Expanding Vocabulary Knowledge: A Critical Bridge to Comprehension

Everyone Reading: March 14, 2017

Eileen Marzola, EdD

Email: emarzola@aol.com

www.drmarzola.com



Questions for today

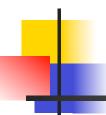
- What role does vocabulary knowledge play in comprehension?
- Why is there a "vocabulary gap?"
- What are some of the instructional challenges in trying to increase student vocabulary?
- What are some effective instructional methods designed to increase vocabulary?
- What are some useful resources?



Why should we be concerned with the size of students' vocabularies?

Vocabulary is linked to reading comprehension

- Vocabulary size in kindergarten is an effective predictor of reading comprehension in the middle elementary years (Scarborough, 1998)
- Orally-tested vocabulary at end of Grade 1 predicts more than 30% of grade 11 reading comprehension (Cunningham & Stanovich, 1997)



The "Word Gap"

- By the end of Grade 2, there is a root word gap of 3,000 to 4,000 words between the highest and lowest quartiles
- By the end of grade 5, the lowest quartile students have only reached the median for grade 2 students

Source: Consortium on Reading Excellence (CORE) Newsletter, Winter 2004.



- High-knowledge third graders had vocabularies about equal to lowestperforming 12th graders (Smith, 1941)
- Linguistically "poor" first graders knew 5,000 words; linguistically "rich" know 20,000 words (Moats, 2001)
- Once established, such differences are difficult to ameliorate (Biemiller, 1999; Hart & Risley, 1995)



Matthew Effect

- Children learn most new vocabulary through wide reading
- Children with reading problems read less than proficient readers.
- Children with reading problems read less challenging texts than proficient readers
- The result is that children with reading problems read even less and even less challenging materials.



Matthew Effect (2)

- The more words a child knows, the more complex text that child will be able to read.
- The more complex texts a child can read, the more words they will learn.
- The reverse is also true.
- Thus, the "rich get richer and the poor get poorer."



Why the disparity? Vocabulary Differences Begin at Home

Actual Differences in Quantity of Words Heard

¶ In a typical hour, the average child would hear:

Welfare: 615 words

Working Class: 1,251 words

Professional: 2,153 words



Diversity of vocabulary in reading programs (grade 1)

- scritch, spittlebug, steeple (Adams et al., 2000)
- snowcones, sneezed, spooky (Afflerbach et al., 2000)
- saleslady, steered, stump (Farr et al., 2001)
- shuns, scampered, sopping (Flood et al., 2001)
- scatting, skiddle, succulents (Scholastic, 2000)



So many words, so little time

- One estimate found that "Printed School English" contains roughly 88,000 different words.
- The average child, by the end of high school, may know about half or 45,000 different words.
- If a child enters 1st grade knowing about 6,000 words, then they must learn about 3,000 new words per year.

Stahl, 2002



- Informal estimates suggest that active teaching can cover 6-10 words per week, or about 400 per year.
- The average child can learn nearly 3000 words through ordinary reading of moderately challenging text (text with 95% of words known).

Stahl, 2002



TEACHING WORD MEANINGS:FOUR PROBLEMS

- 1. The sheer number of words that children need to learn so as to understand and use with proficiency both oral and written language. How do you choose which words to target?
- 2. The gap in levels of word knowledge among children



TEACHING WORD MEANINGS:FOUR PROBLEMS (2)

- 3. The gap in levels of word knowledge begins even before children enter school and is persistent AND the gap between struggling readers and proficient readers grows every year.
- Traditional vocabulary instruction does not teach children word-learning strategies and how to appreciate words



The Good News: NRP findings on Vocabulary Instruction (2000)

- Vocabulary instruction can lead to gains in comprehension
 - Vocabulary should be taught both directly and indirectly
 - Repetition and multiple exposures to vocabulary items are important
 - Learning in rich contexts improves vocabulary
 - Incidental learning
 - Computer technology



Important Components of a Vocabulary Program (Anita Archer, 2010)

