Research-Based Practices in Early Reading Series



A Focus on *Fluency*

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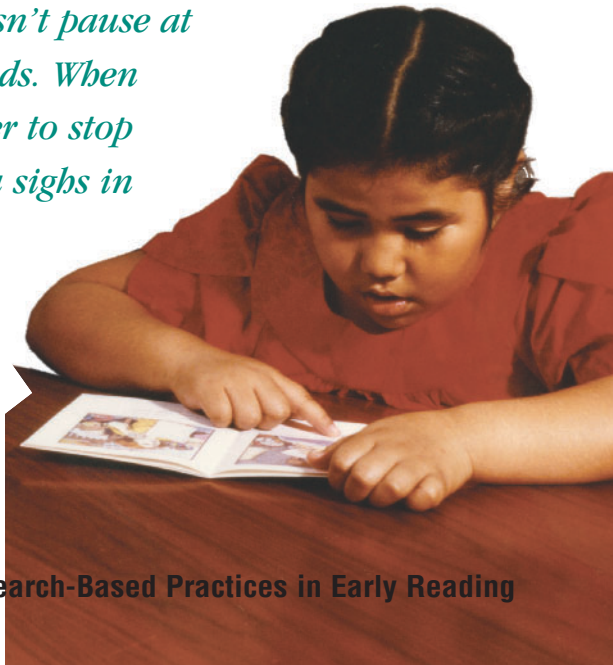
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A Focus on Fluency

It's the beginning of the school year, and Mrs. Oshiro wants to know how fluently her 2nd graders read. One by one, she sits with students and listens carefully as each child reads aloud a passage from a story the class has already read and discussed. The first student, Kendra, reads the passage quickly and, it seems, effortlessly. She reads each word correctly. She pauses briefly after commas and at the ends of sentences. She reads with expression, as if she is talking. After the reading, Mrs. Oshiro asks Kendra a few questions to make sure that she has understood what she read.

Mrs. Oshiro next sits with Samantha to read the passage. Unlike Kendra, Samantha struggles with the reading. She reads the passage in a slow and labored fashion. She stumbles over the pronunciation of some words, reads some words twice, skips others altogether, and occasionally substitutes different words for the words in the story. Although she pauses before pronouncing many of the words, she doesn't pause at commas and periods. When Mrs. Oshiro tells her to stop reading, Samantha sighs in relief.



Mrs. Oshiro faces a task that confronts most teachers: how to support students such as Samantha in becoming fluent readers. While instruction over the year needs to encompass aspects of reading such as phonemic awareness, phonics, vocabulary development, and comprehension, work to build fluency is especially important for struggling readers. Consequences can be dire for students who fail to become fluent readers: Students who do not develop reading fluency, regardless of how bright they are, are likely to remain poor readers throughout their lives (National Reading Panel, 2000).

Fluency, more often than not, has been neglected in reading instruction. Until recently, for example, most commercially published reading programs did not specifically include fluency instruction. This lack of instructional focus may help explain one of the findings of the National Assessment of Educational Progress (NAEP) (Pinnell et al., 1995): Forty-four percent of American 4th grade students cannot read fluently, even when they read grade-level stories aloud under supportive testing conditions.

Fortunately, researchers and practitioners have begun to focus increased attention on fluency and its contribution to reading success. The purpose of this report is to take a look at what research tells us about the importance of fluency and the factors that affect its development, as well as what is now known about effective fluency instruction.



What Is Reading Fluency?

Despite the increased interest in reading fluency, there remains no single agreed-upon definition for fluency. Some definitions stress the role of accuracy and automaticity in word recognition (LaBerge & Samuels, 1974; Samuels, 2002; Stanovich, 1991). In the *Literacy Dictionary*, fluency is defined as "freedom from word recognition problems that might hinder comprehension" (Harris & Hodges, 1995, p. 85). Meyer and Felton (1999) define fluency as the ability to read text "rapidly, smoothly, effortlessly, and automatically with little conscious attention to the mechanics of reading, such as decoding" (p. 284). Others stress the importance to fluency of the appropriate use of prosody, or spoken language features that make oral reading expressive (Allington, 1983; Dowhower, 1987; Schreiber, 1987).

The definition of fluency offered by the National Reading Panel (2000) takes into consideration the components of rapid and automatic word recognition and of prosody. According to the Panel, fluency is "the ability to read a text quickly, accurately, and with proper expression" (p. 3-1). Expanding this definition, *Put Reading First* (Armbruster, Lehr, & Osborn, 2001) explains that:

> Fluency is the ability to read a text accurately and quickly. When fluent readers read silently, they recognize words automatically. They group words quickly in ways that help them gain meaning from what they read. Fluent readers read aloud effortlessly and with expression. Their reading sounds natural, as if they are speaking. (p. 22)

