



Spelling Instruction: Foundation of Reading and Ornament of Writing

by Suzanne Carreker

“Spelling is the foundation of reading and the greatest ornament of writing” (as cited in Venezky, 1980, p.12). This quote is attributed to Noah Webster, noted lexicographer, who was an early proponent of spelling reform in the United States and whose efforts brought about changes to the spellings of words such as *centre*, *colour*, and *public*. Webster’s quote so succinctly captures the importance of spelling instruction. Spelling instruction provides the underpinnings for reading success through the awareness and reinforcement of phonemes and orthographic (letter) patterns (Adams, 1990). Students’ spelling responses give the teacher significant insight as to how well students are hearing the sounds in words and how well they are connecting those sounds to reliable patterns in the language – knowledge that is vital to skilled decoding and fluency. Whether or not it is right or just, assumptions about a person’s level of literacy and intelligence are often based on spelling proficiency, which is greatly enhanced by spelling instruction. Students who have a sense of how the language works spell more accurately, and they become risk-takers. They attempt to spell more sophisticated words that may not be held in memory instead of settling for simple or less appropriate words (e.g., *gigantic* or *tremendous* instead of *big*) and, thereby, embellish their writing efforts (Carreker, 2005a, 2005b). The trick is how to provide students with spelling instruction that promotes active, reflective thought about language that leads to improved reading, spelling, and writing.

The Orthography of English

Orthography is the part of language that deals with how words are spelled. It is helpful to know that not all words in English are equal for spelling. There are *regular* words, *rule* words, and *irregular* words. Regular words follow reliable spelling patterns and are spelled the way they sound; they do not need to be memorized. Rule words also follow reliable patterns and are spelled the way they sound. They do not need to be memo-

rized, but there is a letter that must be doubled, dropped, or changed when the word is written. Irregular words have unexpected spellings and need to be memorized (Carreker 2002, 2005b). Fortunately, a large percentage of English words are regular or rule words.

Regular Words

Some regular words have transparent spellings and require knowledge of sounds that have only one or one overwhelmingly frequent spelling (e.g., /m/=m, /p/=p, /r/=r, /t/=t, /ă/=a, /ī/=i). The spelling of words with these sounds is a simple translation of sounds to letters (e.g., *map*, *rat*, *trip*). Some regular words contain sounds with multiple spellings. There is more than one frequent spelling of the sound, and no one spelling is the apparent choice (e.g., /k/ in initial or medial position can be reliably spelled c or k). To successfully spell these words, students need to know about reliable patterns that determine the best choice of a letter or letters for spelling. A pattern involves the position of the sound (initial, medial, or final), the length of the word, the placement of the accent, and/or the surrounding sounds and the frequency of the letter or letters that represent that sound in a given situation (e.g., k is the best choice for initial or medial /k/ before e, i, or y, and c is the best choice before everything else). Students spell these words by sounding them out, but they must also consider patterns to decide the best choice for any sounds that have multiple spellings.

Table 1 outlines a few reliable patterns (Carreker, 2002; Cox, 1977; Hanna, Hanna, Hodges & Rudorf, 1966) that can be taught. The patterns are not memorized; they are not called rules. They represent letters and letter combinations that recur frequently in English words. The patterns are established in memory through calling students’ attention to the patterns, practices with words with the patterns, and opportunities to read and write.

TABLE 1

Reliable Spelling Patterns

Initial and Medial consonant sounds:

- /k/ before e, i, or y is spelled k (*keep*, *kite*, *sky*)
- /k/ before a, o, u, or any consonant is spelled c (*cat*, *cot*, *cut*, *clap*, *crash*)
- /j/ before e, i, or y is spelled g (*gem*, *giant*, *gym*)
- /j/ before a, o, or u is spelled j (*jam*, *joke*, *junk*)
- /s/ after a vowel and before e, i, or y is spelled c (*grocer*, *recede*)

Final consonant sounds:

- /k/ after a short vowel in a one-syllable base word is spelled ck (*pack*, *sock*)
- /k/ after a short vowel in a word with two or more syllables is spelled c (*music*, *public*)
- /k/ after a vowel pair or consonant is spelled k (*peek*, *milk*)
- /j/ after a short vowel in a one-syllable base word is spelled dge (*badge*, *fudge*)

