Getting Started: The Assessment of Orthographic Development

2

E ffective teaching cannot begin until you understand what students already know about words and what they are ready to learn. This chapter presents an informal assessment process that will enable you to:

- Find out what particular orthographic features students know and what they need to study.
- Identify students' developmental stage of word knowledge or instructional level
- Group students for instruction
- Monitor students' growth in word knowledge over time.

This informal assessment process includes observations of student writing and reading as well as the administration of spelling inventories.

INFORMAL OBSERVATIONS TO ASSESS ORTHOGRAPHIC KNOWLEDGE

Observe Students' Writing

Teachers have daily opportunities to observe students as they write for a variety of purposes. These observations help to reveal what students understand about words. The following example demonstrates what you might learn about a kindergartner's literacy development. Sarah called this her "first restaurant review." Although it appears to be a menu, she posted it on the wall the way she had seen reviews posted in restaurants.

What Sarah Wrote	How She Read What She Wrote
1. CRS KAM SAS	First course, clam sauce
2. CRS FESH	Second course, fish
3. CRS SAGATE	Third course, spaghetti
4. CRS POSH POPS	Fourth course, Push Pops

This writing tells a lot about Sarah: She sees a practical use for writing and she enjoys displaying her work. She has a good grasp of how to compose a list and she is even beginning to understand menu planning!

When we look for what Sarah knows about spelling, we see that she represents many consonant sounds and some digraphs (the *sh* in *fish* and *push*), but blends are incomplete (as in *kam* for *clam*). She has placed a vowel in all but one syllable; however, she is using but confusing short vowels. In spelling *fish* as *fesh,* Sarah uses a vowel, but she confuses *e* and *i*. In the word *course*, spelled as *crs,* the letter *r* represents the /r/ and the vowel sound. According to the sequence of development presented in Chapter 1, Sarah is considered a middle letter name–alphabetic speller who would benefit from activities described in Chapter 5.

In Figure 2-1, we see a writing sample from Jake, an older student. The writing is readable because many words are spelled correctly and the others are close approximations. When we look for what Jake knows, we see that he has mastered most consonant relationships—even the three-letter blend in *scraped*—but not the complex *tch* unit in *stitches*. Most long and short vowels are correctly represented, however, as in *had, have, went, cone, home,* and *day*. When we look for what Jake uses but confuses, we see that he inserts an extra vowel where none are needed when he spells *chin* as *chian* and he omits some vowel markers where they are needed in his spelling of *cream* as *crem*. He has spelled the *r*-controlled vowel in *tired* as *tird* and the ambiguous vowel in *bought* as *bout*. Based on the vowel errors, Jake would be considered a within word pattern speller and would benefit from activities in Chapter 6. We will take another look at Jake's word knowledge when we look at his spelling on an inventory later in this chapter.

Student writings, especially unedited rough drafts, are a goldmine of information about their orthographic knowledge.

FIGURE 2-1 Jake's Writing Sample

My Accident

Last year I scrapped my chian. I was shacking and my mom was too. My Dad met us at the docters offises. And I had to have stiches. Then my Dad bout me an ice crem cone. And we went home. I didn't go to school the nexs day. I was to tird.

Many teachers keep a variety of student writing samples to document students' needs and growth over time. Relying entirely on writing samples has drawbacks, however. Some students are anxious about the accuracy of their spelling and will only use words they know how to spell. Others will use resources in the room, such as word walls, dictionaries, and the person sitting nearby. Using these resources, students' writing may overestimate what they really know. On the other hand, when students concentrate on getting their ideas on paper, they may not pay attention to the spelling and thus make excessive errors. Some students write freely with little concern about accuracy and need to be reminded to use what they know. Knowing your students through daily observations will help you to determine not only their orthographic knowledge but also their habits and dispositions.

The Qualitative Spelling Checklist found on the CD-ROM that accompanies this text can be used to determine a student's developmental spelling stage from his or her writing.

Observe Students' Reading

Important insights into orthographic knowledge are also made when we observe students reading. As you read in Chapter 1, a close relationship exists between reading and spelling, described as the synchrony of development (Figure 1-13). Students' reading and spelling are related (Ehri, 1997; Henderson, 1990), but are not mirror images because the processes differ slightly. In reading, words can be recognized with many types of textual supports, so the ability to read words correctly lies a little ahead of students' spelling accuracy (Bear & Templeton, 2000). For example, within word pattern spellers, who are also transitional readers, may read many two-syllable words like *shopping* and *cattle* correctly, but might spell those same words as *shoping* and *catel*. Spelling is a conservative measure of what students know about words in general. If students can spell a word, then we know they can read the word. It seldom works the other way around except in the very early stages, when students might generate spellings they don't know how to read (Rayner, Foorman, Perfetti, Pesetsky, & Seidenburg, 2001). When students consult reference materials such as a spell checker or dictionary, the spelling task becomes a reading task; we all know the phenomenon of being able to recognize the correct spelling if we just see it.

We can expect to hear particular reading errors at different instructional levels. Like spelling errors, reading errors show us what students are using but confusing when they read. Teachers who understand students' developmental word knowledge will be in a good position to interpret students' reading errors and to make decisions about the appropriate prompt to use (Brown, 2003). A student who substitutes *bunny* for *rabbit* in the sentence, "The farmer saw a rabbit," is probably a beginning reader and an early letter name–alphabetic speller. The student uses the picture to generate a logical response, not knowledge about sound–symbol correspondences. For students at this partial alphabetic or semiphonetic stage, drawing attention to the first sound can teach them to use their consonant knowledge. The teacher might point to the first letter and say, "Can that word be bunny? It starts with an R. What would start with /rrrrr/?

Further in development, assessments of oral reading substitutions show a different level of word knowledge. A transitional reader who substitutes *growled* for *groaned* in the sentence, "Jason groaned when he missed the ball," is probably attending to several orthographic features of the word. The student appears to use the initial blend *gr, the vowel o,* and the *-ed* ending to come up with a word that fits the meaning of the sentence. Because this student has vowel knowledge, a teacher might direct the student's attention to the *oa* pattern and ask him try it again.

Our response to reading errors and our expectations for correcting such errors depend on a number of factors, one of which is knowing where students are developmentally. For example, it would be inappropriate to ask students in the early letter name–alphabetic stage to sound out the word *flat,* or even to look for a familiar part within the word in the hope that they might use their knowledge of *-at* words by analogy.

Emergent and early letter name–alphabetic spellers may be able to use the beginning letters and sounds of words as clues, but frequently must also turn to context clues to read the words on the page (Adams, 1990; Biemiller, 1970; Johnston 2000). However, students in the latter part of the letter name–alphabetic stage could be expected to sound out *flat* because they know something about blends and short vowels. Having students read at their instructional levels means that they can read most words correctly and when they encounter unfamiliar words in text, their orthographic knowledge, combined with context, will usually help them read the words.

Although observations made during writing and reading provide some insight into students' development, assessments should also include an informal qualitative spelling inventory. Together, reading, writing, and spelling inventories provide a rich collection of information to understand students' knowledge of orthography. Use the developmental model in Figure 1-13 by reading from top to bottom across the literacy behaviors of reading, spelling, and writing. Look for corroborating evidence to place students' achievement along the developmental continuum. This model helps to generate expectations for student development using an integrated literacy approach. A student's reading behaviors should be in synchrony with his or her range of writing behaviors.

QUALITATIVE SPELLING INVENTORIES

What Are Spelling Inventories?

Spelling inventories consist of lists of words specially chosen to represent a variety of spelling features or patterns at increasing levels of difficulty. The words in spelling inventories are designed to assess students' knowledge of key spelling features that relate to the different spelling stages. The lists are not exhaustive in that they do not test all spelling features; rather, they include orthographic features that are most helpful in identifying a stage and planning instruction. Students take an inventory as they would a spelling test. The results are then analyzed to obtain a general picture of their development.

