

## Library of Congress Cataloging-in-Publication Data

Words their way: word study for phonics, vocabulary, and spelling instruction/Donald Bear . . . [et al.]. — 4th ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-13-223968-X

1. Word recognition. 2. Reading—Phonetic method. 3. English language—Orthography and spelling. I. Bear, D. (Donald)

LB1050.44.B43 2008

372.63'2—dc22

2007004014

**Vice President and Executive Publisher:** Jeffery W. Johnston

**Senior Editor:** Linda Ashe Bishop

**Senior Development Editor:** Hope Madden

**Senior Production Editor:** Mary M. Irvin

**Senior Editorial Assistant:** Laura Weaver

**Design Coordinator:** Diane C. Lorenzo

**Cover Designer:** Ali Mohrman

**Cover Image:** Hope Madden

**Illustrator:** Francine Johnston

**Production Manager:** Pamela D. Bennett

**Director of Marketing:** David Gesell

**Marketing Manager:** Darcy Betts Prybella

**Marketing Coordinator:** Brian Mounts

This book was set in Palatino by Carlisle Communications, Ltd. It was printed and bound by Edwards Brothers, Inc. The cover was printed by Phoenix Color Corp.

**Photo Credits:** All photos by Hope Madden/Merrill

---

**Copyright © 2008, 2004, 2000, 1996 by Pearson Education, Inc., Upper Saddle River, New Jersey 07458.** Pearson Prentice Hall. All rights reserved. Printed in the United States of America. This publication is protected by Copyright and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or likewise. For information regarding permission(s), write to: Rights and Permissions Department.

**Pearson Prentice Hall™** is a trademark of Pearson Education, Inc.

**Pearson®** is a registered trademark of Pearson plc

**Prentice Hall®** is a registered trademark of Pearson Education, Inc.

**Merrill®** is a registered trademark of Pearson Education, Inc.

Pearson Education Ltd.

Pearson Education Singapore Pte. Ltd.

Pearson Education Canada, Ltd.

Pearson Education—Japan

Pearson Education Australia Pty. Limited

Pearson Education North Asia Ltd.

Pearson Educación de México, S.A. de C.V.

Pearson Education Malaysia Pte. Ltd.



10987654321  
ISBN-13: 978-0-13-223968-4  
ISBN-10: 0-13-223968-X

**FIGURE 1-4** Historical Development of English Orthography: Sound, Pattern, and Meaning from Past to Present Adapted from "Using Students' Invented Spellings as a Guide for Spelling Instruction that Emphasizes Word Study" by M. Invernizzi, M. Abouzeid, & T. Gill, 1994, *Elementary School Journal*, 95(2), p. 158. Reprinted by permission of The University of Chicago Press.

The Historical Development of Spelling		
<b>Alphabet</b>	<b>Anglo-Saxon</b>	<b>Letter Name-Alphabetic</b>
	WIF (wif)	WIF (wife)
	TODAEG (today)	TUDAE (today)
<b>Pattern</b>	HEAFONUM (heaven)	HAFAN (heaven)
	(Lord's Prayer, 1000)	(Tawanda, age 6)
	<b>Norman French</b>	<b>Within Word Patterns</b>
<b>Meaning</b>	YONGE (young)	YUNGE (young)
	SWETE (sweet)	SWETE (sweet)
	ROOTE (root)	ROOTE (root)
	CROPPE (crops)	CROPPE (crop)
	(Chaucer, 1440)	(Antonie, age 8)
	<b>Renaissance</b>	<b>Syllables &amp; Meaning</b>
	DISSCORD (discord)	DISSCORD (discord)
	FOLOWE (follow)	FOLOWE (follow)
	MUSSIKE (music)	MUSSIC (music)
	(Elizabeth I, 1600)	(Julian, age 14)

- For students who are experimenting with the alphabetic match of letters and sounds, teachers can contrast aspects of the writing system that relate directly to the representation of sound. For example, words spelled with short *e* (*bed, leg, net, neck, mess*) are compared with words spelled with short *o* (*hot, rock, top, log, pond*).
- For students experimenting with pattern, teachers can contrast patterns as they relate to vowels. For example, words spelled with *ay* (*play, day, tray, way*) are compared with words spelled with *ai* (*wait, rain, chain, maid*).
- For students experimenting with conventions of syllables, affixes, and other meaning units, teachers can contrast the stability of base words, roots, and affixes (prefixes and suffixes) across variations. Students can see that words with similar meanings are often spelled the same, despite changes in pronunciation. For example, *admiration* is spelled with an *i* because it comes from the word *admire*.

## WORD STUDY IS DEVELOPMENTAL

When we say word study is developmental, we mean that the study of word features must match the level of word knowledge of the learner. Word study is not a one-size-fits-all program of instruction that begins in the same place for all students within a grade level. One unique quality of word study, as we describe it, lies in the critical role of differentiating instruction for different levels of word knowledge. Research spanning over 20 years has established how students learn the specific *features* of words as well as the *order* in which they learn them. Knowledgeable educators have come to know that word study instruction must match the needs of the child. This construct, called **instructional level**, is a powerful delimiter of what may be learned. Simply put, we must teach where the child "is at." To do otherwise results in frustration or boredom and little learning in either case. Just as in learning to play the piano students must work through book A, then book B, and then book C, learning to read and spell is a gradual and cumulative process. Word study begins with finding out what each child already knows and then starting instruction there.

One of the easiest ways to know what students need to learn is to look at the way they spell words. Students' spellings provide a direct window into how they think the system works. By interpreting what students do when they spell, educators can target a specific student's "zone of proximal development" (Vygotsky, 1962) and plan word study instruction that this student is conceptually ready to master. Further, by applying basic principles of child development, educators have learned how to engage students in learning about word features in a child-centered, developmentally appropriate way. When students are instructed within their own zone of proximal development—studying "words their way"—they are able to build on what they already know, to learn

what they need to know next, and to move forward. With direct instruction and ongoing support, word features that were previously omitted or confused become amalgamated into an ever-increasing reading and writing vocabulary.

## The Development of Orthographic Knowledge

Developmental spelling research describes students' growing knowledge of words as a continuum or a series of chronologically ordered stages or phases of word knowledge. In this book, we use the word *stage* as a metaphor to inform instruction. In reality, students grow in conceptual knowledge of the three general layers of information, and of specific word features, along a continuum and there is often an overlap in the layers and features students understand and use.

Students move hierarchically from easier, one-to-one correspondences between letters and sounds, to more difficult, abstract relationships between letter patterns and sounds, to even more sophisticated relationships between meaning units (**morphology**) as they relate to sound and pattern. Stages are marked by broad, qualitative shifts in the types of spelling errors students make as well as changes in the way they read words. It is not the case that students abandon sound once they move to the use of patterns, or abandon patterns once they move to the use of morphology. Rather, the names of the stages capture the key understandings that distinguish them among the layers of English orthography and among the levels of students' general knowledge of the orthography (Bryant, Nunes, & Bindman, 1997; Ehri, 1997, 2006; Templeton, 2002, 2003).

Because word study is based on students' level of orthographic knowledge, the word study activities presented in this book are arranged by stages of spelling. Knowing each student's stage of spelling will determine your choices of appropriate word study activities. This chapter presents an overview of these stages (see Figure 1-5), which guides you to the instructional chapters.