Initial and Medial vowel sounds:

- /ă/ before a final consonant sound is spelled a-consonant-e (*cake*, *rotate*)
- /ă/ at the end of a syllable is spelled a (*table*, *canine*)
- /ē/ is spelled ee in a one-syllable word (*eel*, *green*)
- /ē/ at the end of a syllable is spelled e (*even*, *equal*)
- /ē/ before a final consonant sound in a word with two or more syllables is spelled e-consonant-e (*recede*, *supreme*)
- /ū/ before a final consonant sound is spelled u-consonant-e (*use*, *cube*)
- /ū/ at the end of a syllable is spelled u (*unit*, *music*)
- /ū/ at the end of an unaccented syllable is spelled a (*alike*, *parade*)
- /oi/ is spelled oi (*joint*, *appoint*)
- /ou/ is spelled ou (*round*, *astound*)

Final vowel sounds:

- /ă/ is spelled ay (*day*, *decay*)
- /ī/ is spelled y (*try*, *reply*)
- /ō/ is spelled ow (*show*, *window*)
- /ē/ in a one-syllable word is spelled ee (*see*, *free*)
- /ē/ in a word of two or more syllables is spelled y (*candy*, *ugly*)
- /ū/ is spelled a (*tuba*, *sofa*)
- /oi/ is spelled oy (*boy*, *destroy*)
- /ou/ is spelled ow (*cow*, *endow*)

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The goal of spelling instruction is to heighten students' consciousness of sounds in words and frequently recurring patterns that spell those sounds. When introducing a pattern, students' attention is called to a sound that is shared in three to five discovery words (e.g., *keep*, *kite*, *sky*, *kitten*, *brisket*). The teacher reads the words one by one, and students repeat each word and discover the common sound (e.g., /k/). Students discover any other pertinent information about the words such as the positions of the sound or the surrounding sounds. The teacher writes the words on the board, and students discover the letter or letters that are the same and are representing the target sound. Students then verbalize the pattern (e.g., /k/ before *e*, *i*, or *y* is spelled *k*). When students find an exception to a pattern (e.g., *kangaroo*, *skunk*, *muskrat*), it affirms that they are thinking about language.

An understanding of the layers of language within English and morphology (study of prefixes, suffixes, and roots) can further students' understanding of how words are spelled (Henry, 2003, 2005). There is a layer of English that is derived from the Greek language. These words are long and often scientific in nature. With this knowledge, students know that the best choice for /k/ in words of Greek origin is *ch* as in *chlorophyll* and *chronometer*; the best choice for /f/ is *ph* as in *photosynthesis* and *phylum*; and medial /i/ and /i/ are usually spelled *y* as in *hypothermia* and *hysteria*.

Another layer of language is derived from the Latin language. Latin words often have final syllables that are non-phonetic but reliable for spelling, such as *-tion* and *-ure*. These final syllables actually contain suffixes *-ion* (state of, act of, or result of) and *-ure* (state of, process, or function). For purposes of teaching word meanings, it is important for students to recognize these suffixes at the end of words. For purposes of spelling, it is effective to teach the units /shŭn/ (*-tion*) and /cher/ (*-ture*). Knowing these units can aid the spelling of long words, such as *population* and *legislature*.

Rule Words

Rule words, like regular words, are spelled the way they sound, but the words also require knowledge of a few basic rules. Three important rules involve changing the spelling of a base word when adding a suffix. The rules are referred to as The Doubling Rule, The Dropping Rule, and the

Changing Rule. Each rule has a set of checkpoints that determine if a letter needs to be doubled, dropped, or changed.

The Doubling Rule is illustrated in words such as *hopped* (*hop* + *ed*), *running* (*run* + *ing*), *reddish* (*red* + *ish*), and *beginner* (*begin* + *er*). All the base words end in one vowel and one consonant. The accent falls on the final syllable. (All one-syllable words are accented.) To each base word, a suffix that begins with a vowel (a vowel suffix) is added. With the checkpoints of 1) one vowel, 2) one consonant, 3) one accent, and 4) a vowel suffix, students know to

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double the final consonant of the base word before adding the suffix. If any checkpoint is missing, the final consonant will not need to be doubled.

