CHAPTER 4

What?

The Fundamental Competencies of Reading

This chapter completes our explanation from the previous chapter of the last and most basic goal of teaching reading: Developing the fundamental competencies of reading at succeedingly higher levels of independence. By "fundamental competencies" we mean the basic, underlying abilities without which reading printed language could not be fully accomplished. These are the competencies at which we expect individuals to become succeedingly more skilled and independent as they grow as readers.

Although the list of competencies presented here may appear simple, their underlying perceptual, cognitive, and linguistic processes are much more complex and still not completely understood. This problem, however, is in the realm of reading theory, and our concern is with a conceptual framework that is useful for teaching reading.

This is not to imply that the conceptual framework presented here is superficial, however. In fact, it is philosophical. *Linguistic philosophy* is that branch of metaphysics that explains what we mean by our words. The linguistic philosopher Gilbert Ryle in his book *The Concept of Mind* (1949) argued that the mind is a set of capacities and abilities that can be categorized as *knowing that* or *knowing how*. Reading is of the knowing how category, and it has been in turn philosophically categorized. L. B. Daniels (1970, 1980, 1982) categorized reading into three capacities or abilities: *reading as saying*, *reading as understanding*, and *reading as (reflective) thinking*. That conceptual stratification is similar to the fundamental competencies discussed here and was one of the bases for their original proposal (Sadoski, 1982). We will refer to these three fundamental competencies in the contemporary parlance of reading as *decoding*, *comprehension*, and *response*.

DECODING

The term *decoding* as used in reading is unfortunately imprecise. In general language, decoding implies understanding (e.g., to decode a message). In reading, the term generally means converting printed language to spoken language whether it is understood or not, and whether it is converted to overt, oral speech or to covert, inner speech. In decoding, we produce the spoken analog of the printed language but not *necessarily* the thought analog. The term *decoding* will be used in that sense here.

A more preferable term for some is *recoding*, implying only that the code has changed from the orthographic, print code to the phonological, speech code. We can, for example, do a fair job at recoding printed languages that we do not understand well or at all: *No entiendo esta escritura* ("I don't understand this writing" in Spanish). We can probably produce a fairly accurate spoken analog of this sentence even if we don't know its meaning. We will use the

term *decoding* to refer to this situation as well as to situations where at least some meaning is understood.

Even if we speak the language we are decoding, understanding may be distant. Consider how we would read an insurance policy, a legal document, or any text on a subject of which we know little or nothing, even if it is written in English. We may read it fluently in the sense of pronouncing the words in order with appropriate sentence intonations, but we would probably grasp little or none of the meaning ("It's Greek to me"). We could agree, however, that we were "reading." This is another example of reading as decoding without necessarily understanding.

One thing readers learn to do when they learn to decode in this sense is to pronounce printed words. Decoding at the word level is called *word recognition*. This term simply means figuring out how a printed word is most likely to be pronounced whether or not we are familiar with that pronunciation and whether or not we know what it means. The term *word identification* is sometimes used synonymously, but it generally also implies assigning a meaning as well as a pronunciation to a printed word (i.e., decoding the message). This distinction is necessary because it is possible to determine the spoken form of printed words without understanding their meaning, as noted. On the other hand, it is possible to understand a printed word's meaning without necessarily providing a correct pronunciation or any pronunciation if the context is strong enough. Consider the word *Oswiecim* in the sentence *Oswiecim is the Polish name for Auschwitz*. The reader unfamiliar with Polish might not supply the correct pronunciation (Osh-vyan-tsim) but would still grasp the meaning. Comprehension does not invariably require decoding.

Decoding may apply to printed units smaller than words, such as letters or letter combinations that form common syllables or morphemes (units of meaning such as prefixes, suffixes, or roots of words). Typically a part of "sounding out" words, this competency is used by readers at all levels. Consider the chemical name *alkylbenzyldimethylammonium*. In decoding this word, you proba-

bly analyzed it (broke it down) into pronounceable letter combinations, and synthesized them (put them together) into an approximate or final pronunciation. The units may have been of different sizes, with larger, more familiar units such as *ammonium* possibly recognized as wholes, and even understood as morphemes.

