[4.15.07; To appear in E.H. Hiebert & M. Sailors (Eds.), Finding the Right Texts for Beginning and Struggling Readers: Research-Based Solutions. NY: Guilford]
The (Mis)Match between Texts and Students Who Depend on Schools To Become Literate
Elfrieda H. Hiebert University of California, Berkeley
Running Head: (Mis)Match Between Texts and Students

The (Mis)Match between Texts and Students
Who Depend on Schools To Become Literate

Texts are central to the act of reading. Children can learn a great deal about the language and content of texts through listening to experienced readers read texts aloud but, unless children's eyes are making contact with print and translating that print into language, they can't be described as reading. The critical role of texts in reading is recognized in the educational marketplace where substantial amounts are spent annually on textbooks. The amount of energy devoted to debating appropriate texts for beginning and struggling readers within the educational community has also been substantial (Allington & Woodside-Jiron, 1998; Chall, 1967/1990). However, relative to the amount of the expenditure on texts, the amount of research on appropriate texts for beginning and struggling readers has been inconsequential and remains so. This sparse research base is surprising in light of claims by policy-makers as well as publishers that the current basal reading programs have been validated empirically. The first study in the archival literature on the copyrights of the two basal reading programs mandated for use in California appeared ((McGill-Franzen, Zmach, Solic, & Zeig, 2006) just as California issued mandates for its next adoption of reading textbooks (California State Board of Education, 2006).

The massive swings in text features for beginning readers over the past 20 years, in particular, have had little research examination (although an extensive amount of rhetoric). That changes were substantial over this 20-year period is evident in descriptions of the textbook programs adopted in Texas in 1993 (Hoffman, McCarthey, Abbott, Christian, Corman, Curry, Dressman, Elliott, Matherne, & Stahle, 1994) and in 2000 (Hoffman, Sailors, & Patterson, 2002). The first-grade texts in the 1993 adoption emphasized literature and deemphasized controlled vocabulary, while those in 2000 had high percentages of decodable words. These rapid changes

in policies have produced a scattered approach to the curriculum of basal reading programs with the vestiges of one approach alongside the activities of a second, discrepant approach (Hiebert, Martin, & Menon, 2005). The influence of the literature-based approach is represented in the presence of many multisyllabic words in beginning texts (Foorman, Francis, Davidson, Harm, & Griffin, 2004; Hiebert, 2005a), while the influence of decodable texts is reflected in the presence of words with many single-appearing words chosen on the basis of individual grapheme/phoneme correspondences (Foorman et al., 2004; Hiebert, 2005a). This see-sawing of policies has resulted in texts with features that are contrary to long-standing findings such as Juel and Roper/Schneider's (1985) that beginning readers are challenged by multisyllabic words and Reitsma's (1983) that developing readers require at least a modicum of repetition with some words to develop automatic word recognition.

Shifts in patterns that make texts more difficult (e.g., high percentages of multisyllabic words and many single-appearing words) have occurred during a time of extensive immigration and increased numbers of children who live in poverty (U.S. Census, 2000). The percentage of students who fail to reach the basic benchmark on the National Assessment of Educational Progress (Perie, Grigg, & Donahue, 2005) has remained fairly robust—approximately 38-40% of a fourth-grade age cohort. Students who are poor and/or speak a first language other than English in their homes have a high probability of being in this below basic group. It is these students for whom school instruction makes the biggest difference and who are referred to, throughout this chapter, as students who depend on schools to become literate.

This volume considers responses to the discrepancy between the proficiencies of students who depend on schools to become literate and the typical tasks of texts. Within the volume, ideas are presented for how teachers can adjust, adapt, supplement, and augment instructional

texts. To understand the need for this adaptation, the problem needs to be recognized. This chapter lays the foundation by describing the nature and scope of the problem. Specifically, I ask and answer two questions about the nature of the task posed by current beginning reading texts: (a) How does the beginning reading task compare to the proficiencies required to read texts in subsequent grades? And (b) how do the task demands of current texts compare with the proficiencies of students in the 10th, 25th, and 40th percentiles?

The Nature of the Tasks Posed by Texts

Analyses of the features of texts for beginning readers have a fairly long history (see Chall, 1967/1990). Several researchers have described recent changes in texts for beginning readers. As has already been noted, the descriptions of Hoffman and his colleagues (Hoffman et al., 1994; Hoffman et al., 2002) show substantial differences in the features of texts for beginning readers within the Texas textbook adoptions of 1993 and 2000. Whereas texts were chosen for the quality of their literary engagingness in 1993, the texts of 2000 were chosen for the presence of words with particular phoneme-grapheme correspondences. Hypotheses can be offered as to what these differences mean for students learning to read. However, analyses have not been conducted that describe how students at particular stages of development do with these different types of texts.

In a subsequent study, Hoffman, Roser, Patterson, Salas, and Pennington (2001) examined first graders' ability to read texts similar to those in the 1993 copyrights and ones that continue to dominate the anthologies of basal reading programs. Hoffman and his colleagues examined texts leveled according to the four criteria of Reading Recovery and its classroom application, guided reading (Fountas & Pinnell, 1999): (a) book and print features; (b) content, themes, and ideas; (c) text structure; and (d) language and literary elements. A text is assigned a

single level based on a judge's evaluation of all four dimensions. Hoffman et al. gave beginning readers a group of texts that represented different levels. They concluded that students' performances validated the leveling system in that high-performing students read texts at the all levels of their distribution, including the highest levels, middle-performing students read texts at the middle levels, and so forth. However, a full 40% of the students were not highly accurate with any of the texts, including those at the earliest levels.

