

Building Vocabulary and Spelling Skills
Rhode Island Federation of Teachers and Health Professionals
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Shane Templeton, Ph.D.
Department of Educational Specialties/299
University of Nevada, Reno
Reno, NV 89557
e-mail: wst@unr.edu

“Word Consciousness”

The knowledge and predisposition to *learn, appreciate, and effectively use* words
(Graves & Watts-Taffe, 2002; Stahl & Nagy, 2006;
Lubliner & Scott, 2008; Templeton, Bear, Invernizzi, & Johnston, 2010)

The Nature of the Spelling System of American English

- At the level of sound and the level of meaning, the spelling system of English makes much more sense than we have traditionally believed. (Ehri, 1997; Venezky, 1999; Templeton, 2003)
- While spelling knowledge is a critical skill for writing, it is also a critical skill for reading. Importantly, practice at spelling helps reading more than practice at reading helps spelling. (Templeton & Morris, 2000; Perfetti, 1997)

Logic at the Level of Sound: Patterns

How sounds are spelled very often depends on where they occur within words:

Example: Words such as *say* and *rain* reveal that, in single-syllable words, “long a” is usually spelled *ay* at the end of a word (but rarely in the middle) and often *ai* in the middle (but never at the end).

How sounds are spelled very often depends on other sounds they are adjacent to:

Example: Words such as *ridge* and *cage* reveal that the /j/ sound is usually spelled *dge* when it follows a short vowel, and usually spelled *ge* when it follows a long vowel.

Logic at the Level of Meaning: The Spelling/Meaning Connection – “Words that are related in meaning are often related in spelling as well, despite changes in sound” (Templeton, 1979, 1983, 2004)

define
definition
definite
definitive

“Many teachers themselves see spelling as more arbitrary than systematic; at least, they give that impression to their students. Even when that is not the case, it is likely that their own knowledge of the spelling system is largely implicit or relatively poorly understood. For example, they may teach spelling as a solely sound-based system long after that is useful... If we teachers do not believe that spelling has logical, negotiable patterns, how can we hope to help children develop that insight?”

M. Hughes & D. Searle (1997)

The Nature of Instruction: Spelling

1) What about encouraging young children to spell words the best they can, even though the spelling may be incorrect from a conventional perspective? Spelling words as they sound enhances phonemic awareness and letter knowledge and accelerates the acquisition of conventional spelling (*National Research Council, 1998*)

2) What types of instructional activities work best?

Rather than simply writing words several times, students should be involved in examining the words from a *variety* of perspectives. Activities should engage students in *comparing, contrasting, and discussing* the words; this will ensure that memory for words and spelling patterns are reinforced:

Closed and Open Sorts

Students first read the words and set unknown words aside. In closed sorts, students arrange the words underneath the columns designated by the teacher. In open sorts, the students organize the words into categories that they develop. After sorting, students read the words in each column to check their work. These sorts can be recorded in word study notebooks.

Handy tips as you model and encourage your students' word sorting:

Start with two-column sorts

Make sure word cards stay in *students' hands!*

Accept all sorts that students can ‘justify’ or explain

Use *open-ended teacher talk* such as:

- What did you notice?
- Tell me about your sort.
- Tell me your thinking here.
- What are some words here you can organize by the way they sound? By spelling pattern? By meaning?
- What’s in your odd, crazy, miscellaneous, still-thinking pile? Tell me what you were thinking about those words...

Word Hunts

After studying a pattern or patterns, students return to texts they are reading to find words that go with a specific pattern; for example, students may be asked to hunt for words that sound like “beat” (*long e*) in the middle. The words they find can be recorded in word study notebooks.

Word Study Notebooks

These are notebooks, or a section of larger notebooks, in which students collect words and occasionally record word sorts that they’ve completed. We can begin word study notebooks with students in the middle of the Letter Name phase of spelling. The word study notebooks expand when students are in the Within Word Pattern phase of spelling. When students study long vowels, several pages can be set aside for each vowel. Students add words to sorts in their word study notebooks. Sorts in the word study notebook include sound, pattern, and meaning sorts.

