information to enable a reader to infer the meaning of a completely unfamiliar word (Beck et al., 2002), research indicates that teaching children to use context and morphology is quite beneficial. In a recent series of studies involving upper elementary and middle school students, Baumann and his colleagues (Baumann et al., 2005) explored using explicit strategy instruction to teach students to use knowledge of word parts (prefixes, suffixes, and root words) and various types of context clues to infer the meaning of new words. This approach enabled the students not only to learn and remember words taught in the lessons, but also to apply these strategies to infer the meanings of new words.

Vocabulary in *Making Connections*

Beck et al. (2002) suggest that words can be categorized into three groups. On one extreme are high-frequency words that most children of a given age probably already know. On the other extreme are low-frequency words. Beck et al. suggest that vocabulary instruction is most productive when teachers select what Stahl and Stahl (2004) have termed "Goldilocks words"—those that fall between the two extremes and are likely to be encountered in many different contexts. The texts created for *Making Connections* contain a rich assortment of such words and sufficient context clues for children to infer their meanings. The texts represent a variety of genres and content areas to help children expand their fund of general knowledge and related vocabulary.

A strategic approach to vocabulary development is encouraged at every level of *Making Connections*. The use of context clues and dictionaries and knowledge of word parts (prefixes, suffixes, root words), are modeled for students and reinforced in every lesson. As they monitor their comprehension, children are encouraged to identify unknown words and difficult phrases. This may help teachers respond to the needs of struggling learners and students who are learning English and are likely to need to learn words that most children have already mastered. The Teacher's Editions contain suggestions for fostering discussion of word meanings, including the use of cooperative learning.

Fluency

Fluent reading involves accurate and automatic word recognition as well as appropriate use of prosodic features such as stress, pitch, and phrasing (Kuhn & Stahl, 2003). The result is smooth, relatively rapid reading of text with the phrasing and expression that is characteristic of oral language. There is a reciprocal relationship between fluency and comprehension. The more fluent the reader, the more likely it is that he or she will understand a passage; conversely, the better a reader's comprehension, the more fluent his or her reading is likely to be (Jenkins et al., 2003; Kuhn & Stahl, 2003).

Although automatic word reading does not, in and of itself, necessarily guarantee fluency, it is obviously an important aspect. Ehri and Wilce (1983) have described the process of developing automaticity in word reading. Initially, a young reader needs to use strategies to recognize words (e.g., sounding out, making analogies

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to known words). With repeated exposures to words, however, the process of connecting the sound, the spelling, and the meaning becomes less effortful. Such connections allow words to be identified "by sight." According to Chall's (1996) model of reading, once children have become familiar with basic sound-letter correspondences, there is a need for them to work on becoming automatic in their word reading in order to make the transition from learning to read to reading to learn. LaBerge and Samuels (1974) theorized that without such automatic processing, children spend a disproportionate amount of time and attention on decoding, which limits the cognitive resources they can devote to comprehension. Readers vary in the ease with which they develop automaticity in word reading. In general, children with reading difficulties need many more exposures to words than average readers before they can read them automatically (e.g., Ehri & Wilce,1983).

Because the units in *Making Connections* are organized around a common theme or topic, the texts within the unit share some terminology. This feature may help facilitate the development of automatic word recognition and fluency by giving children repeated exposure to words.

We can conclude that developing fluency is vital if children are to be successful at the primary purpose for reading—constructing meaning from text. It is generally agreed that fluency develops from practice with contextual reading. However, the National Reading Panel (2000) concluded that there is not convincing evidence of the effectiveness of efforts to encourage independent silent reading through such programs as Accelerated Reader. Getting children to read more is certainly a worthy endeavor (Stanovich, et al., 1998), but it may not be sufficient by itself. The National Reading Panel found that a variety of practices that involve oral reading with feedback and guidance resulted in improvements in word recognition, fluency, and comprehension—for both good readers and those experiencing difficulty.

The National Reading Panel's analysis has been criticized because it did not distinguish among a wide variety of classroom practices. There have been two subsequently published reviews in which researchers specifically examined the effectiveness of repeated readings. Therrien (2004) concluded from a meta-analysis that repeated readings enhance fluency and comprehension of particular passages and lead to overall improvement in fluency and comprehension for both normally achieving students and those with LD. Based on their literature review, Kuhn and Stahl (2003) determined that assisted approaches are generally more effective than unassisted repeated readings. Assisted repeated readings included reading along with a teacher or tape recorder or "echo reading" after fluent reading of a passage has been modeled by a teacher or peer. Kuhn and Stahl also concluded that effective fluency instruction includes emphasis on reading with expression and appropriate phrasing.

Fluency in *Making Connections*

Lessons for *Making Connections* include the rereading of texts for two key purposes. The first purpose requires that students reread to identify/underline the key ideas for the target skill. The second recommends that students reread a text with the specific goal of increasing speed and reading with appropriate phrasing and expression. The Teacher's Edition contains ideas for using teacher modeling and peer-mediated activities to help children build both fluency and automatic word recognition.

A consistent research finding is that while repeated readings certainly lead to improved fluency and comprehension of a specific passage, the overall impact on reading skills is somewhat less robust (Therrien, 2004). Rashotte and Torgesen (1985) found that the extent to which the benefits of repeated readings of one passage transferred to other passages depended on the number of words the passages had in common. Because the units in *Making Connections* are organized around a common theme or topic, the texts within the unit share some terminology. This feature may help facilitate the development of automatic word recognition and fluency by giving children repeated exposure to words.