The usual tendency is to decode units of the largest possible size, so that familiar letter combinations such as *al* are recognized rather than *a* and *l* separately. This is why words became divided between syllables when they extend from one printed line to another—the decoding process is expected to occur at the syllable level at least. In some situations, we may be reduced to letter-by-letter decoding, but these situations are found only in extreme cases and may not be successful.

Decoding can be achieved in several ways, which form the basis of most of its teaching. These ways are:

- Phonics
- Structural analysis
- Sight vocabulary
- Context
- Dictionary

Phonics

Phonics is the way, just introduced, to "sound it out" at the level of individual letters or simple letter combinations. The basis of phonics is our accumulated knowledge about the way *graphemes* stand for *phonemes*. A *grapheme* is the smallest unit in a written language, a letter of the alphabet in alphabetic languages. We have 26 letters in English. A *phoneme* is the smallest unit in a spoken language. We have approximately 44 phonemes in English, although there is some disagreement about the number. Written languages are a way to represent their corresponding spoken languages; the way the printed form maps onto the spoken form is the basis of phonics. For example, the word *fine* is distinguished from the "word" *kine*

by the difference in the initial phoneme and corresponding grapheme. In fact, the word *kine* is an archaic word meaning cows, but readers should be able to decode this word even if they are unfamiliar with its meaning. We use phonics to aid word recognition this way.

This system in English is unfortunately not a matter of one-to-one correspondences, as can be readily inferred from the mismatch between 26 graphemes and 44 phonemes (other languages, such as Turkish and Finnish, have much closer correspondence). This is complicated by the fact that graphemes can stand for more than one phoneme (*c* represents different phonemes in *cow*, *city*, *cello*, etc.), and phonemes can be represented by different graphemes (the /f/ phoneme is represented by *f* in *fine*, *ph* in *phone*, *gh* in *rough*, etc.). Also, notice the unpronounced or "silent" *e* at the end of *fine*, *kine*, *phone*, and many other words. Some letters, particularly some consonants, are highly reliable in their correspondence with speech sounds in English, while others, especially vowels, are less reliable. Both vowels and consonants are unpronounced in many words.

Two main kinds of phonics are synthetic phonics and analytic phonics. *Synthetic phonics* is part-to-whole and involves associating individual graphemes with individual phonemes, blending sets of them into words, and learning generalizations that govern the allowable sets. *Analytic phonics* is whole-to-part and involves learning a number of words and their related phonic generalizations, which are then applied to still other words. Phonics is a complex, imperfect system and some of it is seldom if ever taught, but readers develop considerable phonics knowledge whether they are taught it or pick it up on their own.

Structural Analysis

Words can be broken down into units larger than individual graphemes and phonemes, as seen earlier. We probably perceive

the largest familiar units for the sake of efficiency, but in any case structures larger than letters but smaller than words are commonly perceived and used in decoding. This is the basis of structural analysis.

Words can be seen as having two kinds of structure: sound structure and meaning structure. The main sound structures are *syllables*, units of spoken language with a single vowel sound and usually consonant sounds as well. Every word has at least one syllable but may have more. The *al* in *alkyl* is a syllable, and so is the *kyl* (but the *a* in *alone* is a syllable by itself). Readers often recognize familiar syllables in familiar locations and use them in decoding. Notice the familiar location and pronunciation of the rime *-ine* in *fine*, *kine*, *dine*, *line*, *mine*, *nine*, *pine*, *vine*, *spine*, and so on. Or the *-one* in *alone*, *bone*, *cone*, *drone*, *hone*, *phone*, *stone*, *tone*, and *zone* (notice too that the familiar words *done*, *gone*, and *none* deviate from the pattern). Changing the location of the *-ine* changes its syllable pattern and signaled pronunciation, as in *inert*, *inept*, and *inexact*. Not all patterns are equally stable, but in certain predictable locations syllable patterns are often quite stable and useful in decoding.