Writing Sorts

Students often do a *writing sort* after they’ve completed a closed sort. Categories are set up, and as words are called out, students listen and decide in which category each word belongs. They then write the word under that category label. For independent assignments, students can be asked to add more words to each column.

Word Study Games

Almost any card game or board game can be adapted for word study. Path games are particularly successful, as are word study versions of “Go Fish,” “Concentration,” and “Bingo.” Many commercial electronic games are fine as long as students can read the words with ease. Ask the student to read through the words in the games and expect very high accuracy.

3) How are “most frequently misspelled” words handled?

Many of the words that students most frequently misspell remain constant throughout the grades. Most of these words are high-utility words in writing and eventually need to be learned to the point where they are automatic. These words should be addressed throughout the year, but should not be the *sole* focus of spelling instruction.

4) Should students select words they wish to learn to spell?

This can be highly motivating -- but these words should not be the *only* spelling words the students study. A few self-selected words can be added to the “core group” of words students will study each week. These self-selected words can be words of particular interest to the students (dinosaur names, for example, are popular during a unit focusing on the earth’s history) as well as words that continually are troublesome for the students.

5) What about pretests and posttests (“pre-assessments” and “post-assessments”)?

A mainstay of much spelling instruction over the years has been the “test/study/test” approach. *If students are placed at their appropriate developmental level* for their spelling and word study, this approach is very effective. On Monday, students take a pretest *and correct their own papers*. Over the next few days students should engage in activities with *all* of the words, not just those misspelled on the pretest. This will ensure that the students will be successful on the posttest -- and they are much more likely to *transfer* this performance to their writing.

6) How many words? Research has shown that *the number of words* is not as important a factor in learning to spell as the spelling *patterns* that are addressed (see Johnston, 2001; Templeton & Morris, 1999, 2000).

7) Aren’t these words too easy? Students should be able to *read* the spelling words and already know how to spell some of the words on the list correctly (this may be determined by a pretest). This ensures that they are working at their *spelling instructional level*.

8) What about students for whom the transition of spelling skills to writing is NOT happening?

If students are placed at their appropriate developmental level for spelling/word study, then their transition from spelling study to writing will be much more likely to occur. If they are working at their frustration level in spelling, then that transition is not nearly as likely to occur. If students are at their appropriate level and we still are not seeing transfer, then we work to help them develop a “spelling conscience.” Even after a first draft, students may skim over

their writing for common errors – if they know how to spell a word, in other words, they should expect themselves always to spell it correctly in their writing. For those persistent errors such as THAY, we may simply have them read back through their composition, looking only for this type of error. For many first graders, however, we should not overly emphasize their mastery of a number of challenging words. We simply want to get them into writing and enjoying it; once they are developmentally moving into a transitional phase of literacy development we may then expect more of their spelling consciences and their editorial skills!

9) Students should *not* “write words 10 times each.”

The Development of Word Knowledge and its Relationship to Reading and Writing

EMERGENT LITERACY

- Phonemic awareness instruction is more effective when children are taught to use letters to represent phonemes and to apply their knowledge of phonemic awareness when reading and writing (*National Reading Panel, 2000*)
- Spelling words as they sound enhances phonemic awareness and letter knowledge and accelerates the acquisition of conventional spelling (*National Research Council, 1998*)

The critical importance of developing a “concept of word in print” (Morris et al., 2003)

Facilitates *full phonemic awareness* – the explicit awareness of all consonant and vowel sounds within a syllable.

The concept of word in print is a benchmark in the development of the child’s *sight vocabulary* – words that she or he can identify immediately in *and* out of context – increases exponentially.