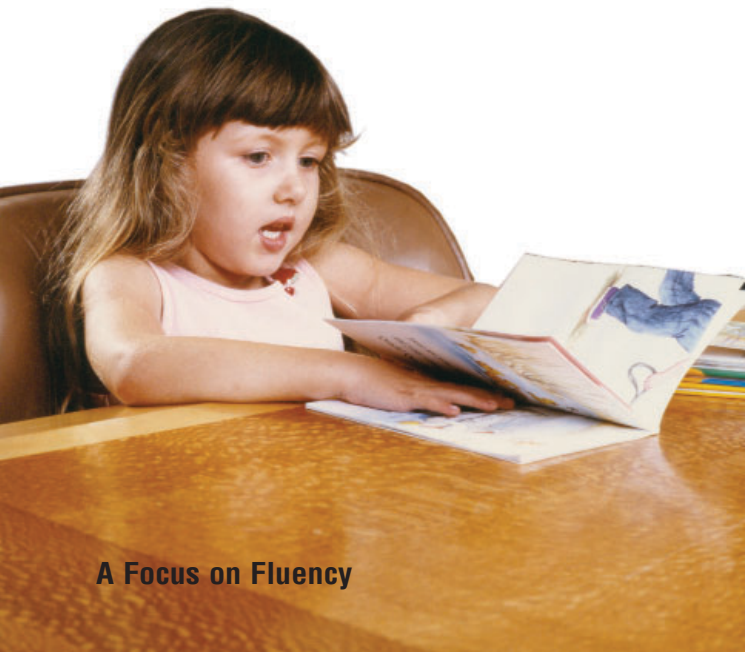
Whereas these definitions may clarify *what* fluency consists of, they do not explain *why* the components of word recognition and prosody are so important to fluency's development.



Accurate and Automatic Word Recognition in Fluent, Meaningful Reading

Examining the role of automatic information processing in reading, researchers in the early 1970s focused first on word recognition (LaBerge & Samuels, 1974). They pointed out that we can devote only a limited amount of attention to any given cognitive task. Attention we devote to one task is attention we cannot give to another. In reading, at least two cognitive tasks – word recognition and comprehension – compete for readers' attention. The more attention readers must give to identifying words, the less attention they have left to give to comprehension (Foorman & Mehta, 2002; LaBerge & Samuels, 1974; Samuels, 2002).

Fluency, it seems, serves as a bridge between word recognition and comprehension. Because fluent readers are able to identify words accurately and automatically, they can focus most of their attention on comprehension. They can make connections among the ideas in the text and between the text and their background knowledge. In other words, fluent readers can recognize words and comprehend at the same time. Less fluent readers, however, must focus much of their attention on word recognition. Because they cannot consistently identify words rapidly, they may read word-by-word, sometimes repeating or skipping words. They often group words in ways that they would not do in natural speech, making their reading sound choppy (Dowhower, 1987). The result is that non-fluent readers have little attention to devote to comprehension (National Reading Panel, 2000).





For most readers, fluency develops gradually over time and through extensive reading practice (Biemiller, 1977-1978). In addition, readers' level of fluency varies, depending on their familiarity with the words in a text and with the text's subject. Even very skilled adult readers may read in a laborious manner when presented with texts that contain highly technical vocabulary and/or are about subjects of which they have little background knowledge, such as with medical textbook descriptions of surgical procedures (Armbruster et al., 2001).

Because beginning readers must put a great deal of effort into recognizing and pronouncing words, their oral reading is rarely fluent. However, even when children learn to recognize many words automatically and to read grade-level text at a reasonable rate, their oral reading still may not sound "natural," because they do not yet read with expression – or prosody.

Prosody in Fluent Reading

Prosody is a compilation of spoken language features that includes stress or emphasis, pitch variations, intonation, reading rate, and pausing (Dowhower, 1987; Schreiber, 1987). Prosodic reading reflects an understanding of meaningful phrasing and syntax (that is, the ways words are organized in sentences and passages) (Rasinski, 2000). It also reflects the reading cues provided by text features such as punctuation marks, headings, and the use of different sizes and kinds of type – for example, boldface or all capitals (Chafe, 1988).

The relationship of prosody to reading success has not been clearly established. However, just as the prosodic features help young children to understand and interpret spoken language – the messages conveyed through raised or lowered voices, emphasized words, and sentences spoken rapidly or slowly – so these features seem to help children get meaning from written language (Schreiber, 1987). For example, fluent readers understand that punctuation marks can tell them where and how long to pause and what kind of intonation to use to read a sentence. They also understand that text features, such as words in boldface or all capitals, can tell them where to place emphasis. They then use this information, rapidly and often without conscious attention, to construct meaning as they read (National Reading Panel, 2000).

Modeling Prosody in Fluent Reading

Teacher:

(Reads a line from a story): "The Prince should have been happy, but he wasn't." Did you hear how I grouped the words "The Prince should have been happy"? That's because the words go together. And then I paused a little before I read the words "but he wasn't." This comma *(points to the comma)* told me to do that.

(Reads another line): "'It's the happiest day of my life!' the Prince laughed." Did you hear how my voice got louder and more excited right here? That's because the author put in this exclamation mark *(points to the exclamation mark)* to show how the Prince said the words.

On some reading assessments, elements of prosody are used to distinguish fluent from less fluent reading. For example, the four levels of NAEP's oral reading fluency scale distinguish word-by-word reading from reading that shows awareness of larger, meaningful phrase groups, syntax, and expressive interpretation (Pinnell et al., 1995). Similarly, Allington's (1983) six-point scale distinguishes word-by-word reading from reading in phrases that recognize punctuation, appropriate stress, and expression.

NAEP's Integrated Reading Performance Record Oral Reading Fluency Scale

Level 4

Reads primarily in large, meaningful phrase groups. Although some regressions, repetitions, and deviations from text may be present, these do not appear to detract from the overall structure of the story. Preservation of the author's syntax is consistent. Some or most of the story is read with expressive interpretation.