Words are also structured into meaning units called *morphemes*. Like syllables, every word has at least one morpheme but may have more. However, morphemes do not correspond exactly with syllables. The roots, prefixes, and suffixes of words are common morphemes. Compound words are simply words with two roots, as in *gentleman*. Addition of the adverb-producing suffix *-ly* makes the word *gentlemanly*, and addition of the negative prefix *un-* makes the word *ungentlemanly*, a total of four morphemes (but five syllables). Other morphemes may not be as easy to distinguish depending on familiarity. *Alkyl* is a familiar morpheme in chemistry, signifying a hydrocarbon. Also familiar to a chemist are *benzyl*, *methyl*, and *ammonium*. The word *alkylbenzyldimethylammonium* may be decoded in different chunks by different readers depending on their prior knowledge. Chemists would be likely to perceive

morphemes, while others may deal more with syllables, or even individual graphemes and phonemes in places.

Decoding works optimally when morphemes are taken onto account. For example, the vowel combination *oi* is often associated with the phoneme /oy/, as in the words *oil*, *coin*, *point*, and *avoid*. However, notice the pronunciation difference for *oi* in *boing*, *going*, *doing*, or *booing*. In the last three words the *-ing* forms a suffix added to the roots *go*, *do*, and *boo*, breaking up the pronunciation of *oi*. Likewise, *th* is a digraph (a phonic unit with two letters representing one sound) in *another* and *toothache*, but not in *sweetheart* or *mast-head*; *ph* is a digraph in *telephone* and *alphabet*, but not in *shepherd* or *haphazard*; *sh* is a digraph in *wishes* and *fashion*, but not in *mishap* or *dishonest*. Divisions between morphemes govern pronunciation as well as syllable divisions and phonics generalizations.

Sight Vocabulary

Another way words are decoded is "automatically" as wholes, without the analysis and synthesis involved in phonics and structural analysis. Some words don't easily lend themselves to analysis. Many everyday words deviate at least in part from common phonics patterns—for example, *done*, *gone*, *none*, *the*, *of*, *are*, *have*, *come*, *were*, *what*, *been*, *know*, and *there*. Such words become so familiar that they are recognized instantly, like old friends. When we read our own name we don't sound it out by letter or syllable even though the spelling may be uncommon. We even learn common phrases this way, such as *rock 'n' roll*, *hip-hop*, *hot dog*, *air-conditioned*, and so on. As we grow in reading ability, more and more words become sight words, so that only new words require extensive, conscious analysis. A chemist might even recognize *alkylbenzyldimethylammonium* by sight if he or she encountered it with sufficient regularity! Developing an extensive sight vocabulary is a major aspect of fluent reading.

As we saw in Chapter 2, a traditional method of teaching beginning reading is to teach a sight vocabulary of 50 words or so that

is learned by repetition (e.g., via repetitive sentences, flash cards) and then to teach simple phonic generalizations using analytic phonics or reasoning by analogy. An example of reasoning by analogy is learning the words *dish*, *win*, and *fell*, and then removing the initial consonants *d*, *w*, and *f* and cross-combining them with the remaining parts to form *wish*, *well*, *fin*, *dell*, *fish*, and *din.* Another sight vocabulary method involves teaching of a select list of words of such high frequency that they make up the bulk of printed English (*the*, *of*, *and*, *a*, *to*, *in*, *is*, *you*, *that*, *it*, etc.). Research estimates suggest that about 100 words make up 50% of all written English! Of course, sight word learning, phonics, and structural analysis are often combined in various ways in teaching decoding.

Context

Context in decoding involves the use of our intuitive knowledge of grammar and meaning. Grammatical cues are signaled within a sentence and may involve little meaning. For example, consider the pseudoword *bipled* (Sadoski & Paivio, 2001). It has no known meaning, but several pronunciations are likely including *bi pled*, *bi pld*, and *bip ld.* Which pronunciation applies is partly a matter of grammar as signaled by the word's syntax, or position in a sentence. For example, consider the sentence *The glork bipled the slink*. Here, the pseudoword *bipled* is in a verb position, the *-ed* is interpreted as a past tense verb suffix, and the pronunciations *bip ld* and *bi pld* are more probable. But in the sentence *A slink is a bipled*, the pseudoword *bipled* is in a noun position and the *bi-* might be interpreted as a prefix meaning "two," perhaps by association with the word *biped*. Because of the lack of a known meaning we can't be sure, but context reduces possibilities and provides hints. In the sentence *Oswiecim is the Polish name for Auschwitz* the grammatical class and meaning of *Oswiecim* are both clear, even if the pronunciation isn't. For centuries, many beginning reading books have also provided pictures that give hints and form a part of the context in addition to the print.