Cunningham, Spadorcia, Erickson, Koppenhaver, Sturm, and Yoder (2005) have confirmed that texts, such as those used in Reading Recovery and the basal reading programs, may be difficult for beginning readers who are not proficient at word recognition. Cunningham et al. (2005) analyzed a set of texts based on Reading Recovery levels to determine how supportive such texts are for instruction of word recognition. They concluded that these texts provided only a moderate amount of support for word recognition instruction and almost none for decoding instruction in the use of onsets and rimes. They also reported that leveled texts do not consistently increase in word-level demands as their levels increase. Johnston's (2000) analyses of student performances with such texts confirm that, even after at least 10 readings of a text, most beginning readers learn a limited number of unfamiliar words. Johnston reported that students who began with low levels of reading learned only a small portion of the words in these texts (approximately 4-5%).

Foorman et al. (2005) analyzed the textbooks that were adopted for use in Texas in 2000 according to phonics patterns, high-frequency word status, and the number of repetitions within and across the six instructional blocks that comprise a school year. They reported that 70% of the words were taught as single units with the percentage reaching 84 in six-week blocks of several programs. According to Foorman et al., only 229 words were common to all six

programs that they analyzed and 116 of these shared words were on the Dolch list. At the conclusion of their analyses, Foorman et al. questioned how first graders can be expected to acquire and apply letter-sound correspondence knowledge when only 20% of the words in texts are repeated two or three times.

I have used a framework called TExT (Text Elements by Task) to describe the task that a text poses for beginning and struggling readers (Hiebert, 2005a, in press). Based on reviews of reading acquisition, I have identified two dimensions of texts as most influential on independent word identification: (a) the cognitive load represented by the number of new, unique words per 100 and (b) the linguistic information of the new, unique words. Linguistic content refers to the knowledge about phonology, orthography, and morphology that is required to read words successfully. There are two kinds of linguistic information that are particularly important. The first is the frequency of a word's appearance in written English. I have proposed that the words that are found in school texts (Zeno, Ivens, Millard, & Duvvuri, 1995) can be classified into seven word zones according to their frequency in written English (Hiebert, 2005b). The word zones differ in size and also in the number of times the words in them can be expected to appear in a million-word sample of words. The number of words in the highly frequent zones (zones 0-2) where words can be expected to occur at least 100 or more times per one million words of text is relatively small (930). Approximately 4,900 words are in zones 3 and 4 where words are predicted to appear with moderate frequently (from 99 to 10 times per one-million words). Zones six and seven are large (approximately 150,000 words). These words appear rarely in texts with likely occurrences from .01 to 9 times per million words.

The second kind of linguistic information pertains to common, consistent vowel patterns in words. To develop automaticity in reading requires generalization and application of

knowledge about the relationships between letters and sounds. The two forms of linguistic information intersect in that all written words in English, no matter how frequent or infrequent, are alphabetic.

I used the TExT framework to analyze the changes in a basal reading program over the 40-year period from 1962 to 2000 (Hiebert, 2005a). I was particularly interested in whether programs showed a developmental pattern with texts becoming increasingly more difficult from grade to grade. The numbers of new, unique words per 100 at the end of grades 1 and 2 were as follows: 8 and 11 (1962); 10 and 12 (1983); 20 and 17 (1993)' and 19 and 18 (2000). Regardless of the year of the program, the rate at which new words appeared in the programs remained fairly consistent from grade 1 to grade 2. From 1983 to 1993, however, the rate of new, unique words increased substantially in both first- and second-grade texts.

I also analyzed the percentage of words that fall within the 1,000 most-frequent words at the ends of grades 1 and 2 across these four copyrights: 60, 40 (1962); 53, 30 (1983); 34, 24 (1993); and 37, 25 (2000). While the number of new, unique words remained the same from the ends of grade one to two for a copyright, the types of words changed. Just as the number of new, unique words changed from 1983 to 1993, so too the percentage of new, unique words accounted for by highly frequent words changed from 1983 to 1993. In the 1962 and 1983 copyrights, highly frequent words consumed a majority of the words through the end of grade one.

Beginning in 1993, highly frequent words did not account for the majority of words even in the latter part of first grade.

In the same study (Hiebert, 2005a), I examined whether this particular program (one of two that Chall (1967/1990) identified as a prototypical mainstream basal reading program) was representative of five additional basal reading programs. All but one of the six programs was

included in the mandated programs in the 2000 Texas textbook adoption. All six programs had a similar rate of introducing new, unique words per 100 at the end of grade one: a range of 16 from 21. There was somewhat more variation for the exit grade-two texts: a range from 14 to 22. Percentages of high-frequency words for exit grade one were similar (33 to 40), while percentages for the end of grade two were lower but within a similar range (20-25). The pattern that was apparent in the program used for the historical analysis was also evident in the other major programs available in the marketplace in 2000 for both the number of unique words and the percentages of high-frequency words.