Level 3

Reads primarily in three- or four-word phrase groups. Some smaller groupings may be present. However, the majority of phrasing seems appropriate and preserves the syntax of the author. Little or no expressive interpretation is present.

Level 2

Reads primarily in two-word phrases with some three- or four-word groupings. Some word-by-word reading may be present. Word groupings may seem awkward and unrelated to larger context of sentence or passage.

Level 1

Reads primarily word-by-word. Occasional two- or three-word phrases may occur – but these are infrequent and/or they do not preserve meaningful syntax.

Note. From *Listening to Children Read Aloud* (p. 15), by U.S. Department of Education, National Center for Education Statistics, 1995, Washington, DC: Author. Available at http://nces.ed.gov/pubs95/web/95762.asp

By 2nd grade, many students are on their way to becoming fluent readers. Rapid word recognition and familiarity with common text features have begun to come together so that these students read with comprehension. Some students, however, continue to struggle with reading. Although most students can benefit from fluency instruction, such instruction is crucial for struggling readers.

Instruction to Build Reading Fluency

With fluency so important to reading success, what can be done to help students become fluent readers? The simple answer is to give them practice, practice, and more practice with reading. This answer, however, may not completely or adequately address the fluency needs of some students. Will just any kind of practice do? If not, what kind of practice is most effective? Is fluency enhanced by practicing connected text on level, or should easier and harder text be used as well? Should word-, phrase-, and sentence-level work also occur? For which students and at what grade level do specific fluency practices achieve the best outcomes?

To answer questions such as these, it is informative to look again at the report of the National Reading Panel (2000). The Panel analyzed research related to two instructional approaches that are widely used in classrooms to build reading fluency. These approaches are *repeated oral reading* and *independent silent reading.* Both approaches offer students reading practice opportunities. Repeated oral reading requires a student to read a passage orally several times, with explicit guidance and feedback from a fluent reader. Independent silent reading encourages students to read extensively on their own, both in and out of the classroom, with minimal guidance and feedback.



Repeated Oral Reading

The basic format for repeated reading was developed by Samuels (1979), based on what he observed in classroom reading instruction. Most often, instruction centered on students reading selections from their basal readers. In general, they read a new selection with new words each day. When asked to read orally in class, many students were unable to do so with fluency and were often embarrassed by their plodding reading. Samuels concluded that, for these students, the pace of instruction was too fast; they were not building reading fluency because they seldom had the opportunity to practice reading any selection more than once. This, he argued, was contrary to the way that most people who reach high levels of performance in their chosen fields gain their abilities. These people, such as musicians and athletes, tend to focus on one aspect of their performance and practice it over and over until they become proficient.

Samuels concluded that, rather than have students encounter a new selection daily, a better approach to building fluency would be to have them practice reading the same selection several times until they reached a predetermined level of fluency. He developed a procedure in which individual students first read aloud to an adult a passage from the selection, then re-read the passage silently a number of times. After this, they re-read the passage aloud. Samuels developed reading-rate criteria as a means to measure fluency growth. When students reached a designated reading rate for the passage, they moved on to another passage and repeated the procedure (Samuels, 2002).

From this basic form of repeated reading, a number of instructional procedures have emerged over the years. Some of the more widely used procedures include the following:

Teacher-student assisted reading. Assisted reading procedures take several forms. All forms, however, emphasize extensive practice as a means of improving students' fluency. In addition, most assisted reading methods first provide students with a model of fluent reading. By listening to good models of fluent reading, students learn how a reader's voice can help text make sense (Kuhn & Stahl, 2003).

In a typical assisted reading intervention, the teacher provides the model of fluent reading while working one-on-one with a student.

The teacher reads the text first, as the student follows along. Then the student reads the same text to the teacher, who provides guidance with word recognition and expression, as well as encouragement. The student re-reads the passage until the reading is fluent. This usually takes three or four re-readings.

A Teacher Feedback Technique
(Adapted from Anderson, Hiebert, Scott, & Wilkinson, 1985)

When a student makes an oral reading mistake that changes the meaning of a text, such as misreading or mispronouncing a word, the teacher should pause for a moment to see whether the student can correct the error without help. If the student is unable to do so, the teacher should direct the student's attention to clues about the word's pronunciation or meaning. When the word is correctly identified and read, the teacher should ask the student to re-read the sentence that contains the word. This helps the student to assimilate the correction and to recover the meaning of the sentence.

This procedure has been used with similar effects when teachers led choral reading with small groups or even classes of students, as Rasinski, Padak, Linek, and Sturtevant (1994) have shown. In their lesson format, called Fluency Development Lesson, a procedure akin to echo reading is used. Echo reading – a form of teacher-assisted repeated reading – involves the teacher reading aloud a section of a text and students repeating the section as they point to the words they are reading.

Readers theater. In readers theater, students rehearse and perform a play for peers or others. They read from scripts that have been derived from books that are rich in dialogue. Students are assigned the roles of characters who speak lines or a narrator who shares necessary background information. Readers theater provides readers with a legitimate reason to re-read text and to practice fluency. Some research has shown that, as a result of the repeated readings necessary to prepare for readers theater, students make significant gains in fluency (Rasinski, 1999). Readers theater has been found to be particularly effective in motivating students who have reading difficulties (Rinehart, 1999).