The first inventories were developed under the leadership of Edmund Henderson at the University of Virginia. One of the best known early inventories is the McGuffey Qualitative Inventory of Word Knowledge (Schlagal, 1992). This inventory consists of eight graded lists and is described in more detail later in the chapter. Many of Henderson's students developed simpler inventories that consisted of a continuous list of words sampling a range of spelling features characteristic of each stage (Bear, 1982; Ganske, 1999; Invernizzi, 1992; Invernizzi, Meier, & Juel, 2003; Morris, 1999; Viise, 1994;) The same developmental progression has been documented through the use of these inventories with learning disabled students (Invernizzi & Worthy, 1989), students identified as dyslexic (Sawyer, Wade, & Kim, 1999), and functionally literate adults (Worthy & Viise, 1996). Spelling inventories have also been developed and researched for other alphabetic languages (Temple, 1978; Gill, 1980; Yang, 2004).

Spelling inventories not only offer information about students' spelling stages and their knowledge of orthographic features, but also offer information about their reading (Invernizzi & Hayes, 2004). Studies show that scores on these inventories are consistently related and predict reading achievement at all age levels from kindergartners through adult learners (Bear, Truex, & Barone, 1989; Bear, Templeton, & Warner, 1991; Edwards, 2003; Ehri 2000; Ellis & Cataldo, 1992; Morris, Nelson, & Perney, 1986).

All assessments are available on the accompanying Assessment CD-ROM.

Table 2-1 shows a collection of spelling checklists, inventories, scoring guides, and classroom organization forms that may be used with a broad range of students in preschool, primary, intermediate, and secondary classrooms and with Spanish-speaking students. In this chapter, we will focus on three of these: The Primary Spelling Inventory (PSI), the Elementary Spelling Inventory (ESI), and the Upper Level Spelling Inventory (USI). These can be found in Appendix A.

TABLE 2-1 *Words Their Way* Spelling Assessments		
Spelling Inventories	**Grade Range**	**Developmental Range**
Primary Spelling Inventory (p. 000)	K–3	Emergent to late letter name
Elementary Spelling Inventory-1 (p. 000)	1–6	Letter name to early derivational relations
Upper Level Spelling Inventory (p. 000)	5–12	Within word pattern to derivational relations

Additional Resources on the *Words Their Way* Assessment CD-ROM

Qualitative Checklist	K–8	All stages
Emergent Class Record	Pre-K–K	Emergent to letter name–alphabetic
Kindergarten Spelling Inventory (KSI)	Pre-K–K	Emergent to middle of letter name–alphabetic
McGuffey Spelling Inventory	1–8	All stages
Viise's Word Feature Inventory (WFI)	K–12+	Letter name to derivational relations
Content Area Spelling Inventories in Biology,		Within word pattern to derivational relations
Geometry, and U.S. History	9–12	
Spanish Spelling Inventory	1–6	Emergent to syllables and affixes

Use of Inventories

Spelling inventories are quick and easy to administer and score, and they are reliable and valid measures of what students know about words. Many teachers find these spelling inventories to be the most helpful and easily administered literacy assessment in their repertoire. Use of these spelling inventories requires four basic steps summarized here and discussed in detail in the sections that follow.

1. Select a spelling inventory based on grade level and students' achievement levels. Administer the inventory much as you would a traditional spelling test, but do not let students study the words in advance.
2. Analyze students' spellings using a **feature guide** provided in Appendix A and on the CD-Rom. You might also analyze the results globally after you have had experience understanding qualitative scoring. This analysis will help you identify what orthographic features students know and what they are ready to study.
3. Organize groups using a **classroom composite form** and/or the **spelling by stage form.** These will help you plan instruction for developmental groups.
4. Monitor overall progress by using the same inventory several times a year. Weekly spelling tests will also help you assess students' mastery of the orthographic features they study.

Error Guides can also be used to analyze spelling. You'll find these on the CD-ROM that accompanies this text.

SELECT AND ADMINISTER A SPELLING INVENTORY

Select an Inventory

The best guide to selecting an inventory is the grade level of the students you teach. However, you may find that you need an easier or harder assessment depending on the range of achievement in your classroom. Table 2-1 is a guide to making your selection. Specific directions are provided in Appendix A for each inventory, but the administration is similar for all of them.

Some teachers begin with the same list for all students and after 10 or 20 words, shift to small-group administration of segments from other lists. For example, a second grade

teacher may begin with the Primary Spelling Inventory, and decide to continue testing a group of students who spelled most of the words correctly using the Elementary Spelling Inventory. A key point to keep in mind is that students must generate a number of errors for you to determine a spelling stage.

1. Primary spelling inventory.   The Primary Spelling Inventory (PSI) (see Appendix A page 000) consists of a list of 26 words that begins with simple CVC words (*fan*, *pet*) and ends with inflected endings (*clapping, riding*). It is recommended for kindergarten through early third grade because it assesses features found from the emergent stage to the late within word pattern stage. The PSI has been used widely along with the accompanying feature guide and is a reliable scale of developmental word knowledge. The internal consistency is highly reliable as demonstrated by alpha coefficients over .90. (Invernizzi, 2005; Johnston, 2003).

For kindergarten or with other emergent readers, you may only need to call out the first five words. In an early first grade classroom, call out at least 15 words so that you sample digraphs and blends; and use the entire list of 25 words for late first, second, and third grades. If any students spell more than 20 words correctly, you may want to use the Elementary Spelling Inventory. This is likely to happen in third grades classes, where some students are moving into the syllables and affixes stage.

2. Elementary spelling inventory.   The Elementary Spelling Inventory (ESI), presented in Appendix A on page 00, is a list of 25 increasingly difficult words that begins with *bed* and ends with *opposition*. It surveys a range of features throughout the elementary grades (first through sixth) and can be used to identify students up to the derivational relations stage. If a school or school system wants to use the same inventory throughout the elementary grades to track growth over time, this inventory is a good choice. By second grade, most students can try to spell all 25 words, but be ready to discontinue testing for any students who are visibly frustrated or are misspelling five in a row.

A strong relationship between scores on the ESI teachers' stage analysis, and standardized reading and spelling test scores has been observed. The words in this list present a reliable scale of developmental word knowledge (Bear, 1982, 1992; Invernizzi & Hayes, 2004). (In Guttman Scalogram analyses, the ESI's coefficients of reproducibility was .92 for the first half, and .91 for the second, and its coefficient of scalability was .76 for the first half and .63 for the second half.)

3. Upper level spelling inventory.   The Upper Level Spelling Inventory (ULI), found in Appendix A on page 00, can be used in upper elementary, middle and high school. This list is also used to assess the orthographic knowledge of older students at the college and university levels as well as among students in general equivalency diploma (GED) programs. The words in this list were chosen because they help identify, more specifically than the ESI, what students in the syllables and affixes and derivational relations stages are doing in their spelling. For efficiency, this inventory combines the former Intermediate and Upper Level Inventory into one list of 31 words. These words are arranged in order of difficulty from *switch* to *irresponsible*. The internal consistency of the ULI is highly reliable with alpha coefficients over .90. With normally achieving students, you can administer the entire list, but stop giving the USI to students who have misspelled five of the first eight words—the words that assess spelling in the within word pattern stage. The teacher should use the ESI with these students to identify within word pattern features that need instruction.

Prepare Students for the Inventory

Unlike weekly spelling tests, these inventories are not used for grading purposes and students should not study the particular words either before or after the inventory is

administered. Set aside 20 to 30 minutes to administer an inventory. Ask students to number a paper as they would for a traditional spelling test. For younger children, you may want to prepare papers in advance with one or two numbered columns. (Invariably, a few younger students write across the page from left to right.) Very young children should have an alphabet strip on their desks for reference in case they forget how to form a particular letter.

Students must understand the reason for taking the inventory so they will do their best. They may be nervous, so be direct in your explanation:

I am going to ask you to spell some words. You have not studied these words and will not be graded on them. Some of the words may be easy and others may be difficult. Do the best you can. Your work will help me understand how you are learning to read and write and how I can help you.