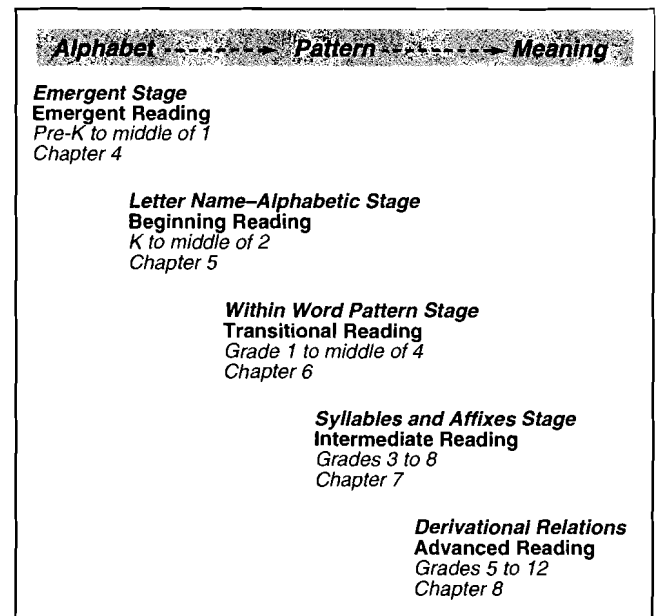
Teachers can use the guidelines discussed in this chapter and the assessment procedures described in Chapter 2 to determine the spelling stages of their students. By conducting regular spelling assessments, perhaps three times a year, teachers can track students' progress and development. An important prerequisite, however, is to know the continuum of orthographic development.

For each stage, students' orthographic knowledge is defined by three functional levels that are useful guides for knowing when to teach what (Invernizzi et al., 1994):

1. What students do correctly—an independent or easy level
2. What students use but confuse—an instructional level where instruction is most helpful
3. What is absent in students' spelling—a frustration level where spelling concepts are too difficult

By studying the stages of spelling development, it becomes obvious what sequence word study should take. In Vygotskian terms (1962), focus on the student's zone of proximal development by determining what the student uses but confuses. In this way, you will learn which orthographic features and patterns to explore, because this is where instruction will most benefit the student.

FIGURE 1-5 Spelling and Reading Stages, Grade Levels, and Corresponding Instructional Chapters



## STAGES OF SPELLING DEVELOPMENT


Henderson described a developmental stage model of spelling acquisition after a decade of work at the University of Delaware and later at the University of Virginia (1981). He and his students examined the specific features students use to spell when they write. The discovery of Read's work (1971) in the linguistic arena helped Henderson and his students make sense of the spellings they had collected. Henderson and his students also found that students' spelling errors are not just random mistakes. Building on Read's discoveries, Henderson unearthed an underlying logic to students' errors that changed over time, moving from using but confusing elements of sound to using but confusing elements of pattern and meaning (Henderson et al., 1971). Subsequently, similar developmental changes in spelling have been observed across many groups of students, from preschoolers (Templeton & Spivey, 1980), through adults (Bear, Truex, & Barone, 1989; Worthy & Viise, 1996), as well as across socioeconomic levels, dialects, and other alphabetic languages (Cantrell, 2001; Yang, 2005). In addition, the analysis of students' spelling has been explored by other researchers independently (e.g. Bissex, 1980; Treiman, 1985; Ehri, 1992; Richgels, 1995, 2001).

By 1974, Henderson had formulated a description of increasingly sophisticated phases, or stages, of orthographic knowledge. Since then, he and his students have refined the description of these stages and reworked the labels to reflect their changing understanding of developmental word knowledge and to represent most appropriately what occurs at each level. For example, the label "syllable juncture" was broadened to include affixes. Table 1-1 displays the names of the stages currently in use compared to previous labels used by Henderson and his students at the University of Virginia. The stage names describe students' spelling behavior and make it easier to remember the basic strategies that students use to read and spell.

### Stage I: Emergent Spelling

**Emergent** spelling encompasses the writing efforts of children who are not yet reading conventionally, and in most cases have not been exposed to formal reading instruction. Emergent spellers typically range in age from 0 to 5 years, although anyone not yet reading conventionally is in this stage of development. Most toddlers and preschoolers are emergent spellers, as are most kindergartners and even some first graders at the beginning of the year. Emergent spelling may range from random marks to legitimate letters that bear a relationship to sound. However, most of the emergent stage is decidedly **prephonetic**.

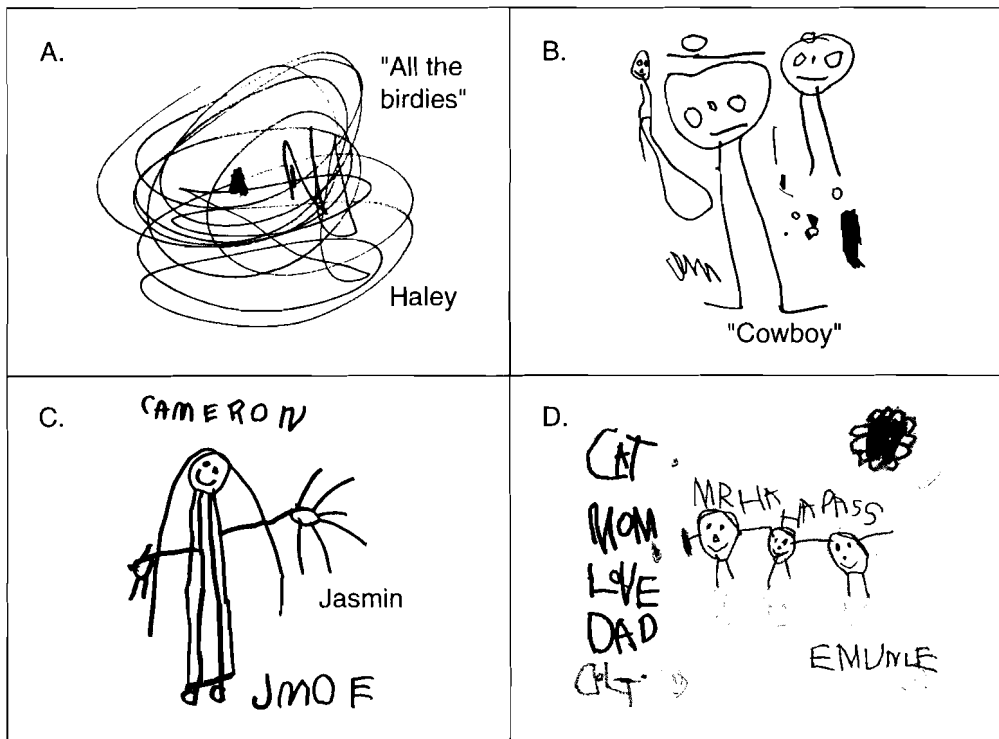
Emergent spelling may be divided into a series of steps or landmarks. In the early emergent stage, students may produce large scribbles that are basically drawings. The movement may be circular, and children may tell a story while they draw. At the earliest points in this stage, there are no designs that look like letters, and the writing is undecipherable from the drawing. As you can see in Figure 1-6A, Haley has drawn large

 The Words  
Their Way DVD  
explores the characteristics  
of the emergent stage as  
it looks at implementing  
word study with all  
emergent spellers,  
including English learners.

**TABLE 1-1 Stages of Spelling Development**

Current Stage Name	Henderson's Stages (1990)	Original Stage Names (Virginia Spelling Studies)
Emergent	Preliterate	Prephonetic
Letter Name-Alphabetic	Early Letter Name	Semi-Phonetic
	Letter Name	Phonetic
Within Word Pattern	Within Word	Transitional
Syllables & Affixes	Syllable Juncture	Correct
Derivational Relations	Derivational Constancies	

FIGURE 1-6 Early Emergent Writing Adapted with permission from Bloodgood, J.R (1996).



scribble-like circles and simply called it writing, asserting that it says, "All the little birdies." There is little order to the direction in Haley's production; it goes up, down, and around, willy-nilly.