Paired reading. Paired reading (Topping, 1987) is a variation of assisted reading. In this procedure, a fluent reader – generally a parent or other adult – reads with a child who is having difficulty. Paired reading sessions begin with the adult reading a chosen

passage to the child. Next, the two read the passage several times in unison. In some procedures, the child uses a prearranged signal when he or she wants to take over the reading and read alone. As the child reads, the adult may correct errors in word recognition by saying the word, having the child repeat the sentence in which the word appears, and then continuing to read. Paired readings have been shown to increase fluency both when used by tutors in the classroom (Rasinski et al., 1994) and by parents who have learned how to use the procedure in the home (Morgan & Lyon, 1979; Topping, 1987).

Tape-assisted reading (reading while listening). In tape-assisted reading, students read along in their books with an audiotaped fluent reader. In the basic form of the procedure (Chomsky, 1978), students listen to a taped selection that has been recorded by a fluent reader. For the first reading, students follow along in their own copy of the selection, pointing to each word as the reader says it. After listening to the entire selection, students choose one passage from it to practice. They then read aloud with the tape repeatedly until they gain fluency and can read the passage independently. The students then read the passage to the teacher. This last stage is very important because, for some students, listening to a tape can serve as time to engage in off-task behaviors. To be effective, tape-assisted reading must be monitored and students must be held responsible for what they hear and read.

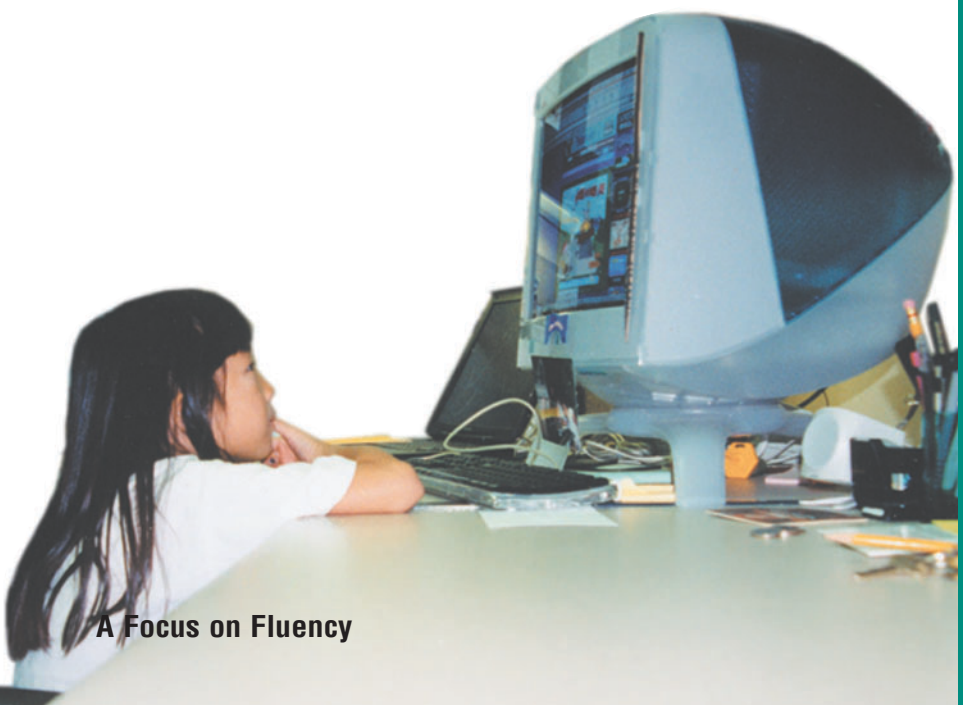
One problem with assisted reading in the classroom is that it takes a great deal of time and requires that the teacher provide one-on-one support for each student. In a class of 20 students, few if any teachers can find even 5 minutes of time in a day to devote to reading with each student (Adams, 2002). Tape-assisted reading is one solution to this problem. Biemiller and Shany (1995) found that students who participated in sessions in which they followed along in their own books as they listened to a tape recording of a text performed as well on a measure of reading comprehension as did a group that received teacher-led repeated reading practice. In addition, the tape-assisted reading group outperformed the teacher-led group on a measure of listening comprehension.

Computer-assisted reading. In recent years, a number of computer programs have been developed to provide students with repeated reading practice. In general, these programs use speech recognition software and immediate feedback as students read

aloud a text presented on a computer screen. Computer-assisted reading has been found to be effective in improving fluency, word recognition, and comprehension in 1st through 4th grade students (Mostow et al., in press).

In one such program, the software allows students to ask the computer to pronounce or to give the meaning of unfamiliar words. If the students ask for the meaning of a word, the computer presents the word's meaning in context, then gives a sentence and, wherever possible, a graphic to illustrate how it is used. Students can also request that the text, or any segment of it, be read aloud. As the students read, the computer keeps track of their fluency and accuracy, tracking performance over time (Adams, 2002).

Partner (or buddy) reading. In partner reading, paired students take turns reading aloud to each other. Various forms of partner reading have been found to produce significant gains in fluency (Eldredge, 1990; Koskinen & Blum, 1986). In a typical informal partner-reading procedure, students who are better readers are paired with students who are less able readers. The teacher first reads aloud a text (usually a story from the students' basal readers), pointing to words as they are read and modeling expressive reading. The students follow along in their books. Next, the pairs of students take turns reading a passage from the story to each other. The fluent reader first reads a passage, following the teacher's model. Then the struggling reader reads aloud the same passage, as his or her partner gives guidance with word recognition and provides feedback and encouragement. The struggling reader re-reads the passage until it can be read independently, usually after four re-readings (Samuels, 2002).