<i>BEGINNING LITERACY</i> <i>Alphabetic/Letter Name</i>	<i>TRANSITIONAL LITERACY</i> <i>Within Word Pattern</i>	<i>INTERMEDIATE LITERACY</i> <i>Syllables and Affixes</i>	<i>ADVANCED LITERACY</i> <i>Derivational Relations</i>
<i>BAD - bed</i> <i>SEP - ship</i> <i>LAP - lump</i> <i>JRIV - drive</i>	<i>TRANE - train</i> <i>FLOWT - float</i> <i>CATOL - cattle</i> <i>SMOKE - smoke</i>	<i>SHOPING - shopping</i> <i>ALOW - allow</i> <i>CAPCHURE - capture</i> <i>MIDDEL - middle</i>	<i>APPEARANCE - appearance</i> <i>OPPOSITION - opposition</i> <i>CONFERENCE - conference</i> <i>IRRELEVANT - irrelevant</i>
- Beginning single consonants - Consonant digraphs - Consonant blends - Short vowel patterns	- Common long vowel patterns - <i>r-</i> and <i>l-</i> influenced vowels - Three-letter consonant blends - Complex consonants: Final sound of /k/ Final /ch/: <i>ch tch</i> /j/: <i>dge Vge</i> - Common spelling for diphthongs /ow/, /oi/ - Compound words - Homophones: <i>sail/sale beat/beet</i> <i>IMPORTANT: Students learn to apply their understanding of spelling patterns in single-syllable words to decoding polysyllabic words in their reading; for spelling purposes, these polysyllabic words will be studied more systematically at the Syllables and Affixes developmental phase</i>	- Inflectional suffixes <i>-ed, -ing</i> - Plural endings - Changing final <i>y</i> to <i>i</i> - Syllable patterns: VCCV <i>bas/ket rab/bit</i> VCV open: <i>hu/man</i> VCV closed: <i>cab/in</i> - Less-frequent vowel patterns - 2-syllable homophones: <i>peddle/pedal dual/duel</i> - 2-syllable homographs: <i>PRESent/preSENT</i> <i>REcord/reCORD</i> - Vowel patterns in accented and unaccented syllables - Base words + common prefixes and suffixes <i>IMPORTANT: For vocabulary development, students learn about simple spelling-meaning patterns and high-frequency Greek and Latin elements; for spelling purposes, these will be studied at the Derivational Relations phase</i>	Spelling/Meaning Connection: <i>sign music</i> <i>signal musician</i> <i>ignite reside mental</i> <i>ignition resident mentality</i> Greek and Latin elements <i>-therm- -spect-</i> <i>-photo- -dic-</i> Assimilated/Absorbed Prefixes: <i>in- + mobile = immobile</i> <i>ad- + tract = attract</i>

The Nature of Instruction: Vocabulary

Three “Layers” of Vocabulary Learning/Instruction:

1. Immersion in rich oral language and in wide reading and purposeful writing

Table 3
Variation in Amount of Independent Reading

%	Independent Reading	
	Minutes Per Day	Words Read Per Year
98	65.0	4,358,000
90	21.1	1,823,000
80	14.2	1,146,000
70	9.6	622,000
60	6.5	432,000
50	4.6	282,000
40	3.2	200,000
30	1.3	106,000
20	0.7	21,000
10	0.1	8,000
2	0.0	0

Adapted from Anderson, Wilson, and Fielding (1988).

“ . . . the entire year’s out-of-school reading for the child at the 10th percentile amounts to just two days reading for the child at the 90th percentile! These dramatic differences, combined with the lexical richness of print, act to create large vocabulary differences among children.” (Cunningham & Stanovich, 1998)

For young children:

- Includes *your* commenting on and making observations about words throughout the day and through *instructional readalouds* – both narrative and informational (Chard, 2006)
- Make words interesting and fun!
- Target several words, define them using words children know, discuss, and *use* them throughout the week

2. Explicitly teaching and talking about word structure: Morphological Analysis

Morphological analysis builds upon students’ knowledge of word-formation processes: How meaningful word parts combine – *prefixes, suffixes, bases, and roots*. Literally tens of thousands of words are created by combining these meaningful parts of words.