In a second study, my colleagues and I (Hiebert, Martin, & Menon, 2005) analyzed the shared words across components of three programs (two of which had been included in Hiebert, 2005a). The three components of the programs were the anthology, decodable texts, and leveled texts. Across the two programs that are regarded as mainstream basal programs, the percentage of shared words across the three components was exactly the same—28%. In the third program (Reading Mastery, a decoding-oriented program), the percentage was higher—40%. In all cases, the majority of shared words fell within the 300 most-frequent words.

An Examination of Difficulty of Words Across a Current Program

Studies by Foorman et al. (2004) and Hiebert (2005a, Hiebert et al., 2005) indicate that the percentage of unique words in first-grade basal reading programs is high and that the proportion of repeated words consists primarily of high frequency words. The basal reading programs analyzed by Foorman et al. and Hiebert were published from 1995 through 2001. Since features of texts may be specific to a particular copyright of a program due to state mandates, readers of this chapter will likely ask whether the features of texts reported by Foorman et al. and Hiebert also apply to recent copyrights of basal programs. Have publishers

made changes in programs and policy-makers in mandates as a result of descriptions of the inaccessibility of basal reading programs, especially for students who depend on schools to become literate? To answer this question, I analyzed a sample of texts from the most recent copyright of a program (the same one used in Hiebert's (2005a) historical analyses. Since I was particularly interested in the developmental changes of the tasks posed by texts, I analyzed a sample of texts from kindergarten through sixth grade.

Database

I chose the Scott Foresman program (Afflerbach et al., 2007) because of its 2007 copyright and because it is the only remaining basal that was included in Chall's (1967/1990) influential analyses. The texts in the anthologies of the program were the focus since this component is the focus of the teacher's manuals and is the one for which states and districts typically allocate funds.

A corpus of 2,000 words from the third of the six units for grades one through six was chosen. For grades one and two, all of the selections for unit 3 and part of unit 4 were used. Single texts become longer at the upper grades. Initial analyses of 2,000 word corpora based on a single text at grades 5 and 6 indicated a substantially lower number of unique words per 100 than at grades one and two. Consequently, a consistent sampling procedure of 500-word excerpts from four different texts was used for grades three through six. For kindergarten where there is no anthology at the present time, the texts from decodables comprised the sample.

The TExT software (Hiebert & Martin, 2003) was used to obtain the following information for each of the seven 2,000-word corpora: (a) number of unique words, (b) number of words within word zones 0-2 (frequent words), 3-4 (moderately frequent words), and 5-6 (rare words), and (c) mean decodability of words within a word zone. The latter was based on a set of

categories where categories 1-3 represent words with vowel patterns with a one-to-one phoneme-grapheme correspondence (e.g., *go*, *at*); 4-5, vowel patterns where two graphemes represent a "long" representation of a phoneme (e.g., *ate*, *eat*); 6-7, complex vowel patterns (e.g., *oar*, *owl*); and 8-9, for multisyllabic words.

The nature of the task from grades K through 6 in a 2007 basal reading program

Table 1 presents a summary of the features of words within each grade-level, 2,000-word sample. Three patterns are evident in the data in Table 1. The first has to do with the rate of introduction of new, unique words per 100 running words. There are three different rates of introduction of new, unique words across the seven grade levels: (a) 12 (kindergarten), (b) 22-23 (first and second grade), (c) 30-33 (grades three through six).

The second pattern has to do with the consistency of the distribution of word zones from grades one through six. The percentage of high-frequency words in texts from grades one through six falls within a fairly narrow range: 82-85. The percentage of rare words (word zones 5-6) is also consistent from grades one through six: 6-7%. Only kindergarten has a different pattern. In the kindergarten texts, a lower percentage of words falls within word zones 0-2 (58%) and a higher percentage falls within word zones 5-6 (19%).

The final pattern addresses the complexity of vowel patterns in monosyllabic words and the presence of multisyllabic words. The pattern for kindergarten differs from that of the other grades. For all word zones, words in the kindergarten program have a heavy concentration of vowel patterns with a one-to-one correspondence between graphemes and phonemes. The words in the first-grade texts have a higher vowel complexity rating, on average, than the kindergarten texts. Compared to the sixth-grade texts, however, the first-grade texts have less complex patterns. In the first-grade texts, the rarest of words (those in word zone 6) typically have either

an r-controlled vowel pattern or a consistent but variant vowel pattern (e.g., old/cold, night/right) in a monosyllabic word. By contrast, the rare words in the sixth-grade texts are primarily multisyllabic or, if monosyllabic, have vowel diphthongs.

What can be concluded about the features of texts that comprise the core of a basal reading program? When a core component is a decodable (as is the case with the kindergarten program), the features differ from those of the anthologies. Differences in the types of words that appear in decodables and anthologies are apparent in the examples of texts that appear in Table 2. When children's writers are responsible for the words in text as is the case with texts in the anthologies from grades one through sixthey are concerned with fulfilling expectations of what constitutes a literary text. They are not concerned about ensuring that students can decode words, as is the case with the example from the kindergarten decodable. Writers of narrative texts select words that communicate the nuances of their characters, settings, and plots, using words such as *chirping* and *balancing* rather than *singing* or *sitting*.