Gradually and especially when sitting next to other children or adults who write, children begin to use something that looks like script to "tell" about the picture. In the middle of the emergent stage, pretend writing is separate from the picture, although there is still no relationship between letters and sound. Writing may occur in any direction but is generally linear. In Figure 1-6B, the child labeled his drawing to the left of the picture as "Cowboy."

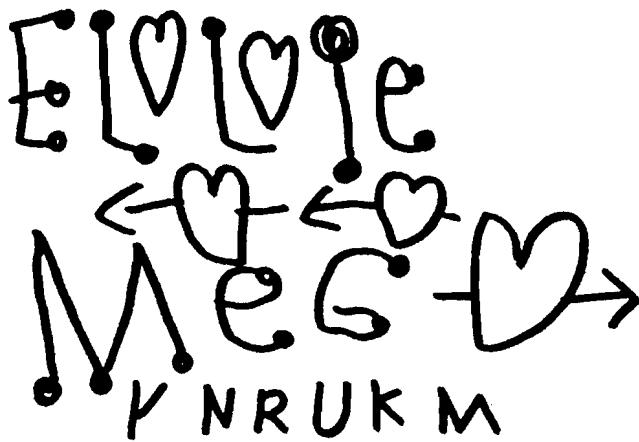
Throughout the emergent stage, children begin to learn letters, particularly the letters in their own names, and begin to pay attention to the sounds in words. Toward the end of the emergent stage, their writing starts to include the most prominent or salient sounds in a word. The ability to make a few letter-sound matches is evident in Figure 1-6C, where *Jasmin* is spelled JMOE. The movement from this stage to the next stage hinges on learning the **alphabetic principle**: Letters represent sounds in a systematic way, and words can be segmented into sequences of sound from left to right. Toward the end of emergent spelling, students start to memorize some words and write them repeatedly, such as the *cat*, *Mom*, *love*, and *Dad* in Figure 1-6D.

## Stage II: Letter Name–Alphabetic Spelling

The **letter name–alphabetic spelling stage** is the second stage in the developmental model and encompasses that period of time during which students are formally taught to read, typically during the kindergarten and first-grade years and extending into the middle of second grade. Most letter name–alphabetic spellers are between the ages of 5 and 8 years, although a beginning reader at age 55 also can be a letter name–alphabetic

Watch the  
Words Their  
Way DVD to witness the  
way word study motivates  
letter name–alphabetic  
spellers.

FIGURE 1-7 Early Letter Name–Alphabetic Spelling:  
Ellie's Note to Her Sister, Meg—"When Are You Coming?"



speller (Bear, 1989; Viise, 1996). The name of this stage reflects students' dominant approach to spelling; that is, they use the *names* of the letters as cues to the sound they want to represent (Read, 1975). In Ellie's early letter-name alphabetic spelling shown in Figure 1-7, she used the letter *y* to represent the /w/ sound at the beginning of the word *when*, because the first sound in the pronounced letter name *Y* (wie) matches the first sound in the word *when*. The letter name for *N* includes the "en" sound to finish off the word *when*. Charles Read (1975) coined the term "letter name spelling" based on this predominant strategy of using letter names to represent speech sounds. Ellie used *R* and *U* to represent the entire words *are* and *you*, another early letter name strategy.

We divide this letter name–alphabetic stage into early, middle, and late periods because of the rapid and dramatic growth during this time. Throughout

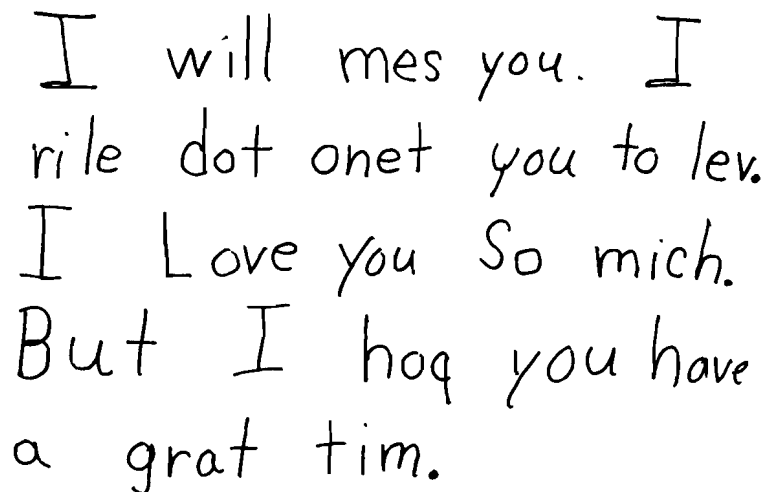
this stage, students learn to segment the sounds or **phonemes** within words and to match the appropriate letters or letter pairs to those sequences.

**Early letter name–alphabetic spelling.** Students who are early in the letter name–alphabetic stage apply the alphabetic principle primarily to consonants as Ellie did in Figure 1-7. Often, students spell the first sound and then the last sound of single-syllable words. For example, *when* may be spelled *Y* or *YN*. The middle elements of syllables, the vowels, are usually omitted. Typically, only the first sound of a two-letter consonant blend is represented, as in *FT* for *float*. Early letter name–alphabetic writing often lacks spacing between words, which makes it hard to decipher unless you know something about the writer's message. This type of writing is **semiphonetic** because only some of the phonemes are represented.

When early letter name–alphabetic students use the alphabetic principle, they find matches between letters and the spoken word by how the sound is made or articulated in the mouth. For example, students may confuse the /b/ sound and /p/ sound because they are made with the lips in the same way except for one feature: In making the

/b/, the vocal chords vibrate to produce a **voiced** sound. An early letter name–alphabetic speller might spell the word *pat* as *BT*.

FIGURE 1-8 Middle to Late Letter Name–Alphabetic Spelling:  
Kaitlyn's Farewell Note to her First Grade Teacher



**Middle to late letter name–alphabetic spelling.** In her note in Figure 1-8, Kaitlyn shows mastery of most beginning and ending consonants. She spells many high-frequency words correctly, such as *will*, *love*, *have*, and *you*, but also makes spelling errors typical of a student in the middle letter name–alphabetic stage. What separates her from the early letter name speller is her consistent use of vowels. Long vowels, which "say their name," appear in *tim* for *time* and *hop* for *hope*, but silent letters are not represented. Short vowels are used but confused, as in *miss* spelled as *mes* and *much* as *mich*.

In the middle letter name–alphabetic stage, students are also learning to segment both sounds in a consonant blend and begin to represent the blends correctly, as in *GRAT* for *great*. Kaitlyn has also correctly represented the *ch* digraph in *much*. Because middle letter name–alphabetic spellers can segment and represent most of the sound sequences heard within single-syllable words, their spelling is described as **phonetic**.

By the end of this stage, late letter name–alphabetic spellers are able to consistently represent most regular short-vowel sounds, digraphs, and consonant blends because they have full **phonemic segmentation**. The letters *n* and *m* as in *bunk* or *lump* are referred to as **preconsonantal nasals** (nasals that come before a consonant) and are generally omitted by students throughout this stage when they spell them as *BUK* or *LUP*. Kaitlyn omitted the nasal in her spelling of *don't* as *DOT* and used an interesting strategy to get the *n* in *want* by spelling it as *one + t*. Henderson (1990) recognized that the correct spelling of the preconsonantal nasal was a reliable and important watershed event that heralds the onset of the next stage of orthographic knowledge. By the end of the stage, students have mastered the alphabetic layer of English orthography and will now begin to use but confuse silent long-vowel markers such as the silent *-e* in the spelling of *rain* as *RANE*.