“Knowledge of word-formation processes opens up vast amounts of vocabulary to the reader”
(Nagy & Anderson, 1984, p. 314)

Morphological Analysis: Compound Words

Discuss the meaning of the compound word and how the meaning relates to the two words that make up the compound word:

- *fireplace* is a specific *place* for a *fire*
- *firewood* is *wood* for a *fire*
- a *snowstorm* is a *storm* made out of *snow*

These relationships seem so obvious that one might wonder, “Why bother discussing them”?

Such discussion engages the language of relationships, so thinking about the relationships among concepts is more precise – and vocabulary grows.

Later on, relationships among more abstract concepts represented in compound words will be more complex to sort out and discuss – *deadbeat, pigeonhole, roughneck* – but students will have the foundation already in place for talking about these relationships.

Morphological Analysis: Affixes and Bases

Beginning in Grade 2: Read words with common prefixes (e.g., un-, dis-) and suffixes (e.g., -ly, -less, -ful)

Beginning in Grade 2: Use prefixes and suffixes to determine the meaning of words (e.g., allow/disallow)

Build-a-Word:

help

helpful

unhelpful

Take-Apart:

unbreakable

breakable

break

“When you learn one word, you learn ten!”

courage
 courageous
 courageously
 encourage
 discourage
 discouraging
 discouragingly

Between 3rd and 5th grade, over half of the words students know are learned through morphological analysis (Anglin, 1993). For example, if students know one of the following words, they can figure out the meaning of the other words independently in their reading: *relate, relates, related, relating, unrelated, relation, relations*

However, most students are not likely to notice the relationships among the following words – it takes a **teacher** to point them out: *relative, relatives, relationship, relationships, relational, correlate, correlates, correlated, correlational, correlative*

“In general, students are not making associations between such words as *reduce* and *reduction*...74 percent of fourth-graders know *pretend*, but *pretense*, the noun form of *pretend*, is not commonly known until the twelfth grade” (Dale, O’Rourke, & Bamman, 1971, p. 172)

By teaching students how to look for and understand morphological relationships among words, we can significantly increase the number of words they can learn independently in reading.

Decoding Longer Words Strategy

1. Examine the word for meaningful parts—base word, prefixes, or suffixes.
 - If there is a prefix or a suffix, take them off so you can find the base
 - Look at the base to see if you know it or if you can think of a related word (a word that has the same base).
 - Reassemble the word, thinking about the meanings of the base, the suffix, and the prefix. This should give you a more specific idea of what the word is.
2. Try out the meaning of the word in the sentence; check if it makes sense in the context of the sentence and the larger context of the text that is being read.
3. If the word still does not make sense and is critical to the meaning of the overall passage, look it up in the dictionary.

Morphological Analysis: Spelling

The spelling system of English makes much more sense than we have traditionally believed. (Ehri, 1997; Perfetti, 1997; Venezky, 1999; Templeton, 2003)

In the following words, notice how the italicized consonant is "silent" in the first word but is "sounded" in the second:

column	resign	muscle
columnist	resignation	muscular

Notice how the italicized vowel letter in each word pair stays the same despite a change in sound:

ignite	harmony	inspire
ignition	harmonious	inspiration

The spelling/meaning connection provides a rich foundation for expanding students' vocabulary: In explaining to a fifth-grader who spelled condemn as CONDEM, the teacher can point out that *condemn* is related to the word *condemnation*, in which the *n* is pronounced. Because the student knows the meaning of *condemn*, it is a short leap to an understanding of the word *condemnation*. In this fashion, *both* spelling and vocabulary knowledge are increased.