In views of reading acquisition that dominated American instruction until the past two decades, critical factors in the design or selection of materials for beginning readers were the pace of presenting new information and the repetition of high-frequency words or words with common, consistent vowel patterns (Hiebert & Raphael, 1996). If there is a developmental ramp-up in the pace and repetition of linguistic information in current reading programs, it is in the kindergarten portion of programs. The rate of presenting new words is substantially slower at kindergarten relative to the first- and second-grade programs. While kindergarten programs contain a higher percentage of rare words than subsequent levels, these words are predominantly composed of simple vowel patterns. By the middle of first-grade, the profile of moderately frequent and rare words is similar to that of subsequent grades. The profile of linguistic

information, at least with regard to high frequency words, is flat. The decodability of rare words at first grade is somewhat lower than that in the higher grades, indicating that more of the rare words in the grade-six texts are multisyllabic than in the first-grade text. Even in the first-grade texts, however, the average decodability levels of 6.9 for word zones 5-6 indicate the presence of many monosyllabic words with complex and variant vowels.

A comparison of the task of texts and proficiency of students at the 40th percentile and below

The level of the texts at kindergarten and first-grade levels in a current basal reading program would lead to the expectation that American students are reading at earlier points in time. In that the primary source for understanding the reading performances of American students across states is the National Assessment of Educational Progress (NAEP) which is not administered until grade four, conclusions about earlier acquisition of reading by American students are difficult to make. The results of the NAEP at fourth grade (Perie et al., 2005) do suggest, however, that approximately 38-40% of a grade cohort is not reading texts with the features of current grade-one texts in core reading programs in mid-fourth-grade. A summary of the features of the text that was used to assess oral and silent reading in a special study of the NAEP (Daane, Campbell, Grigg, Goodman, & Oranje, 2005) appears in the two final columns of Table 1. Approximately 80% of the words in the NAEP text and the first-grade texts fall within the 1,000 most-frequent words. The percentage of rare words is almost identical: 7 for the firstgrade text and 6 for the NAEP fourth-grade text. Even the decodability levels are similar. Approximately 35% of American fourth-graders read the NAEP text slowly. If students in a grade cohort can read the first-grade texts of the basal anthology fluently as first graders, they would be expected to read the text of the fourth-grade NAEP with automaticity, speed, and comprehension three years later. That has not proven to be the case.

To examine the match between the task for the students in the lowest 40% of the American profile and the task of reading textbooks across grade levels, I compared the task of the texts with students' performances on the sight word efficiency sub-test of the Test of word reading efficiency (TOWRE) (Torgesen, Wagner, & Rashotte, 1999). This analysis begins with grade one, since the TOWRE does not provide norms for kindergarten students.

TOWRE. The sight word efficiency sub-test of the TOWRE assesses a student's ability to recognize a particular set of words within a 45-second period. Each of the two forms of the sub-test contains 104 words. The analysis of the reading proficiency required for this assessment was based on sets of words in multiples of 20: 20, 40, 60, 80 and 100. Each successive set includes words from each preceding set. Further, the words from both forms of the sub-test were included in the analysis. That is, the analysis of word set 20 was conducted on 40 words (20 from Form A and 20 from Form B).

With one exception, similar analyses were conducted on these sets of words as had been conducted on the grade-level basal reading texts. The exception was the number of new, unique words per 100. This feature is not relevant for a word list where repetition of words would not be expected. A summary of the frequency and decodability of the words in the four word groups appears in Table 3. The data in Table 3 are used for two purposes: (a) to describe the proficiency of students in different percentile groups at different grade levels perform and (b) to compare students' proficiency levels with the tasks of current texts. Before applying the data to these two issues, the proficiencies represented by each "benchmark" level (i.e., proficiency with the 20 word set, 40, etc.) are summarized.

Differences across the word sets. As would be expected in an assessment of sight word recognition, the 1,000 most-frequent words figure heavily in the TOWRE sight word efficiency

sub-test. Only in the 80 and 100 groups do less common, multisyllabic words become prominent. The shift from word set 60 to 80 is dramatic. Whereas 97% of the words in the 60 set are from the 1,000 most frequent words (and the remaining 3% all have simple vowel correspondences and come from word zone 3), 10% of word set 80 consists of rare, multisyllabic words.

A benchmark, at least as indicated by the content of this test, is recognition of the 1,000 most-frequent words. Once students have developed automaticity with these words, the test makers needed to draw on words from the entire range of words represented in written English. For students in the bottom 40%, however, automaticity with the 1,000 most-frequent words is a proficiency that takes a long time to attain.

Grade- and percentile-group performances on the TOWRE. TOWRE performances for students from grades one through six and for six percentile groups (10th, 25th, 40th, 50th, 75th, and 90th) are presented in Figure 1. When separate norms were given for the two halves of a grade (as was the case with grades one through three), the norms for the second half of the year were used. In studying the patterns in Figure 1, it should be remembered that attainment of a particular level does not mean that students recognized only words within a particular set of words. Especially at the lower grades and lower percentile levels, it is unlikely that students will correctly recognize all of the words consecutively. At the same time, if students are unable to recognize words that occur with high frequency in texts, it is unlikely that they will recognize more infrequent words. Consequently, if 40th-percentile third graders are averaging 50 words on the TOWRE, it is likely that the majority of these words come word set 60.

If recognition of words from the 1,000 most-frequent words (as represented by set 60) is a benchmark, the data in Figure 1 provide an indication of when that benchmark is achieved for students in different percentile groups of an age cohort. Students in the 90th percentile attain that

benchmark in grade one, while students in the 10th percentile have yet to attain this level by grade six. For students at interim points in a grade cohort distribution, this benchmark is attained at different points: 75th: grade 2; 50th: grade 3; 40th: grade 4; and 25th: grade 5.