### Stage III: Within Word Pattern Spelling

Students entering the **within word pattern spelling stage** can read and spell many words correctly because of their automatic knowledge of letter sounds and short-vowel patterns. This level of orthographic knowledge typically begins as students transition to independent reading toward the end of first grade, and expands throughout the second and third grades, and even into the fourth grade. Although most within word pattern spellers typically range in age from 7 to 10 years, many adult, low-skilled readers remain in this stage. Regardless, this period of orthographic development lasts longer than the preceding one, because the vowel pattern system of English orthography is quite extensive.

The within word pattern stage begins when students can correctly spell most single-syllable, short-vowel words correctly as well as consonant blends, digraphs, and preconsonantal nasals. Because these basic phonics features have been mastered, within word pattern spellers work at a more abstract level than letter name–alphabetic spellers (Zutell, 1994). They move away from the linear, sound-by-sound approach of the letter name–alphabetic spellers and begin to include patterns or chunks of letter sequences. Within word spellers can think about words in more than one dimension; they study words by sound and pattern simultaneously. As the name of this stage suggests, within word pattern spellers take a closer look at vowel patterns within single-syllable words (Henderson, 1990). They are sometimes referred to as transitional spellers because they are transitioning from the alphabetic layer to the meaning layer of English orthography through patterns.

Kim's writing in Figure 1-9 is that of an early within word pattern speller. She spells many short-vowel and high-frequency words correctly such as *hill*, *had*, *them*, *girl*, and *won*. She also spells some common long vowel patterns correctly in CVCe words like *time* and *game*. Kim hears the long vowel sound in words like *team*, *goal*, and *throw*, but she selects the wrong pattern, spelling them as *TEME*, *GOWL*, and *THROWE*. She omits the silent *e* in *cones*. These are good examples of how Kim is using but confusing long vowel patterns.

During the within word pattern stage, students first study the common long-vowel patterns (long *-o* can be spelled with *o*–consonant–*e* as in *joke*, *oa* as in *goal*, and *ow* as in *throw*) and then less common patterns such as the VCC pattern in *cold* and *most*. The most difficult patterns are **ambiguous vowels** because the sound is neither long nor short and the same pattern may represent different sounds, such as the *ou* in *mouth*, *cough*, *through*, and *tough*. These less common and ambiguous vowels


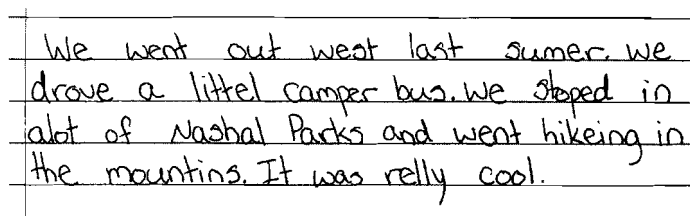
 The Words Their Way DVD explores the organization and implementation of word study with within word spellers, focusing in detail on English learners in this stage.


FIGURE 1-9 Early Within Word Pattern Spelling: Kim's Soccer Game

My teme won the scoer game.  
I was the boll girl.  
We had to use cons  
for the gowl. Evre time  
the boll wintdowe Hill  
I Had to Throwe them a  
nother boll.

FIGURE 1-10 Syllables and Affixes Spelling: Xavier's Account of his Summer Adventures



We went out west last summer. we drove a littel camper bus. we stoped in alot of Nashal Parks and went hikeing in the mountains. It was relly cool.

 Watch the *Words Their Way* DVD to see how teacher Ryan Ichanberry organizes for instruction with his syllables and affixes spellers.

## Stage IV: Syllables and Affixes Spelling

The **syllables and affixes stage** is typically achieved in the upper elementary and middle school grades, when students are expected to spell many words of more than one syllable. This represents a new point in word study when students consider spelling patterns where syllables meet and meaning units such as affixes (prefixes and suffixes). Students in this fourth stage are most often between 9 and 14 years, though many adults with poor literacy skills may be found in this stage.


In Figure 1-10, a fourth-grader in the early syllables and affixes stage has written about his summer vacation. Xavier spelled most one-syllable short- and long-vowel words correctly (*went*, *west*, *drove*, *hike*). Many of his errors are in two-syllable words and fall at the place where syllables and affixes meet. Xavier has used—but confused—the conventions for preserving vowel sounds when adding an **inflected ending** in *stopped* and *hiking*, spelled as *STOPED* and *HIKEING*. The principle of doubling the consonant at the **syllable juncture** to keep the vowel short is used in *LITTEL* for *little*, but is lacking in his spelling of *summer* as *SUMER*. Syllable juncture patterns include the **open first syllable** in *hu-mor* (V/CV usually signals a long vowel in the first syllable) and **closed first syllable** in *sum-mer* and *cam-per* (VC/CV usually signals a short vowel sound in the first syllable). **Unaccented** final syllables give students difficulty, as shown in Xavier's spellings of *LITTEL* for *little* and *MOUNTIN* for *mountain*.

Toward the end of the syllables and affixes stage, students grapple with affixes that change the meaning of the word. They may misspell affixes, such as in *desloyal* for *disloyal*, or *carefull* for *CAREFUL*. By studying base words and affixes as meaning units, these students anticipate the next stage, derivational relations, where they study the spelling–meaning connections of related words (Templeton, 2004). By studying base words and derivational affixes, students learn about English spelling at the same time they enrich their vocabularies.

## Stage V: Derivational Relations Spelling

The **derivational relations spelling stage** is the last stage in the developmental model. Although some students may move into the derivational stage as early as grade 4 or 5, most derivational relations spellers are found in middle school, high school, and college. This stage continues throughout adulthood, when individuals continue to read and write according to their interests and specialties. This stage of orthographic knowledge is known as *derivational relations* because this is when students examine how words share common derivations and related base words and word roots. They discover that the meaning and spelling of parts of words remain constant across different but derivationally related words (Henderson & Templeton, 1986; Henry, 1988; Schlagal, 1989; Templeton, 1983). Word study in this stage builds on and expands knowledge of a wide vocabulary, often of Greek and Latin origin.

Early derivational relations spellers like Kaitlyn (Figure 1-11) spell most words correctly. However, some of her errors reflect a lack of knowledge about derivations. For

 View the *Words Their Way* DVD to see how assessment, word study routines, and classroom organization look with derivational relations spellers.

may persist as misspellings into the late part of the within word pattern stage.

Although the focus of the within word pattern stage is on the pattern layer of English orthography, students must also consider the meaning layer to spell and use **homophones** such as *bear* and *bare*, *deer* and *dear*, *hire* and *higher*. Sound, pattern, and meaning must be considered when spelling homophones. This introduces the spelling–meaning connection explored in the next two stages of spelling development.



example, *favorite* is spelled *FAVERITE* and does not show its relationship to *favor*, and *different* is spelled *DIFFRENT* and lacks a connection to *differ*. Her errors on final suffixes, such as the *-sion* in *division* and the *-ent* in *ingredients* are also very typical of students in this stage.

Frequent errors have to do with the **reduced vowel** in derivationally related pairs. For example, the vowel sound in the second syllable of the word *competition* is reduced to a **schwa** sound, as in *com-puh-ti-tion*. Students in the earlier part of the derivational relations stage might spell *competition* as *COMPUTIION* or *COMPOTITION* or even *COMPITITION*. A student who misspells *competition* may see the correct spelling more easily by going back to a base or root, as in *compete*, where the long vowel gives a clear clue to spelling. Knowing that the word *competition* is derivationally related to the word *compete* will help these students spell the derived form correctly.

Students' spelling errors often have to do with using but confusing issues of consonant doubling in **absorbed prefixes**, the convention of changing the last consonant of a prefix to the first consonant of the root word (e.g., *in* + *mobile* = *immobile*). For example, they may spell *immobile* as *IMOBILE* or *correspond* as *CORESPOND*. Other aspects of affixation students negotiate in the latter part of the derivational relations stage involve changing adjectives to nouns (*brilliant* to *brilliance*; *adolescent* to *adolescence*), and it is not uncommon to find students using but confusing these derivational endings (e.g., *ADOLESCANCE* for *adolescence*; *BRILLENCE* for *brilliance*).

