

## Chapter 9

# ASSESSING TEXT DIFFICULTY AND ACCESSIBILITY

One of the factors taken into account in planning a Scaffolded Reading Experience is of course the text itself. As part of matching your students with appropriate texts, you need to assess the difficulty of the texts you consider using, as well as the likelihood that your students will be motivated to read them. Up until a few years ago, text difficulty was typically assessed with readability formulas, mathematical equations that took into account vocabulary difficulty and sentence complexity and assigned a grade level to a text. In recent years, however, readability formulas have been severely criticized. In 1984, for example, the presidents of IRA and NCTE issued a joint statement decrying the use of readability formulas as the sole criterion used in measuring text difficulty and matching students with texts (Cullinan & Fitzgerald, 1984-85).

In the years that have passed since Cullinan and Fitzgerald issued their statement, textbooks and text difficulty have been the topic of a substantial body of research and writing (Alexander & Jetton, 2000, Britton & Black, 1985; Britton & Guelgoez, 1991, Chall, 1996; Chambliss & Calfee, 1998; Goldman & Rakestraw, 2000; Linderholm, et al., 2000; Muth, 1989; Rouet, Vidal-Abarca, Drboul, & Millogo, 2001; Sawyer, 1991), and evidence that factors beyond those considered in readability formulas influence text difficulty has continued to accrue. Several authors have discussed factors to consider in assessing the difficulty of texts. The best known articles on the topic are those of Thomas Anderson and Bonnie Armbruster (1984) and of Isabel Beck and Margaret

McKeown and their colleagues (Beck & McKeown, 1989; Beck, McKeown, & Gromoll, 1989; Beck, McKeown, & Worthy, 1995; McKeown, Beck, Sinatra, & Loxterman, 1992), and other important studies have been reported by Bruce Britton and Sami Guelgoez (1991) and Tracy Linderholm and her colleagues (2000).

The suggestions made here draw heavily on this work, as well as on our experiences as English and reading teachers and on other work that suggests characteristics of the material that children can and will read. Our intent is to provide you with a reasonably comprehensive yet manageable set of factors to consider in selecting appropriate reading materials for your students. In what follows, we describe and discuss a set of factors for you to consider carefully, along with, of course, considering the students who will be reading the selection, your purposes and their purposes in reading the it, and the assistance you will give them in dealing with the it.

In all, we consider ten factors, divided into two groups. In the first group are six factors that are fairly easily defined, fairly easily identified, and largely inherent in the text itself. Of course, since reading is an interactive process that involves both the reader and the text, no text factors are fully independent of the reader. In the second group are four factors that are less easily defined, less easily identified, and very definitely involve both the reader and the text. All ten factors are shown in the following chart.

As our title—Text Difficulty and Accessibility—suggests, these factors reflect both the ease or difficulty young readers may have in comprehending a

text and how interesting and accessible the material will be for them. Of course, the more

### Factors Influencing Text Difficulty and Accessibility

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Vocabulary

Sentence Structure

Length

Elaboration

Coherence and Unity

Text Structure

Familiarity of Content and Background Knowledge Required

Audience Appropriateness

Quality and Verve of the Writing

Interestingness

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interesting and accessible the material is, the better the chance that students will pursue it, understand it, learn from it, and enjoy it.

## Factors Largely Inherent in the Text Itself

The six factors we consider here are vocabulary, sentence structure, length, elaboration, coherence and unity, and text structure. The first two, vocabulary and sentence structure, are ones you are probably familiar with because they are the two factors considered in readability formulas. However, we want to stress that, while these two factors deserve consideration, they should not be relied on too heavily or to the exclusion of the other factors we consider. All the factors are worth considering, and some of them—for example, Familiarity of Content and Background Knowledge Required—are hugely important.