Conducting Partner Reading

Partner Selection Procedure:

1. The teacher uses fluency scores to rank order the class from top to bottom.
2. The teacher splits the class into two groups of equal size:

   Group 1 = top to middle

   Group 2 = middle to bottom
3. The top reader of Group 1 is paired with the top reader of Group 2, and so on down the lists.

Partner Reading Procedure:

1. The Group 1 reader always reads first to set the pace and ensure accuracy.
2. The Group 2 reader reads and attempts to match the pace of his or her partner.
3. The teacher closely monitors reading fluency, moving around the room to listen to each set of partners.

Some research has found that students work better in pairs when they are allowed to choose their own partners (Meisinger, Schwanenflugel, Bradley, Kuhn, & Stahl, 2002; Stahl, Heubach, & Cramond, 1996). Allowing students to choose partners tends to result in fewer squabbles between partners and more time spent on task. In one informal procedure, students select both their partners and the passages they want to read. The first reader reads the passage two or three times. The partner provides support as needed with new words. After the final reading, the first reader notes improvements in a reading log. Then the partners switch roles and repeat the process (Koskinen & Blum, 1986). A compromise approach has the teacher assigning partners initially. When the students learn to work successfully as partners, the teacher allows them to pick their own partners – as long as they stay on task and make progress.

In a more formal procedure for partner reading, cross-age tutoring (Labbo & Teale, 1990), an older student who is a struggling reader is paired with a younger student who is also having difficulty with reading. The older student practices reading a passage from the younger student's textbook until it can be read with accuracy and expression. When the partners meet, the older student reads aloud the passage, first alone and then with the

younger student several times. Following this, the younger student reads the passage aloud as the older student offers support and guidance. Such procedures have been shown to produce fluency gains for both partners (Labbo & Teale, 1990; Rasinski, 2000).

A Student Feedback Technique

In one kind of partner-reading procedure, students are trained by the teacher to use specific techniques for giving corrective feedback to each other:

Partner 1 *(reading)*:
"Is that what you *brought* with your birthday money?" Jimmy's mom asked.

Partner 2 *(pointing to a word)*:
Stop. This word isn't *brought*, it's *bought*. *Brought*, *bought*. Hear the difference? Now, what's the word?

Partner 1:
It's *bought*.

Partner 2:
Good. Now read the sentence again.

Partner 1 *(reading)*:
"Is that what you bought with your birthday money?" Jimmy's mom asked.

It is important to note that all effective repeated reading procedures have two features in common: (1) they provide students with many opportunities to practice reading, and (2) they provide students with guidance in how fluent readers read and with feedback to help them become aware of and correct their mistakes. This guidance and feedback can come from peers and parents, as well as teachers (Foorman & Mehta, 2002; Shanahan, 2002).

Evidence indicates that repeated oral reading with guidance and feedback helps to improve the reading ability of typically developing readers until at least 5th grade. It also helps struggling readers at higher grade levels (National Reading Panel, 2000).

Independent Silent Reading in the Classroom and Fluency Development

Although repeated oral reading is an effective way to provide students with reading practice in the classroom, struggling readers need many more practice opportunities than repeated readings in the classroom can provide. These are the readers who fall victim to what Stanovich (1986) calls "the Matthew effect," a Biblical reference to Matthew 25:29 – "unto everyone that hath shall be given . . . ; but from him that hath not shall be taken away even that which he hath." Or, in more familiar terms, "The rich get richer and the poor get poorer." As Cunningham and Stanovich (1998) explain, students who are good readers read more, get more practice, and so become better readers. However, students for whom reading is an unrewarding and difficult struggle quite naturally avoid reading. As a result, these students have less exposure to and practice with text, which leads to a delay in the development of word recognition automaticity. This delay, in turn, slows comprehension development and limits vocabulary growth.

For teachers of struggling readers, the challenge is to find additional opportunities for meaningful reading practice. To meet this challenge, teachers have long been encouraged to promote independent silent reading in the classroom by using procedures such as free-time reading, voluntary reading, Sustained Silent Reading, Uninterrupted Sustained Silent Reading, and Drop Everything and Read. Businesses and schools create schoolwide incentive programs (such as pizza parties, free books, and class celebrations) as ways to reward students for reading a large number of books.

The reasoning behind such efforts is sound. Numerous studies have found a strong relationship between reading ability and how much a student reads:

- Biemiller (1977-1978) found significant differences in print exposure among readers with different levels of reading ability and reported substantial ability group differences related to the amount of reading done.

- Juel (1988) found that 1st grade children with good word recognition skills were exposed to almost twice as many words in their basal readers as were children who had poor word recognition skills.

- Taylor, Pearson, Clark, and Walpole (1999) found that teachers in high-achieving primary classes allotted more time for independent reading.

- Nagy and Anderson (1984) found that in 5th grade, good readers may read 10 times as many words as poor readers over a school year.

- Cunningham and Stanovich (1998) showed strong connections between wide reading, reading achievement, and vocabulary knowledge.

Although the connection between wide reading and reading success appears to be obvious, research has rarely focused directly on whether efforts to encourage students to engage in independent silent reading with minimal guidance or feedback improve reading achievement and fluency. Most of the evidence cited to support independent silent reading comes from *correlational* rather than *experimental* research (National Reading Panel, 2000).