Context often serves to limit what a word might be, but in some cases it actually determines what a word is. One category of words is *heteronyms*, single spellings with different meanings and pronunciations. These are words like *bass*, *tear*, *lead*, *bow*, *wind*, *wound*, *console*, *dove*, *minute*, and *project*. Context here determines which meaning and consequent pronunciation applies to these common words (*bass* drum, largemouth *bass*; *minute* hand, *minute* detail; etc.). That is, context alone determines word identification in these cases.

Context serves a kind of reciprocal relationship with phonics, structural analysis, and sight words. Knowing what a word is likely to be from the words around it assists in decoding, but a reader must have already decoded some of the words for there to be a context, and round and round it goes. We might imagine a reader as a juggler who has to keep a few different objects in the air at once. Individual differences in ability and instruction may affect whether phonics, structural analysis, sight vocabulary, or context strategies are most preferred by different readers, but readers rely on them all to some extent. Juggling only one won't do the trick. This is what decoding is really all about in practice.

Dictionary

Dictionaries provide all the information necessary for proper decoding: pronunciations, grammatical classes, meanings, morphemes, common variations, and so on. Of course, a general degree of reading ability and some specialized skills are needed for effective dictionary use, but dictionaries and glossaries at different reading levels are widely available and a variety, including picture dictionaries, are usually found in schools.

Dictionaries have limitations, as do all the other decoding methods. Some definitions have been known to be circular (e.g., concept—idea; idea—concept), and some verbose (vector—a directed line segment representing both magnitude and direction

such as force or velocity). Some of this is unavoidable due to the reflexive quality of language (i.e., using language to define language), but dictionaries continue to improve since the first ones appeared less than 400 years ago (Shakespeare had none!).

Few reference books are as useful as a dictionary for developing an independent ability to read and a rich vocabulary. But because consulting a dictionary causes a disruption in reading, we often avoid its use or put it off until a more opportune moment, relying on the adage "When all else fails, look it up." Many readers are probably underskilled and undermotivated in the use of this reference tool.

COMPREHENSION

If decoding is *saying* something, comprehension is *understanding* something, getting its meaning. This is the second fundamental competency of reading, and the central one. Whereas decoding involves producing a spoken analog of printed language, comprehension involves producing a thought analog of printed language. This is decoding in the general sense rather than in the special sense peculiar to reading. In this sense, comprehension is the reconstruction of the author's message—the author constructs a message and encodes it in printed language, and the reader decodes the printed language and reconstructs the message. When all goes well, communication occurs—two minds with one thought and the implications of that thought.

In the sense of communication, the word *understanding* can be taken literally; we "stand under" the author's message, subordinating our own interpretations to try to grasp the author's intentions, even when we suspect the author is trying to deceive us. However, reading need not stop with understanding. Reading at its fullest includes reflecting on what is read, evaluating it, comparing it with what is already known from other reading or from direct experience, trying it on for size to see how it fits.

The previous section showed how using context is one aspect of decoding. Context implicates grammar and morphology in decoding, and therefore meaning to some degree. However, there are aspects of comprehension that go far beyond using context to decode words. Probably the simplest and best way to understand this is to view comprehension as occurring in levels. Three levels of comprehension are usually proposed: the *literal* level, the *inferential* or *interpretive* level, and the *critical*, *applied*, or *appreciative* level. William S. Gray (1960) lucidly called the three levels *reading the lines*, *reading between the lines*, and *reading beyond the lines.* We will deal with the first two levels here; the third level is dealt with in the following section on response.

The Literal Level

This level involves literal comprehension, interpreting the author's words in a given sentence in a way that has meaning to us, but without considering and weighing the implications of any interpretation we may have. Literal comprehension involves word meaning, but it is more than decoding the meanings of individual words one at a time. Context determines word meaning to a great extent.