While students in the 50th percentile and below do not attain this benchmark until grade 3 or later, students in the bottom half of the distribution are able to recognize words. The students at the 10th percentile can recognize a sampling of words from the 1,000 most-frequent words by mid-grade two.

A comparison of the text demands and students' proficiency levels. The earlier presentation of the tasks posed by the texts of the basal reading anthologies indicated that, already at grade-one, the anthologies have high percentages of words that fall beyond the 1,000 most-frequent words. The analysis of the TOWRE performances indicated that students in the 90th and 75th percentiles can recognize a sample of words from the 1,000 most-frequent words automatically at first grade. However, students in the bottom 40th percentile are not automatic with this corpus of words until fourth grade (and those in the 25th percentile, until the fifth grade). The gap between current texts and the proficiency of students in the bottom 40th percentiles is particularly large in first-grade. This gap decreases over the elementary grades as students gain proficiency with the 1,000 most-frequent words and the automaticity to attend to the approximately one-fifth of words that students are unlikely to have encountered in text before and that, typically, contain complex vowels and/or multiple syllables.

Solutions to the Problem

The task of current reading instructional texts matches the proficiencies of students in the 25% of an age distribution well. By mid-grade-one, students in the top 25% of an age cohort are able to recognize words from the 1,000 most-frequent words, leaving sufficient cognitive

resources to attend to the one-fifth of words in anthologies that come from the moderate and rare word zones. For the students in the bottom 40%, this level of proficiency will be gained much later in the elementary grades. Even so, they are given the same textbooks as their peers who are proficient readers. This volume is about solutions to this mismatch. As an overview for the perspectives developed in this volume, three points are particularly germane: (a) responses to the needs of the children who begin kindergarten without extensive book-literacy experiences, (b) responses for older, struggling students, and (c) responses for teachers, including the many beginning teachers who must rely on the teachers' guides for their primary source of learning about reading instruction.

Support for beginning readers

The mismatch between existing texts in a basal reading programs and the reading proficiency of students in the bottom 40% is greatest at the very beginning levels. For students who have not had the approximately thousand hours that Adams (1990) hypothesized some young children receive from birth to five in their homes and communities, the task that confronts them when they enter kindergarten is enormous. In the kindergarten materials of the program reviewed in this chapter, students are introduced to 30 of the 44 grapheme/phoneme correspondences in English over the course of approximately 20 lessons. The underlying assumption is that, if a phoneme-grapheme correspondence has been introduced in a lesson in the teacher's guide, students have learned it. Such expectations reflect substantial changes for kindergartners over the past two decades (Hiebert & Papierz, 1990). In the late 1980s, the basal reading programs provided kits, teacher read-alouds, and practice books for kindergartners. The practice books included a handful of fold-outs that were intended for students to read. These fold-out booklets used from 10-15 words (e.g., cat, dog a, the) to make stories.

The pace of introduction of new linguistic information has speeded up exponentially for kindergartners and first graders. The repetition of individual words is somewhat higher in kindergarten than in first grade (8 repetitions in kindergarten versus 4.4 in first grade). Even so, 26% of the words appear a single time in the kindergarten program and another 25% of the words appear two or three times. For young students who have not been involved with considerable amounts of text in the past, texts where 12 new words appear in every 100 running words are likely to be a blurb of illustrations and strange shapes.

Within the paradigm of reading acquisition that underlies the current programs, students who are not successful with this fast pace in kindergarten (approximately 40 to 50% of an age cohort) are to be provided with similar material (i.e., texts devoted to the 44 grapheme/phoneme relationships in English) in grades one and two (California State Board of Education, 2006). Further, a similar set of decodable texts is to be provided for use in interventions in grades four through eight for struggling readers.

An alternative solution would be to present students with exposure to many texts. As Foorman et al. (2004) have observed, grade-one basal reading programs have numerous components. However, the teacher's manuals provide little guidance on what texts are appropriate for students at various stages of reading development with most of the space devoted to the anthology. Decodable texts are available and, as Mesmer (2001) argues, can be accessible for beginning and struggling readers. Programs also have at least one set of leveled texts (Hiebert et al., 2005). These texts, when ordered appropriately can be another source of exposure to words with consistent, common word patterns (Jenkins, Peyton, Sanders, & Vadasy, 2004; Menon & Hiebert, 2005). The best advice is not to depend on the texts in the anthologies for beginning and struggling readers. The texts in the anthologies may be good for read-alouds

and follow-up discussions. However, if it is the teacher or able readers who are the only ones able to read these texts, the experience is unlikely to develop more proficient independent reading proficiency among beginning and struggling readers (Johnston, 2000).

Support for older, struggling readers

The present analyses show that the mismatch between current texts and students' reading levels decreases once students are in second grade and above. Students who are able to read approximately 50 words on the TOWRE (as is the case with mid-year third graders at the 25th percentile) will be able to read most of the words in a text such as *Night Letters* (the third-grade text in Table 2). All but five of the words in this excerpt in Table 1 fall into the 1,000 most-frequent words: *chirping*, *budding*, *balancing*, *branches*, and *lonely*. The vowel patterns in four of these five words are fairly regular. With several readings of this portion of the text, students from the 20th-40th percentiles should be able to read the text fluently and meaningfully. For these students, it makes sense that they are given the grade-level texts. The accommodation that needs to be made is that they require rereadings of portions of texts, guidance with unfamiliar words (especially multisyllabic ones), and extensive opportunities to read.