Morphological Analysis: Greek/Latin Roots and Affixes

When you learn one *root* you learn *exponentially* more words!!

inspect:

-spect- = “to look”

in - = “into”

“to look into”

inspection:

the act (-ion)

of looking (spect)

into (in-)

“Word Root” Sort

dictate	audible
contradict	auditorium
verdict	auditory
diction	audience
edict	audiotape
dictionary	audience
dictator	inaudible
benediction	audiology
indict	audition

“-able/-ible Sort”

dependable	credible
profitable	audible
predictable	legible
perishable	plausible
laughable	indelible
punishable	intangible
adaptable	irascible
attainable	feasible

Morphological Analysis: English Language Learners

5th Grade Math Class – Pair the students and ask them to match up the words they believe go together:

<i>polygon</i>	<i>polígono</i>
<i>quadrilateral</i>	<i>cuadrilatero</i>
<i>pentagon</i>	<i>pentágono</i>
<i>triangle</i>	<i>triángulo</i>
<i>hexagon</i>	<i>hexágono</i>

What do they notice about the matched words? How are the words alike? Different?

Low-frequency words in English are often higher-frequency words in Spanish and many other languages:

English:	<i>prevent</i>	English:	<i>tree</i>
Spanish:	<i>impedir</i>	Spanish:	<i>árbol</i>
English:	<i>impede</i>	English:	<i>arbor, arboreal</i>
	<u>Same</u>	<u>Nearly the Same</u>	<u>Close Enough</u>
English:	<i>decimal</i>	<i>decade</i>	<i>decimate</i>
Spanish:	<i>decimal</i>	<i>década</i>	<i>diezmar</i>

Cognates and Suffixes. In comparing cognates, students can benefit from exploring the suffixes that are often a part of the words. English learners studying English suffixes often understand their own language in more depth, and the same goes for English speakers studying another language. After matching the following cognates, students would discuss how the suffixes are alike and different, and discuss the possible meaning of each:

<i>abreviación - abbreviation</i>	<i>creación - creation</i>
<i>anticipación - anticipation</i>	<i>imitación - imitation</i>
<i>declaración - declaration</i>	<i>vegetación - vegetation</i>
<i>elevación - elevation</i>	<i>vocación - vocation</i>

Related cognates should often be “stacked” so that the similar spelling is obvious:

<i>abbreviation</i>	<i>anticipation</i>	<i>declaration</i>	<i>creation</i>
<i>abreviación</i>	<i>anticipación</i>	<i>declaración</i>	<i>creación</i>
<i>elevation</i>	<i>imitation</i>	<i>vegetation</i>	<i>vocation</i>
<i>elevación</i>	<i>imitación</i>	<i>vegetación</i>	<i>vocación</i>

Examples of Terms/Concepts in Different Subject Areas: Greek and Latin Word Roots

When selecting vocabulary words that represent important concepts and ideas in a content area, teachers should think about words that are related by spelling and meaning to the focus terms, and which students are already likely to know but perhaps have not analyzed:

<i>Mathematics</i>		<i>Social Studies</i>		<i>Science</i>	
centimeter	octagon	democracy	emigration/immigration	biology	anthropology
decimal	perimeter	dictator	revolt/revolution	zoology	optical
fraction	subtract	congress	segregate/integrate	geothermal	metamorphosis
diagonal	polygon	expedition	ecology	genetics	vertebrate/invertebrate
geometry	hexagon				

3. “Deep,” intense study of specific words

Guidelines for Teaching Core Academic and Content-Specific Academic Vocabulary

(Beck, McKeown, & Kucan, 2002, 2008; Diamond & Gutlohn, 2007; Marzano, 2004; Nilsen & Nilsen, 2004; Stahl & Nagy, 2006; Templeton, 2004; Templeton, Bear, Invernizzi, & Johnston, 2010)

Core Academic (High-utility general vocabulary; Tier 2): These are words students that students may encounter frequently in their reading and should be able to use in their writing. They probably already have an underlying concept for the word.