Teachers often tell students that as long as they try their best in spelling the words, they will earn an A for the assignment. Once these things are explained, most students are able to give the spelling a good effort. You can conduct lessons like the one described in Box 2-1 to prepare younger students for the assessment or to validate the use of invented spelling during writing. Lessons like these are designed to show students how to sound out words they are unsure of how to spell.

Sometimes it is easier to create a relaxed environment working in small groups, especially with kindergarten and first grade students. Children who are in second grade and older are usually familiar with spelling tests and can take the inventory as a whole class. If any students appear upset and frustrated, you may assess them at another time, individually, or use samples of their writing to determine an instructional level.

Copying can be a problem when students are working close together. Sometimes students copy because they are accustomed to helping each other with their writing or because they lack confidence in their own spelling. Students in the earlier stages of development often enunciate the sounds in the word orally or spell them aloud, which can give cues to those around them. Some students will try to copy if they feel especially concerned about doing well on a test. Creating a relaxed atmosphere with the explanation suggested above can help overcome some of the stress students feel. Seat students to minimize the risk of copying or give them cover sheets. Some teachers give students manila folders to set upright around their paper to create a personal workspace. There will be many opportunities to collect corroborating information, so there is no reason to be upset if primary students copy. If it is clear that a student has copied, make a note to this effect after collecting the papers and administer the inventory individually at another time.

Call the Words Aloud

Pronounce each word naturally without drawing out the sounds or breaking it into syllables. Leave this for students to do. Say each word twice and use it in a sentence if the context will be helpful to the student in knowing what word is being called. For example, use *cellar* in a sentence to differentiate it from *seller*. Sentences are provided with the word lists in the Appendix. For most words, however, saying every word in a sentence is time-consuming and may even be distracting.

Move around the room as you call the words aloud to monitor students' work and observe their behaviors. Look for words you cannot read due to poor handwriting. Without making students feel that something is wrong, it is appropriate to ask them to rewrite the word or to read the letters in the words that cannot be deciphered. Students who write in cursive and whose writing is difficult to read can be asked to print.

Occasionally, if there is time, students are asked to take a second try at spelling words about which they may have been unsure. Through this reexamination, students show their willingness to reflect on their work. These notations and successive attempts are additional indicators of the depth of students' orthographic knowledge.

BOX 2-1   Spelling the Best We Can: Lessons to Encourage Students to Spell

To help young students feel more comfortable attempting to spell words, conduct a few lessons either in small groups or with the whole class using the theme "How to Spell the Best We Can." You might do this to prepare young students for taking the inventory or to encourage students to invent spellings during writing. If you want students to produce quality writing, they need to be willing to take risks in their spelling. Hesitant writers who labor over spelling or avoid using words they can't spell lose the reward of expressing themselves.

A Discussion to Encourage Invented Spelling

"We're going to do a lot of writing this year. We will write nearly every day. We will write stories and write about what we see and do. When we want to write a word, and we don't know how to spell it, what might we do?" Student responses usually include:

"Ask the teacher."
"Ask someone."
"Look it up."
"Skip it."

If no one suggests the strategy of listening for sounds, you can tell your students, "Write down all the sounds you hear when you say the word and spell it the best you can."

Spell a Few Words Together

"Who has a word they want to spell?"

Following a lesson on sea life, a student may offer, "Sea turtle."

"That's a great one. Can we keep to the second word, *turtle?*" Assuming that they agree, ask students to say the word *turtle*. Encourage them to say it slowly, stretching out the sounds and breaking it into two syllables (TURRR—TLLLLLE). Model how to listen for the sounds and think about the letters that spell those sounds: "Listen. T-t-t-turtle. What's the first sound at the beginning of *turtle?* What letter do we use to spell that */t/* sound."

"Turtle. T."

On the board or an overhead transparency, write a *T.* Then ask a few students what the next sounds are that they "hear" and "feel."

Depending on the level of the group, you may generate a range of possible spellings: *tl, trtl, terdl,* and *tertul.*

Finally, talk about what to do if the student can only figure out one or two sounds in a word. "Start with the sound at the beginning. Write the first letter and then draw a line." Here, write *T* with a line: T _____.

Occasionally, a student will be critical about another student's attempt: "That's not the right way to spell it!" Be careful to handle this criticism firmly. You might say: "The important thing is that you have written your word down, and that you can reread what you have written." Remind students that they are learning; there will be times when they do not know how to spell a word and it is okay to spell it the best they can. Encourage them by saying, "You will see your writing improve the more you write. At the end of the year, you will be surprised by how much more you can write."

Model Spelling Strategies Over Time

One lesson to discuss spelling will not suffice, so plan to conduct similar lessons over time. Of course, if you do interactive writing activities in which you "share the pen" (described on page 000 in Chapter 4), you will model the spelling process every time you write together. Keep in mind the following points.

- Have students reread their writing to be sure that they can read what they have written and to add to or correct their spelling efforts.
- In addition to sounding out words, model other self-help strategies such as looking for words posted in the room using simple beginning dictionaries, or checking word banks.
- Value your students' efforts to spell words, but also push them constantly to listen for additional sounds and to use what they have been taught.

Know When to Stop

As you walk around the room or work with a small group, scan students' papers and watch for misspellings and signs of frustration to determine whether to continue with the list. With younger students who tire quickly, you might stop after they spell the first five words if they did not spell any correctly. Older students in groups can usually take an entire inventory in about 20 minutes, and it is better to err on the side of too many words than too few. Rather than being singled out to stop, some students may prefer to "save face" by attempting every word called out to the group even when working at a frustration level. In Figure 2-2, you will see where Jake missed more than half the words on the inventory but continued to make good attempts at words that were clearly too difficult for him. However, his six errors in the first thirteen words identify him as needing work on vowel patterns, and testing could have been discontinued at that point. Sometimes teachers are required to administer the entire list in order to have a complete set of data for each child. In this case, tell students that the words will become difficult but to do the best they can.

FIGURE 2-2 Jake's Spelling Inventory

Jake   September 8

 1. bed   14. caryes   **carries**
 2. ship   15. martched   **marched**
 3. when   16. showers   **shower**
 4. lump   17. bottel   **bottle**
 5. float   18. faver   **favor**
 6. train   19. rippin   **ripen**
 7. place   20. selar   **cellar**
 8. drive   21. pleascher   **pleasure**
 9. brite **bright**   22. forchunate **fortunate**
10. shoping **shopping** 23. confdant   **confident**
11. spoyle **spoil**   24. sivulise   **civilize**
12. serving   25. opozishun   **opposition**
13. chooed **chewed**

HOW TO SCORE AND ANALYZE SPELLING INVENTORIES

Once you have administered the inventory, collect the papers and set aside time to score and analyze the results. Scoring the inventories is more than marking words right or wrong. Instead, each word has a number of orthographic "features" that are scored separately. For example, a student who spells *when* as *wen* knows the correct short vowel and ending consonant and gets points for knowing those features even though the spelling is not correct. The feature guides will help you score each word in this manner. This analysis provides *qualitative* information regarding what students know about specific spelling features and what they are ready to study next.

Establishing a Power Score

Begin by marking the words right or wrong. It is helpful to write the correct spelling beside the misspelled words as was done in the sample of Jake's spelling in Figure 2-2. This step focuses your attention on each word and the parts of the words that were right and wrong (key to the qualitative feature analysis). Scoring in this way also makes it easier for other teachers and parents to understand students' papers. Calculate a raw score or **power score** (9 words correct on Jake's paper in Figure 2-2). This will give you a rough estimate of the student's spelling stage.