- High-quality classroom
 language (Dickinson, Cote, & Smith, 1993)
- Reading aloud to students (Elley, 1989; Senechal, 1997)
- Explicit vocabulary instruction (Baker, Kame'enui, & Simmons, 1998; Baumann, Kame'enui, & Ash, 2003; Beck & McKeown, 1991; Beck, McKeown, & Kucan, 2002; Biemiller, 2004; Marzano, 2004; Paribakht & Wesche, 1997)

Important Components of a Vocabulary Program -2 (Anita Archer, 2010)

- Word-learning strategies (Buikima & Graves, 1993; Edwards, Font, Baumann, & Boland, 2004; Graves, 2004; White, Sowell, & Yanagihara, 1989)
- Wide independent reading (Anderson & Nagy, 1992; Cunningham & Stanovich, 1998; Nagy, Anderson, & Herman, 1987; Sternberg, 1987)



Results of "robust" vocabulary instruction? (Beck, I.L., McKeown, M., & Kucan, L. (2002)

 After receiving frequent, robust instruction in vocabulary, students...

- Responded more quickly to word meanings in timed tasks
- Better comprehended stories containing target words
- Engaged in complex thinking and displaying knowledge of words assessed
- Put target words into context

Instructional Framework of Vocabulary Study

Verbal Explanation

- Introduce the word
- Present student-friendly explanation

Modeling

- Illustrate with examples (and non-examples)
- Pair meaning with parallel language

Guided Practice

- Check for understanding (examples/nonexamples)
- Independent Practice



Instructional Methods for increasing vocabulary

- Explicit instruction
 - Students are given definitions or other attributes of words to be learned
 - May involve preteaching vocabulary prior to reading a selection
 - May involve analysis of word roots or affixes



Direct Instruction: superfluous

- superfluous: Not essential; unneeded
- It was superfluous to add sugar to my cereal. It was sweet enough already.



Instructional Methods for Increasing Vocabulary (2)

- Indirect Instruction
 - Students are exposed to words or given opportunities to do a great deal of reading
 - Assumed that students will infer any definitions they do not have
 - Wide reading expected to increase vocabulary

hirsute

When I think of people who are hirsute, some rockstars immediately come to mind.



More on hirsute...

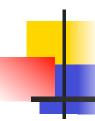
- Barbers may be delighted to encounter a hirsute man who is looking to make a change in his appearance.
- The actor Telly Sevalas did not have to worry about anyone considering him hirsute.
- The extreme opposite of people who are *hirsute* are those who are bald.

4

And hirsute really means????

Hirsute means

"The Vocabulary Rule"



Baumann, J. F., Font, G., Edwards, E.C., & Boland, E. (2005) "Strategies for Teaching Middle-Grade Students to Use Word-Part and Context Clues to Expand Reading Vocabulary" in *Teaching and Learning Vocabulary*, Hiebert & Kamil, eds.

When you come to a word, and you don't know what it means, use:

- CONTEXT CLUES: Read the sentences around the word to see if there are clues to its meaning
- WORD-PART CLUES: See if you can break the word into a root word, prefix or suffix to help figure out its meaning.
- CONTEXT CLUES: Read the sentences around the word again to see if you have figured out its meaning.



- DEFINITION OR EXPLANATION CLUES: The author explains the meaning of the word right in the sentence or selection
 - When Sara was hiking, she accidentally walked through a patch of brambles, prickly vines and shrubs, which resulted in many scratches to her legs.



- SYNONYM: The author uses a word similar in meaning
 - Josh walked into the living room and accidentally tripped over the *ottoman*. He then mumbled, "I wish people would not leave the *footstool* right in the middle of the room. That's dangerous!"



- ANTONYM: The author uses a word nearly opposite in meaning
 - The supermarket manager complained, "Why do we have such a *plethora* of boxes of cereal on the shelves? In contrast, we have a real *shortage* of pancake and wafffle mix. We've got to do a better job of ordering."



Examples of Clues to Meaning provided by authors (4)

- EXAMPLE: The author provides one or more example words of ideas
 - There are many members of the canine family. For example, wolves, foxes, coyotes, and pets such as collies, beagles, and golden retrievers are all canines.