In that the texts are fairly even from grades one through, teachers have an extensive inventory on which to draw for students who are not automatic, fluent readers. Given the evenness of the texts, students can read the texts that are at their grade levels. However, their teachers will need to select portions of texts and give students reasons for rereading these portions. One criterion to keep in mind in selecting texts is that the National Reading Panel's sub-group on fluency found that the texts used in successful interventions were short—from 50 to 200 words each (NICHD, 2000).

Students in the bottom 10% require more in-depth instruction, including instruction in decoding strategies with morphologically complex words (Nagy, Berninger, & Abbott, 2006). They also require opportunities to read extensively. Extensive reading is a term that has been used in instruction and research with colleague students who are learning English as a Foreign Language (EFL). As Taguchi, Takayasu-Maass, and Gorsuch (2004) define extensive reading, "readers self-select materials from a collection of graded readers (books which have reduced vocabulary range and simplified grammatical structures) with the goal of reaching specified target times of silent sustained reading" (p. 2). Extensive reading has been shown to be as effective as assisted, repeated reading (the technique that was supported by the findings of the sub-group on fluency of the National Reading Panel (NICHD, 2000)) in increasing EFL readers' fluency. As has become evident in this chapter, current basal readers do not have the controlled vocabulary that Taguchi et al. (2004) describe as characteristic of the graded readers. I have proposed an underlying curriculum for a concentration of words from particular word zones in the design of texts for struggling readers and have also developed texts that implement that curriculum (Hiebert, in press). Studies to date have consistently shown that struggling readers improve their fluency when their teachers consistently use the texts that exemplify this curriculum (see, e.g., Wilson, Erickson, & Trainin, 2007).

There is also work demonstrating the support for increased reading that can be provided to struggling readers with technology. Shany and Biemiller (1995) showed that participation in an audio-tape intervention resulted in more time reading text than in a teacher-guided group. Digital voice-recognition increases the quality of the reading experience that struggling readers can have by providing feedback on specific phrases and words, giving immediate information on accuracy, rate, and comprehension, and allowing students to compare their reading with that of a

proficient reader. Adams (2006) has reported that, after participating in a voice-recognition repeated reading intervention, students in grades 2 through 5 improved in fluency at levels significantly beyond that of students participating with typical texts. For students in the elementary schools who have not attained the benchmark level of automaticity with the 1,000 most-frequent words, increasing the opportunities for reading with voice-recognition, especially when the voice-recognition uses texts that provide frequent opportunities with the 1,000 most-frequent words, offers an alternative to the texts of the basal that, even at grade one, fail to provide such experiences.

Support for teachers

For the beginning readers who depend on schools to become literate, the prominent nature of existing texts means that teachers will need to do substantial adaptation with texts. Barr (1974) showed that teachers compensated for texts that are too difficult. When texts were too difficult for first-grade readers, effective teachers whom Barr observed in the early 1970s spent considerably more time in instruction and reading. Thirty years, it is not clear that such compensation is occurring, or even if it can, in the context of Reading First mandates and teachers' manual guidelines.

Teacher scaffolding of text is critical and chapters in this volume attest to the importance of teacher scaffolding. What is especially critical to consider is how teachers, especially beginning teachers, learn to do this scaffolding. When a minimum of 90 minutes is spent on reading daily (at is the case with Reading First), the teachers' manuals in reading are a primary source of information for teachers. However, the pacing guides within these teachers' manuals offer few suggestions as to how instruction should be adapted to ensure that students in the

lowest 40% can be ensured the daily 60-90 minutes of focused reading that has been identified as necessary for struggling readers (Allington, 2001; Fisher & Ivey, 2006).

There are ideas within this volume for how teachers can mediate the difficulty of current texts. Text selection is one of the most basic of these forms of meditation. If teachers are selecting portions of text for repeated reading from a basal passage, it is useful to have some guidelines as to the length of texts and the features that make a text appropriate for repeated reading. For example, knowing that the presence of single-appearing, multisyllabic words may require additional attention for developing readers is useful information.

A form of scaffolding that is especially critical when working with students in the bottom 40% in first grade is the amount of texts that students require at particular levels. The need for extensive reading has already been described. Another form of scaffolding is the amount of instruction with key words that teachers give prior to the introduction of a text. If students are to become more automatic with highly frequent words and words that have common syllable and grapheme/phoneme correspondences, they cannot be spending all of their time on the rare words that appear a single time in their texts. They need to have confidence in reading these words so that they can become more automatic at word recognition. Teachers need to ensure that struggling readers have had sufficient encounters in pronouncing and understanding the meaning of these words before they are asked to read along in a text or to read the text independently.

Conclusion

If schools are using basal reading programs, students who depend on schools to become literate are being given texts that demand a high level of reading proficiency. While the match is a good one for students who enter kindergarten with hundreds and hundreds of hours of prior literacy experience, the gap between the task of the texts and the existing proficiencies of

students who depend on schools to become literate is already great at kindergarten. Numerous initiatives can be launched to call for greater readiness for school entry. However, no preschool initiative can ensure readiness for a sizable portion of an American age cohort when the task demands of kindergarten and first-grade reading programs escalate as they have in the past 20 years.

