A Reading Strategy for Content-Area Teachers

Parallel Reading Intervention

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INTRODUCTION

Difficulty in learning to read has prolonged consequences. Students with poor reading skills are locked into underachievement patterns that persist and become greater each year. In middle school and high school, poor reading skills are barriers to academic success. The resulting embarrassment and repeated failure take an emotional toll. Students feel alienated and demoralized and are at risk of failing and dropping out of school. Even when students remain in school, poor reading skills take a toll on students and their teachers.

Reading researcher and " Adolescent Struggling Readers: Removing the Barriers to Success" author Matthew Glavach, Ph.D., found that when struggling readers' focus is on multisyllable words there are many advantages, even when the words are above their tested reading levels. He published a study on his high school struggling readers which showed that when focusing on multisyllable words organized by suffixes and consistent endings, words such as information, education, communication, and cooperation, struggling readers made exceptional reading progress and most succeeded in content-area classes (science, history, biology, and English) because the words were from their textbooks and taught in a brain efficient way.

The article reviews the author's reading strategy, which he calls parallel reading intervention, and gives examples and research support. Content-area teachers use the strategy based on words derived from their own content-area textbooks. United States History teachers can use the words presented in the article and add words from their own textbooks.

A UNIQUE READING STRATEGY

When struggling readers reach intermediate grades, word study must be carefully planned. Rather than reading instruction to which they are brain dead, or call baby work, it is better to use a different strategy, one that can quickly close the reading gap and connect students to core classes and academic success. While reviewing student content-area textbooks, the author noted that the meaning of content-area passages is mostly carried by multisyllable words. He designed a unique strategy for presenting the content-area words that would help students learn the words more easily. He organized important textbook

multisyllable words into lists based on identical endings and suffixes.
Which list of words is easier to read?

LIST A	LIST B

examina**tion**   libr**ary**
summ**ary**   liter**ary**
critic**ize**   diction**ary**
exclama**tory**   alleg**ory**
abbrevi**ate**   exposit**ory**

The words in list B are easier to read because they have elements that rhyme and have rhythm. (Rap singers create rhythm by the way they pronounce words and the way they use rhyme.)

THE INSTRUCTIONAL AND COGNITIVE ADVANTAGES

Organizing and teaching multisyllable words by consistent endings has both instructional and cognitive advantages: (a) There is greater focus on beginning syllables. (b) Repeating the suffix, or ending pattern, strengthens learning the suffix, or ending syllable, because the pattern is continually repeated. " The brain's neural networks respond in a pattern. The more often a specific pattern is fired in response to a stimulus, the more firm the nerve assembly becomes."[1] (c) The brain stores language in patterns, and longer words offer more patterns to strengthen connections to and to decode smaller and longer words. (d) Many multisyllable words with the same suffix, or ending, have the same accented vowel and often rhyme. The rhyming feature serves as a bridge to multisyllable word development because it makes use of the natural rhythms of language. (e) The sounds in suffixes do not have to be pronounced separately; they should be pronounced as one unit. This will speed up reading. (f) Students general reading ability improves. and (g) Teaching words in consistent patterns is brain efficient.

BREAKING WORDS INTO SYLLABLES

Breaking the words into syllables is helpful because the brain tends to group together the letters that make a syllable.[2] (See Figure 1.)

Figure 1. Suffix Pattern and Syllable Examples

ac tion   frac tion   re ac tion   ed u ca tion   trans por ta tion   na vi ga tion

com ic   a tom ic   ec o nom ic   ter rif ic   spe cif ic   sci en tif ic

EFFICIENT READERS

As students become efficient readers they use a variety of orthographic information to recognize words: individual letters, letter clusters, morphemes, and word patterns. (See Figure 2.)

Figure 2. Orthographic Information to Recognize Words.

  epi dem ic   epi (among) dem (people) + ic

THE INSTRUCTIONAL SEQUENCE

After searching content-area textbooks for words with consistent endings the author presented the words in a specific sequence: (1) Spelling, (2) Vocabulary, and (3) Timed Word Reading. An example of the instructional sequence using ten United States History words ending in the suffix ion follows. (See Figure 3.)

Figure 3. Ten United States History Words

plantation   population   transportation   exploration   conservation
  migration   starvation   declaration   violation   navigation

1. SPELLING, Practice 1 (Pronouncing Words on Spelling Chart)

Spelling strengthens important word recognition skills: sound symbol association, letter sequencing, and syllable identification.

The spelling words were written in a list. Teachers and students pronounced words slowly with an emphasis on each syllable, followed by a blending of the syllables in normally-paced pronunciation. (See Figure 4.)

Figure 4, Spelling Chart

plan ta tion   mi gra tion   star va tion   pop u la tion

trans por ta tion   ex plor a tion   con ser va tion

dec lar a tion   vi o la tion   nav i ga tion

After pronouncing each word, teachers underlined the accented syllable in each word. The accented syllable in each word was the syllable that was pronounced louder than the rest. On the figure 4 spelling chart the accented syllables were before the tion ending.

SPELLING, Practice 2 (Writing Spelling Words)

Students do not divide words into parts by using complex rules. They decode longer words by looking for familiar patterns.

On a sheet of paper, students wrote each word as one word and drew an arc, or loop, under each syllable to reinforce syllable boundaries. (See Figure 5.)