Consider the three words *the*, *ship*, and *sinks.* Two very different sentences can be composed from these words. *The ship sinks* could mean a large boat descending below the water. But *Ship the sinks* means to transport kitchen or bathroom appliances. The difference in word order, or syntax, causes the words to mean different things. Few words have only one meaning, and context determines which meaning applies. Literal comprehension does not deal with our interpretations of why the ship might have sunk, how big the ship was, or whether it sank in freshwater or at sea. Literal comprehension does not deal with whether the sinks were kitchen or bathroom sinks, or both, or where the sinks were being shipped to or from, or much else. We may have such interpretations, but they cannot be verified from the words of the text; they are not literal ("of the letters").

Literal comprehension deals only with the textually explicit, with what is directly stated. This is important in legal documents, for example. Consider the hypothetical case of the will of a rich uncle leaving $1 million each to "Mary, Jim, Sue and John." If Sue and John are a couple, there is ambiguity about whether Sue and John get $1 million each or whether Sue and John get $1 million together as a couple. But a comma after Sue means $1 million each. Literal language can be important!

Comprehension questions at the literal level have answers that are stated explicitly, "right there." In the sentence *The kids crept toward the old, deserted house* we might ask who crept toward the old, deserted house. The answer (the kids) is literally stated, and therefore the question taps the literal level of comprehension. However, to press the point a bit, what exactly is meant by *kids*? This word can mean children, but also young goats. Conceivably, some young goats might be creeping toward the old, deserted house. This interpretation is unlikely because of the communicative aspect of comprehension: part of the implied contract between authors and readers is that ordinary, default assumptions apply unless the author signals differently. The answer to this question might be clearly resolved in the next sentence, but there is nothing literal in this sentence to prevent the goat interpretation, however unlikely. The point is that the concept of literal comprehension is a very restricted, verbal one. It mainly answers the question "What does this say, exactly?"

The Inferential or Interpretive Level

The level of inferential comprehension, also called the interpretive level, is the level of comprehending what is implied but not explicitly stated. The morphemes that make up *infer* mean "to carry into," implying that we carry meaning into a text rather than draw it out. There is probably no comprehension without some degree of inference (Were those "kids" children or goats?). As we have shown, inference produced by context is helpful and sometimes

necessary in decoding to speech and determining literal meaning, so the boundary between decoding and comprehension is a bit blurry—to a degree, we are always reading between the lines. But inferential, interpretive comprehension goes far beyond the determination of word meanings. It is involved with building a mental model of the whole situation implied by the text with reasonable certainty. What we mean by a "mental model" is a coherent image of a situation, either actual or fictional, that is consistent with the language of the text (Sadoski & Paivio, 2001).

Inferences can be broadly classified as logical or pragmatic. *Logical inferences* involve the rules of formal logic and result in a high degree of certainty. If A = B and B = C, then A = C by simple verbal syllogism. If Jim is taller than Mary, and Mary is taller than Sue, then Jim is taller than Sue. The mental model here might involve imagining the characters lined up by height. However, consider two other situations. If Jim is taller than Mary, and Sue is taller than Mary, Mary is the shortest but we cannot logically determine who is the tallest. The sentence *Jim isn't as tall as Mary*, *but Mary is shorter than Jim* is logically inconsistent, and cannot be imagined in any real or fictional world. It doesn't "make sense."

Pragmatic inferences are situation-specific and generally occur with a lower degree of certainty. Consider these two sentences together: *The kids crept toward the old, deserted house. The flashlight beam trembled.* Notice how your mind immediately pulls them together into a little episode and invests the episode with unstated information. In a complete mental model, we might supply a time, a setting, characters with ages and genders, and even their emotional state. Notice the reasoning involved in answering the following two inferential questions:

- What time of day is it? (Probably night because the flashlight was on and it's creepier to sneak up on old, deserted houses at night.)

- What mood were the kids in? (Probably afraid; the flashlight beam was in a hand trembling with fear).

Notice also our continued use of the word *probably*. Because they are implicit rather than explicit, pragmatic inferences exist with a degree of probability less than certainty. When formal logic is involved, the probability becomes certainty as long as the premises are true. The answers to the inferential questions just given are highly probable, but not completely certain. The hour could be daylight and the trembling hand could be due to infirmity. (The "kids" could even be goats in a fantasy tale like those of Dr. Seuss or C. S. Lewis.) Other inferences such as the location of the house or the number, ages, and genders of the kids would have still less probability and might vary considerably between readers.