Previous research on grade-level spelling lists such as The McGuffey Spelling Inventory revealed a relationship between the power score (total number of words correct) and the quality of spelling errors that students committed (Morris, Nelson, & Perney,

1986; Schalgal, 1989; Henderson, 1990). The relationship between power scores and specific features is also germane to single-list, spelling-by-stage spelling assessments such as the ones in this book. The ESI, for example, consists of groups of words containing spelling features negotiated in successive spelling stages. In Figure 2-2, for example, you can see that the first five words Jake spelled tap easy spelling features such as beginning and ending consonant sounds, short vowels (*bed, ship, when*), consonant digraphs (*ship, when*), preconsonantal nasals (*lump*), and consonant blends (*float*)—all features acquired during the letter name–alphabetic stage. He would be considered "independent" at this stage.

His spelling of the word *float* transitions into the next set of words, all tapping long-vowel patterns (*float, train, place, drive, bright,* and *throat*)—the primary features acquired during the within word pattern stage of spelling development. Although Jake spells the first four long-vowel pattern words correctly, he commits his first error in this set on the word *bright* (*brite*). Because Jake spells some of the long-vowel pattern words correctly (*float, train, place, drive*) and others incorrectly (*brite, throte*), we can say that he is *using but confusing* the more difficult long-vowel patterns in this section—a hallmark behavior of instructional level spelling.

The next set of words tap late within word pattern and early syllables and affixes features as well as other vowel patterns including diphthongs (*spoil*), schwa-plus-*r* (*serving*), and lower-frequency vowel patterns (*chewed*) in addition to a variety of inflections (*serving, chewed, carries,* and *marched*). Again, we see Jake using but confusing these features, getting some of them right (*serving*) and others wrong (*spoyle, chooed, caryes, martched*), so this set, too, could be considered within Jake's instructional range. However, the final two sections tapping syllable and affixes features (*showers, bottle, favor, ripen, cellar*) and derivational relations features (*pleasure, fortunate, confident, civilize,* and *opposition*), were all misspelled by Jake. Because he got all the words wrong in these last two sections, we can determine that these two stages represent Jake's frustration level.

In planning instruction for Jake, we analyze the features he uses but confuses on his instructional level—within word pattern.Table 2-2 lists the power scores on the three major inventories in *Words Their Way* in relation to estimated stages and their breakdown by early, middle, or late stage designations. As can be seen, Jake's power score of 9 on the ESI places him in the late within word pattern stage as described above.

Scoring the Feature Guides

The CD-ROM allows you to do this part electronically and it will calculate scores automatically.

Feature guides help analyze student errors and confirm the stage designations suggested by the power score. The feature guides that accompany each inventory are included in Appendix A. Jake's spellings are used as an example in Figure 2-3 to guide you in the scoring process. Follow these steps to complete the feature guide.

TABLE 2-2   Power Scores and Estimated Stages

Inventory	Emergent	Letter Name			Within Word Pattern			S&A			DR		
		E	M	L	E	M	L	E	M	L	E	M	L
PSI	0	0	2	6	8	13	17	22					
ESI		0	2	3	5	7	9	12	15	18	20	22	
USI					2	6	7	9	11	18	21	23	27

FIGURE 2-3 Jake's Feature Guide for Elementary Spelling Inventory

Words Their Way Elementary Spelling Inventory Feature Guide

Student's Name _Jake Fisher_   Teacher _T. Atkinson_   Grade _5_   Date _September_

Words Spelled Correctly: _9_ / 25   Feature Points: _43_ / 62   Total: _52_ / 87   Spelling Stage: _Late Within Word Pattern_

SPELLING STAGES →	EMERGENT			LETTER NAME—ALPHABETIC			WITHIN WORD PATTERN			SYLLABLES AND AFFIXES			DERIVATIONAL RELATIONS		
	Consonants Initial	Consonants Final	Short Vowels	Digraphs	Blends	Long Vowels	Other Vowels	Inflected Endings	Syllable Junctures	Unaccented Final Syllables	Harder Suffixes	Bases or Roots	Feature points	Words Spelled Correctly
Features →														
1. bed	b ✓	d ✓	e ✓										3	1
2. ship		p ✓	i ✓	sh ✓									3	1
3. when			e ✓	wh ✓									2	1
4. lump	l ✓		u ✓		mp ✓								3	1
5. float		t ✓			fl ✓	oa ✓							3	1
6. train		n ✓			tr ✓	ai ✓							3	1
7. place					pl ✓	a-e ✓							2	1
8. drive		v ✓			dr ✓	i-e ✓							3	1
9. bright					br ✓	igh i-e							1	
10. shopping			o ✓	sh ✓				pping					2	
11. spoil					sp ✓		oi oy						1	
12. serving							er ✓	ving ✓					2	1
13. chewed				ch ✓		ew oo		ed ✓					2	
14. carries							ar ✓	ies	rr				1	
15. marched				ch ✓			ar ✓	ed ✓					3	
16. shower				sh ✓			ow ✓			er ✓			3	
17. bottle									tt ✓	le			1	
18. favor									v ✓	or			1	
19. ripen									p	en				
20. cellar									ll ✓	ar ✓			1	
21. pleasure											ure	pleas ✓	1	
22. fortunate							or ✓				ate ✓	fortun	1	
23. confident											ent	confid		
24. civilize											ize	civil		
25. opposition											tion	pos		
Totals	7/7	7/7	5/5	6/6	7/7	4/6	5/6	3/5	2/5	2/5	1/5	1/5	42	9

1. Make a copy of the appropriate feature guide for each student and record the date of testing. The spelling features are listed in the second row of the feature guide and follow the developmental sequence observed in research.
2. Look to the right of each word to check off each feature of the word that is represented correctly. For example, because Jake spelled *bed* correctly, there is a check for the beginning consonant, the final consonant, and the short vowel for a total of three feature points. Jake also gets a point for spelling the word correctly and that is recorded in the far right column. For the word *bright*, which he spelled as *brite*, he gets a check for the blend but not for the spelling pattern of *igh*. Notice Jake's feature guide in Figure 2-3 and how the vowel patterns Jake substituted have been written in the space beside the vowel feature to show that Jake is using but confusing these patterns. Every feature in every word is not scored, but the features sampled are key to identifying the stages of spelling.
3. After scoring each word, add the checks in each column and record the total score for that column at the bottom as a ratio of correct features to total possible features. (Adjust this ratio and the total possible points if you call fewer than the total.) Notice how Jake scored seven out of eight under digraphs and blends, and four out of six under long-vowel patterns. Add the total feature scores across the bottom and the total words spelled correctly. This will give an overall total score that can be used to rank order students and to compare individual growth over time.

Common Confusions in Scoring

To assure consistency in scoring students' spelling, these guidelines for scoring common confusions are presented. Letter reversals, such as writing *b* as *d*, are not unusual in young spellers, but questions often arise about how to score them. Reversals should be noted, but in the qualitative analysis, reversals should be seen as the letters they were meant to represent. These might be considered handwriting errors rather than spelling errors. For example, a **static reversal** such as the *b* written backwards in *bed* or the *p* written backwards in *ship*, should be counted as correct. There is space in the boxes of the feature analysis to make note of these reversals. Record what the student did, but add the check to give credit for representing the sound. Letter reversals occur with decreasing frequency through the letter name–alphabetic stage.

Confusions can also arise in scoring **kinetic reversals** when the letters are present but out of order. For example, beginning spellers sometimes spell the familiar consonant sounds and then tag on a vowel at the end (e.g., *fna* for *fan*). This can be due to their extending the final consonant sound or to repeating each sound in the word *fan* and extracting the short *a* after having already recorded the *fn*. In cases like this, give credit for the consonants and the vowels. However, the bonus point for correct spelling is not given.

Early beginning spellers sometimes spell part of the word and then add random strings of letters to make it look longer (e.g., *fnwzty* for *fan*). Older students will sometimes add vowel markers where they are not needed (as in *fane* for *fan*) or will include two possibilities when in doubt (as in *lookted* for *looked* or *traine* for *train*). In these cases, students should get credit for what they represent correctly. In the case of *fane* for *fan* or *traine* for *train*, the student would get credit for the vowel feature, but would not get the extra point for spelling the word correctly. In general, give students credit when in doubt and make a note of the strategy they might be using. Such errors offer interesting insights into their developing word knowledge.