Correlational findings are useful, but they pose a problem. Correlations do not show the direction or the sequence of a cause-effect relationship. They cannot show, for example, whether good readers are good because they read more or whether they simply choose to read more because they are good readers. Experimental research, on the other hand, offers strict controls over variables that can affect an outcome. Of the few experimental studies on the effects of independent reading, most have found small or no gains in reading achievement as a result of such classroom activity (Carver & Liebert, 1995; Holt & O'Tuel, 1989; Vollands, Topping, & Evans, 1999).



Researchers offer several explanations for why time spent in silent reading in the classroom seems to produce such small gains in reading achievement. One explanation is that some teachers want independent reading time to be just that – a time for students to choose their own selections to

read for pleasure. They do not want the time to be viewed as "school work." The problem with this approach is that unless students are held responsible for what they read, some may spend independent reading time daydreaming, talking, or engaging in other off-task activities (Kuhn & Stahl, 2003). Further, when students read silently, there is no way for teachers to evaluate the rate, accuracy, and prosody of their reading; thus, there is no opportunity for the teachers to provide constructive feedback (Shanahan, 2002). Finally, such use of independent silent reading relies on students' ability to improve their reading on their own – and most struggling readers simply do not have this ability.

A second explanation for the ineffectiveness of classroom silent reading is that, left on their own, students tend to choose reading materials that are relatively easy. Consequently they receive little practice reading challenging materials that build vocabulary and comprehension (Kuhn & Stahl, 2003).

Because of the lack of experimental research evidence, the National Reading Panel (2000) did not endorse independent silent reading in the classroom as a way to build fluency. However, neither did it reject the practice. Independent silent reading serves many functions in school programs, including the development of independent reading habits. Further, the Panel called for more experimental research designed to examine the role of independent silent reading in fluency development. The point to take away from the Panel's finding is that, on its own, time spent in silent reading in the classroom is not likely to lead to increases in reading fluency for the students who need the most help. For these students, silent independent reading can take away time from needed reading instruction.

The fact remains, however, that struggling readers are unlikely to make reading gains unless teachers find ways to encourage them to read more on their own, both inside and outside of school. Indeed, research about the out-of-school reading habits of students has shown that even 15 minutes a day of independent reading can expose students to more than a million words of text in a year (Anderson, Wilson, & Fielding, 1988).

Differences in Amounts of Independent Reading
(Anderson et al., 1988)

Percentile rank	Minutes of book reading per day	Words read in books per year
98	65.0	4,358,000
90	21.1	1,823,000
80	14.2	1,146,000
70	9.6	622,000
60	6.5	432,000
50	4.6	282,000
40	3.2	200,000
30	1.3	106,000
20	0.7	21,000
10	0.1	8,000
2	0.0	0

Note. From "Growth in Reading and How Children Spend Their Time Outside of School," by R. C. Anderson, P. T. Wilson, and L. G. Fielding, 1988, *Reading Research Quarterly, 23,* pp. 285-303. Copyright 1988 by Richard C. Anderson and the International Reading Association. Reprinted with permission.

What can teachers do to make independent reading time more productive for fluency development? Anderson (1990) suggests the following:

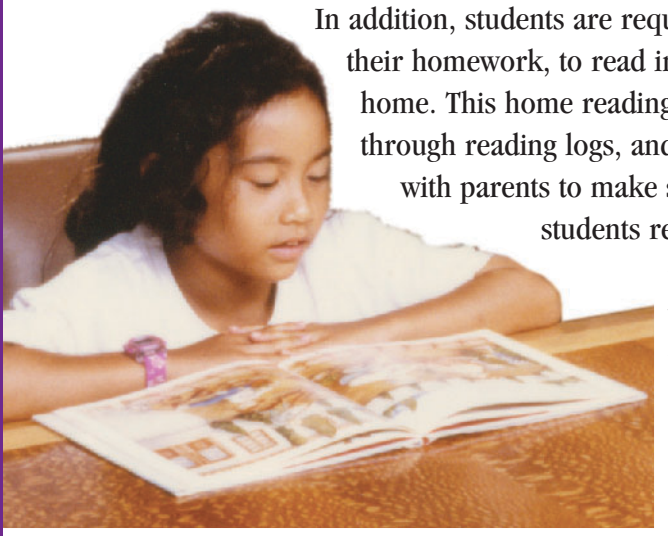
- Help students learn how to select books at appropriate reading levels and related to their interests. Make book selection a part of the regular reading group activity.
- After silent reading, set aside time for students to discuss what they read. Have students recommend books to each other.
- Involve parents and other family members by giving them tips on how to read with their children.

Integrated Fluency Instruction

One promising intervention, Fluency-Oriented Reading Instruction (FORI), combines the research-based practices of repeated, assisted reading with independent silent reading within a three-part classroom program. The three components are a reading lesson that includes teacher-led, repeated oral reading and partner reading, a free reading period at school, and home reading. This intervention has produced a gain of almost two years in the reading performance of 2nd grade students (Stahl, 2002; Stahl et al., 1996).

In FORI, the teacher begins by modeling the reading of a story. After the reading, the teacher discusses the story with the students to ensure that they understand what has been read, reviews key vocabulary from the story, and then has students participate in comprehension exercises built around the story. The students then take the story home to read to their parents or other listeners. For struggling readers, a single story may be sent home additional times. Students who do not have difficulty with that story do other reading at home on these days. On the second day, the students re-read the story with a partner. One partner reads a page as the other monitors the reading. Then the partners switch roles until the story is finished. Following partner reading, the teacher engages students in some extension activities and moves on to another story.

