National Association of Special Education Teachers (NASET)

THE PRACTICAL TEACHER

This Month's Topic:

World History Brain Efficient Word Lists for Word Sorts, Puzzles, and More

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Introduction

World history textbooks contain some of the most difficult words for students to read and understand. At-risk students often are so discouraged in their attempts to read the textbooks that they stop trying to read and become behavior problems. Average students also are discouraged. Currently, many states are adopting common core standards that will include two percent special education students (students without severe cognitive disabilities), requiring them to succeed in regular classrooms. To meet the new common core standards, "World History Brain Efficient Word Lists for Word Sorts, Puzzles, and More" author, Matthew J. Glavach, Ph.D., offers a reading instruction approach especially for adolescent struggling readers, based on core classroom curriculum. The approach, which he calls parallel reading intervention, organizes important content area vocabulary words into logical brain efficient word lists that make learning the words much easier. Students improve word attack and vocabulary skills while improving their ability to succeed in the content area classes, such as history. The article describes the approach, presents teaching ideas, provides extensive brain efficient word lists for world history, and gives curriculum examples. (The approach also works well in other curriculum areas. Teachers can use the article as a model.) The word sorts, puzzles, and more, are enjoyable and are easily added to regular classroom activities, once or twice a week for thirty minutes, especially at the beginning of the school year.

Removing a Barrier to Content Area Classroom Success: An Approach

When students reach middle school, subject matter demands are greater. Content area classroom success depends on student ability to interpret informational textbooks. Ability to interpret informational textbooks begins with accurate and fluent reading. A major barrier to such reading is student deficiency in reading and understanding multisyllable words, especially domain specific words found in content area textbooks. The deficiency compromises student fluency and comprehension. An emphasis on teaching multisyllable words is critical because the meaning of content area textbook passages is almost totally carried by multisyllable words.

Teaching Multisyllable Words in Consistent Patterns is Brain Efficient.

Teaching multisyllable words in consistent patterns is brain efficient, as expressed in the following research findings about the brain.

-Multisyllable words are like music, they have natural rhythms that can make learning them easier. "Accent structures in words naturally make a sort of melody."[1]The rhythmic feature creates less demand on the brain. [2]

-Brain research shows that a similar word pattern can prime the next word if it has a similar pattern and accelerate reading. Rhyming words are especially powerful.[3] (See Figure 1.)

Figure 1. Rhyming Word Examples

f**ine** - p**ine** s**tation** – examin**ation**

-Even when the words do not rhyme but have the same ending spelling pattern, reading time is accelerated. (See Figure 2.)

Figure 2. Spelling Pattern Examples

state**ment** - govern**ment**

-The brain's neural networks respond in patterns and store language in patterns. Longer words offer more patterns to strengthen connections to and to decode smaller and longer words.

-The brain tends to group together the letters that make up a syllable. (Students do not divide words into parts by using complex rules. They decode longer words by looking for familiar patterns.)

-The sounds in suffixes do not have to be pronounced separately, they should be pronounced as one unit. This will speed up reading.

Using Word Sorts to Build Word Attack Skills

To build word attack skills, sorting words into categories helps students see features common to each word group. Below is an example of a word sort page using world history brain efficient words. The words are from the first three suffix categories of the word lists **-er, -or,** and **–ar.**

WORLD HISTORY WORD SORT

an ces tor   cal en dar   sur ren der   em per or

reg u lar   com man der   ex por ter   pop u lar

trai tor   tra der   cru sa der   gla di a tor   sim i lar schol ar   Eq ua dor   con quer   sec u lar   war ri or

-er   **-or**   **-ar**

Instruction 1. Teachers pronounce the word box words with students. (The words are separated by syllables to help with pronunciation and spelling.) They discuss the general word meanings with students. Students tell words with which they are familiar.

Instruction 2. Students write the words under the correct ending spelling patterns. They write each word as one word.

Instruction 3. (OPTIONAL BUT RECOMMENDED)

Students cut out the word cards and use them for word sorting activities. Students practice sorting the words into the appropriate categories. They say the words as they sort them. Later, they practice speed sorts to help them work toward automatic word recognition. Speed sorts work well with students in pairs or cooperative groups. Members of the pair or group that completes the word sort in the shortest time are the winners. Winners usually receive bonus points or prizes.