Content-Specific Academic Vocabulary (Specialized Academic, “Tier 3”): These are words that refer to a new and difficult concept that is important for students to learn

- Activate background knowledge:

Through discussion, determine what your students already know about the terms/concepts, and relate this to familiar concepts and newer concepts they have recently learned. Usually there is a range of understandings among your students, so getting them involved in discussion is very important.

- Use a variety of activities that involve students in using words and thinking about its meaning:

- sorting the words
- thinking of related words
- discussion and explanation of the words that include examples and non-examples – graphic organizers and charts or diagrams support these explanations and discussions: for example, *word* or *concept maps*; 4-Square diagrams; *semantic maps*; *semantic feature analyses*
- Teaching synonyms, antonyms, having students rewrite definitions, provide nonexamples, “silly questions”
- Students use word, collect examples of its use (seeing, hearing, or using) outside of class

- When necessary, **you may explain the meaning and give examples** of how the words are used. Importantly, you make a point of using the words often yourself.

- Teach *generatively!*

Reinforce how the structure of the words – affixes, bases, and roots – provides clues to their meaning

- Periodically **review** the words

Resources for Latin/Greek Roots

For Students and Teachers:

Crutchfield, Roger. *English Vocabulary Quick Reference: A Comprehensive Dictionary Arranged by Word Roots*. Leesburg, VA: LexaDyne Publishing, Inc.

Danner, H. G., & Noel, R. (1996). *Discover it! A better vocabulary the better way*. Occoquan, VA: Imprimis Books.

Kennedy, John (1996). *Word stems: A dictionary*. New York: Soho Press.

Moore, Bob & Moore, Maxine (1997). *NTC's Dictionary of Latin and Greek Origins: A Comprehensive Guide to the Classical Origins of English Words*. Chicago, IL: NTC Publishing Group.

Templeton, S., Bear, D., Johnston, F., & Invernizzi, M. (2005). *Word sorts for derivational relations spellers*. Boston: Allyn & Bacon.

For Teachers:

Ayers, Donald M. (1986). *English words from Latin and Greek elements* (2nd Ed.; revised by Thomas Worthen). Tucson, AZ: The University of Arizona Press.

Schleifer, Robert (1995). *Grow your vocabulary by learning the roots of English words*. New York: Random House.

Resources for Word Origins and the History of English

For Students and Teachers:

- Asimov, Isaac. (1960). *Words from the Myths*. Boston: Houghton Mifflin.
 Ayto, John. *Dictionary of Word Origins*. New York: Arcade.
Merriam Webster New Book of Word Histories (1991). Springfield, MA: Merriam-Webster Inc.

For Teachers:

- Bryson, Bill (1990). *The Mother Tongue: English and How It Got That Way*. New York: Avon.
 Bryson, Bill (2001). *Made in America: An informal history of the English language in the United States*. New York: Perennial.
 Claiborne, Robert (1989). *The Roots of English: A Reader's Handbook of Word Origins*. New York: Times Books.
 Crystal, David (2006). *Words, Words, Words*. Oxford University Press.
 Lerer, Seth (2007). *Inventing English: A portable history of the language*. New York: Columbia University Press.
 Shipley, Joseph. (1984). *The origins of English words*. Baltimore: Johns Hopkins University Press. (For truly dedicated wordsmiths, Shipley's book is the ultimate source. A delightful read!)
 Templeton, S., Bear, D. R., Johnston, F., & Invernizzi, M. (2010). *Vocabulary Their Way: Word study for middle and secondary students*. Boston: Allyn & Bacon.

Three Comprehensive Websites:

- <http://www.onelook.com>
<http://www.verbivore.com/rllink.htm>
<http://www.grammarians.com>

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 Beck, McKeown, & Kucan (2008). *Creating robust vocabulary*. New York: Guilford.
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