### Vocabulary

We list vocabulary as the first matter to consider because it is one of the most easily identifiable characteristics suggesting text difficulty and because it is a very influential factor. A substantial body of research testifies to the fact that texts containing a lot of difficult words are likely to be difficult texts. However, this does not mean that texts can necessarily be simplified by replacing difficult words with easier ones. It appears that vocabulary is an excellent predictor of difficulty because vocabulary reflects difficulty; a difficult or unfamiliar topic frequently needs to be conveyed using the difficult and unfamiliar vocabulary that is inherent to the topic (Anderson & Freebody, 1981). Because of this, simply replacing difficult words with easier ones may do little to simplify a text; in fact, it can even make a text more difficult.

Additionally, in considering vocabulary, you need to consider more than just difficulty; simpler words are not necessarily better words. The words used in

a selection need to be appropriate to the selection and to convey the intended meaning precisely. If, for example, the intended meaning is *petrified*, the simpler substitutes *afraid* or *scared* do not convey the same meaning. These latter terms do not describe a fear so great that the person becomes immobilized and cannot react. This is another reason that replacing less frequent words with more frequent ones often fails to simplify a text; the words used to replace the originals frequently do not mean quite the same thing and do not fit the context quite as well.

Finally, we want to stress that a few difficult words are unlikely to pose serious barriers to comprehension. In fact, research has shown that it takes a substantial proportion of difficult words to affect students' comprehension (Freebody & Anderson, 1983). Additionally, if students read only texts in which all the words are familiar, they will be denied a major opportunity for enlarging their vocabularies. Wide reading in texts that include varied and novel words is in fact the main route to vocabulary growth.

### **Sentence Structure**

Sentence structure, another text characteristic that is fairly easy to assess and the other factor considered in readability formulas, is a second factor that reflects difficulty. Very long, very complex, and certainly very convoluted sentences make texts more difficult to read. However, sentence structure does not have nearly as strong an effect as vocabulary (Coleman, 1971). Moreover, the sentences in a text need to be complex enough to clearly convey the meaning of the text (Pearson, 1974-1975). If the intended meaning is something like "Ted failed to win the award because neither his test scores nor his grades

were high enough," breaking that sentence up into something like "Ted failed to win the award. His test scores were not high enough. His grades were not high enough" is not going to result in more comprehensible text. Texts that lack logical connectives require students to infer relationships that could have been stated explicitly, and inferring relationships may cause problems for some students.

On the other hand, some sentences are clearly difficult. Here is one from "Shooting an Elephant" by George Orwell. "Its mahout, the only person who could manage it when it was in that state, had set out in pursuit, but had taken the wrong direction and was now twelve hour's journey away, and in the morning the elephant had suddenly reappeared in the town." Materials that contain a very large percentage of complex sentences are likely to present difficulties for younger and less proficient readers.

At the same time, texts that employ artificially short sentences, the sort sometimes written for beginning or remedial readers, do not have the sound of real language. Here is a paragraph from a high interest—easy reading book. To our ears, at least, it sounds unnatural; and we suspect the author deliberately used this series of short sentences to keep the readability score down.

Payton's training paid off. He rushed for 1,421 yards in 1983. He caught passes for 607 yards. That was the most passes (53) of any Bear. He passed for 95 yards. He gained a total of more than 2,000 yards for the second time in his career. His yardage was thirty-six percent of the Bear's total yardage. He was almost a one man team.

Many readers, even remedial ones, would do better with a more natural sounding text, and at least one study (Green & Olsen, 1988) has shown that readers, particularly less-able ones, comprehend original texts just as well as simplified ones and actually prefer original texts to simplified ones.

### **Length**

An obvious but sometimes overlooked factor influencing the difficulty of a selection, and the likelihood that a less avid reader will make a real stab at finishing it, is its length. Particularly for students who do not read fluently, length alone can be a very formidable obstacle (Grobe, 1970). Additionally, research has shown that in some cases shorter texts—summaries or much reduced versions of complete texts—can actually produce better comprehension and memory than longer ones (Carroll, 1990; Reder, 1982). If the intent of a reading assignment is to have students retain key information, then short summaries specifically designed to convey that key information may be more effective than longer, less focused selections. Fortunately, how much material and what parts of the material we ask students to read is usually directly under our control as teachers.