The words *hoping* (*hope* + *ing*), *named* (*name* + *ed*), and *recliner* (*recline* + *er*) are examples of The Dropping Rule. All the base words end in final *e*. To each base word, a suffix that begins with a vowel is added. With the checkpoints of 1) final *e* and 2) a vowel suffix, students know to drop the final *e* at the end of each base word before adding the suffix. If either checkpoint is missing, the final *e* does not need to be dropped.

The third rule for adding suffixes is The Changing Rule and is exemplified in words such as *cries* (*cry* + *es*), *happiness* (*happy* + *ness*), and *penniless* (*penny* + *less*). All the base words end in final *y* and a consonant before the *y*. To each base word, a suffix that does not begin with an *i* is added. With the checkpoints of 1) final *y*, 2) a consonant before the final *y*, and 3) a suffix that does not begin with *i*, students know to change the *y* to *i* before adding the suffix. If any checkpoint is missing, the final *y* does not need to be changed to *i*.

The introduction of a rule word begins with students looking at base words, suffix, and derivatives:

<i>run</i>	+	<i>er</i>	=	<i>runner</i>
<i>swim</i>	+	<i>ing</i>	=	<i>swimming</i>
<i>omit</i>	+	<i>ed</i>	=	<i>omitted</i>

The teacher guides students to look at the base words and decide how they are alike (e.g., they end in one vowel, one consonant, and one accent). Then students look at the suffixes and decide how they are alike (e.g., they are all vowel suffixes). Students look at the derivatives and decide how the spellings of the base words have changed (e.g., the final consonant is doubled in each base word). Finally, students verbalize the checkpoints of the rule and whether or not a letter will need to be doubled, dropped, or changed.

Irregular Words

For the most part, regular and rule words that are not held in memory can be sounded out. Irregular words are more difficult to spell. Irregular words are designated as such because 1) the spellings do not match the pronunciations (e.g., *enough*, *would*, *ocean*), or 2) the words contain less frequent letter patterns that represent sounds (e.g., *ai* for /ā/ as in *plain*, *ea* for /ā/ as in *steak*, or *oa* for /ō/ as in *soap*). These words must be held in memory.

There are several strategies that can be employed to help students memorize these words. Some words can be given a spelling or exaggerated pronunciation, such as /frā gil/ for *fragile* or /wēd nēs dā/ for *Wednesday*. An altered pronunciation creates a more vivid image of a word. Words that share the same irregular pattern can be grouped together in a sentence: *The goat will eat soap as it floats in the boat*. If students remember the spelling of one of the words, it increases the likelihood that they will remember the spelling of the others (Carreker, 2005b). A third strategy entails a detailed procedure for learning more difficult words such as *enough* or *thorough*. Students look at the spelling of an irregular word and circle the letter or letters that make the word irregular. They trace a model of the word three times and then copy the word three times with the model in sight. They spell the word with their eyes closed three times. Then they write the word three times from memory with no model in sight. Students say the word and name the letters each time they spell the word (Gillingham & Stillman, 1997).

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Spelling Instruction

Spelling instruction needs to be more than memorizing a list of words for the Friday test. This instruction is passive; students learn a list of words but not *how* to spell. They may remember the words for the test on Friday, but the words are soon forgotten. The information presented above teaches students *how* to spell – not just the words on the spelling tests but any words they need to spell that are not held in memory. Spelling instruction is intentional. Patterns and rules are taught directly in an organized and logical manner. The introductions and activities are designed to engage students in active, reflective thought about language.

Phonemic Awareness

Spelling instruction for beginning spellers and for students who struggle with spelling should be infused with activities that promote phonemic awareness. These activities include:

- Students listen for a particular sound in words that are dictated one at a time by the teacher. If students hear the sound, they say the sound. If they do not hear the sound, they say, “No.”
- Students listen for the position of a particular sound in words that are dictated one at a time by the teacher. Students indicate the position of the sound: initial, medial, or final.
- Students repeat words that are dictated one at a time by the teacher. They identify the constituent sounds in each word. Starting with the thumb, students can use their fingers to represent each sound, or they can use counters (blocks,

pennies, buttons) and move one counter for each sound.

