Word Study Strategies at the Middle Grades

by

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Imagine middle-grade students, perhaps in the fifth or sixth grade, reading a text passage in which they come across the words *raptiforms*, *hydrolation*, *lesnics*, *chamlets*, and *folutes*. Most students at the middle grades, perhaps with the exception of those who continually struggle with reading, are capable of recognizing words accurately and quickly when reading texts that are easy or within their instructional grasp. Yet words like *raptiforms* and *folutes* may cause problems for any student. Such words would not be part of their general reading vocabulary, which typically consists of common, everyday words that many middle-grade students would recognize by sight. Words like *hydrolation*, *lesnics*, and *chamlets* are not everyday words that students typically encounter in print or in conversation.

Nor are these words part of the general reading vocabulary of most adults. In appearance, the words seem to be technical in nature. Technical reading vocabulary consists of words that are used in a particular content area. Perhaps *raptiforms*, *hydrolation*, *lesnics*, *chamlets*, and *folutes* are from a science-related passage. Perhaps not. Depending on his or her prior knowledge with a content area, even an accomplished reader may have trouble unlocking the meanings of technical words. Ask yourself, for example, if these words pose difficulties for you. Can you pronounce them? Do you know what they mean? Do you have a sufficient conceptual understanding of these words to be able to lead a five-minute discussion on each one?

As skilled adult readers, you probably have developed efficient and effective *word study strategies*, so that you are capable of pronouncing each word without a great deal of thought. Chances are, you did not sound out individual

letters in each word and then blend them together in order to pronounce the words correctly. To do so would be inefficient. Instead, you probably "chunked" each word into familiar letter patterns or word parts to pronounce them accurately.

But what about fifth and sixth graders who run into troublesome and unfamiliar words? Have they consolidated their knowledge of letter-sound relationships well enough to use chunking strategies to pronounce the words? If they invest too much mental energy in translating print into speech, less mental energy is devoted to making sense of the text as a whole (Rasinski and Padak, 2000). If they run into too many difficult words, young adolescents, especially those who struggle with reading, soon get caught in a web of confusion. They get discouraged and frustrated, and eventually they give up on reading as a way of learning and enjoying. This is why word study should be an integral part of the reading curriculum at the middle grades.

All too often, however, word study is conspicuous only by its absence from middle-grade classrooms. It is the component of reading instruction that is too frequently forgotten or neglected in classrooms beyond the primary grades. When teachers do engage students in word study in the middle grades, instructional routines often revolve around the weekly list of spelling and vocabulary words students are required to learn. Word study needs to go beyond weekly word lists.

WORD STUDY AT THE MIDDLE GRADES— A CLOSER LOOK

Readers at the middle grades must be able to do more than *pronounce* words accurately and quickly. They also need to know how to *unlock the meanings* of new words they meet in print. Readers need to be strategic in their approach to unfamiliar words. Do competent and confident readers reach for a dictionary each time they come across an unknown word in print? Of course not, although they do know *how* and *when* to use a dictionary if other word study strategies fail. Strategic readers know how to use the structure of words, the *morphemic*, meaning-bearing clues provided by various word parts, to construct meaning. Strategic readers also use context clues to figure out the meanings of unfamiliar words. And strategic readers often combine word-structure clues with context clues to make sense of troublesome words.

In reality, the words *hydrolation*, *raptiforms*, *folutes*, *chamlets*, and *lesnics* are as problematic for adults as they would be for middle-grade students. As you may already have surmised, these are nonsense words. They were invented to underscore two important aspects of word study instruction at the middle grades. The first involves what it means to extend the teaching of phonics in today's middle-grade classrooms. The second suggests that word study programs at the middle grades must be multidimensional. Word study involves more than the extension of phonics instruction into the

middle grades. It must also emphasize strategies that help students construct meaning for difficult words encountered during reading.

Phonics is a tool needed by all readers and writers of alphabetically written languages such as English. However, phonics isn't a tool for beginners only. One way to think about the role that phonics plays in a word study program at the middle grades is as embracing a variety of instructional strategies for bringing attention to parts of words (Beck and Juel, 1995). An effective word study program in the middle grades extends the development and use of phonics to support students' ability to pronounce words accurately and quickly, especially when they encounter difficult and unfamiliar words in content-area reading materials.

As middle-grade students develop competence in their ability to pronounce troublesome and unfamiliar words, they also need to develop a repertoire of skills and strategies that will help them to build

meaning. Reading is about making sense. The only legitimate reason to extend phonics instruction into the middle grades is to help readers become more skillful and strategic in their ability to pronounce *and* make sense of unfamiliar words. An emphasis on word study in the middle grades is consistent with the powerful relationship that exists between accurate, quick decoding and reading comprehension.