The logic inherent in this lifelong stage can be summed up as follows: "Words that are related in meaning are often related in spelling as well, despite changes in sound" (Templeton, 1979, 1983, 2004). Spelling–meaning connections provide a powerful means for expanding vocabulary.

## THE SYNCHRONY OF LITERACY DEVELOPMENT

The scope and sequence of word study instruction that is presented in Chapters 4 through 8 is based on research that has described the developmental relationship between reading and spelling behaviors. When teachers conduct word study with students, they are addressing learning needs in all areas of literacy because development in one area relates to development in other areas. This harmony in the timing of development has been described as the **synchrony** of reading, writing, and spelling development (Bear, 1991b; Bear & Templeton, 1998). All three advance in stage-like progressions that share important conceptual dimensions.

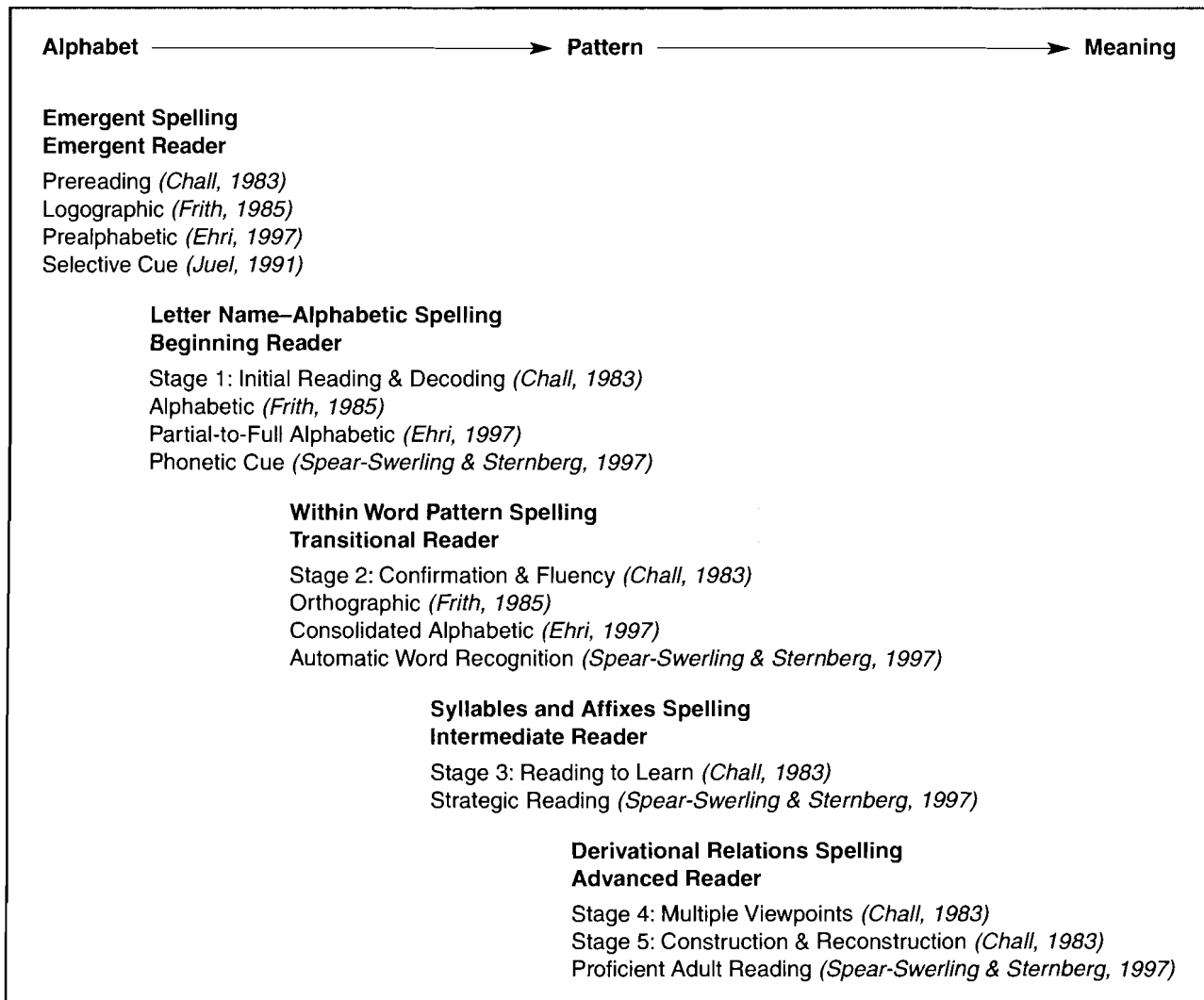
Working independently, other researchers have described a remarkably similar progression of reading phases that cover the range from prereading to highly skilled, mature reading (Chall, 1983; Ehri, 1997; Frith, 1985; Juel, 1991; Spear-Swerling & Sternberg, 1997). There is converging evidence that reading, writing, and spelling development are integrally related. Figure 1-12 compares other researchers' descriptions of reading development to the spelling stages.

Individuals may vary in their rate of progress through these stages, but most tend to follow the same order of development. The synchrony that is observed makes it possible to bring together reading, writing, and spelling behaviors to assess and plan differentiated instruction that addresses students' developmental pace of instruction.

FIGURE 1-12 Derivational Relations Spelling: Kaitlyn's 6th Grade Math Journal Reflection

Math is not my faverite subject and  
I don't always enjoy it. Math homework  
is usually ok. It's been mostly easy and  
some challoging. The hardest part of math class  
for me is divisum because it's hard for  
me to split things up into different numbers.  
Also big problems are hard for me, like  
 $368 \div 7 = ?$ . Last year the 6<sup>th</sup> graders did cool  
stuff like cook and make recipes with half of  
the ingredence.

FIGURE 1-12 Spelling and Reading Stages



The following discussion centers on this overall progression with an emphasis on the synchronous behaviors of reading and writing with spelling.

## Emergent Readers

During the emergent stage, the child may undertake reading and writing in earnest, but adults will recognize their efforts as more pretend than real. Students may write with scribbles, letterlike forms, or random letters that have no phonetic relationship to the words they confidently believe they are writing. These students may “read” familiar books from memory using the pictures on each page to cue their recitation of the text. For this reason, Chall (1983) called this stage of development *pre-reading*. Emergent readers may call out the name of a favorite fast food restaurant when they recognize its logo or identify a friend’s name because it starts with a *t*, but they are not systematic in their use of any particular cue. During the emergent stage, children lack an understanding of the alphabetic principle or show only the beginning of this understanding. Ehri (1997) designated this as the *prealphabetic phase*; children’s use of logos led Frith (1985) to name it the *logographic stage*. Juel (1991) uses the term *selective cue* to describe how children select nonalphabetic visual cues like the two *os* in *look* to remember a word.

During the emergent stage, children can become quite attached to selected letters that they notice in their name. Upon entering preschool, Lee noticed that other children's names on their cubbies used some of the same letters that she used in her name. Perplexed and somewhat annoyed, she pointed to the letters that were also in her name. "Hey, that's MY letter!" she insisted. Children in the emergent stage also begin to see selected letters in their names in environmental print. Walking around the grocery store, Lee pointed to the box of Cheer detergent and said, "Look, Mommy! There's my name!" Lee's special relationship with the letters in her name is a living embodiment of the prealphabetic, logographic, and selective-cue strategy these researchers describe.