- GIST: The reader must figure out the meaning of the word by reading the passage and thinking about the other information in the text.
 - John burst out of the woods and found himself at the edge of a *precipice*.
 Clinging to a boulder, he *gazed down* dizzily at the blue ribbon of river *below*.



Teaching Word Parts

- Prefixes and roots account for a large portion of the growth of word meaning between grades 3 and 5.
- Teaching word parts can dramatically increase children's word knowledge
- (Bookmark for usefulprefixes/ roots: http://www.teachercreatedmaterials.com/reading/buildingVocabulary)



https://www.teachercreatedmaterials.com/estore/files/additionalresources/

bv b1506 build vocab bookmark.pdf

PREFIX	MEANING
co-, com-,	with together
con-, col-	
de-	down, off of
di-, dif-, dis-	apart, in different directions, not
e-, ef-, ex-	out
duc-, duct-	lead
in-, im-, il-	in, on, into (directional)
in-, im-, il-	not (negative)
pre-	before
pro-	forward, ahead
re-	back, again
sub-	under, below
scrib-, script-	write
tra-, tran-, trans-	across, change
un-	not (negative)

Rasinski, T.V., Padak, N.
Newton, R. O &
Newton, E. (2008).

Building Vocabulary.
Teacher Created Materials,
Huntington Beach, CA

https://www.teachercreatedmaterials.com/estore/files/additionalresources/

bv b1506 build vocab bookmark.pdf

Meaning
hear, listen
believe
say, tell, speak
write, draw
send
move
carry
write
earth
see

Rasinski, T.V., Padak, N.
Newton, R. O &
Newton, E. (2008).

Building Vocabulary.
Teacher Created Materials,
Huntington Beach, CA



- 4 most common prefixes/suffixes account for 97% of prefixed/suffixed words in English: Prefixes: dis-, ir-, re-, un-; Suffixes: -ed, -ing, -ly, -s/-es)
- Making new words
 - Not blue = unblue
 - Not cola = uncola
- Sentences
 - The _____ was a train that went underground.
 - Our _____ wrote the Constitution.
 - The candy was _____.



Multimedia Methods

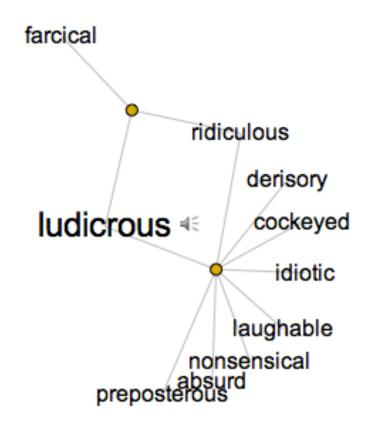
- Going beyond the text to include other media
- Semantic mapping
- Graphic representations of word attributes
- Hypertext (Kindle; i-pad)

Visual Thesaurus

www.visualthesaurus.com

- interactive dictionary and thesaurus
- creates word maps that blossom with meanings and branch to related words.
- Example: "happy" connects to related words, from "cheerful" to "euphoric.
- 145,000 English words and 115,000 meanings.
- Free trial

Visual Thesaurus Example





REWARDS Writing Word Choice Help Book (Archer, Gleason, Isaacson, 2008. Sopris West)

MAD (mad, madder, maddest)

Meaning #1: mad can mean angry

When his CDs were stolen, Marcus was mad.

When his CDs were stolen, Marcus was furious.



REWARDS Writing Word Choice Help Book (Archer, Gleason, Isaacson, 2008. Sopris West)

MAD (mad, madder, maddest)

Meaning #2: mad can mean crazy

When her sister was killed, Patricia acted *mad*.

When her sister was killed, Patricia acted *unstable*.