PHASES OF READING DEVELOPMENT

Cognitive studies conducted in the 1990's show how children progress through four developmental phases while learning to read (Ehri, 1994). In the course of their development, children first learn to recognize some words purely through visual cues, e.g., distinctive graphic features in or around the words. As they continue to grow as readers, they use their developing knowledge of alphabetic cues to study words. The four developmental phases associated with children's ability to study words have been described as the prealphabetic, partial alphabetic, full alphabetic, and consolidated alphabetic phases of reading development.

Prealphabetic Phase This phase, which has also been called the logographic phase, occurs before the development of alphabetic knowledge (Ehri, 1994). Children are able to recognize some words by sight during this phase because of distinctive visual and contextual cues in or around the recognized words. The ability to read cereal-box labels, restaurant logos, and other kinds of environmental print is one of the first

literacy accomplishments of a preschool child. The octagonal shape of a stop sign, for example, may prompt preschoolers to shout "stop" when they see a stop sign. Reading words within an environmental context, such as signs or logos, is an indicator that young children are attending to visual cues in the world around them. In addition, young children learn to attend to visual cues in words. Preschoolers and kindergartners, for example, may read the word *yellow* because they remember the two tall "posts" in the middle of the word.

Partial Alphabetic Phase Children progress to the partial alphabetic phase when they begin to develop some knowledge about letters and notice letter-sound relationships. The partial alphabetic phase emerges during kindergarten and first grade for most children. During this phase of development, children acquire some knowledge of letters and sounds. In essence, they remember how to read specific words by noticing how a few letters correspond to sounds in the word's pronunciation. As a result, a child might recognize *mask* based on remembering the letter-sound relationships between the initial *m* and final *k* letters, but not the letter-sound matches in between.

Full Alphabetic Phase This phase emerges in children's development as readers when they study words by matching all of the letters and sounds. They have developed

enough knowledge about letter-sound relationships to unlock the pronunciations of unknown words. Readers at this phase are able to segment the word *sock* into three letter units that match the three sounds in the pronunciation. Sounding out letters and blending them into words may be laborious and slow at the beginning of the full alphabetic stage, but as children become more accomplished at decoding unknown words, they progress to more rapid word analysis. Some children enter first grade with the capacity to analyze words fully. Those who do not will benefit from explicit, carefully planned lessons that help them to make discoveries about letter-sound relationships and the process of analyzing words fully.

Consolidated Alphabetic Phase As children become more skilled as readers, they rely less on individual letter-sound relationships to study words. Instead, they use their knowledge of familiar and predictable letter patterns to speed up the process of reading words. They do so by developing the ability to analyze chunks of letters within words. The recognition of predictable letter patterns begins to emerge in the first grade as children practice reading and start to recognize many words with similar spelling patterns. Readers at the consolidated alphabetic phase would be able to segment the word *greet* into two larger letter chunks or spelling patterns, *gr* and *eet*, and match them to larger sound units known as

THE FOUR PHASES OF READING DEVELOPMENT
1. Prealphabetic Phase
2. Partial Alphabetic Phase
3. Full Alphabetic Phase
4. Consolidated Alphabetic Phase

onsets (the initial consonants and consonant letter patterns, e.g., consonant blends and digraphs, that come at the beginning of syllables) and rimes (the vowel and consonants that follow them at the end of syllables). Rimes are also called phonograms or word families.

Most students at the middle grades have progressed through the full alphabetic phase of word study but may not have developed mastery and competence at the consolidated alphabetic phase. Students who struggle with reading may need additional instructional intervention at sounding out individual letters and blending them together, but the main focus of word study programs in the middle grades must be to extend instruction in increasingly more sophisticated and challenging ways into the consolidated alphabetic phase of word study development.

EXPLICIT INSTRUCTION IN THE DEVELOPMENT AND USE OF WORD STUDY STRATEGIES

Students at the middle grades need to maximize their ability to analyze chunks of letters within words; to analyze the structure of words for morphemic or meaning-bearing clues; to use context clues not only to pronounce unfamiliar words, but also to figure out their meanings; and to use dictionaries and thesauruses as tools for word study. Students develop knowledge

and control over these strategies through explicit instructional activities.

Contemporary word study programs provide explicit instruction in the development of skills and strategies. The notion of explicit instruction has evolved from the research on cognitive and metacognitive processes in reading. Its goal is to help students develop skills and strategies for self-regulated, independent use—in order to cope with the kinds of problems they must solve as they are reading if reading is to make sense. The components of explicit instruction include explanation, modeling, practice, and application.