Identifying Features for Instruction

The feature guide should be used to determine appropriate instruction. Looking across the feature columns from left to right, instruction should begin at the point where a student first makes two or more errors on a feature. Consider the totals along the bottom of

Jake's feature guide. Ask yourself what he knows and what he is using but confusing. His scores indicate that he has mastery of consonants and short vowels, so he does not need instruction there. Jake only missed one of the digraphs and this can be considered an acceptable score. However, he missed two of the six long-vowel patterns, so this is the feature that first needs attention during instruction.

As you can see in the total scores in Figure 2-3, there will be overlaps of features across columns. We can see this when Jake spells four of the other vowel patterns as well as more advanced features. Instructionally, there is good reason to take a step back and review before tackling the target area (long-vowel patterns in Jake's case) and be ready to move on to the next feature (other vowel patterns) as soon as the student shows proficiency in weekly word study activities. In Jake's case, we might expect that a few weeks of long-vowel work might be all that is needed before he moves on to other vowel patterns. If Jake had missed more of the long-vowel patterns, we would expect him to need more time to study them.

Determine a Developmental Stage

The continuum of features at the top of the feature guide shows gradations for each developmental level. A student who has learned to spell most of the features relevant to a stage is probably at the end of that stage. Conversely, if a student is beginning to use the key elements of a stage, but still has some misspellings from the previous stage, the student is at an early point in that new stage. Tables in each instructional chapter (Chapter 4–8) provide additional information about how to determine where students are within each stage (early, middle, late). These gradations make the assessment of orthographic knowledge more precise than simply an overall stage designation, which will be useful in designing a word study curriculum.

Developmental stages should be circled in the shaded bar across the top that lists the stages. For example, Jake spelled all of the short- and many long-vowel features correctly, and he was also spelling some of the words in the other-vowels category, so Jake is at least in the middle of the within word pattern stage. This has been circled in the top row. These stage designations can be used to complete the Spelling-by-Stage form described below that will help you create instructional groups. Knowing the student's developmental stage is a guide to the instructional chapter for word study. In Jake's case, refer to Chapter 6 for activities.

Colleagues who teach together may not always agree on a student's stage. The gradations within each stage clarify the distance between ratings and make it possible to resolve scoring differences between raters. For example, a teacher who may have noted that a student is in the late letter name–alphabetic stage is quite close to a teacher who has determined that the student is an early within word pattern stage speller.

You do not need to make the discrimination within stages too weighty a decision. When it comes to planning instruction, take a step backwards to choose word study activities at a slightly easier level than the stage determination may indicate. It is easier to introduce students to sorting routines when they are working with familiar features and known words.

Spelling inventory results should be compared to what we learn about students' orthographic knowledge in terms of their reading and writing. Referring back to Jake's writing in Figure 2-1, we see similar strengths and weaknesses. His mastery of short vowels and his experimentation with long-vowel and other vowel patterns is what we would expect of a student in the middle to late within word pattern stage of spelling. When Jake reads he may confuse words like *through* and *thought*. These errors in word identification will be addressed in word study when he examines other vowel patterns. His spelling inventory, writing sample, and reading errors offer corroborating evidence that we have identified his developmental stage and the features that need attention.

Error Guides, which offer a list of common spelling errors arranged along a developmental continuum, give you an alternate way of evaluating students' spelling for grouping.

Some students are out of synchrony in their development, such as the student who is notoriously bad at spelling but is a capable reader. When there is a mismatch between reading and spelling development, you can help improve spelling and obtain synchrony by pinpointing the stage of spelling development and then providing instruction that addresses the student's needs. Using these assessments and the developmental model, you can create individual educational plans for students and plan for small-group instruction accordingly.

Sample Practice

The spelling samples of five students in Box 2-2 can be used to practice analyzing student spellings and determining a developmental stage if you do not have a class of children to assess or if you want to try analyzing a broad spectrum of responses. Make a copy of the ESI feature guide for each student. Determine both the developmental stage of the speller and the place you would start instruction. After you are finished, check the results at the bottom of the page. Were you close in the stages you selected? If you scored the spelling in terms of three gradations within a stage, you may find that although your assessment may differ by a stage name, it is possible that the difference is just one gradation.

USING CLASSROOM PROFILES TO GROUP FOR INSTRUCTION

Your spelling analysis as discussed in the previous section will pinpoint students' instructional levels and the features that are ripe for instruction. In most classrooms, there will be a range in students' word knowledge. For example, in a second grade class there will be students in the letter name–alphabetic stage who need to study short vowels and consonant blends while others are in the syllables and affixes stage and ready to study two-syllable words. After analyzing students individually, you can create a classroom profile by recording the individual assessments on a single chart.

We present two ways to record information about the class: the **classroom composite** for the feature guides and the **spelling-by-stage classroom organization chart** to group students by developmental levels. These charts show you the instructional groups at a glance. Before we discuss them, however, let us consider the importance of grouping for instruction in word study.

Why Group?

Grouping for instruction is a challenge for teachers and there are reasons to be suspicious of homogeneous or ability grouping. There may be stigmas associated with grouping and sometimes the lower ability groups receive inferior instruction (Stanovich, 1986; Allington, 1983). However, students benefit from developmentally appropriate instruction (Invernizzi & Hayes, 2004). Experience has shown that when students study a particular orthographic feature, it is best if they are in groups with students who are ready to study the same features. For example, it is difficult to study long-vowel patterns when some of the students in the group still need work on digraphs or blends and may not even be able to read the words. When students are taught at their instructional levels in spelling (even when instruction is below grade level), they will make more progress than when they are put in materials that are too difficult for them (Morris, Blanton, Blanton, Nowacek, & Perney, 1995).

Many teachers organize three and sometimes four small groups by instructional level for reading. Word study can be incorporated in these small-group reading lessons, especially in the lower grades where students work with words under the teacher's

BOX 2-2   *Assessment Check*

Examples of Students' Spelling in September

	Greg	*Jean*	*Reba*	*Alan*	*Mitch*
Grade	1	1	2	3	3
bed	bd	bed	bed	bed	bed
ship	sp	sep	ship	ship	ship
when	yn	whan	when	when	when
lump	lp	lop	lump	lump	lump
float	fot	flot	flote	flote	float
train		tran	trane	train	train
place		plac	plais	place	place
drive		driv	drive	drive	drive
bright		brit	brite	brigt	bright
shopping		sopng	shopen	shoping	shopping
spoil			spoal	spoale	spoil
serving			serving	serveing	serving
chewed			chud	choued	chewed
carries			cares	carres	carries
marched			marcd	marched	marched
shower				shouer	shower
cattle				cattel	cattle
favor				favir	favor
ripen				ripen	ripen
cellar				seller	celler
pleasure					pleshur
fortunate					forchenet
confident					confedent
civilize					civilize
opposition					oposition

Results:
- Greg—early letter name–alphabetic
  - Review consonants, study short vowel word families, digraphs and blends
- Jean—middle letter name–alphabetic
  - Study short vowels
- Reba—middle within word pattern
  - Study long vowel patterns
- Alan—late within word pattern
  - Study long vowels and other vowel patterns
- Mitch—early derivational relations
  - Study roots and unaccented final syllables

supervision and then complete other activities at their desks or work stations. In other classes, especially in the upper grades, word study may occur at a separate time of the day, but still two to four groups are needed to meet students' needs.

Groups should be fluid, and if a student is frustrated or not challenged by the activities, then groups should be reorganized. There are many literacy activities in which students are not grouped by developmental level, as in partner reading, writing workshops, science, social studies, and the many small-group projects related to units of study.

Classroom Composite Chart

After administering an inventory and completing a feature analysis form for each student, transfer the individual scores in the last row of the form to a classroom composite chart (Figure 2-4) to get a sense of the group as a whole. The following steps will help you do this.