REWARDS Writing Word Choice Help Book (Archer, Gleason, Isaacson, 2008. Sopris West)

A. angry	B. angry	C. crazy
very upset	irritated	insane
furious	irate	berserk
fuming	infuriated	deranged
cross	enraged	demented
uptight	ferocious	frenzied
bitter	distraught	raving
annoyed	exasperated	delirious
resentful	uncontrolled	unstable
ill-tempered	agitated	unhinged



- Effects reported in studies range from 4% to 40%
- Repeated reading or direct explanation is needed
 - 4% 15% if words are not explained
 - 15% 40% if words are explained
- Greater effects occur if:
 - Word is repeated in story
 - Word is pictured
 - Word is a noun (24% of nouns learned vs. 6% of verbs)



- During reading
 - On the spot brief explanations to forestall comprehension problems:
 - Exquisite means very very beautiful
 - Forlorn means to be very sad



- After story vocabulary development
 - Direct, rich, lively instruction of several story words
 - Direct means explaining meaning
 - Rich means requires processing
 - Lively means "not boring"



What instructional conditions support vocabulary learning?

- Repeated, multiple exposures
- Rich contexts
- Students learn more from answering questions during readings than they do when simply listening to the narrative
- Pre-Instruction of Vocabulary Words improves both word knowledge and comprehension
- Peer interaction



What instructional conditions support vocabulary learning? (2)

- Combination of definitional and contextual approaches works better than either method alone for most students
- Students with reading difficulties do better with emphasis on direct instruction in vocabulary meaning
- Making connections with other reading material or oral language in other contexts improves vocabulary acquisition



Text Talk Scholastic K-3(Beck & McKeown) Rich Vocabulary Instruction

- Each word is contextualized for its role in the story.
- The word's meaning is provided through student-friendly explanations.
- Examples beyond the story context are provided.
- Children are asked to think about examples and to provide their own examples



(Beck, I. L., et al., 2008)

WORDS	DICTIONARY DEFINITION	FRIENDLY EXPLANATION
devious	straying from the right course; not straightforward	If someone is devious, he is using tricky and secret ways to do something dishonest
exotic	foreign; strange; not native	Something that is exotic is unusual and interesting because it comes from another country far away

Sheepish Tale

sensible: In the story, Fred said "very sensible" when Monty thought the sign said "Help prevent forest fires." Preventing forest fires would be sensible. If something is sensible, it is the right thing to do; it makes sense.

Let's say the word together: sensible

Something sensible is safe to do or good to do. Like it would be sensible to make a list of what you need before going shopping.



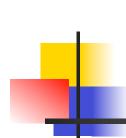
Sheepish Tale cont...

- Let's say it's raining out--what would be sensible to do?
- If I said we were going on a long, long walk and you should wear sensible shoes, what kind of shoes would those be?
- What kind of shoes would <u>not</u> be sensible for a long walk?



Sources of Words for Vocabulary Development in the Early Grades

- For the most part not words from the texts that young children read
- Words from books that are read to children
- Teacher's (other adult) language



Three-tiered approach to choosing vocabulary words (Isabel Beck and Margaret McKeown, 1985)

First Tier: the most basic words (e.g., talk, play, sad)

> Rarely require instruction in meanings in school, except for English learners



Three-tiered approach to choosing vocabulary words (2) (Isabel Beck and Margaret McKeown, 1985)

Second Tier: High-frequency words for mature literate individuals; found across a great range of domains (e.g., vocabulary, ability, suggestion, transform)

> Teach explicitly because these words tremendously expand student vocabulary/comprehension capabilities



Three-tiered approach to choosing vocabulary words (3) (Isabel Beck and Margaret McKeown, 1985)

Third Tier: Low frequency words; frequently limited to specific domains (e.g., genotype, rectilinear, isotope)

> Usually need to be pre-taught in order to help students to understand the selection

Criteria for Identifying Tier 2 Words (Source: Beck, I.L., McKeown, M.G., & Kucan, L. [2002])

Importance and Utility

How useful is the word? Is it a word that students will meet often in other texts? Will it help students in describing their own experiences?

Instructional Potential

How does the word relate to the other words or ideas that student know or have been learning? Does it relate to some topic of study in the classroom?