Explanation of the Strategy Through direct explanation of a strategy, students become more aware of what the strategy is, how to use it, and when. Explanations provide helpful hints that allow students not only to learn the rules and procedures behind the use of the strategy but also to develop a rationale for its use. During the explanation phase of explicit instruction, a give-and-take exchange often takes place between teacher and students. Why is the skill or strategy useful? What is the payoff for students? How does it improve reading?

Strategy explanations may be as straightforward as the following example: Students in grade four are engaged in the study of suffixes. Students need to know what

suffixes are and why they are important in figuring out the meaning of a word. The teacher might begin an explanation by writing the word *suffix* on the board and inviting students to share what they already know about the term. She may then reinforce and extend students' responses by explaining that a suffix is a word part added to the end of a base word. The teacher defines *base word* and gives the students some examples of suffixes added to base words. She then asks, "Why are suffixes important?" Through give-and-take discussion, students recognize that suffixes change the meaning of words and make new words. Next, the teacher selects several suffixes for emphasis, providing the following "helpful hints" on chart paper.

A **suffix** is a word part added to the end of a **base word**. Suffixes change the meanings of words or make new words.

   round + ness = roundness
   wild + ly = wildly

- Add the suffix er to compare two things.
   fresh + er = fresher

- Add the suffix est to compare more than two things.
   green + est = greenest

Sometimes, you need to make spelling changes before adding er or est.

- Double the **consonant** before adding er when a word ends in a consonant after a short vowel.
   hot + er = hotter

- Change y to i before adding er.
   happy + er = happier

- Drop **silent** e before adding est.
   pale + est = palest

- Change y to i before adding est.
   wavy + est = waviest

Finally, the teacher walks students through an explanation of the helpful hints to develop knowledge and awareness of the suffixes targeted for instruction.

Demonstration of the Strategy Once students understand the rules and procedures associated with a skill or strategy, the teacher might model its use through a "think-aloud." Think-alouds allow the teacher to share with students the thinking processes he or she uses in applying the skill or strategy, stopping at key points to ask questions and/or provide prompts. These questions and prompts mirror the thinking required to use the skill or strategy effectively.

For example, the fourth-grade teacher in the example given extends the explanation of suffixes by demonstrating how the suffixes *-er* and *-est* can be added to base words. She shows students the following chart:

Base Word	Base Word + er	Base Word + est
1 smooth		
2 sturdy		
3 red		
4 fine		
5 flat		
6 easy		

The teacher then thinks aloud, "If I take the base word *smooth* and add the suffix *-er*, I have created a new word, *smoother*." She goes on to ask, "How have I changed the meaning of the word *smooth*?" She directs the students' attention to the Helpful Hints chart introduced earlier in the lesson, inviting responses to the question. Next, the teacher repeats the think-aloud sequence using the base word *smooth* and the suffix *-est*. The demonstration continues, with

the teacher and students completing the chart for the remaining base words.

Practice in the Use of the Strategy The teacher provides students with practice activities to develop expertise in the use of the strategy. For example, the fourth-grade teacher might reinforce students' understanding of the *-er* and *-est* suffixes with the practice activity below:

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strong 1. The telescope built by Galileo was _____ than the telescope used by Copernicus.

dark 2. Usually, the _____ the sky, the better the view with a telescope.

early 3. Observatories on mountains or on towers were the _____ ones built.

old 4. The _____ observatory still in use today is in Paris.

dense 5. Venus has a _____ atmosphere than Earth has.

cloudy 6. Even on the _____ nights, radio telescopes with computers can work.

wide 7. Puerto Rico's large Arecibo radio receiver is much _____ than a football field.

Application of the Strategy Once students have had some practice with the use of a skill or strategy, regular, ongoing class activities should encourage its application. Say, for example, that in the fourth-grade class described above, the students are learning about planets as part of a science unit. One of the unit activities calls for students to log on to this website:

http://kids.msfc.nasa.gov/SolarSystem/Planets

Using the website, the teacher engages students in a collaborative activity that has them do research online and discover some facts about planets. The directions for the activity might be as follows:

Choose a partner and work together at the computer. Log on to the bookmarked site on planets. Study the site to discover some facts about planets. Record these facts in your learning log. Add the suffixes *-er* and *-est* to base words such as *near*, *close*, *heavy*, *large*, and *small* to compare facts about the planets.

Explicit instruction creates a framework that makes visible the instructional support that middle-grade students need in order to develop control over word study skills and strategies. And these skills and strategies can make a difference in their ability to read with comprehension. This paper provides just a glimpse of the wide range of possibilities that await middle-grade students when word study becomes an integral part of the reading curriculum.

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