## Beginning Readers

The understanding of the alphabetic nature of our language is a major hurdle for readers and spellers. The child who writes *light* as *LT* has made a quantum conceptual leap, having grasped that there are systematic matches between sounds and letters that must be made when writing. The early letter name-alphabetic speller is a beginning reader who has moved from pretend reading to real reading and begun to use systematic letter sound matches to identify and store words in memory. Just as early attempts to spell words are partial, so, too, beginning readers initially have limited knowledge of letter sounds as they identify words by phonetic cues. Ehri (1997) describes these readers and writers as being in the *partial alphabetic* phase. The kinds of reading errors students make during this phase offer insights into what they understand about print. Using context as well as partial consonant cues, a child reading about good things to eat might substitute *candy* or even *cookie* for *cake* in the sentence, "The cake was good." Readers in this stage require much support in the form of predictable, memorable texts.

As readers and writers acquire more complete knowledge of letter sounds in the later part of the letter name-alphabetic stage, they will include, but often confuse, vowels in the words they write and read. Students who spell *BAD* for *bed* may make similar vowel errors when they read *hid* as *had* in "I hid the last cookie." These students resemble Ehri's (1997) *full alphabetic* readers who begin to use the entire letter string to decode and store sight words. Nevertheless, the reading of letter name-alphabetic spellers is often disfluent and word by word, unless they have read the passage before or are otherwise familiar with it (Bear, 1992). If you ask such spellers to read silently, the best they can do is to whisper. They need to read aloud to vocalize the letter sounds. Readers in this stage continue to benefit from repeated readings of predictable texts, but also from the reading of text with many phonetically regular words. These "decodable" texts support the development of decoding strategies and the acquisition of sight words (Juel & Roper-Schneider, 1985; Mesmer, 2006). Not surprisingly, Chall (1983) referred to this stage as a period of *initial reading and decoding* when students are "glued to print."

## Transitional Readers

Transitional readers and spellers move into the within word pattern spelling stage when single letter-sound units are consolidated into patterns or larger chunks and other spelling regularities are internalized. Longitudinal research on spelling development has identified the progressive order in which students appear to use these larger chunks. After automating basic letter sounds in the **onset** position (initial consonants, consonant blends, and consonant digraphs), students focus on the vowel and what follows (Ganske, 1994; Invernizzi, 1985, 1992; Viise, 1996). Short-vowel **rimes** are learned first with consonant blends in the context of simple word families or **phonograms** such as *h-at*, *ch-at*, or *fl-at*. These chunks come relatively easily in the letter name-alphabetic stage, probably as a result of their frequency in one-syllable words. Once the rime unit is solidified as a chunk, students appear to use but confuse the various long-vowel patterns of English (Invernizzi, 1992). Other stage models of reading acquisition describe this chunking phenomenon as an *orthographic* stage in which readers use progressively

higher-order units of word structures to read and spell (Chall, 1983; Frith, 1985; Gibson, 1965). Ehri and McCormick (1998) call this the *consolidated alphabetic phase* in which students' reading is supported by familiarity with frequently occurring letter pattern units.

From the beginning to the end of this stage, students move from needing support materials and techniques to being able to pick from various texts and reading them independently—from the Sunday comics to easy chapter books such as *Freckle Juice* and *Superfudge*, both by Judy Blume, and *Ramona the Pest*, by Beverly Cleary. With easy, independent-level material, students stop fingerpointing and, for the first time, read silently (Bear, 1982; Henderson, 1990). Their reading moves from halting word-by-word reading to more expressive phrasal reading, and they can read fluently at their instructional level (Zutell & Rasinski, 1989). During this stage, students integrate the knowledge and skills acquired in the previous two stages, so Chall (1983) described this stage as one of *confirmation and fluency*. Advances in word knowledge affect students' writing, too. Their sizable sight word vocabulary allows them to write more quickly and with greater detail. Writing and reading speeds increase significantly between the letter name–alphabetic stage and the transitional within word pattern stage (Bear, 1992; Invernizzi, 1992).

## Intermediate and Advanced Readers

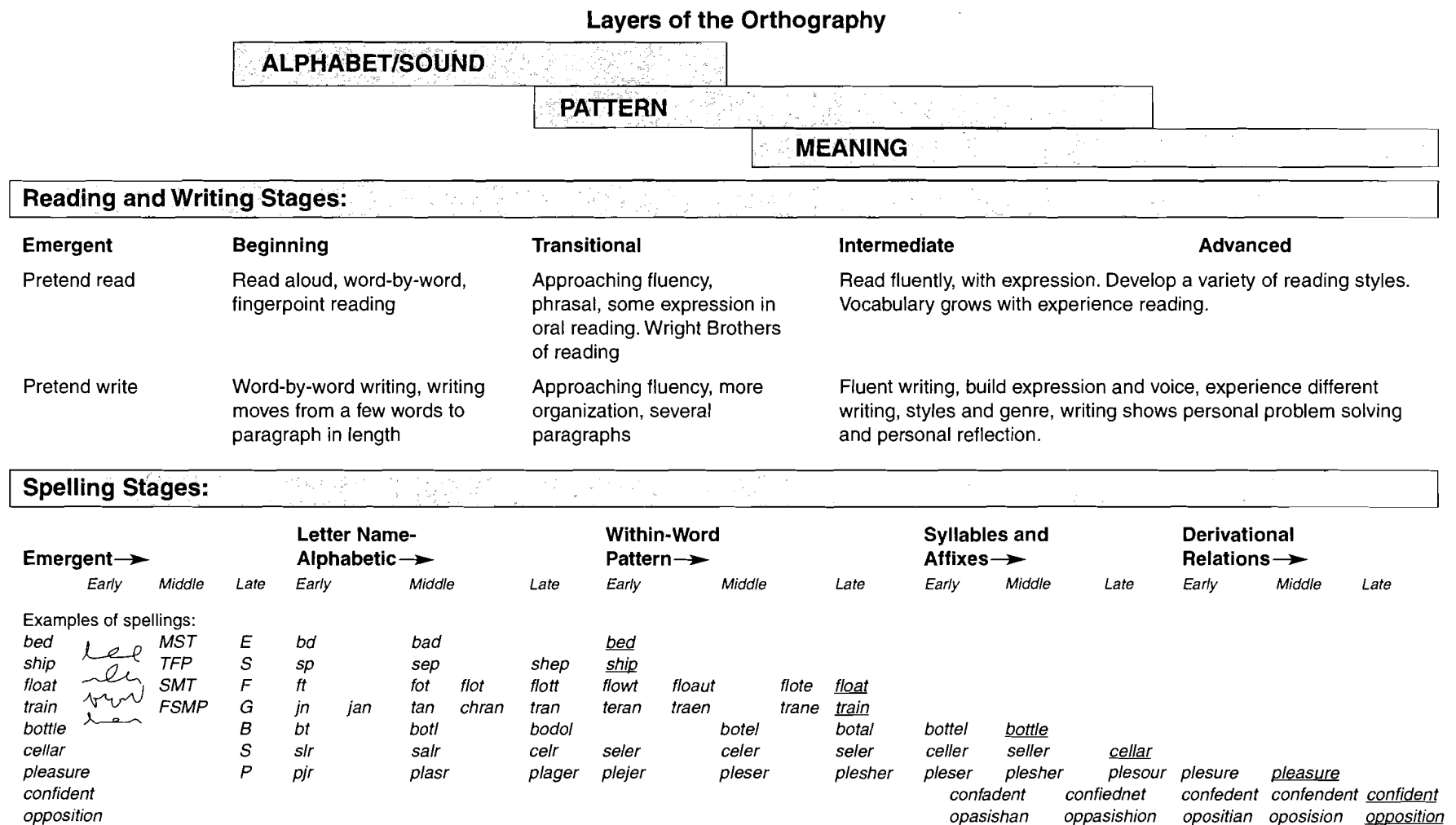
Two additional stages of word knowledge characterize **intermediate** and **advanced readers**: syllables and affixes and derivational relations as shown in Figure 1-13. These two periods of literacy development are generally accompanied by the ability to solve abstract problems and to reflect metacognitively on experiences. Students operating within the meaning layer of English orthography have relatively automatic word recognition, and thus their minds are free to think as rapidly as they can read. They can use reading as a vehicle for learning new information from texts, and their vocabulary grows with their reading experience. Intermediate and advanced readers are also fluent writers. The content of their writing displays complex analysis and interpretation, and reflects a more sophisticated, content-oriented vocabulary.