Such inferences are often made on the basis of information beyond the sentence. Where such information is unavailable, such as at the very beginning of a story, inferences are made provisionally. As noted earlier, authors are obliged to provide critical information, but no author is ever completely explicit about every detail of time, place, character, and so on. Much is left unsaid for the reader to fill in. If literal comprehension generally answers the question "What does this say?", inferential comprehension generally answers the question "What does this mean?"

RESPONSE

When we ask if someone has read Plato we aren't asking if that person has decoded Plato accurately, or even if that person has understood all the particulars of Plato's intended meanings. We are mainly asking what that person thinks of having read Plato, how he or she interprets it. The third fundamental competency of reading involves a personal reaction to what is read, the contemplation of the ideas and feelings evoked by the text, responding to the text

both cognitively and affectively. Some prefer to think that this is no longer a part of the reading process, but a reflection on what has been read. Others prefer to think of this as the third level of comprehension that completes the reading act. In either case, this competency involves reading beyond the lines, going beyond literal statement and inferential probability to finding personal relevance and significance. Here the reader answers the question "What does this mean to me?"

This level of reading has been alternatively called the *critical* level, the *applied* level, and the *appreciative* level, among other labels. While these terms are not exactly synonymous, they are all common, overlapping varieties of response.

Critical Reading

Critical reading involves assessing and judging the value of what is read. Reading critically can be seen as a conversation with an author, talking back to an author in our imagination. Adler and Van Doren, in their classic *How to Read a Book* (1972, pp. 137–139) summarized it like this:

> Reading a book is a kind of conversation. You may think it is not a conversation at all, because the author does all the talking and you have nothing to say. If you think that, you do not recognize your full obligation as a reader—and you are not grasping your opportunities. . . . A good book deserves an active reading. The activity of reading does not stop with the work of understanding what a book says. *It must be completed by the work of criticism, the work of judging.*

Critical reading means evaluating and judging, but a good critic does more than retort with thumbs-up, thumbs-down verdicts. A good critic engages in the task of looking deeper and appraising relative strengths and weaknesses. Critical reading involves an open-minded assessment of a work's form, style, credibility, depth, and relative stature among other works of the same kind. It in-

volves gaining insight and enlightenment as well as detecting bias and propaganda. As Sir Francis Bacon once warned, we should not read to contradict and confute, nor to believe and take for granted, but to weigh and consider. In the last chapter we presented Goal 2: Developing Personal Interests and Tastes in Reading. Critical reading involves developing discriminating tastes based on standards of value, either public or private.

Application

Application involves the construction of knowledge by the reader, particularly for the purpose of carrying that knowledge beyond the text. This amounts to learning, where *learning* is traditionally defined as a potential or actual change in behavior as a result of instruction or experience. Chapter 3 noted the transition between learning to read and reading to learn. Reading to learn is a central part of much schooling, where what we learn through reading is put to work both in and out of school.

Learning through reading involves the connection between what the reader already knows and what he or she encounters anew in the text, a fusion of the two that causes growth and change in the reader. Such changes are not necessarily large, dramatic, or sudden; learning through reading is often cumulative and slow, although flashes of insight do occur from time to time. Examples of learning through reading for application were seen in the last chapter under Goal 3: Developing the Use of Reading as a Tool to Solve Problems. Such problems can be personal or social, including academic problems, and of small or large scale.

School-related problems (reading to learn) and work-related problems (reading to do) were discussed in Chapter 3. A key school-related example of application learning is acquiring study skills such as locating, organizing, and retaining information from text for projects, reports, or tests. A key work-related example involves professionals in any field reading professional literature and applying new principles, practices, or products in the office, school,

hospital, business, and so on. On the personal side, self-help literature is widely available for application to personal issues.

Appreciation

Reader response can take the form of "living through" a text. This can be seen as a major aspect of literary appreciation, where a reader constructs a mental model or inner world where the settings, characters, and events come alive far beyond what the author may have described or implied and what the reader might have ever before imagined. The reader may have a favorite fictional work where the characters and settings reside in memory with as much reality as actual persons or places. The immense popularity of the Harry Potter books or *The Lord of the Rings* trilogy by J. R. R. Tolkein serve as current cultural examples.