Later in the day, time is set aside for students to read books of their own choosing. These books are usually easy to read, and students read them for enjoyment. They may also read some books with partners during this period.



In addition, students are required, as part of their homework, to read independently at home. This home reading is monitored through reading logs, and teachers work with parents to make sure that the students read at home for at least 15 minutes a day for an average of 4 days a week.

Texts and the Development of Reading Fluency

Clearly, the kind of instruction that students receive plays an important role in helping them become fluent readers. However, the kinds of texts that students are asked to read can play a role in fluency development as well (Hiebert & Fisher, 2002). For both beginning readers and older struggling readers, the vocabulary in the books they read affects whether and how quickly they achieve fluency (Menon & Hiebert, 2003; Torgesen, Rashotte, Alexander, Alexander, & McFee, 2002).

Sight word vocabulary. Ehri (1995) contends that each time readers see a word in print, it triggers in their memory information about the word's spelling, pronunciation, and meaning. Readers' sight word vocabulary is made up of words that can be recognized instantly because of the frequency in which they appear in text. The importance to reading success of helping students to develop a large sight word vocabulary is clear: A mere 107 words make up almost half the total words in written text (Zeno, Ivens, Millard, & Duvvuri, 1995).



The 107 Most Frequently Used Words in Written English
(Zeno et al., 1995)

the	at	we	many	first	know
of	or	what	these	new	little
and	from	about	no	very	such
to	had	up	time	my	even
a	I	said	been	also	much
in	not	out	who	down	our
is	have	if	like	make	must
that	this	some	could	now	
it	but	would	has	way	
was	by	so	him	each	
for	were	people	how	called	
you	one	them	than	did	
he	all	other	two	just	
on	she	more	may	after	
as	when	will	only	water	
are	an	into	most	through	
they	their	your	its	get	
with	there	which	made	because	
be	her	do	over	back	
his	can	then	see	where	

Content vocabulary. The other half of written text is made up of content words, or words that give meaning to the text. Although the same sight words may be used over and over in a selection, some key content words, many of them multi-syllabic, may appear only once. For both beginning readers and older struggling readers, this can pose a real problem. Because these students may need to stop and use their decoding strategies to figure out unfamiliar words, the one-time appearance of many key words in a selection can disrupt fluency. Even with several readings, selections that contain a large number of one-use multi-syllabic content words can hinder the development of fluency for some students (Hiebert, 2003).

To understand the extent of the problem, look at the following excerpt from a selection that is typical of those found in many 2nd grade basal readers:

The Mysterious Tadpole

Uncle McAllister lived in Scotland. Every year he sent Louis a birthday gift for his nature collection.

"This is the best one yet!" cried Louis.

The next day he took his entire collection to school for show-and-tell.

"Class, this is a tadpole," said Mrs. Shelbert. (Kellogg, 1977)

To read this passage with fluency, students will need to recognize words such as *mysterious, tadpole, Uncle, McAllister, Scotland, Louis, birthday, gift, nature, collection,* and *Shelbert* – 11 words out of 48. Further, as they read the complete 727-word text of *The Mysterious Tadpole* (Kellogg, 1977), students will encounter 131 words that they have not read in previous selections in their basal reader (Hiebert, 2003). Half of these words are multi-syllabic content words, and of this group, more than half occur only once in a set of 10 selections from the reader.

Prior to the 1980s, 2nd graders were not likely to encounter a selection with such varied vocabulary in their basal readers. The selections they most often read contained "controlled" vocabulary. Publishers achieved this control by applying readability formulas that used various word-frequency lists or the number of syllables per word to determine the vocabulary difficulty and sentence length of a selection. This information was analyzed to arrive at a number that indicated the level of text difficulty – usually reported in terms of grade level. According to Hiebert and Fisher (2002), the practice of using readability formulas in basal reading programs was largely abandoned between the late 1980s and early 1990s, when publishers, under pressure to make their literature selections more engaging and "authentic," began to replace their controlled vocabulary texts with children's literature (Hoffman et al., 1994). Understandably, real children's literature contains many more content words – many of them multi-syllabic – than

does controlled vocabulary text (Foorman, Francis, Davidson, Harm, & Griffin, 2002; Hayes, Wolfer, & Wolfe, 1996).

Of course students, particularly beginning and older struggling readers, need exposure to good literature and to the varied vocabulary that it contains. To build their fluency, however, these students may also need practice reading texts that will allow them to develop a large sight word vocabulary and to increase their confidence as readers to the point where they can tackle more difficult selections.

Some researchers argue that to build fluency, students should practice orally re-reading text that is reasonably easy for them – that is, text that contains mostly words that they know or that they can decode easily (Allington, 2002). These texts are at the students' *independent reading level*. A text is at students' independent reading level if they can read it with about 95% accuracy (Clay, 1993).

Other researchers, however, argue that the instructional approaches that have been most successful in building fluency involve students reading text at their *instructional level* – containing mostly words that students know or that they can decode easily – or even at the *frustration level,* if they have strong guidance and feedback (Kuhn & Stahl, 2003).