Phonological Awareness, Phonics, and Decoding

Phonemic awareness refers to the ability to isolate, identify, and manipulate the individual sounds—phonemes—in spoken words. While phonemic awareness is certainly not the only important factor in learning to read (Scarborough, 2005), extensive research over the course of the past 30

years identifies phonemic awareness as the single best predictor of early literacy achievement (e.g., Adams, 1990; Liberman et al., 1989; Snow

et al., 1998). Phonemic awareness is directly related to a child's ability to understand phonics, which refers to the predictable relationships between phonemes and graphemes—the symbols that represent sounds in written language. Phonics, in turn, is the central component of decoding—the process of "sounding out" written words. The ability to recognize written words is strongly correlated with reading comprehension, especially in the primary grades (Gough, et al., 1996; Juel et al., 1986).

In order for children to become good readers, it is crucial that they develop decoding skills during the early school years (Chall, 1996; Snow et al., 1998). Several major findings of the National Reading Panel (2000) involve instruction in phonemic awareness and phonics. The Panel concluded that training in phonemic awareness is effective in improving phonemic awareness itself as well as reading and spelling, especially when children are taught to manipulate sounds using printed letters. Subsequent research reveals that instruction in phonemic awareness is more effective when taught in the context of other literacy activities (e.g., Craig, 2003; Oudeans, 2003).

A second major finding of the National Reading Panel (2000) was that systematic, explicit phonics instruction (which is characterized by the direct teaching of letter-sound relationships in a clearly defined sequence) makes a bigger contribution to children's reading development than nonsystematic phonics or no phonics at all. The Panel further concluded that phonics instruction is most effective when begun in kindergarten or first grade and that it is especially beneficial for children who are experiencing difficulty learning to read and those who are at risk for developing future reading problems.

Phonological Awareness, Phonics, and Decoding in *Making Connections*

The National Reading Panel (2000) observed "educators must keep the end in mind and insure that children understand the purpose of learning letter-sounds and are able to apply their skills in their daily reading and writing activities" (p. 2-96). *Making Connections* is designed to be used in conjunction with an explicit, systematic approach to phonics, such as EPS Phonics PLUS (Educators Publishing Service, 2006). At the early levels of *Making Connections*, children are encouraged to apply what they know about letter-sound correspondences to "sound out" difficult words. Phonemic awareness is reinforced through a variety of activities such as identifying the rhyming words in poetry. As children progress through the program, the emphasis shifts to applying word analysis strategies such as syllabication principles and knowledge of common prefixes, suffixes, and roots to the task of decoding unfamiliar words. The Teacher's Editions contain ideas for supporting students who struggle with decoding. These include the pre-teaching and rehearsal of difficult words before the student reads a text, a technique that has been shown to improve fluency and comprehension for struggling readers (e.g., Burns et al., 2004).

Differentiated Reading Instruction

While the National Reading Panel (2000) concluded that readers of all ability levels benefit from comprehension strategy instruction, the instruction provided must match the needs of the learner. One size does not fit all. As Pressley and his colleagues (1989) observed, "There is no reason to waste instructional resources by teaching a strategy to someone who already employs it" (p. 313). The process of teaching strategies is complex, and the research on how best to prepare teachers for the task is limited (National Reading Panel, 2000). Yet it is becoming increasingly clear that children in classrooms in which strategy instruction is a sustained, ongoing aspect of reading instruction outperform those who experience more traditional approaches on assessments of reading comprehension (e.g., Klingner et al., 2004).

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Making Connections will be a valuable tool for teachers as they become more skillful in implementing effective strategy instruction. One of the highlights of *Making Connections* is the Teacher's Edition accompanying each level, which provides information on the research basis for the recommended procedures and offers detailed instructional guidance. Teachers will likely find the guidelines for "scaffolding" instruction particularly helpful. There are very precise recommendations for making the transition from explicit teaching and modeling to guiding to coaching in order to facilitate independent application and generalization as students progress through both a given unit and the program as a whole. Within each unit, it is recommended that skills and strategies be taught directly via explicit modeling and explanation. Reading the second text involves collaboration between the teacher and the student. The third is to be read independently or in small collaborative groups. The fourth, which also serves as an assessment, is to be read independently, with teacher guidance only if needed. The fifth and sixth texts are to be read independently. Based on field tests of the program, this procedure is likely to provide sufficient support for most students. However, the Teacher's Editions also provide additional suggestions for differentiating instruction. These include ideas for using cooperative groups to support learning throughout the unit and techniques for students acquiring English and for struggling readers. The suggestions were developed to help teachers respond to students with a range of learning needs-from those who are ready for independent application after minimal direct teaching to those who need extensive teacher support to master a skill.

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Conclusion

The instructional approaches in *Making Connections* are supported by 30 years of research indicating the benefits of explicit teaching of comprehension strategies, as well as research on developing vocabulary and increasing fluency. *Making Connections* can play an important role in providing elementary school children with a solid foundation in the challenging process of constructing meaning from text. This will likely serve them well throughout their school years, for as Harris and Pressley (1991, p. 395) observed, the systematic teaching of strategies supplies students with "their culture's best secrets about how to obtain academic success."

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