However, as we discuss in the next section, shorter is not always better. In making a point, giving verbal illustrations and examples is often useful. And, of course, giving illustrations and examples increases the length of a piece.

## Elaboration

Texts can be written so that they present concepts without much explanation, or so that they present concepts along with a good deal of explanatory material—examples, analogies, and linkages of various sorts.

Elaboration refers to a certain sort of explanatory material. Elaborative information is information that explains the reasons behind the bare bones information presented. Elaboration makes information more meaningful and understandable, and information that is more understandable is more memorable. The concept is an important one and worth some examples. Here are two examples, one from a psychological experiment on elaboration (Bransford & Johnson, 1972) and one from an elementary social studies text.

In the experiment, some students were given unelaborated statements such as “The tall man bought the crackers,” “The bald man read the newspaper,” and “The funny man liked the ring,” and other students were given elaborated statements such as “The tall man purchased the crackers that had been lying on the top shelf,” “The bald man read the newspaper in order to look for a hat sale,” and “The funny man liked the ring that squirted water.” Then, both groups were given questions such as “Who bought the crackers?” “Who read the newspaper?” and “Who liked the ring?” Students who read the unelaborated statements could answer almost no questions, while those who read the elaborated text could answer nearly all of them.

The passage from a social studies textbook concerned American Indian Houses. It consisted of statements such as “The Indians of the Northwest Coast

lived in slant-roofed houses made of cedar planks," "Some California Indian tribes lived in simple, earth-covered or brush shelters," and "The Plains Indians lived mainly in tepees." But the textbook contained nothing to explain these facts and make them something other than arbitrary pieces of information. For example, it said nothing about the relationships between the types of houses and the climates of the areas, the types of building materials available in the area, or the lifestyles of the various groups. Unelaborated information is difficult to remember and not very interesting.

The idea that elaborations facilitate comprehension and recall makes good sense, and the facilitative effects of elaborated text have been empirically documented (Bransford & Johnson, 1982; Reder, Charney, & Morgan, 1986). However, as we noted above, shorter texts sometimes produce better comprehension and memory than longer ones. The matter of just when elaborations help and when they hinder is not yet resolved. It appears to be the case, though, that shorter texts may be more effective if the goal is simply to remember material, while elaborated texts may be more effective if one needs to thoroughly understand material, for example to write about what he or she has read or apply it in some real world context such as operating computer software (Charney & Reder, 1988).

### **Coherence and Unity**

Coherence refers to the integration of material, to how each topic and subtopic is defined and to how well the parts relate to each other (Anderson & Armbruster, 1984; Beck & McKeown, 1989). With young and inexperienced readers and with material that is unfamiliar to students, it is particularly important

that authors be explicit about how each piece of information fits with the other information in the text and about how each piece of information helps explain the event or idea the text presents. Coherence is another text factor that can be adversely affected by undue attention to readability requirements. Rigid adherence to readability requirements often results in the deletion of connectives and clauses that explain how the parts of a topic fit together, and the deletion of such material is likely to make a text less coherent.

Unity refers to oneness of purpose. Good texts are directed toward particular topics, particular points, particular themes, and particular concepts. After reading a selection, the reader should be able to summarize the content of the text and explain its purpose fairly succinctly because the text has not dealt with a myriad of topics. Texts that wander, take up too many topics, or contain pockets of irrelevant material are difficult to read, to summarize, and to remember.

Beck and McKeown (1989) give a number of specific examples of elementary texts in which coherence and unity have been obscured. Here are three of them. In one fourth grade text, an 800-word expository selection on subways is introduced with a 100-word anecdote in which the reader is asked to imagine that he or she is at home alone and needs to get someplace quickly: "It is Saturday morning. You are alone in the house when the phone rings. A friend of yours needs help" (p. 52). In this case, the reader may well be riveted, but unfortunately he or she is likely to be riveted on the wrong topic. The reader is focused on an adventure, while the text is intended to provide information about subways. In another fourth grade text, a 950-word selection about volcanoes, a

description of the volcano Mt. Fuji is interrupted with a 60-word digression about Mt. Fuji as a summer resort. It may be interesting to know that Mt. Fuji is a popular vacation spot, but the digression does nothing to further the reader's knowledge about volcanoes, the topic the passage is intended to present. As a third example, Beck and McKeown cite a 900-word, third-grade selection on the brain, which attempts to describe diverse functions such as "neural impulse, memory and dreaming in addition to the brain's physical appearance." Such an attempt at presenting a huge and diverse body of information in so few words, Beck and McKeown note, "absolutely prohibits both supportive elaboration . . . and development of logical connections necessary for coherent presentation" (p. 56).