Figure 5, Students Writing Words and Drawing Arcs, or Loops

    plantation   migration

(Students continued writing the spelling chart words and drawing arcs, or loops.)

SPELLING, Practice 3 (Studying and Taking the Practice Spelling Test)

Students were given a few minutes to study the words before taking the practice spelling test. They began by writing the letters tion at the top of their papers. This allowed the focus to be on the other syllables while reinforcing tion, the ending syllable, in each word.

    tion

Teachers pronounced each word and used it in a phrase or sentence. (This helped students learn the word meanings.) After students completed the practice spelling test, they exchanged papers and checked the words. Teachers spelled the words or asked students to spell them, which added another chance to cement the words into long-term memory. (Giving a final spelling test without the word-ending cue (tion) was optional.)

2. VOCABULARY

When students are thousands of words behind in vocabulary, one solution is to teach domain specific vocabulary, words needed for success in content-area classes. The more students know about a word, the better their reading becomes. As networks begin building in the brain, they have something on which to attach information.

Teachers discussed the general vocabulary word meanings with students. Students told the words with which they were familiar. Practice varied depending on student groups. (Five additional words were added to the vocabulary words.) (See Figure 6.)

Figure 6, Vocabulary Words

| plantation | population | transportation | exploration | conservation |
| migration | starvation | declaration | violation | navigation |

(Additional Words)

| formation | legislation | participation | occupation | discrimination |

3. TIMED WORD READING

Timed word reading increases student reading speed and automatic word recognition.

Before the timed word reading, teachers read the words aloud with the students. Then, individually students read as many words as they could in one minute aloud softly to themselves, to the teacher, or to a student partner. If students finished reading the words, they started again at the beginning and added to the total number of words they had already read. They subtracted one point for each missed word. Students wrote their scores at the bottom of the page. (Teachers limited or had no interruptions of oral timed reading. If students needed help, teachers or student partners said the word and they continued reading.) See Figure 7

Figure 7, Timed Word Reading

plantation	population	transportation
exploration	conservation	migration
starvation	declaration	violation
navigation	formation	legislation
participation	occupation	discrimination

SAMPLE UNITED STATES HISTORY WORD LIST

Although the words already presented are words that rhyme, many of the words with identical endings do not rhyme. While rhyming helps, words with identical endings are brain efficient. Below is a word list with many rhyming words. Teachers add to the list or students add words for extra credit.
(See figure 8.)

Figure 8, United States History Word List

-IC   civic Pacific Atlantic republic atomic   economic   democratic

-AGE village   passage   voyage   suffrage

-TURE   feature venture adventure indenture structure legislature manufacture architecture

-MENT settlement   development   environment   government   resident   president   consent   independent

-ENCE   residence   independence

-ANT   migrant   immigrant

-ION   region   religion   champion   union

-SION   erosion   invasion   mansion   expansion   provision   depression
          recession   oppression   secession

-ATE   violate   cultivate   dominate   segregate   discriminate   emancipate
          assassinate   negotiate   inaugurate   cooperate   immigrate   populate
          legislate   candidate   delegate   climate   confederate

-TION   violation   cultivation   domination   segregation   discrimination
          emancipation   assassination   negotiation   inauguration   cooperation
          immigration   population   legislation   delegation   federation

-TION   formation   transportation   declaration   Emancipation   Proclamation
          navigation   plantation   separation   starvation   occupation   corporation
          administration   annexation   liberation   generation   relocation
          industrialization

-TION   condition   competition   constitution   persecution   prohibition
          corruption   construction   reconstruction

-AIN   mountain   maintain   terrain

-IST   colonist   journalist   separatist   Federalists

-IOUS   previous   rebellious   religious

-Y   company   colony   economy   destiny   industry currency   technology
            geography   philosophy

-TY   treaty   property   liberty

-ITY   popularity   productivity   opportunity   availability   superiority
            Christianity

-ORY   history   territory

-ERY   discovery   bravery

-ARY   revolutionary

-A   Alaska Nebraska Alabama Florida Arizona California Georgia

-O   Ohio Colorado

DECODING AND COMPREHENSION

Decoding and comprehension go hand in hand. Improving decoding skills improves comprehension. One recent study shows that decoding ability is the best single predictor of how well the student comprehends the reading.3 There are others. Good spelling skills can also lead to rapid word recognition and improved comprehension.4   Why?

When decoding is slow, much effort in working memory is used to decode words rather than to think about what is read. Automatic word recognition frees a student's working memory so that the text meaning can be the focus of attention. It holds the information long enough to add important information about the word. When a student becomes proficient at reading, the skills become hardwired in long-term memory and do not require working memory resources for execution. As a result of automatic decoding skills, a student can scan paragraphs and quickly extract meaning.5 While the protocol for older struggling readers is to teach comprehension strategies, and these are helpful, there are no comprehension strategies to compensate for not being able to read the words in the textbook.

The author of "Adolescent Struggling Readers: Removing the Barriers to Success" has developed a four instruction book series based on the parallel reading intervention strategy. The series is titled Success in Academic Content Classes and includes four content areas: science, social studies, biology, and English. The science book, Success in Academic Content Classes, Science, is presently available to be downloaded free at the author's website: www.StrugglingReaders.com.

References

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