Syllable and affix spellers read most texts with good accuracy and speed, both orally and silently. For these students, success in reading and understanding is related to familiarity and experience with the topic being discussed. Students in this intermediate stage acquire, through plenty of practice, a repertoire of reading styles that reflects their experience with different genres. They may obsess on reading fantasy or historical fiction and voraciously consume all of the books in a series, such as the Harry Potter books by J. K. Rowling or *His Dark Materials* by Philip Pullman. The same is true for writing. Students who are in this stage of word knowledge delight in writing persuasive essays, editorials, poetry, or their own versions of fantasy or realistic fiction.

Derivational relations spellers have a broader experience base that allows them to choose among a variety of reading styles to suit the text and their purposes for reading. They read according to their own interests and needs and they seek to integrate their knowledge with the knowledge of others. The same picture is evidenced in their writing. With purpose and practice, derivational relations students develop and master a variety of writing styles.

These two stages of word knowledge correspond roughly to Chall's (1983) *multiple viewpoints* and *construction and reconstruction* stages. Others refer to this period as one during which students learn to become *strategic readers* and ultimately become *proficient adult readers* (Spear-Swerling & Sternberg, 1997). Still others lump these two stages of reading together as the *automatic* stage (Gough & Hillinger, 1980), even though much is still not automatic. Syllable and affix spellers continue to struggle with issues such as how to pronounce the name of the main character in *Caddie Woodlawn*, sometimes calling her "Cadie." Derivational relations spellers may have seen the word *segue* in print but never have heard it pronounced, and read it as *seck* or *seck-que*. Vocabulary and word use plays a central role in the connections that intermediate and advanced readers forge

FIGURE 1-13 The Synchrony of Literacy Development From *The Synchrony of Literacy Development: A Guide to Instruction* by D. Bear, 1998.



between reading and writing. From adolescence on, most of the new vocabulary students learn—except perhaps for slang—comes from reading and reflects new domains of content-specific knowledge that students explore (Beck, McKeown, & Kucan, 2002). Studying spelling–meaning connections is central to maximizing this vocabulary growth (Templeton, 1979, 1992).

### Research to Support the Synchrony of Spelling and Reading

Significant correlations between spelling and various measures of word recognition and decoding have been reported. For example, Ehri (2000) reviewed six correlational studies in which students of various ages (first grade through college) were asked to read and spell words and reported correlations ranging from .68 to .86. In other studies, spelling measures have accounted for as much as 40% to 60% of the variance in oral reading measures (Zutell, 1992; Zutell & Rasinski, 1989). Intervention studies exploring the added value of supplemental spelling instruction have repeatedly found that students who receive additional spelling instruction perform better on reading tasks such as oral reading, silent reading comprehension, and other reading-related measures in addition to spelling (Berninger et al., 1998; Goulondris, 1992; Graham, Harris, & Chorzempa, 2002; McCandliss, Beck, Sandak, & Perfetti, 2003). Notably, Perfetti (1997) observed that practice at spelling helps reading more than practice at reading helps spelling.

Students' spelling attempts also provide a powerful medium for predicting reading achievement (Cataldo & Ellis, 1988). Morris and Perney (1984) found that first graders' invented spellings were a better predictor of end-of-grade reading than a standardized reading readiness test. In a two-year study following students from first through third grade, Ellis and Cataldo (1992) reported spelling to be the most consistent predictor of reading achievement. Sawyer et al. (1997) reported that a child's score on a developmental spelling inventory (Ganske, 1999) was a more powerful predictor of decoding than phonemic awareness tasks such as segmentation. Moreover, the spelling inventory identified the exact word elements students had already mastered and those currently under negotiation. Thus, establishing levels of development in spelling and reading has enormous potential for guiding instruction.

## INTEGRATED PHONICS, SPELLING, AND READING INSTRUCTION

Henderson (1981) devised the concept of **word study** because he was convinced that understanding how children learned to spell words could also provide insight on how they read them. He believed that children's growing word knowledge encompassed phonological, syntactic, semantic, and orthographic information, and that categorizing written words enabled them to sort out the relationships among these linguistic sources. Henderson's instructional approaches (for example, *word sorts*, *word hunts*, *writing sorts*) were shaped by his belief that both linguistic and orthographic aspects of written words were critical factors in learning to read and write. His work, and the work of his colleagues and students, demonstrated that written word knowledge is developmental and advances progressively and in synchrony in relation to cognitive development, exposure to print, and instruction.

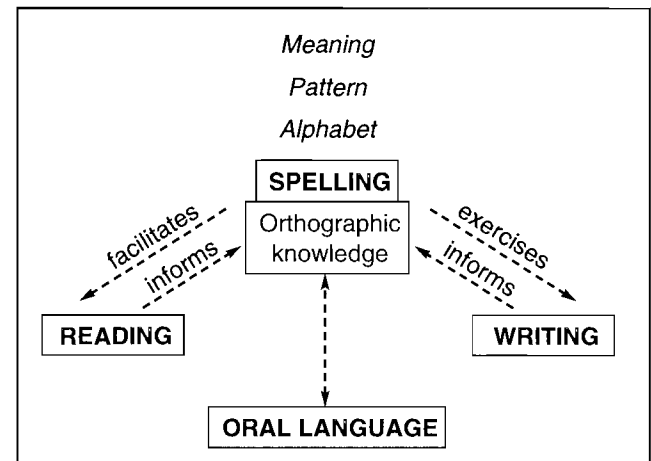
Figure 1-13 presents an integrated model of how reading, writing, and spelling progress in synchrony. In parent-teacher conferences, teachers might refer to this figure in discussing each student's development when they share his or her writing or show a collection of books that illustrates the range of instructional reading levels that correspond to the developmental levels in the figure. Parents can better understand where their children are along the developmental continuum and across reading, writing, and spelling by looking at the described behaviors and the spelling samples.

Word study activities in this book are organized around this model. If you can identify your students by the stages of reading, writing, and spelling, then you will know which chapters contain the activities that are most relevant to their development, as shown in Figure 1-5 on page 9.

As described throughout this chapter, developmental spelling theory suggests that invented spelling is a window into a child's knowledge of how written words work and can be used to guide instruction. Specific kinds of spelling errors at particular levels of orthographic knowledge reflect a progressive differentiation of word elements that determine how quickly students can read words and how easily they can write them. Insight into students' conceptual understanding of these word elements helps teachers direct their efforts as students learn to read and spell.

In this book, we suggest that orthographic knowledge plays a central role in a comprehensive language arts program that links reading and writing. Word knowledge accumulates as students develop orthographic understandings at the alphabetic level, the pattern level, and the meaning level in overarching layers of complexity. Our complete understanding of phonics, word recognition, spelling, vocabulary, and even the grammar of words (syntax) is part of our word knowledge. Reading provides the corpus of words and defines the parameters of what may be studied. Through word study, students learn how the spelling system, or orthography, works to represent sound, pattern, and meaning. Writing then exercises that word knowledge. Figure 1-14 illustrates the theory of developmental word knowledge and shows how word study links reading and writing.