Conceptual Understanding

What does the word bring to the text? Does it help communicate the meaning of the context in which it is used?

Practice choosing Tier 2 Words

He was silent for a moment, and Caddie stood beside him, shivering, and oppressed by the weight of his disapproval. In the swaying lantern light she searched the faces of the three men--Robert's honest mouth open in astonishment, Father's brows knit in thought, John's dark face impassive and remote while no one knew what thoughts were passing behind it.

Source: Caddie Woodlawn by Carol Ryrie Brink



- Not all words need rich instruction
 - Some need less
 - Some need more
- Children need redoubled exposure to children's books
 - Fluency Instruction
 - Reading to children
- Children need to be word conscious



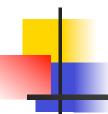
Stages of Word Knowledge

- Stage 1: "I've never heard or seen this word before
- Stage 2: "I've run into this word but I don't know what it means."
- Stage 3: "I remember this word...it's got something to do with..."
- Stage 4: "I know this word. It means...."
 - Source: Dale, E. (1965). Vocabulary measurement: Techniques and major findings. Elementary Education, 42, 895-901; 948.



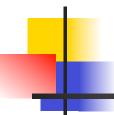
Kinds of words

- Simple words
 - Words that the child knows the concept for
 - Examples -- crimson, flawless, comment
- Goldilocks Words
 - Words that are "not too easy, not too difficult"
- Complex words
 - Words that require concept development
 - Examples -- liberty, hormone, referendum



Simple words

- May need no more than a quick definition if context is supportive and a synonym works well
 - Dick the dog cried in the dark night, a strangely escalating *ululation* that started at two in the morning.
 - Ululation = howling or wailing



"Goldilocks" Words

- Not too hard
- Not too easy

dome amber beret sparkling stroll nocturnal wade embarrassed emerge liquid



Three principles of effective vocabulary instruction

- Include both definitional and contextual information
- Have children actively process the information
- Provide multiple exposures



Definitional approaches

- Synonyms
- Antonyms
- Explaining definitions in your own words
- How are two words similar? How are they different?



Making distinctions

- How is a villain like an embezzler? How are they different?
- How is crimson like scarlet? How are they different?



Guidelines for Effective Vocabulary Instruction (Laura Robb, 1999: Easy Mini-Lessons for Building Vocabulary)

- Read! Read! And Read More! At their independent reading level
- Avoid new word overload (2-4 new words each week; Isabel Beck: 6 words)
- Allow students to choose words too
- Reserve time for vocabulary building (3 x week for 10-15 minutes)



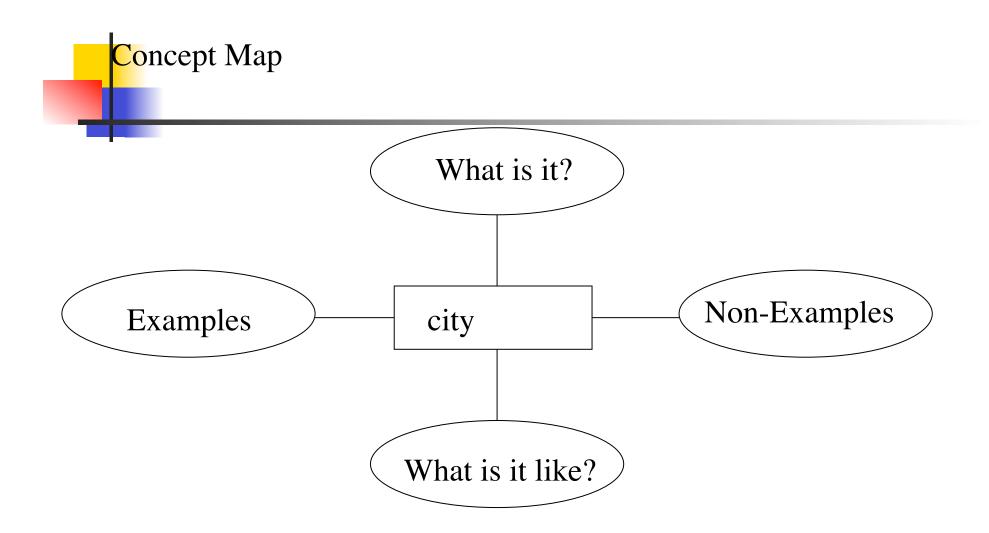
Graphic Organizers as Word Study Aids: Word Structure Maps