Two studies that involve the coherence and unity of text are particularly worth considering because they offer guidelines for writing or identifying coherent text. In the earlier of these, Britton and Guelgoez (1991) successfully revised text to avoid barriers to comprehension and developed four guidelines for doing so: making implicit referents explicit, (b) repeating a linking word from the previous sentence, (c) using the same terms for the same concepts, and (d) constructing sentences in keeping with the given-new format. In the given-new format, information that has already been given in the text comes first in a sentence and information to be added to that given information comes later. In a more recent study, Tracy Linderholm and her colleagues (2000) successfully revised difficult texts to improve coherence and developed three guidelines for doing so: "(a) arranging text events in temporal order, (b) making implicit goals explicit, and (c) repairing coherence breaks caused by inadequate explanations, multiple causality, or distant causal relationships."

## Text Structure

Text structure refers to the organization of a text. The majority of texts students encounter in school can be categorized as belonging to one of two broad categories, narratives or exposition, and these two types of texts are organized very differently (Drum, 1984). Typical narratives reflect the temporal order of real life events in which motives, actions, results, and reactions occur in sequence, and episodes in the main character's life are integrated by goals and subgoals. Time thus provides a natural structure for remembering episodic information. Most children's books are narratives, most of the material parents read to children are narratives, and most of the selections in primary grade basal readers are narratives. Although there are certainly easier and more difficult narratives and ones that do not follow the prototypical structure, children generally do fairly well with narratives.

Exposition is another matter. Expository text, even well written expository texts, can have a variety of organizations, and different authors have created different lists of the organizational patterns of expository writing. Anderson and Armbruster (1984), for example, list description, temporal sequences, explanation, compare/contrast, definition/examples, and problem/solution as typical organizational patterns. Calfee and Chambliss (1988), on the other hand, identify description and sequence as the two major rhetorical patterns and then further divide each of these categories. In addition to these rhetorical patterns, Calfee and Chambliss identify several functional devices—introductions, transitions, and conclusions—that serve to link the various parts of a text. Unfortunately, in surveying social studies texts, Calfee and Chambliss found that

authors frequently employed weak rhetorical patterns such as lists or simply presented material without any apparent pattern. Additionally, the texts employed few effective functional devices to aid the reader. What is needed is expository texts that are clearly organized and that make that organization apparent to the reader (Chambliss & Calfee, 1998), and it appears that many of the expository texts used in schools fail to meet these criteria.

Moreover, since there is no single prototypic structure for exposition, previous reading of exposition—even well written exposition—does not provide the clues to the structure of upcoming expositions that previous reading of narratives provides to the structure of upcoming narratives. Also, little children's literature is exposition, parents seldom read expository material to preschoolers, and primary grade basal readers and even some intermediate grade basals contain little exposition. For these reasons, many students find expository text difficult.

### **Factors Involving the Reader and the Text**

The factors considered here are familiarity of content and background knowledge required, audience appropriateness, the verve and quality of the writing, and interestingness. As we have already noted, each of these factors definitely involves both the reader and the text; for example, one reader may find the content of a particular text quite familiar while another might find it largely unfamiliar. Additionally, it needs to be recognized that assessing texts along these dimensions is very much a subjective task.