1. Begin by stapling each student's spelling test and his or her feature guide together.
2. Sort student papers by the power score (or number of words correct) or by the total feature score and record students' names from top to bottom on the composite form on the basis of this rank order.
3. Next, record each student's scores from the bottom row of his or her feature guide in the row beside his or her names on the composite chart.
4. Highlight cells in which students are making more than one error on a particular feature and column. For example, a student who spells all but one of the short vowels correctly has an adequate understanding of short vowels and is considered to be at an independent level. However, students who misspell two or three of the short vowels need more work on that feature. Highlighted cells indicate a need for sustained instruction on a feature. Do not highlight cells where students score a zero because they are not using but confusing that feature and it is at their frustration level. Focus instead on features to the left of zero that need attention first.
5. Look for instructional groups. If you rank order your students before completing the composite chart, you can find clusters of highlighted cells that can be used to assign students to developmental stages and word study groups. For example, the fifth grade class composite in Figure 2-4 shows that many students fall under the syllables and affixes stage of development because this is where they are making two or more spelling errors (students 3 through 16). John, Patty, and Maria, who missed more than two words in vowel patterns, might join this group or might go in a lower group, but should be carefully monitored. A smaller group of students fall under the middle-to-late within word pattern stage (students 17 through 25) and should begin word study by looking at single-syllable word patterns for long vowels and then other vowel patterns. One student (Mike) needs individualized help, beginning with short vowels as well as digraphs and blends. At the upper end of the class composite are two children in the derivational relations stage who should be further assessed with the USI to gather more information about particular features to study.

Spelling-by-Stage Classroom Organization Chart

When you know students' development stage, you can also form groups using the spelling-by-stage classroom organization chart on page 41 (see Figure 2-5). Many teachers find this easier to use than a class composite when planning groups. Refer to the stage circled in the shaded bar with the developmental stages for each student's feature guide. Students' names are recorded underneath a spelling stage on the chart, differentiating among those who are early, middle, or late. (To determine early, middle, and late designations, refer to the tables in each chapter for further information.) Once the names are entered, begin to look for groups. In each of the classroom examples in Figure 2-5, three or four groups have been circled.

You can see different ways to organize word study instruction in the three classroom profiles presented in Figure 2-5. The first profile is of a first grade class with many emergent spellers. The four circled groups suggested for this class are also the teacher's reading groups.

In the third grade and sixth grade examples, you can see where teachers have used arrows to reconsider the group placement of a few students. Inventory results are considered along with other observations of students' reading or writing. The arrows indicate students who might place slightly higher or lower as the groups take shape. Some

FIGURE 2-4 Example of Classroom Composite

Words Their Way Elementary Spelling Inventory Classroom Composite

Teacher _Freedman_ School _Kidel Elementary_ Grade _5_ Date _September_

SPELLING STAGES→

Students' Name→	Consonants	Short Vowels	Digraphs	Blends	Long Vowels	Other Vowels	Inflected Endings	Syllable Junctures	Unaccented Final Syllables	Harder Suffixes	Bases or Roots	Correct Spelling	Total Rank Order
Possible Points	7	5	6	7	5	7	5	5	5	5	5	25	86
1. Stephanie	7	5	6	7	5	7	5	5	5	4	3	23	82
2. Andi	7	5	6	7	5	7	5	4	4	3	2	21	76
3. Henry	7	5	6	7	5	7	5	4	3	3	2	20	74
4. Molly	7	5	6	7	5	7	4	4	3	2	2	20	72
5. Jasmine	7	5	6	7	5	7	3	3	3	2	2	19	69
6. Maria H.	7	5	6	7	5	7	3	3	2	3	2	19	69
7. Mike	7	5	6	7	5	6	3	3	2	2	1	17	64
8. Lee	7	5	6	7	5	6	2	2	1	2	1	15	59
9. Beth	7	5	6	7	5	7	2	2	1	1	2	14	59
10. Gabriel	7	5	6	7	5	6	2	2	1	1	2	14	59
11. Yamal	7	5	6	7	4	6	2	2	1	1	0	12	54
12. John	7	5	6	7	3	5	2	2	1	1	0	10	53
13. Elizabeth	7	5	6	7	4	6	2	2	1	0	0	11	51
14. Maria R.	7	5	6	7	3	4	2	2	1	0	0	11	47
15. Patty	7	5	6	7	3	5	2	2	1	0	0	11	47
16. Sarah	7	5	6	7	4	4	2	1	0	0	0	9	46
17. Jared	7	5	6	7	2	3	1	1	1	1	0	9	43
18. William	7	5	6	7	3	3	2	0	1	1	0	8	42
19. Steve	7	5	6	7	3	3	2	1	0	0	0	8	42
20. Anna	7	5	6	6	4	3	1	1	0	0	0	8	42
21. Nicole W.	7	4	6	6	3	3	1	1	0	0	0	8	39
22. Robert	7	5	5	7	3	3	2	0	0	0	0	6	38
23. Celia	7	4	6	6	2	3	1	0	0	0	0	7	36
24. Jim	7	5	5	6	2	2	1	0	0	0	0	7	36
25. Nicole R.	7	4	5	6	2	3	2	0	0	0	0	7	36
26. Mike	7	3	4	5	1	0	1	0	0	0	0	4	25
Highlight for instruction*		1	1	1	11	13	22	16	15	13	10		

*Highlight students who miss more than 1 on a particular feature; they will benefit from more instruction in that area.

FIGURE 2-5 Examples of Spelling-by-Stage Classroom Organization Charts

First-Grade Spelling-by-Stage Classroom Organization Chart

SPELLING STAGES→	EMERGENT			LETTER NAME—ALPHABETIC			WITHIN WORD PATTERN			SYLLABLES & AFFIXES			DERIVATIONAL RELATIONS		
	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE

Gerald Buck Tammy Milo Brandi
Dong Felicia 7 Kristy Jennifer Matthew
Danielle Brad Brandon Jerrilynn 5
Jon 5 Shawn J.J.
Jennifer Luis
Jona 6
Adam
Coritta
Reyshe

Third-Grade Spelling-by-Stage Classroom Chart

SPELLING STAGES→	EMERGENT			LETTER NAME—ALPHABETIC			WITHIN WORD PATTERN			SYLLABLES & AFFIXES			DERIVATIONAL RELATIONS		
	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE

Josh B. Dominique Elizabeth Jamie Joe
Dustin Ian Craig Daniel 7
Emily Melanie -> Eric
Brennan Melissa Sara
Josh
8 Paula -->
<-- Erik
Josh C.
Joshua 8
Sarah
<-- Cliff
Camille

Sixth-Grade Spelling-by-Stage Classroom Organization Chart

SPELLING STAGES→	EMERGENT			LETTER NAME—ALPHABETIC			WITHIN WORD PATTERN			SYLLABLES & AFFIXES			DERIVATIONAL RELATIONS		
	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE

Victoria Juan 3 Mike
Jon Elizabeth --> Nicole Phong Sean Steve Desiree
<-- Aurelia Ray Maro Sheri Eric
9 Scott Christi 5 Mary
Don Jonna 6 11
<-- Rashid Heather
Esther

of the group placement decisions are based on social and psychological factors related to self-esteem, leadership, and behavior dynamics.

The teacher in the sixth grade classroom could consider running two groups at the upper levels, or combine them as one group. The three students in the letter name–alphabetic stage will need special attention because they are significantly behind for sixth graders. Ideally, these students will have additional instruction with a literacy specialist or in a tutoring program to review and practice activities that are appropriate for the letter name–alphabetic spelling stage.

Factors to Consider When Organizing Groups

The classroom composite chart and the spelling-by-stage classroom organization chart help to determine word study groups for instruction. Groups of six to eight students make it easier for students to listen to each other, and for you to observe how they sort. While students work on different features and with different words, they can still work side by side during many of the follow-up word study routines that occur after the initial small-group discussion. Different schemes for managing class, group, and individual sorts are discussed in Chapter 3.