Goals:

- To help students make connections with new words and topics
- To build students' own meanings by connecting the new information with prior knowledge

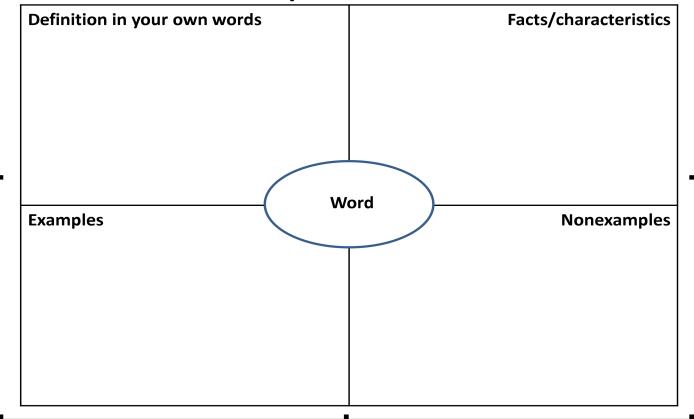
When to use:

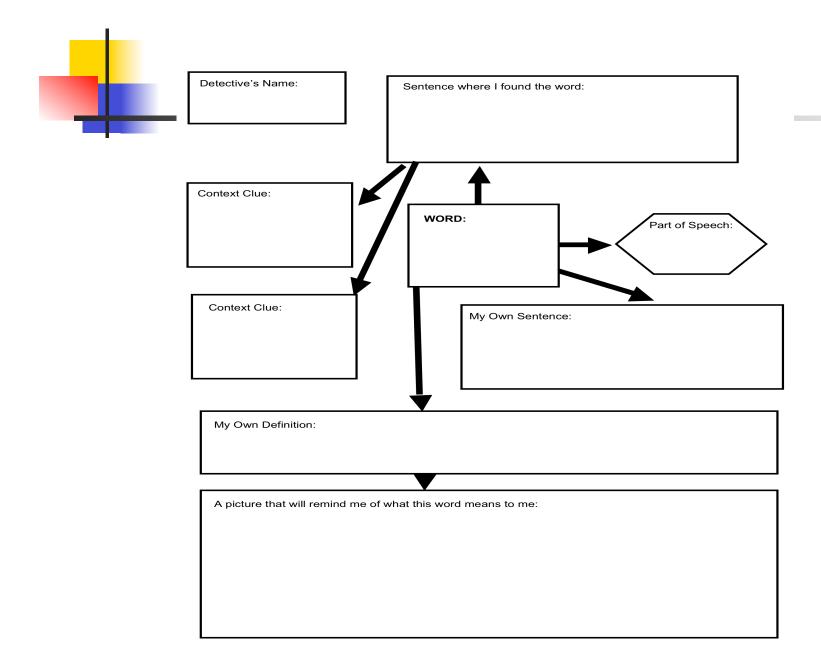
 During reading (but may also be used before or after reading)





Frayer Model







https://www.readinga-z.com/vocabulary/vocabulary-graphic-organizers/

https://www.makessensestrategies.com/freegraphic-organizers

https://wvde.state.wv.us/strategybank/ VocabularyGraphicOrganizers.html



Word Consciousness

- Word Wizard
- Word of the day
- How English gets words
 - Word parts
 - Borrowed words
 - Changed words
 - Word stories

<mark>W</mark>ord Wizard



Teacher or children pick "school" words

When children hear or see words, they tell teacher

Teacher puts a Post-It[™] note after child's name

When children get 5 Post-its, they are Word Wizard



Practice, practice, practice

The Conversation Game

(Mary E. Curtis, Ph.D., Center for Special Education, Lesley University)

PREPARATION: 2-3 words per student; variation: 10-12 words on chart

PROCEDURES: Teacher begins a "conversation" with the class, saying a sentence or two to introduce a topic. Students raise their hands to request participation in the conversation by including one of the targeted vocabulary words. Teacher indicates if word use was correct. Points can be awarded or, if cards are being used, first team to use all of its words wins.