### **Familiarity of Content and Background Knowledge Required**

As we already noted, vocabulary is probably the excellent predictor of difficulty that it is because it is an index of how familiar students are with the content of the material. Reading a selection on a topic for which we have little familiarity is difficult. Reading a selection on a topic that is totally unfamiliar to us is simply impossible (Adams & Bruce, 1982). It is for this reason that the language experience approach in which children dictate their own stories and then read them offers some real advantages when used with children just beginning to read. The content of the stories that a child dictates are totally familiar to the child.

Of course, children read a great deal besides experience stories, but much of this material contains familiar content. A descriptive piece about a zoo will contain a good deal of content familiar to students who have visited zoos. Similarly, a narrative set in a suburban community and focusing on the adventures and misadventures of a Cub Scout will contain a lot of material familiar to a Cub Scout from the suburbs. However, the same narrative may contain much less material familiar to a young Chicano living in the Los Angeles barrio. Still, even when placed in unfamiliar settings, narratives are likely to contain familiar themes. Most children are raised by parents, a parent, or a parent substitute; situations that arise between adults and children, between authority figures and youngsters, occur everywhere. Children have peers with whom they play, fight, and engage in a host of other pleasant and unpleasant human interactions. They go to school, shop at the store, and sleep at night.

These commonalities result in a good deal of familiar content in most short stories and novels.

Not only must the reader have some familiarity with the contents of a selection, he or she must also have the background knowledge assumed by the author (Adams & Bruce, 1982; Anderson, 1984). In some cases, the general knowledge that one picks up from day-to-day living is sufficient. This, as we just noted, is true of many short stories and novels. In other cases, much more specific knowledge is required to understand the text. This is particularly the case in technical and scientific areas; many of us could deal with a calculus text about as well with the cover closed as with it open. However, many humanities and social science texts also require extensive background knowledge for comprehension and thus pose problems for some students.

An example from a television serial, an example in which the content is not difficult but for which those of you not familiar with the serial will lack relevant background knowledge, will perhaps illustrate the point. The serial is "Dr. Who," a fantasy series that was popular with many preteens and teens some years ago.

Imagine that you are watching the beginning of the show and see a barren, desert-like scene, obviously hot and evidentially devoid of life. Suddenly, a red British phone booth appears in the desert. The camera zooms in to what should be the inside of the phone booth, but what you see is the cabin of some sort of a space ship, and it is much larger than the inside of a phone booth. In the cabin are a tall, lanky man wearing a long coat and a wool muffler reaching nearly to the floor and a young woman in contemporary clothes. The camera zooms out and you are again looking at the British phone booth in the desert, yet

out of it walk the tall man and the young woman. The man then turns to the woman and says in a very solemn voice, "As the fourth Doctor, the tardis is of course my responsibility." The woman nods, showing her full understanding of the fourth Doctor's evidently poignant message.

But what are the uninitiated to think? What is a phone booth doing in the middle of the desert? Is the large cabin supposed to be inside that little phone booth? Why does the man wear a long coat and an even longer muffler in the middle of a desert? In what sense is he the *fourth* Doctor? Is there a third Doctor? A fifth? What is a tardis?

The answers to these questions and a host of others are readily available to Dr. Who fans, but totally unavailable to those who know nothing of the show; and while in this case one could acquire the background knowledge rather readily, in many cases there are a myriad of facts, concepts, and relationships that a reader must know in order to approach a particular text.

### **Audience Appropriateness**

Obviously, the topic of a selection and the sophistication with which the topic is treated need to be appropriate for the students reading the selection. Consider, for example, two human interest pieces, both out of periodicals and both written for adults, but both readily interpretable by fifth or sixth graders. The first is by William Geist, a columnist for the New York Times. It is titled "The Friends of Trees," and it begins like this.

Marianne Holden could not restrain herself any longer. She whipped out her trusty 12 inch folding saw and attacked a Japanese pagoda tree.

"It feels sooo good," she said, standing on her tiptoes while she removed a limb the tree did not need. A wise guy walking by yelled "Timberrrr!" when the little branch dropped to the ground.