When there is a wide range of achievement and decisions are made in forming groups, some students may not be placed exactly at their developmental stage. Consider that your best spellers are not likely to be hurt with grade-level word study activities that might be easy for them. However, your less able spellers are most likely to suffer if they are working at a frustration level where they will not make progress.

In many classrooms, there are students at each end of the developmental continuum who, in terms of word study and orthographic development, are outliers. For example, Joe in the third grade class in Figure 2-5 is the only student in the middle syllables and affixes stage and it is impractical to place him in a group by himself. He has been placed in the closest group for instruction. The teacher may ask Joe to work with a different, more difficult set of words that share the same features that the early syllables and affixes spellers are studying, such as harder words with open and closed syllables. Less advanced students, such as Jon in the sixth grade class in Figure 2-5, may work with a partner who can help him read and sort the group's words, such as one-syllable words with long-vowel patterns. English language learners also benefit from sorting with partners who clarify the pronunciation and meaning of the words.

MONITORING PROGRESS OVER TIME

How Often to Assess

Students may be given the same spelling inventory several times during the year to assess progress and to determine if changes need to be made in groups or instructional focus. You can even use the same paper several times if you fold back the results from the previous time and ask students to record their latest effort in the next column. In Figure 2-6, you will see Benny's spelling inventory results at three different times across the first grade year recorded on the same form. He has made noticeable progress across the year, moving from early letter name–alphabetic spelling to within word pattern. However, don't expect such dramatic progress in one year beyond the primary grades. Some students will take two years to master the within word

FIGURE 2-6   Samples of Benny's Spelling Errors at Three Times in First Grade

	September	January	May
1. fan	FNA	fan	fane
2. pet	PT	pat	pet
3. dig	DKG	deg	dig
4. hope	HOP	hop	hope
5. wait	YAT	wat	wayt
6. sled	SD	sed	sled
7. stick	SK	stek	stike
8. shine	HIN	shin	shine

pattern stage. Therefore, teachers in upper elementary, middle school, and high school may find that assessing students only at the beginning and end of the year is enough.

Using the same spelling inventory each time is recommended. This enables you to compare the same words. In Benny's inventory results, we can track the qualitative changes in his spelling over time. Don't be too surprised if first grade students sometimes spell a word correctly one time and later spell the same word incorrectly. Because students are sometimes inventing a spelling for a word that they do not have stored in memory, they may invent it correctly one time and not the next. Or they might master short-vowel sound matches but later use but confuse silent vowel markers as Benny did in his spelling of *fan* as *fane*.

Remember that you should not have students directly study the words on the inventory, although they may naturally show up in word study activities that you plan. If students study the lists in advance, assessment results will be inflated and you will lose valuable diagnostic information. Using the same inventory more than three times a year may also familiarize students with the words enough to inflate the results.

Setting Expectations for Student Progress

Spelling assessments are used to identify students' developmental stages, to determine the features that need instruction, and to form and reform instructional groups. At the same time, teachers need to set goals and objectives for student growth within grade levels. While it true that all students do not develop at the same rate despite the very best instruction, it is helpful to articulate end-of-grade expectations in terms of stages of development. (See Table 2-3.) Teachers should know the typical range of development within grade levels so that they can provide additional instruction and intervention for students who lag below that range. Teachers should also know where students must be at the end of the year if they are to succeed in subsequent grades and meet state standards in reading and writing.

Share Spelling Inventories with Parents and Other Teachers

Spelling inventories are valuable artifacts to add to students' portfolios and can be used in parent conferences to discuss individual needs and progress. Benny's parents should be able to appreciate the growth he has made over his first grade year, as shown in Figure 2-6). It is reassuring for parents to see that their students' earlier invented spellings give way to correct spellings. Benny has made good progress moving from early letter name–alphabetic spelling to early within word pattern spelling across the year. In looking at the end-of-grade expectations chart in Table 2-3, we see that Benny is right on target.

Unlike some literacy skills, spelling results are very visible, and with a little explanation parents can understand how you are using spelling errors to plan instruction. Parents who are accustomed to seeing their children bring home lists of spelling words

TABLE 2-3   Spelling Stage Expectations by Grade Levels

Grade Level	Typical Spelling Stage Ranges Within Grade	End-of-Year Spelling Stage Goal
K	Emergent—Letter Name–Alphabetic	Middle Letter Name–Alphabetic
1	Late Emergent—Within Word Pattern	Early Within Word Pattern
2	Late Letter Name—Late Within Word Pattern	Middle Within Word Pattern
3	Within Word Pattern—Syllables & Affixes	Early Syllables and Affixes
4	Within Word Pattern—Syllables & Affixes	Middle Syllables and Affixes
5	Syllables & Affixes—Derivational Relations	Late Syllables and Affixes
6 +	Syllables & Affixes—Derivational Relations	Derivational Relations

taken from thematic units and content materials are sometimes a little dismayed when they see word lists designed for their children's developmental level. In one case, second graders were given words like *butterfly, chrysalis,* and *caterpillar* to memorize for a test each week. When those children had a teacher the next year who designed word study based on a spelling inventory, the parents thought the words (*drew, flew, blow, snow*) were too easy and that their children were not being challenged enough. The teacher responded by explaining the spelling inventory and showing parents the results. The parents then understood and appreciated that the teacher was teaching their children *how to spell* and not just *assigning them words* to memorize and forget.

In many schools, literacy specialists meet with teachers in grade-level meetings to review inventory results, discuss grouping, and plan for word study instruction. Some schools use spelling inventory results to help identify students who might benefit from intervention services. The end-of-grade level expectations chart in Table 2-3 can be useful in this regard. Often spelling inventories are administered at all grade levels and each year the results are put in students' permanent records and serve as an important part of the school's cumulative literacy assessment. Next year's teachers and specialists have access to these records and can use them to place students and plan instruction.

Weekly and Review Spelling Tests

We recommend weekly tests at most grade levels as a way to monitor mastery of the studied features and to send a message to students and parents alike that students are accountable for learning to spell the words they have sorted and worked with in various activities all week. Ideally students will be very successful on these weekly tests when they are appropriately placed for instruction. If they are missing more than a few words, it may mean that they need to spend more time on a feature or that they are not ready to study the feature and should work on easier features first. You may also want to periodically give a review test—without asking students to study in advance—to test for retention. Simply select a sample of words from previous lessons and call them aloud as you would for any spelling test.

OTHER ASSESSMENT TOOLS

The Assessment CD-Rom includes several other assessment forms that teachers find useful as an alternative or supplement to the inventories.

Qualitative Spelling Checklist

When you look at students' writing in their journals or at the first drafts of their reports and stories, you can use the Qualitative Spelling Checklist to verify what types of orthographic features students have mastered and what types of features they are using but confusing. The checklist offers examples of spelling errors students make and matches these errors to stages of spelling. Through a series of 20 questions, you check off the student's progress through the stages. Consider what features are used consistently, often, or not at all. The checklist is set up to be used at three different points and can serve as a record of progress over time.

Emergent Class Record

The Emergent Class Record is used to assess daily writing or spelling inventory results of pre-K or kindergarten children, or other emergent spellers. Making a copy of the PSI feature guide for each student may seem like a waste of paper when the most that many will represent are a few initial and final consonants. The Emergent Class Record can be

used as an alternative with the entire class recorded on one form. It captures the prephonetic writing progression (from random marks to letters) that is missing on the other feature guides and covers the range from emergent through letter name–alphabetic spelling that would be expected in many kindergarten classes at the beginning of the year.

Kindergarten Spelling Inventory

The Kindergarten Spelling Inventory (KSI) has been used widely with thousands of children as part of Virginia's Phonological Assessment and Literacy Screening (PALS) (Invernizzi, Juel, Swank, & Meier, 2004). Five three-phoneme words have been carefully chosen after extensive research. Each of the five words is scored for the number of phonemes represented in the students' spelling. A feature guide is provided, but unlike the feature guides described so far, students get credit for identifying phonemes and representing those sounds with phonetically logical letters, even if those letters are actually incorrect. As a result, the KSI is a reliable measure of phonemic awareness development, letter-sound correspondences, and the gradual development of conventional spelling (Invernizzi, Justice, Landrum, & Booker, 2005).