Find the Relationships: A Game to Develop Vocabulary

In the finding the relationships game, students usually work in small groups. Teachers have a word list and a dictionary for each group. Depending on group ability teachers have students choose relationship words from each category, or choose words for them, and have them determine the word relationships (similar or opposite meanings, and so forth). Students discuss the words and the relationships and earn extra credit for finding other words that have relationships. Teachers may also use words from more than one word lists for one game. (See Figure 3.)

Figure 3. Word Relationships from Word Lists er, or

trait**or** trad**er** export**er** import**er** invad**er** crusad**er** warri**or**

Using Timed Word Reading to Develop Automatic Word Recognition

Timed word reading increases student reading speed and automatic word recognition. The words are grouped by specific sound and visual patterns.

Before the timed reading, teachers and all students read the words aloud together. Then individually, students read as many words as they can in one minute aloud softly to themselves or to teachers or student partners. If students finish reading the words, they start again at the beginning and add to the total number of words they have already read. One point is subtracted for each missed word. Students write their scores at the bottom of the page. (Limit, or have no, interruptions of oral timed reading. If students need help on words, teachers or student partners say the words and students continue reading.)

Using the World History Brain Efficient Word Lists

The world history brain efficient word list word organization is based on a logical system of decoding orthography built around a brain efficient methodology, which makes it easier for students to pronounce the words. It is not necessary that students know all the word meanings. Teachers determine how much vocabulary to study based on their groups. If students are able to pronounce the words, they will learn more from the context. Sound development will help student word attack skills for world history and general reading ability. By improving word attack skills, students will gain more information from textbooks and classroom lessons.

The word list does not contain all difficult words found in world history textbooks. But by mastering the frequently used words chosen for the word lists students find it easier to read the difficult words. Teachers may add to the word lists.

The author, Matthew J. Glavach, Ph.D., grants teachers permission to make copies, or posters, of the word lists for individual classroom use.

World History Brain Efficient Word Lists

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b**ough**t brought thought fought sought th**ough** although through breakthrough t**augh**t caught dr**ough**t d**ea**d spread thread instead threat wealth wealthiest commonwealth weapon

(Words in the above box are high frequency words with low frequency vowel patterns.)

-ER rul**er** border charter trader invader crusader explorer exporter importer prisoner laborer surrender commander commoner astronomer astrologer philosopher geographer cartographer foreigner executioner
-OR man**or** labor juror visitor ancestor emperor governor protector neighbor dictator spectator gladiator liberator conqueror warrior survivor successor oppressor ambassador author orator sculptor
-AR popul**ar** regular secular similar scholar calendar vernacular
-TURE cap**ture** mixture torture adventure indenture culture sculpture structure scripture literature legislature manufacture agriculture architecture
-SURE mea**sure** treasure pleasure
-AGE vill**age** suffrage voyage hostage bondage Carthage language courage marriage advantage disadvantage heritage pilgrimage
privil**ege** chall**enge** knowl**edge** acknowledge prest**ige**
-MENT docu**ment** monument punishment resentment amendment adornment excitement improvement achievement appeasement commandments government Parliament imprisonment environment entertainment enlightenment accomplishment
-ENT differ**ent** violent confident continent subcontinent intelligent dissident discontent obedient permanent turbulent magnificent dependent independent ancient patient
-ENCE Flor**ence** violence influence difference evidence existence experience turbulence magnificence intelligence obedience consequence circumference interference dependence independence
-ANT merch**ant** tyrant vibrant brilliant elegant arrogant covenant militant vigilant important significant descendant defiant tolerant Protestant inhabitant immigrant peasant elephant triumphant
-ANCE fin**ance** romance disturbance assurance resistance elegance arrogance extravagance ignorance importance significance alliance defiance tolerance Renaissance
-ABLE valu**able** remarkable avoidable unavoidable unstoppable recognizable unalienable
-IBLE respons**ible** irresistible corruptible incorruptible
-LE nob**le** battle struggle temple resemble principle article chronicle obstacle Aristotle Constantinople
-AL riv**al** tribal local global legal equal brutal central coastal loyal royal moral immoral mortal immortal eternal feudal funeral festival criminal political historical ethical seasonal magical mystical physical natural supernatural revival radical cathedral medieval

environmental regional national international   ecological chronological astronomical evangelical matriarchal patriarchal

-IAL   mater**ial** imperial industrial colonial ceremonial social special financial commercial controversial essential potential influential