Independent Level Text	Instructional Level Text	Frustration Level Text
Relatively easy text for the reader, with no more than approximately 1 in 20 words difficult for the reader (95% success)	Challenging but manageable text for the reader, with no more than approximately 1 in 10 words difficult for the reader (90% success)	Problematic text for the reader, with more than 1 in 10 words difficult for the reader (less than 90% success)

Determining Reading Fluency

Teachers can use both informal and formal assessments to determine individual students' levels of fluency and to gauge their progress in fluency development. For both types of assessment, teachers can assemble a set of passages from the grade level materials used in the classroom or they can use commercially published packages of practice passages.

Informal fluency assessment can begin as early as the second semester of 1st grade, with teachers listening to students read and recording students' rate and accuracy, as well as making judgments about their performance. More formal assessments usually begin at the start of 2nd grade, with teachers administering reading fluency assessments to establish baseline data for each student. This baseline data is usually the number of words read correctly in a grade-level passage in one minute. Teachers may also record the number and type of errors. Throughout the year, teachers may use fluency assessments on a regular basis to help them evaluate student progress and set instructional goals.

To conduct an informal assessment, the teacher has each student read aloud a passage that he or she has not read previously, but that is at the student's independent reading level. As the student reads, the teacher records information about word recognition errors, rate of reading, and use of expression. To check comprehension, the teacher asks the student to read the passage silently and to then answer several questions about it.

More formal assessment of a student's oral reading involves timed readings of grade-level passages. In a typical timed reading, a student reads an unpracticed grade-level passage for one minute. The teacher follows along in a copy of the passage and marks with a slash any errors the student makes. The teacher counts substitutions, mispronunciations, omissions, reversals, and hesitations for more than three seconds as errors. Insertions and repetitions are not counted as errors because the extra time required for students to add words or to repeat words increases the total reading time.

At the end of one minute, the teacher determines the student's reading fluency level by taking the total number of words read in one minute and subtracting the number of errors (only one error per word is counted). The words correct per minute (WCPM)

represents the student's fluency score. For example, if a 1st grade student reads 53 words in a minute and makes 7 errors, the student has a fluency score of 46 WCPM. More accurate fluency scores can be obtained when teachers use the average of two or three fluency readings from three different passages. The results can be placed on a graph to show a student's reading fluency growth over time (Bos & Vaughn, 2002).

To determine whether students' fluency growth is increasing at a normal rate, the teacher compares their scores with published oral reading fluency norms, such as those developed by Hasbrouck and Tindal (1992), Good and Kaminski (2002), Marston and Magnusson (1985), or Fuchs, Fuchs, Hamlett, Walz, and Germann (1993). Teachers can use these norms as benchmarks as they establish beginning-of-the-school-year baseline information about the fluency of their students. They can also refer to the norms during the school year as they work with students to increase their reading fluency.

Oral Reading Fluency Norms

Grade	Percentile	Fall WCPM	Winter WCPM	Spring WCPM
2	75	82	106	124
	50	53	78	94
	25	23	46	65
3	75	107	123	142
	50	79	93	114
	25	65	70	87
4	75	125	133	143
	50	99	112	118
	25	72	89	92
5	75	126	143	151
	50	105	118	128
	25	77	93	100

(50th percentile for upper grades: 125-150 WCPM)

Note. From "Curriculum-Based Oral Reading Fluency Norms for Students in Grades 2 Through 5," by J. Hasbrouck and G. Tindal, 1992, *Teaching Exceptional Children, 24,* p. 42. Copyright 1992 by The Council for Exceptional Children. Reprinted with permission.

In general, the norms indicate that students reading at the 50th percentile for their grade level are able to comprehend grade-level texts with few problems. Students scoring above that level are likely to have excellent comprehension, word recognition ability, and understanding of text features; those scoring below are likely to have problems in these areas. For example, a 3rd grade student whose fluency score is 110 WCPM in the spring (50th percentile) is likely to read with adequate comprehension when reading 3rd grade or easier texts; a 3rd grader with a score of 140 WCPM (75th percentile) is likely to have excellent comprehension when reading 3rd grade or easier texts.

Fluency norms can also be used to set fluency goals. For example, the oral reading fluency norms (Hasbrouck & Tindal, 1992) show that typical growth through 3rd grade is a gain of about a word per week. After 3rd grade, the gain is slightly less but continues at around .5 to .85 of a word per week through grade 5. Fuchs et al. (1993) have suggested that students who are below the 50th percentile will need to show growth beyond this rate, if the achievement gap is to be closed. For example, 2nd graders who are below the 50th percentile will need to gain 2 words per week rather than 1.5 words.

In setting fluency goals for students, teachers need to remember that fluency is not just speed and accuracy, but speed and accuracy to support comprehension. Educators also need to be careful that they do not overinterpret the norms, especially with regard to English Language Learners.

Conclusion

Without question, fluency is an essential component of successful reading – the failure of students to become fluent readers can have repercussions throughout their lives. The need for instruction that helps students to achieve fluency is clear and unequivocal. However, in spite of its importance, fluency is only one aspect of reading, and students also need instruction in phonemic awareness, phonics, vocabulary, and comprehension to become successful readers. Indeed, some researchers found that *too much* attention to fluency in a reading lesson could detract from reading comprehension (Anderson, Wilkinson, & Mason, 1991). Instructional procedures to improve fluency can produce important results, but they appear to do so as one part of a reading program, not as stand-alone interventions (National Reading Panel, 2000).



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