The McGuffey Spelling Inventory

The McGuffey Qualitative Inventory of Word Knowledge (QIWK) (Schlagal, 1992) is useful for conducting individual testing and for obtaining grade-level information. The inventory spans grades 1 through 8 with from 20 to 30 words in each level. Instructional spelling levels are found when a student's power score falls above 50% but below 90% on a graded list (Morris, Blanton, Blanton, & Perney, 1995; Morris, Nelson, & Perney, 1986). After administering the grade-level list, you will need to give an easer list (if students fell below 50%) or a harder one (if students scored above 50%).

The McGuffey Inventory is especially useful when teachers want to use a longer and more detailed spelling list and when they want to report spelling achievement in terms of grade levels. The words in these lists present plenty of opportunities to observe a student's spelling across a variety of features. For example, a teacher may want to obtain a fuller assessment of prefixes, suffixes, and roots. Levels 5 and 6 would offer a large number of derivational words with prefixes and suffixes words to analyze.

Because a feature guide has not been developed for the McGuffey Inventory, you must analyze errors yourself to determine what features and patterns students know and what they are using but confusing.

Viise's Word Feature Inventory

The Word Feature Inventory (WFI) list is a spelling list developed by Neva Viise (Viise, 1996; Worth & Visse, 1996)). The WFI is divided into four achievement levels corresponding to four of the five stages of developmental word knowledge: letter name-alphabetic, within word pattern, syllables and affixes, and derivational relations. The words on each level are divided into groups of five, each subgroup probing the student's treatment of a specific word feature such as short vowel, consonant blend, long vowel pattern, etc. An assessment of students' spellings of the words on this list will indicate the features which have already been mastered and will pinpoint the level at which instruction must begin.

Content Area Spelling Inventories

Spelling inventories have been developed for Biology, Geometry, and US History (McIntosh & Bear, 1993). These content area inventories give teachers an indication as to how well students will be able to read related materials and, at the same time, provide some insights into the student's conceptual background knowledge and vocabulary. The words students are asked to spell for content area inventories are the

key vocabulary words for the course. Students who score well tend to do better than students who are unable to spell many words correctly (Bear, Templeton, & Warner, 1991). After writing the words, teachers ask students to put a star beside words whose meaning they know. This serves as a record to track student's vocabulary growth in the particular content area.

ASSESSING SPELLING AMONG STUDENTS WHO SPEAK OTHER LANGUAGES

To obtain a complete understanding of the word knowledge of students who are English language learners, we study what students know about literacy in their primary or first language. A spelling inventory in students' spoken language can indicate what their literacy levels might be and, specifically, show what orthographic features they already understand. Students speaking different languages make many similar spelling errors, confusing sounds that are different from English by just one feature. Consequently, students can study some of the same features together even though their primary languages are not the same. *Words Their Way with English Learners* discusses spelling development, assessment, and instruction among English learners in depth (Bear, Helman, Invernizzi, Templeton, & Johnston, 2007).

Spanish Spelling Inventory

Many students in the United States speak Spanish and may read in Spanish. A Spanish Spelling Inventory developed by Lori Helman and the accompanying scoring guide is included on the Assessment CD-Rom. This 25-word inventory covers the range of instructional levels that have been observed in Spanish (Bear, Templeton, Helman, & Baren, 2003; Helman, 2004). Comparing students' spelling on an inventory in their first language with their spelling in English, the second language, will show the confusions some students experience.

FIGURE 2-7   Rosa's Spelling

English Learners Use What They Know: The Spelling of English Learners

Research in the English spelling acquisition of students who speak a different primary language shows that bilingual learners use knowledge of their primary language to spell words in their second language (Fashola, Drum, Mayer, & Kang, 1996; Nathenson-Mejia, 1989; Zutell & Allan, 1988: Yang, 2004; Shen & Bear, 2003). For example, Spanish speakers take the 22 sounds of Spanish and match them to the roughly 44 sounds of English.

By assessing their orthographic knowledge in their first language and English, teachers can observe whether students are applying the rules of phonology and orthography from the written form of their primary language to English or vice-versa (Helman, 2004; Estes & Richards, 2002).

Bear, Templeton, Helman, & Baren (2003) have identified which English consonant sounds are problematic for Spanish speakers. For students who speak Spanish, a variety of substitutions can be traced to the influence of Spanish on students' spelling. For example, a student who speaks Spanish might spell *that* as *dat* and *ship* as *chap* because the digraphs *th* and *sh* do not exist in Spanish. The silent *h* in Spanish can be spelled with a *j*, so *hot* may be spelled *jat*. Spellers use the nearest equivalents in their attempts to spell English. Short *-a, -e, -i,* and *-u* do not occur in Spanish, and the sound we call short *o* is spelled with the letter *a* so we can expect many confusions about how to represent these short vowel sounds.

1.	bed	bed
2.	ship	shep
3.	when	wan
4.	lump	lamp
5.	float	flowt
6.	train	trayn
7.	place	pleays
8.	drive	Kids
9.	bright	brayt
10.	shopping	shapen
11.	spoil	spoyo
12.	serving	sorven
13.	chewed	shod
14.	carries	cares
15.	marched	marsh
16.	shower	showar
17.	cattle	cadoto
18.	favor	fayvr
19.	ripen	raypn
20.	cellar	sallar

The impact of a student's knowledge of spoken Spanish on English spelling can be seen in the spelling sample from Rosa, a second grader in Figure 2-7. Several of Rosa's spellings follow the logical substitutions that are seen in English-speaking students in the letter name–alphabetic stage, that is, *shep* for *ship* and *wan* for *when*. Other errors make good sense in relation to her knowledge of Spanish. For example, given that there is no short *u* in Spanish, her substitution of *lamp* for *lump* is understandable. We find the substitution of *sh* for the *ch* in *chewed* spelled as *shod*. The *ay* in three of her spellings shows that Rosa is trying to find a spelling for the long *i*. The long *i* is really two vowels (a diphthong), and the *y*, pronounced as a long *e* in Spanish, is used to spell the second half of the long *i*, as in *eye-ee*. In *spoil* as *spoyo*, Rosa seems to be using the /y/ sound as in *yes* to help spell /oil/.

The Influences of Students' Primary Languages: The Developmental Spelling of English Learners

As Rosa's spelling illustrates, English learners' invented spellings are logical and interesting. Look for spelling errors that may be explained by students' primary languages or their dialects. For example, one teacher learned about the influence of different Indian dialects when she noticed confusions of /p/ sounds for words that began with an *f,* and students who substituted /sh/ sounds for words with *s*. Another teacher noted that her Korean students consistently confused the sounds for *r* and *l* in English. In their native language, /r/ and /l/ are not different sounds and are represented with the same letter in Hangul (Yang, 2005).

As you listen to the speech and oral reading of English language learners, notice the influences of students' first languages on their pronunciation. Through observing students' other languages, teachers can better understand their literacy development in English. Look in each of the instructional chapters for specific guidance on the interrelatedness of students' home languages and English. For example, Chapter 4 includes a discussion of English language learning and concept sorts, and Chapter 5 and 6 discuss the way students' dialects are observed in their spelling of vowel sounds.

CONCLUSION

Looking at a child's spelling gives us a window into that child's word knowledge, the information he or she uses to read and write words. The word *assessment* comes from the Latin word *assidere*—to sit beside. Spend some time sitting beside your students and looking through the window that their spellings provide. Learn to assess what they know about how words work by administering one of the spelling inventories provided in this book, or on the *Words Their Way Assessment CD*.

You may refer to the developmental sequence inside the front and back covers, as well as the detailed sequences of word study in Chapters 4 through 8, for the specific types of features to explore in word study activities. Remember that the inventories only sample the most common features. At each stage there is a considerable body of knowledge that students should master before they move on to the next stage.