Policies are needed that require a developmental trajectory in the task of the texts of basal reading programs. Until such policies are in place, it is unlikely that any of the mainstream publishers will be the first to provide texts that have a developmental trajectory that moves at an appropriate pace for students in the lowest 40%. Until such policies are in place, students in the lowest 40% will continue to progress poorly unless their teachers have solid understandings of how to select alternative texts and/or how to scaffold existing texts to support learning of critical words and common and consistent patterns within words. The remaining chapters in this volume aim to support teachers in developing the knowledge base that is needed to use current reading programs with the many students who depend on schools to become literate.

References

- Adams, M.J. (1990). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.
- Adams, M.J. (2006). The promise of automatic speech recognition for fostering literacy growth in children and adults. In M. McKenna, L. Labbo, R. Kieffer, & D. Reinking (Eds.), *Handbook of Literacy and Technology* (Vol. 2) (pp. 109-128). Hillsdale, NJ: LEA.
- Afflerbach, P. et al. (2007). Reading Street. Glenview, IL: Pearson/Scott Foresman.
- Allington, R. (2001). What Really Matters for Struggling Readers. New York, NY: Addison-Wesley Educational Publications.
- Allington R. L., & Woodside-Jiron, H. (1998). Decodable text in beginning reading: Are mandates and policy based on research? ERS Spectrum: Journal of Research and Information, 16 (3), 3-11.
- Barr, R. (1974). The effect of instruction on pupil reading strategies. *Reading Research Quarterly*, 10, 555–582.
- California State Board of Education (April 17, 2006). *Criteria for Evaluating Instructional Materials: Reading/Language Arts*. Retrieved at http://www.cde.ca.gov/ci/rl/im/ February 25, 2007.
- Chall, J. S. (1967/1983). *Learning to read: The great debate* (3rd ed.). Fort Worth, TX: Harcourt Brace.
- Cunningham, J.W. Spadorcia, S.A., Erickson, K.A., Koppenhaver, D.A., Sturm, J.M., & Yoder, D.E. (2005). Investigating the instructional supportiveness of leveled texts. *Reading Research Quarterly*, 40, 410-427.

- Daane, M.C., Campbell, J.R., Grigg, W.S., Goodman, M.J., & Oranje, A. (2005). Fourth-grade students reading aloud: NAEP 2002 Special study of oral reading. Washington, DC:

 National Center for Education Statistics.
- Fisher, D. & Ivey, G. (2006). Evaluating the interventions for struggling adolescent readers. *Journal of Adolescent and Adult Literacy*, 50 (3), pp. 180-189.
- Foorman, B. R., Francis, D. J., Davidson, K. C., Harm, M. W., & Griffin, J. (2004). Variability in text features in six grade 1 basal reading programs. *Scientific Studies of Reading*, 8, 167-197.
- Fountas, I.C., & Pinnell, G.S. (1999). *Matching books to readers: Using leveled books in guided reading*. Portsmouth, NH: Heinemann.
- Hiebert, E.H. (2005a). State reform policies and the reading task for first graders. *Elementary School Journal*, 105, 245–266.
- Hiebert, E.H. (2005b). In pursuit of an effective, efficient vocabulary curriculum for the elementary grades. In E.H. Hiebert & M. Kamil (Eds.), *The teaching and learning of vocabulary: Bringing scientific research to practice* (pp. 243-263). Mahwah, NJ: LEA.
- Hiebert, E.H. (in press). A fluency curriculum and the texts that support it. In P. Schwanenflugel & M. Kuhn (Eds.), *Creating a literacy curriculum: Fluency instruction*. New York: Guilford.
- Hiebert, E.H., & Martin, L.A. (2003). TExT Analyzer (5th Ed.). Santa Cruz, CA: TextProject.
- Hiebert E.H., & Papierz, J.M. (1990). The emergent literacy construct and kindergarten and readiness books of basal reading series. *Early Childhood Research Quarterly*, *5*, 317-334.
- Hiebert, E.H., & Raphael, T.E. (1996). Psychological perspectives on literacy and extensions to educational practice. In D.C. Berliner & R.C. Calfee (Eds.), *Handbook of Educational*

- Psychology (pp. 550-602). New York: Macmillan.
- Hiebert, E.H., Martin, L.A., & Menon, S. (2005). Are there alternatives in reading textbooks? An examination of three beginning reading programs. *Reading Writing Quarterly*, 21, 7–32.
- Hoffman, J. V., McCarthey, S. J., Abbott, J., Christian, C., Corman, L., Curry, C., Dressman, M., Elliott, B., Matherne, D., & Stahle, D. (1994). So what's new in the new basals? A focus on first grade. *Journal of Reading Behavior*, 26, 47–73.
- Hoffman, J., Roser, N., Patterson, E., Salas, R., & Pennington, J. (2001). Text leveling and little books in first-grade reading. *Journal of Literacy Research*, 33, 507–528.
- Hoffman, J.V., Sailors, M., & Patterson, E.U. (2002). Decodable texts for beginning reading instruction: The year 2000 basals. *Journal of Literacy Research*, *34*, 269–298.
- Johnston, F. R. (2000). Word learning in predictable text. *Journal of Educational Psychology*, 92, 248–255.
- Juel, C., & Roper/Schneider, D. (1985). The influence of basal readers on first-grade reading.
 Reading Research Quarterly, 20, 134–152.
- Jenkins, J.R., Peyton, J.A., Sanders, E.A., & Vadasy, P.F. (2004). Effects of reading decodable texts in supplemental first-grade tutoring. *Scientific Studies of Reading*, 8, 53-85.
- McGill-Franzen, A., Zmach, C., Solic, K., & Zeig, J.L. (2006). The confluence of two policy mandates: Core reading programs and third-grade retention in Florida. *Elementary School Journal*, 107, 67-92.
- Menon, S., & Hiebert, E.H. (2005). A comparison of first graders' reading with little books or literature-based basal anthologies. *Reading Research Quarterly*, 40 (1), 12-38.
- Mesmer, H.A.E. (2001). Decodable text: A review of what we know. *Reading Research and Instruction*, 40, 121-142.