FIGURE 1-14 Word Study: Reading and Writing



## WHERE DO I BEGIN WORD STUDY?

Students acquire word knowledge implicitly as they read and write, and also through explicit instruction orchestrated by the teacher. However, it is impossible to know exactly what to teach and when to teach it until we have a living child before us. An informed interpretation of students' reading and writing attempts shows us which words they can read and spell, and of those, which they might learn more about. There is more to pacing instruction than plugging students into a sequence of phonics or spelling features. Instructional *pacing* must be synonymous with instructional *placing*. That is, we must fit our instruction to what our students are using but confusing. How do we know what they are using but confusing? A good deal of what students know about orthography is revealed in their invented spellings produced in uncorrected writing. In addition, teachers can elicit inventions by using the spelling assessments described in the next chapter. Spelling inventories described in the next chapter can be used to select the content of word study instruction for phonics, spelling, and vocabulary.

## WORDS THEIR WAY

To help students explore and learn about words their way, instruction must be sensitive to two fundamental tenets:

1. Students' learning of phonics, spelling, and vocabulary is based on their developmental or instructional level.
2. Students' learning is based on the way they are naturally inclined to learn: through comparing and contrasting word features and discovering consistencies.

When these two tenets are honored, students learn *their* way—building from what is known about words to what is new. Rather than rote memorization activities designed only to ensure repeated mechanical practice, word study encourages active exploration and examination of word features that are within a student's stage of literacy development. Word study is active, and by making judgments about words and sorting words according to similar features, students construct their own understandings about how the features work. Active, thoughtful practice helps students internalize word features and become automatic in using what they have learned.

Table 1-2 summarizes the characteristics of each stage of development to help you understand the reading and writing context for the word study instruction that is appropriate for each stage. After learning in Chapter 2 how to assess the developmental word knowledge of your students, the remaining chapters offer more detail about planning word study instruction for each stage of development.

**TABLE 1-2 Developmental Stages, Characteristics, and Word Study Instruction**

**I. Emergent Stage—Chapter 4**

Characteristics

1. Scribbles letters and numbers
2. Lacks concept of word
3. Lacks letter-sound correspondence or represents most salient sound with single letters
4. Pretends to read and write

Reading and Writing Activities

1. Read to students and encourage oral language activities
2. Model writing using dictations and charts
3. Encourage pretend reading and writing

Word Study Focus

1. Develop oral language with concept sorts
2. Play with speech sounds to develop phonological awareness
3. Plan activities to learn the alphabet
4. Sort pictures by beginning sound
5. Encourage fingerpoint memory reading of rhymes, dictations, and simple pattern books
6. Encourage invented spelling

**II. Letter Name—Alphabetic Stage—Chapter 5**

Early Letter Name—Alphabetic

Characteristics

1. Represents beginning and ending sounds
2. Uses letter names to invent spellings
3. Has rudimentary or functional concept of word
4. Reads word by word in beginning reading materials

Reading and Writing Activities

1. Read to students and encourage oral language activities
2. Secure concept of word by plenty of reading in predictable books, dictations, and simple rhymes
3. Record and reread individual dictations
4. Label pictures and write in journals regularly

Word Study Focus

1. Collect known words for word bank
2. Sort pictures and words by beginning sounds



**TABLE 1-2 Continued**

3. Study word families that share a common vowel
4. Study beginning consonant blends and digraphs
5. Encourage invented spelling

**Middle to Late Letter Name–Alphabetic Stage****Characteristics**

1. Correctly spells initial and final consonants and some blends and digraphs
2. Uses letter names to spell vowel sounds
3. Spells phonetically, representing all salient sounds in a one-to-one, linear fashion
4. Omits most silent letters and preconsonantal nasals in spelling (*bop* or *bup* for *bump*)
5. Fingerpoints accurately and can self-correct when off track
6. Reads aloud slowly in a word-by-word manner

**Reading and Writing Activities**

1. Read to students
2. Encourage invented spellings in independent writing, but hold students accountable for features and words they have studied
3. Collect two- to three-paragraph dictations that are reread regularly
4. Encourage more expansive writing and consider some simple editing procedures for punctuation and high-frequency words

**Word Study Focus**

1. Sort pictures and words by different short vowel word families
2. Sort pictures and words by short vowel sounds and CVC patterns
3. Continue to examine more difficult consonant blends with pictures and words
4. Study preconsonantal nasals and digraphs at the end of words
5. Sort pictures comparing short and long vowel sounds
6. Collect known words for word bank (up to 200)

**III. Within Word Pattern Stage—Chapter 6****Characteristics**

1. Spells most single-syllable, short vowel words correctly
2. Spells most beginning consonant digraphs and two-letter consonant blends
3. Attempts to use silent long vowel markers
4. Reads silently and with more fluency and expression
5. Writes more fluently and in extended fashion
6. Can revise and edit

**Reading and Writing Activities**

1. Continue to read aloud to students
2. Guide silent reading of simple chapter books
3. Write each day, writers' workshops, conferencing, and publication

**Word Study Focus**

1. Complete daily activities in word study notebook
2. Sort words by long- and short-vowel sounds and by common long-vowel patterns
3. Compare words with *r*-influenced vowels,
4. Explore less common vowels, diphthongs (*oi*, *oy*), and other ambiguous vowels (*ou*, *au*, *ow*, *oo*)
5. Examine triple blends and complex consonant units such as *thr*, *str*, *dge*, *tch*, *ck*
6. Explore homographs and homophones

**IV. Syllables and Affixes—Chapter 7****Characteristics**

1. Spells most single-syllable words correctly
2. Makes errors at syllable juncture and in unaccented syllables
3. Reads with good fluency and expression
4. Reads faster silently than orally
5. Writes responses that are sophisticated and critical

*Continued*

**TABLE 1-2 Continued****Reading and Writing Activities**

1. Plan read-alouds and literature discussions
2. Include self-selected or assigned silent reading of novels of different genres
3. Begin simple note taking and outlining skills, and work with adjusting reading rates for different purposes
4. Explore reading and writing styles and genres

**Word Study Focus**

1. Examine plural endings
2. Study compound words
3. Study consonant doubling and inflected endings
4. Study open and closed syllables and other syllable juncture issues
5. Explore syllable stress and vowel patterns in the accented syllable, especially ambiguous vowels
6. Focus on unaccented syllables such as *er* and *le*
7. Explore unusual consonant blends and digraphs (*qu, ph, gh, gu*)
8. Study base words and affixes
9. Focus on two-syllable homophones and homographs
10. Join spelling and vocabulary studies; link meaning and spelling with grammar and meaning
11. Explore grammar through word study
12. Sort and study common affixes (prefixes and suffixes)
13. Study stress or accent in two-syllable words

**V. Derivational Relations—Chapter 8****Characteristics**

1. Has mastered high frequency words
2. Makes errors on low frequency, multisyllabic words derived from Latin and Greek
3. Reads with good fluency and expression
4. Reads faster silently than orally
5. Writes responses that are sophisticated and critical

**Reading and Writing Activities**

1. Include silent reading and writing, exploring various genres
2. Develop study skills, including textbook reading, note taking, adjusting rates, test taking, report writing, and reference work
3. Focus on literary analysis

**Word Study Focus**

1. Focus on words that students bring to word study from their reading and writing
2. Join spelling and vocabulary studies; link meaning and spelling with grammar and meaning
3. Examine common and then less common roots, prefixes, and suffixes (e.g., *ion*)
4. Examine vowel and consonant alternations in derivationally related pairs
5. Study Greek and Latin word roots and stems
6. Focus on abstract Latin suffixes (*ence/ance; ible/able; ent/ant*)
7. Learn about absorbed or assimilated prefixes
8. Explore etymology, especially in the content areas
9. Examine content-related foreign borrowings