Appreciation also can be seen as an extension of critical reading, where through careful evaluation and discrimination readers personalize the challenging new ideas or experiences they encounter and develop heightened internal standards. This was briefly discussed in the last chapter under Goal 2: Developing Personal Interests and Tastes in Reading. However, literary experiences do not enjoy a monopoly on appreciation. Readers can gain expansive and profound experiences from nonfiction where biography, history, or even science and mathematics come to life with personal relevance or their ability to crystallize ideas with elegance.

Not all reading requires the same level of response. Everyday, mundane reading tasks call for little, whereas serious text encounters require more. But even in everyday tasks, response is more a part of reading than we might assume. Even as we sort through the day's mail, we make continuous judgments about what to discard, what can wait till later, and what to read with close attention immediately. A sign reading *Please Keep Off the Grass* elicits different responses from casual pedestrians or firefighters approaching a burning building. Following a recipe may seem like a clear case of direct application, but probably few recipes are followed to the let-

ter without some personal variations by expert chefs or even daring novices. In any case, no full account of reading can omit response, and no reading curriculum would be complete without attention to it.

THE FIRST CONTINUUM: PRINT INPUT VERSUS READER INPUT

The three fundamental competencies of reading discussed in this chapter can be arrayed on an underlying continuum that unifies them. We call this "the first continuum" because the next chapter presents a second continuum dealing with teaching and learning. These two continua together form the overall conceptual framework for teaching reading presented in this book.

Reading has two sources in this continuum. One source is something to be read, generally referred to as the print, and the other source is the reader. Reading cannot occur without input from both sources. Although input from either the print or the reader can be increased or decreased to a degree, neither can ever be increased to 100% or reduced to 0%—some of each is always required in reading. An unopened book is not being read, and a mind not engaged by text is not reading. Depending on the relative amount of input from one source or the other, reading can be conceptualized as one of the three fundamental competencies. The continuum between input from the print and input from the reader with the three fundamental competencies arrayed is shown in Figure 4.1.

When input from the print is primary and input from the reader is secondary, reading becomes most like decoding. The print takes prominence here because that is where the message is encoded; it is a portal through which we must pass. Alphabetic print maps the speech of its respective language, and so some degree of speech recoding is involved in reading even if subconsciously. However, it would be too easy to conclude that this com-

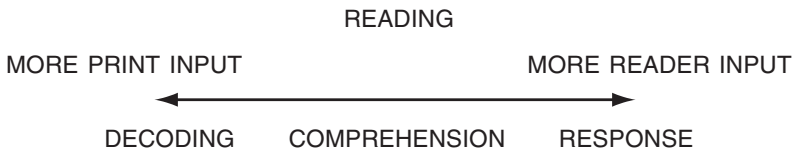

FIGURE 4.1. The three fundamental competencies of reading and their underlying continuum between *more print input* and *more reader input*.

petency of reading was the primary competency to be learned before the other competencies apply. That is, it is tempting to think of reading as recoding printed language to spoken language and then simply listening to yourself talk. Unfortunately, decoding overlaps with comprehension (as explained earlier) and the boundary between the two is not as distinct as is sometimes assumed.

Comprehension is central to reading. It occupies the central place on the continuum where input from the print and input from the reader are in relative balance. The print is important here in gaining the particulars of the message, but the reader's inferential interpretation of the print is equally important. However carefully an author composes a text, a reader must fill in what was necessarily left unsaid in order to comprehend. In doing so, the reader's mind contributes to the reading as much or more than the print does. At some point, the boundary between comprehension and response is crossed, so this boundary is indistinct as well.

Response occurs toward the end of the continuum where input from the reader becomes more important than input from the print, where the print serves merely as a springboard for our own mental critique, application, or appreciation. As noted earlier, this may be seen as responding to something already read, and surely response can occur long after the printed text has been put aside. But responding to our meanings is an aspect of reading both conceptually and educationally. In the next two chapters we turn to education and teaching issues more directly.

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