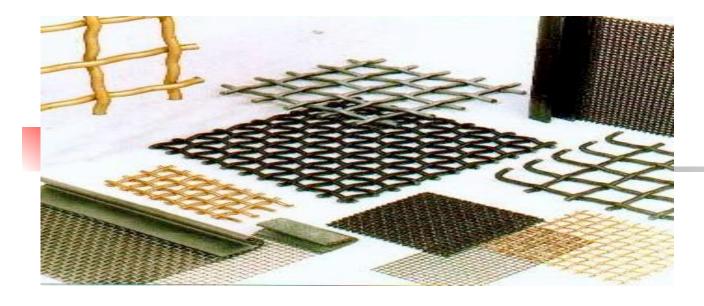


- Two decks: colored target cards; example cards
- Deal out target cards evenly.
- Shuffle white cards VERY WELL.
- Player 1: pick example card from deck and see if it matches a target card s/he has. If it does, put it under the target card. If it does not, Player 1 can "steal" a target card from an opponent (watch for capitalization)
- Game ends after designated time period or when all cards have been distributed. Most cards wins!



Resources for vocabulary images

- http://textproject.org/classroommaterials/textproject-word-pictures/
 - Core vocabulary
 - Literature words
 - Quick Reads
 - Content Areas
- http://images.google.com



mesh



raft



Target card: bold

Example cards:

- Someone who is ______ is brave and confident.
- opposite of "cowardly"
- I showed how _____ I was when I parachuted out of the plane.
- same as "courageous"

Word Lines

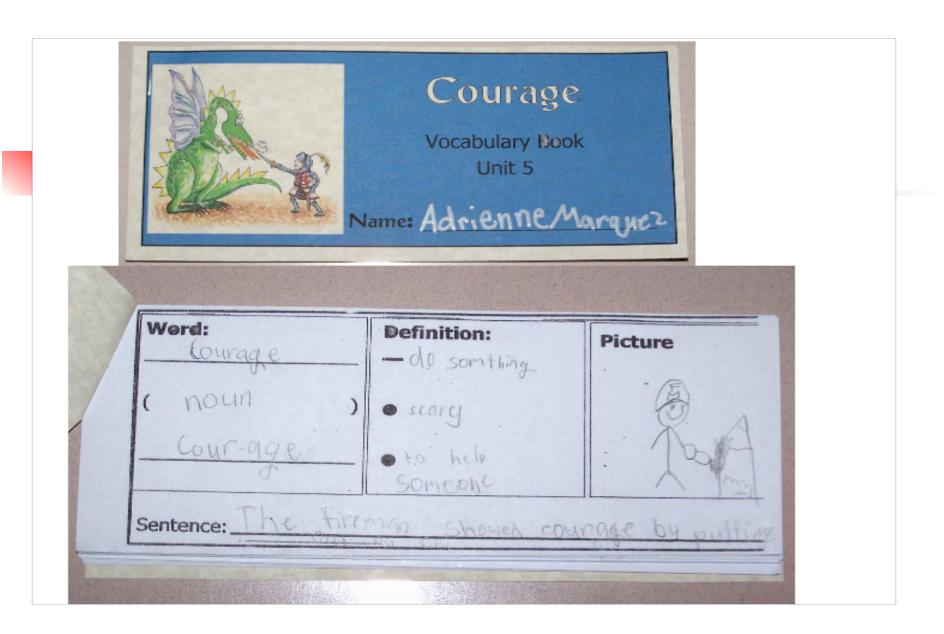
How happy would you be if:

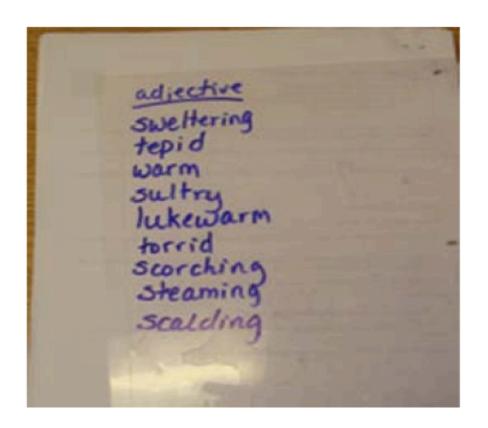
- you heard a bear prowling outside your classroom?
- 2. you were pursued by a pack of laughing monkeys?
- 3. you were given an award for your courage in rescuing a lost pet?

Least	Most
Happy	Happy

Sentence Stems

- The newspaper called Jim courageous because....
- The police pursued the person running out of the bank because....
- ☐ The girl became **melancholy** because....









Resources for Vocabulary Development

Vocabulary Instructional Support

- *Text Talk (K-3)* Scholastic 1-800-Scholastic
 - Isabel Beck & Margaret McKeown
- Building Academic Vocabulary ASCD
 - Robert Marzano & Deborah Pickering
- Greek and Latin Roots (Shell Education Publications)
 - Timothy Rasinski
- Vanilla Vocabulary (K-3)
 - Nanci Bell & Phyllis Lindamood•



Resources for Vocabulary Development (2)

Dictionaries

Collins Cobuild Student's Dictionary
Longman Dictionary of American English
Ultimate Visual Dictionary
The Clear and Simple Thesaurus
Dictionary(Grosset and Dunlap)



Resources for Vocabulary Development (3)

Books

- Baumann, J. F. & Kame'enui, E. J. (2012) Vocabulary Instruction: Research to Practice (2nd ed.)
- Beck, I. L., McKeown, M.G., & Kucan, L.(2013) Bringing Words to Life: Robust Vocabulary Instruction (2nd ed.)
- Beck, I. L. McKeown, M.G., & Kucan, L. (2008) Creating Robust Vocabulary: Frequently Asked Questions and Extended
- Hennessy, N. E. (2011) Word Learning and Vocabulary Instruction. In Multisensory Teaching of Basic Language Skills, 3rd ed. (ed. Judith Birsh).
- Hiebert, E. H. & Kamil, M. L. (2005) Teaching and Learning Vocabulary: Bringing Research to Practice



Resources for Vocabulary Development (4)

Books

- Stahl, S.A. (1998) Vocabulary Development (From Research to Practice, Vol. 2)
- Stahl, S.A. (2001) Word Power: What Every Educator Needs to Know About Teaching Vocabulary
- Stahl, S.A. & Nagy, W.E. (2005) Teaching Word Meanings
- http://textproject.org/library/books/



Resources for Vocabulary Development (5)

INTERNET RESOURCES:

- Learning/practicing Vocabulary
 - www.vocabulary.com
 - http://www.myvocabulary.com/
 - http://quizlet.com/
 - www.freerice.com
 - www.vocabularyandspellingcity.com
 - http://textproject.org/teachers/word-lists/



Resources for Vocabulary Development (6)

INTERNET RESOURCES:

- Word of the Day: www.yourdictionary.com
- Word searches/crosswords: www.sadlieroxford.com
- http://vocablog-plc.blogspot.com/(Vocabulogic w/ current articles about effective strategies)
- http://images.google.com
- www.visualthesaurus.com
- http://blog.makessensestrategies.com/freevocabulary-graphic-organizers



Resources for Vocabulary Development (7)

RESOURCES FOR WORD LISTS:

- http://textproject.org/archive/resources/ wordzones-for-4000-simple-word-families/ (Elfreida Hiebert)
- http://www.esldesk.com/vocabulary/academic (academic word list)
- http://www.myvocabulary.com

Words Worth Teaching: Closing the Vocabulary Gap by Andrew Biemiller.