-UAL ann**ual** spiritual ritual eventual

-IC ep**ic** civic public drastic fantastic domestic historic prehistoric Gothic Slavic Aztec bubonic economic epidemic strategic Atlantic Pacific politics republic democratic patriotic autocratic geographic   ethnic sympathetic heroic heretic   nomadic Socratic Adriatic charismatic Neolithic scientific polytheistic hieroglyphics

-OUS fam**ous** jealous generous prosperous populous mountainous courageous furious curious mysterious victorious rebellious religious   precious nutritious   indigenous

-ATE mand**ate** regulate celebrate cultivate liberate tolerate speculate contaminate cooperate originate dominate devastate domesticate indoctrinate circumnavigate delegate separate (-d)

-ATE clim**ate** confederate   literate illiterate subordinate protectorate delegate separate adequate

-ON, -ION pris**on** imprison weapon leg**ion** region religion rebellion union

-SION, -CIAN man**sion** expansion invasion persuasion provision admission commission profession depression possession oppression   division physi**cian**politician

-TION inven**tion** election   protection connection eruption instruction corruption

-ITION trad**ition** condition ambition restriction competition   expedition Inquisition malnutrition coalition position opposition

-UTION contrib**ution** revolution persecution execution

-ATION n**ation** location inflation salvation plantation education occupation   domination isolation exploration transportation legislation negotiation regulation generation federation veneration Reformation transformation declaration reparation   compensation liberation   coronation assassination

-ATION segreg**ation** discrimination emancipation exploitation   devastation annexation unification reincarnation industrialization urbanization

-IZE recog**nize** colonize centralize specialize terrorize sympathize symbolize organize reorganize   modernize militarize industrialize revolutionize

-ISE, -ICE parad**ise** compromise sacr**ifice** justice apprentice

-IVE capt**ive** native massive protective productive destructive progressive aggressive oppressive competitive representative conservative executive collective

-INE fam**ine** examine medicine Philistine Byzantine Constantine Augustine

-UNE, -UTE fort**une** misfortune persec**ute** execute prosecute tribute contribute absolute

-TY liber**ty** honesty identity property unity dynasty royalty loyalty authority superiority majority minority community opportunity equality diversity poverty prosperity popularity solidarity instability responsibility hostility captivity complexity treaty deity   eternity mortality scarcity society brutality neutrality atrocity commodity Christianity sovereignty

-ERY brav**ery** slavery bribery mystery   discovery machinery monastery

-ARY solit**ary** sanitary military mercenary   monetary missionary ordinary arbitrary hereditary legendary temporary contemporary revolutionary   boundary

-ORY, -URY hist**ory** victory   territory compulsory treasury century Canterbury

-Y poet**ry** colony comedy tragedy monopoly mythology technology ceremony assembly currency legacy heresy diplomacy democracy theocracy aristocracy bureaucracy monarchy galaxy astronomy anatomy autonomy ideology theology geography biography philosophy prophecy heresy

-Y occup**y** justify cyclone hypocrisy martyr

-IST colon**ist** loyalist journalist capitalist socialist communist separatist suffragist anthropologist archaeologist anarchist environmentalist.

-ISM vandal**ism** terrorism optimism criticism racism feudalism capitalism liberalism socialism communism patriotism isolationism imperialism romanticism symbolism mysticism fundamentalism

AFRICA

-A Ghan**a** Kenya Angola Uganda Botswana

-IA Zambia Gambia Tanzania Algeria Nigeria Liberia Namibia Eretrea Ethiopia Tunisia

-O Cong**o** Togo Morocco

ASIA

-A Chin**a** Burma India Syria Cambodia Mongolia Saudi Arabia Indonesia Malaysia Korea

-AN Ir**an** Japan Oman Pakistan Afghanistan Vietnam Lebanon Jordan

EUROPE

-IA Aust**ria** Bosnia Latvia Serbia Romania Albania Armenia Lithuania Estonia Macedonia Romania Slovenia Slovakia Croatia

NORTH AMERICA

-A Cub**a** Canada. Panama Grenada. Guatemala Dominica Costa Rica Jamaica Nicaragua

SOUTH AMERICA

-A Argentin**a** Columbia Guyana Venezuela Bolivia

The author of 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

(1) Levitan, D.J. (2009). *The World in Six Songs* (p.25) New York: Penguin Books

(2) Levitan, D.J. (2009). *The World in Six Songs* (p.172) New York: Penguin Books

(3) Dehaene, S.D. (2009). *Reading in the brain* (p. 42). New York: Viking/Penguin Group.

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