The sketch goes on to describe a group of New Yorkers who help the city in caring for boulevard trees. It is well written, and we like it because it shows people doing something positive and caring, behaving in a way we don't often think of as typical of New Yorkers, perhaps in a way we don't often think of typical of these times. But how appropriate is it for fifth or sixth graders. Will they appreciate it, relate to it, be interested in it? We are not sure, but it seems likely that many students will not find it engaging.

Now consider another human interest piece. This one is by Charles Kuralt, the CBS journalist. It is titled "The Butterfly Mystery," and it begins like this:

Monarch butterflies spend the winter in Pacific Grove, California. In early spring, the monarchs migrate north. This fact is part of a mystery that suggests all kinds of troubling questions.

In the first place, the monarchs are confused by radio, television, and radar waves. And they are destroyed by fertilizer, insect sprays, and air pollution. So how do they survive at all?

In the second place, after they leave Pacific Grove, they fly as far as 2,000 miles into Canada. They fly through storms and across mountains and deserts, even though they are as fragile as feathers. How do they do it?

The sketch goes on to describe some of the other mysteries of the butterflies' annual visit to Pacific Grove, never really explaining them but describing some of the folktales about the monarchs' visits and all in all presenting the visits as a rather magical and wonderful annual event. It too is well written, and we like it because we find the phenomenon an interesting one. But is it appropriate for fifth and sixth graders? Will they appreciate it, relate to it, and be interested in it? It seems likely that they will. It seems likely that of the two pieces, both about the same length, both about the same difficulty, and both well written, "The Butterfly Mystery" will be more appropriate for many fifth and sixth graders.

### **Quality and Verve of the Writing**

In addition to the factors that have been presented thus far, one must consider the quality of the writing, the flair of the writing, the particular blend of topic, organization, and style that makes one piece of writing intriguing and memorable and another piece mundane.

There has been very little research on the effects of the quality and verve of writing. However, in one very relevant study Beck, McKeown, and Worthy (1995) found that modifying textbook passages by giving them "voice" significantly increased fourth graders comprehension of the passages. In revising

the passages to give them voice, Beck and her colleagues attempted to make text situations more dynamic, make the language more conversational, and highlight connections between the reader and the text. Although voice is only part of what we mean by quality and verve, it is certainly an important part of it.

Of course, quality and verve is not the only aspect of writing to consider. Certainly, the texts we ask students to read should be lucid. But clarity is only one criterion for good prose. Joseph Williams, author of a wonderful little book titled *Style: Ten Lessons in Clarity and Grace*, addresses the topic in this way:

Let us assume that you can now write clear [and] cohesive . . . prose. That in itself would constitute a style of such singular distinction that most of us would be more than satisfied to achieve so much. But even though we might prefer bald clarity of the complexity of [much] . . . prose, the unrelenting simplicity of the plain style can finally become very flat and dry indeed, eventually arid. Its plainness invests prose with the blandness of unsalted meat and potatoes—honest fare to be sure, but hardly memorable and certainly without zest. Sometimes a touch of class, a flash of elegance can make the difference between forgettable Spartan plainness and a well-turned phrase that fixes itself in the mind of the reader.

Exposing young readers to the power and beauty of the language ought to be one of our aims in selecting texts.

## Interestingness

We left this factor for last because it is the most subjective factor and the factor most dependent on the reader. A poorly written piece on dogs is likely to be of great interest to a child who loves dogs, while even a very well written article on the topic will not capture the interest of a child who doesn't care much about animals. Moreover, the results of studies of interesting material on children's comprehension are mixed. Some studies have shown positive effects of interesting material (Anderson, Shirey, Wilson, & Fielding, 1987; Asher, 1980). Others have failed to show such effects and have even found that interesting anecdotes in textbooks can sometimes focus children's attention away from more important parts of a selection (Duffy et al., 1989; Garner, 1992; Graves, Prenn, Earle, Thompson, Johnson, & Slater; 1991). Garner has aptly labeled these interesting but tangential topics that detract from comprehension "seductive details." Like the Sirens of Greek mythology, they lure unsuspecting readers from their true course with their arresting call. Recall, for example, the adventure narrative that begins the fourth-grade expository selection on subways, a passage we mentioned in the section on coherence and unity. The narrative is very likely to capture students interest, but their attention will be focused on solving the problem of helping a friend and not on the information about subways.