- Nagy, W., Berninger, V.W., & Abbott, R.B. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle-school students. *Journal of Educational Psychology*, 98 (1), 134-147.
- NICHD (2000). Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups. Washington, D.C.: National Institute of Child Health and Human Development.
- Perie, M., Grigg, W.S., & Donahue, P.L. (2005). *The nation's report card: Fourth-grade reading* 2005. Washington, DC: U.S. Department of Education, Institute of Education Sciences.
- Reitsma, P. (1983). Printed word learning in beginning readers. *Journal of Experimental Child Psychology*, *36*, 321–339.
- Shany, M.T., & Biemiller, A. (1995). Assisted reading practice: Effects on performance for poor readers in Grades 3 and 4. *Reading Research Quarterly*, 30, 382-395.
- Taguchi, E., Takayasu-Maass, M., & Gorsuch, G.J. (2004). Developing reading fluency in EFL:

 How assisted repeated and extensive reading affect fluency development. *Reading in a Foreign Language*, 16.
- Torgesen, J.K., Wagner, R.K., & Rashotte, C.A. (1999). *Test of word reading efficiency*. Austin, TX: PRO-ED.
- U.S. Census Bureau (2000). *Demographic profile highlights*. Washington, D.C.: U.S. Printing Office.
- Wilson, K., Erickson, J., & Trainin, G. (April 2007). *Teaching fluency: Can technology based feedback help?* Paper accepted for presentation at the annual meeting of the American Educational Research Association, Chicago, IL.

Zeno, S. M., Ivens, S. H., Millard, R. T., & Duvvuri, R. (1995). *The educator's word frequency guide*. New York: Touchstone Applied Science Associates, Inc.

Table 1
Frequency and Decodability of Words in Grade-Level Text Samples

Word	Kind.	Gr1	Gr2	Gr3	Gr4	Gr5	Gr6	NAEP
Zone								
0-1	371	63	65	62	62	62	66	58 (5.3)
	(4.0^2)	(5.3)	(5.3)	(5.4)	(5.4)	(5.6)	(5.0)	
2	21	19	20	21	19	16	16	22 (5.6
	(3.7)	(5.8)	(6.4)	(6.5)	(6.4)	(6.9)	(6.2)	
3-4	23	11	8	10	11	11	12	14 (6.7)
	(2.7)	(5.9)	(6.3)	(5.7)	(6.9)	(7.0)	(7.0)	
5-6	19	7	7	7	8	11	6	6 (5.9)
	(2.6)	(6.9)	(6.9)	(7.0)	(7.4)	(7.5)	(7.3)	
New,	12.1	22.9	21.7	29.8	30.8	33.4	32.1	62.6
Unique								
Words								
per								
100								

¹Percentage of total words in particular word zones

²Average decodability of words in particular word zones

Table 2

Examples of Texts

Kindergarten (Afflerbach et al., 2007)	A Musical Adventure Sit and play with me, Nat, Lin and Rob. Can you tap and rap and bam? We like to rap on the pot. We like to rap on the lid. We like to bam with the can. Can you tap and rap and bam? Nan can rap the tan pot.
Gr. 1 (Afflerbach et al., 2007)	Toad looked at his garden. Little green plants were coming up out of the ground. "At last," shouted Toad, "my seeds have stopped being afraid to grow!" "And now you will have a nice garden too," said Frog. "Yes," said Toad, "but you were right, Frog. It was very hard work."
Grade 3 (Afflerbach et al., 2007)	The tree is old, and she has much to say. Some words are happy ones. They tell of chirping birds and budding leaves and children balancing on her branches. Some words are lonely ones. They tell of birds flying south and leaves blowing away and children staying in their houses,
NAEP (2005 ORF text)	Soon the house was buzzing with excitement. Megan sat on the stool watching while Mom and Aunt Nancy prepared the birthday dinner. Dad wouldn't be back for at least two hours. Jason wandered outside trying to think of something to do, but his thoughts kept returning to the box in the barn.

Table 3

Frequency and Decodability of Words on TOWRE

Word	TOWRE20	TOWRE40	TOWRE60	TOWRE80	TOWRE100
Zone					
0-1	80¹	67.5	54	42	33
	(3.3^2)	(4.3)	(4.9)	(5.0)	(5.0)
2	20	30	42	42	36
	(3.1)	(4.0)	(5.2)	(5.8)	(6.1)
3-4	0	3	3	8	13
		(3.0)	(2.7)	(7.2)	(7.8)
5-6				8	18
				(8.2)	(8.6)

Figure 1

TOWRE Levels for Six Percentile Groups at End of Grade