Analyzing

Analyzing is an activity that promotes active reflection about language. Students analyze the spellings of words and decide if the words are regular words, rule words, or irregular words. Analyzing ensures that students think about the sounds in words and look carefully at words to see how they are spelled. This activity helps students generalize the patterns and rules they have learned because students cannot decide the type of a word –regular, rule, irregular – without thinking about all aspects of the word. As students analyze, they follow these steps for each word they analyze:

1. Students read a word on the list and identify all the sounds (e.g., *cheek* – /ch/, /ē/, /k/).
2. Students isolate the first sound and identify the letter or letters that spells the sound. They determine if that letter or letters are the best choice, using their knowledge of sounds, letter patterns, and word origins (e.g., the best choice of initial /ch/ is *ch*).
3. Students isolate each subsequent sound in the word and identify the letter or letters that spell each sound (e.g., the best choice of medial /ē/ in a one-syllable word is *ee*; the best choice of final /k/ after a vowel pair is *k*).
4. Students decide the type of spelling word:
 - If the word is spelled the way it sounds and follows the patterns of the language, the word is regular (e.g., *cheek* is a regular word).

- If any part of the word does not follow the patterns of the language, the word is irregular.
- If the word has a letter that has been doubled, dropped, or changed before a vowel suffix, the derivative is a rule word.

The Weekly Spelling List

The weekly spelling list is designed to systematically introduce and review reliable patterns and rules of the language. A logical order for introducing patterns, such as those in Table 1, and rules, as previously presented, should be established. Each week the spelling list reflects five words that illustrate a particular pattern or rule that is introduced to students. Also as part of the weekly spelling list are 5 to 15 content-area words that students will encounter as they read and will need to know as they write. (See Table 2 for sample spelling lists that incorporate patterns in Table 1.) These words may or may not follow the reliable patterns and rules of the language. Students analyze these words and determine which words follow the reliable patterns and rules and which words do not. Analyzing gives students a strategy for knowing how to study the words on the weekly spelling list. Regular words are sounded out, with some consideration of reliable patterns. Rule words are sounded out, with consideration of what letter is to be doubled, dropped, or changed. Irregular words need to be memorized.

TABLE 2 – SAMPLE SPELLING LISTS

List 1 (Grades 1-2)

Pattern Words: Final /k/ after a short vowel in a one-syllable is spelled *ck*. • Content-Area Words: The Farm

sock	hen (regular)	duck (regular)
sick	chick (regular)	sheep (regular)
luck	egg (irregular)	lamb (irregular)
peck	cow (regular)	barn (regular)

List 2 (Grades 3-4)

Pattern Words: Final /ē/ in a word with two or more syllables is spelled *y*. • Content-Area Words: The Solar System

ugly	orbit (regular)	Mars (regular)
candy	gravity (regular)	Jupiter (regular)
tardy	rotating (rule)	Venus (regular)
plenty	revolving (rule)	Mercury (regular)
energy	Earth (irregular)	Neptune (regular)

List 3 (Grades 5-6)

Pattern Words: /s/ after a vowel and before *e*, *i*, or *y* is spelled *c*. • Content-Area Words: Social Studies

grocer	population (regular)	economy (regular)
recent	culture (regular)	technology (regular)
lucid	agriculture (regular)	country (irregular)
recede	transportation (regular)	legislature (regular)
legacy	continent (regular)	geography (regular)
	democracy (regular)	republic (regular)

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A carefully designed spelling list is the centerpiece for spelling instruction. The spelling list is presented on Monday and a new pattern or rule is introduced. Students practice spelling words that contain the new information. Students begin to analyze content-area words on Monday and continue on Tuesday. On Wednesday, students determine a strategy for learning any irregular words on the list. The teacher engages students in phonological awareness activities using the words on the list, such as changing or adding a sound in a word to create a new word (e.g., change /k/ in *cow* to /h/ and say the word; add /s/ to the beginning of *peck* and say the word). Longer words can be pronounced with different syllables omitted (e.g., say *population* without /pöp/; say *population* without /shün/; say *population* without /ü/). On Thursday, the teacher dictates three to five sentences that contain words from the spelling list and words that contain previously introduced patterns. The spelling test is on Friday and can be a combination of spelling words and a few sentences.

Summary

In Noah Webster's time, spelling instruction took precedence over reading instruction (Venezky, 1980). The important role of spelling instruction was clearly appreciated. Spelling instruction can and should be an integral part of literacy instruction, for it provides the essential pieces for spelling, reading, and writing success.

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