In general, it appears that texts with material a child finds interesting as an integral part of their makeup are likely to facilitate comprehension, while texts in which the interesting material is an add on are likely to impede comprehension. The implications for teaching are threefold. First, although there is a good deal

written about children's interests, the best way to find out about what interests your particular students is to spend a lot of time with them, sharing your interests and seeking to learn about and share theirs. Second, annotated bibliographies and other discussions of children's books abound, and we encourage you to use it. We also encourage you to spend time reading children's books and periodicals themselves. Finally, be particularly aware of seductive details in expository writing for children. Try to choose writing that makes the subject matter itself interesting rather than writing that relies on irrelevant asides to gain its readers interest, and alert students to the presence of irrelevant details in some texts—their learning to deal with such matters is part of their becoming genuinely metacognitive in reading.

### **Concluding Comments**

In all, we have listed ten factors likely to influence text difficulty. Six of the factors—vocabulary, sentence structure, length, elaboration, coherence and unity, and text structure—are largely inherent in the text itself. Four factors—familiarity of content and background knowledge required, audience appropriateness, the quality and verve of the writing, and interestingness—definitely involve both the reader and the text.

This set of factors is not a checklist in the sense that you can simply tag each factor as present or absent and then tally the check marks to arrive at a score. Instead, it is a set of factors to consider carefully, to ponder as you try to decide whether or not a particular text ought to be used with a particular group of students.

We also want to point out that the factors are not presented in order of their importance. In fact, the first factor considered—vocabulary—is seldom the single most important factor to consider, and the second factor—sentence structure—is virtually never the most important one.

We should further note that a factor may be critically important with one text or situation but not very important with another. As one example, consider length. Length may be critically important in considering an expository selection that requires a great deal of background knowledge, that is not very interesting, and that is going to be used as a required reading for students who are not particularly good readers. Conversely, length may be unimportant in considering an interesting narrative selection that you plan to recommend as recreational reading for an adept reader.

As another example, consider style and verve. Style and verve are likely to be extremely important when considering a lengthy social science selection to be given to less than avid readers as a required assignment. On the other hand, style and verve are not very important considerations in choosing documentation for some computer software that a student really wants to learn to use. In fact, straightforward and unadorned prose may well be preferable for the software documentation.

We should also note that with some texts you will probably consider only some of the factors before making a decision. For example, you might choose to discard a poorly organized selection on an unfamiliar and uninteresting topic without examining the piece in great detail. Or, you might plan to use a particularly interesting piece even though it displayed a number of difficult

features. Of course, in the latter case, you will probably decide to give students a good deal of scaffolding to be sure they are successful with the piece.

Before concluding, we want to return to the subject of readability formulas. As we, along with many others, have noted, readability formulas have many drawbacks. This is why we developed and presented this list of ten factors to consider in assessing text difficulty. We believe that using it will generally result in better matches texts and students than will readability formulas. However, we also think that, for beginning teachers, teachers not familiar with a range of children's texts, and situations in which there is very little time available, a readability formula may be a useful tool for estimating the difficulty level of a text. For these purposes, we suggest Edward Fry's readability graph (Fry, 1977; Fry, Polk, & Fountoukidis, 2000). However, if you do use Fry's graph on occasion, we suggest that you always consider the difficulty level you obtain from it as supplemental or tentative information.

Another tool that some of you will find useful is Jeanne Chall's *Qualitative Assessment of Text Difficulty* (1996). In addition to other valuable contents, one section of this guide contains short selections of literature, popular fiction, life science, physical science, narrative social studies, and expository social studies material ranging from the first grade level to the college level. These passages are a very handy source for getting a beginning concept of what selections at various grade levels look like.

In concluding, we want to note again that the text is just one important element to consider in matching texts and students. Other elements—the students who will be reading the selection, your purposes and their purposes in

reading the selection, and the scaffolding you will provide to help them deal successfully with the selection—also deserve and require your consideration.

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