

FLOODING VOCABULARY GAPS TO ACCELERATE WORD LEARNING

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To accelerate vocabulary learning, teachers need multifaceted techniques such as semantic gradients, word walls featuring semantic super clusters, and children's literature with conceptually related words.

In the 15th annual survey of reading professionals published by the International Reading Association in *Reading Today*, leaders in the field identified vocabulary as one of the hot topics for 2010 and 2011, with more than 75% of the survey respondents indicating that teaching and learning word meanings should be hot (Cassidy, Ortlieb, & Shettel, 2011). As teachers and teacher educators, we hope to further heat up the topic of vocabulary in the pages that follow by providing specific instructional practices with the potential to make vocabulary teaching and learning more productive for children with both lower and higher levels of word knowledge.

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During a presentation at the 2006 International Reading Association's Reading Research Conference, Michael Pressley described effective and efficient word teaching techniques observed in schools that consistently produced high reading performance. Pressley stated, "In settings where literacy achievement is going well, teachers flood the classroom with vocabulary and vocabulary instruction" (p. 14), an approach that "would contrast considerably with some of the vocabulary instruction currently proposed as deserving more attention in classrooms—for example, the in-depth teaching of a relatively few words" (p. 15).

In the third edition of *Teaching Vocabulary in All Classrooms*, Blachowicz and Fisher also recommended a "flood of words" (2006, p. 7) in which teachers immerse students in word-rich environments, maximizing both intentional and incidental word learning and breadth as well as depth of vocabulary instruction. In our own classrooms, we have found that vocabulary floods with conceptually related words can speed vocabulary acquisition for students with limited word banks and build conceptual knowledge about concrete and abstract vocabulary for them and their word-wealthier peers. In this article, we

present examples of text sets and research-based activities teachers can use to manage vocabulary floods that optimize students' word learning.

The importance of vocabulary in reading and the gaps in word knowledge between children from economically advantaged and disadvantaged homes have been well documented for decades (Anderson & Freebody, 1981, 1983; Becker, 1977; Davis, 1944) and continue to exist (Hart & Risley, 1992; Labbo, Love, & Ryan, 2007; MacDonald & Figueredo, 2010). Children who begin school with limited vocabularies tend not to catch up with and instead fall farther behind more knowledgeable peers (Chall, Jacobs, & Baldwin, 1990; Graves, 1986; Hart & Risley, 1995).

Since the release of the *National Reading Panel Report* (National Institute of Child Health and Human Development [NICHD], 2000), systematic and explicit vocabulary instruction aligned with the scientifically based reading research has become a mainstay in most elementary classrooms. However, gaps in vocabulary knowledge persist. We wonder if this may be due in part to traditional and contemporary curricula in which teachers focus more on teaching a few words at a time instead of exposing students to many words at once.

Approximately 25 years ago, Stahl and Fairbanks (1986) noted that typical vocabulary programs taught 10 to 12 words per week for a total of 400 a year and estimated that about 75%, or 300 words, were actually learned. They concluded that this approach to vocabulary instruction was inadequate for helping students acquire the number of new words needed to succeed as readers and learners. Contemporary programs for teaching words and meanings follow findings reported by the NICHD (2000) and recommend explicit vocabulary instruction that

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teaches a few words very well, with 12 or fewer words targeted for in-depth instruction each week (Allington, 2006; Armbruster, Lehr, & Osborne, 2001; Cunningham, 2009; Kelley, Lesaux, Kieffer, & Faller, 2010; Lesaux, Kieffer, Faller, & Kelley, 2010). These conservative approaches to teaching vocabulary have been embedded in many basal reading programs that administrators and teachers are encouraged to implement with fidelity, making explicit vocabulary instruction of very few words per day and week the focus of, and, in some cases, the only form of vocabulary teaching and learning experienced by students in elementary grades.

Stahl and Fairbanks (1986) and others (Graves, 1986; Miller & Gildea, 1987; Nagy & Herman, 1985) have built a body of research showing that typically developing children learn 3,000 or more words each year, which breaks down to about 10 per day and 50 to 70 words a week. Children with adequate exposure to oral and written language acquire most of these words in a haphazard way on their own, and many of these words do not help them develop language proficiency. As Stahl and Stahl (2004) pointed out, "All words are not valued equally. Instead, what we want children to learn is the language of school. For many children, this is a foreign language" (p. 68). Given the number of words children can acquire, we contend that limiting vocabulary

Pause and Ponder

- What are the most effective ways for catching up those students with limited vocabularies?
- How does your present vocabulary instruction deal with the vast number of words that are unfamiliar to struggling readers?
- What types of words are most important for English language instruction?

instruction to teaching a few words each week fails to capitalize on human language potential and may deprive all children of opportunities to develop more robust vocabularies.

Vocabulary Floods

Pressley (2006) hypothesized that students will learn many more words if they are immersed in vocabulary and suggested that teachers inundate classrooms with words through interactive read-alouds, independent and teacher-directed readings in which "dozens of novel vocabulary words are experienced each day," charts and walls that record and differentiate degrees of meaning for words that students are expected to use in writing and know on tests, and lessons in every subject area that are "chockfull of vocabulary" (p. 15). Pressley (2006) also called for studies in which researchers and teachers empirically test the effectiveness of vocabulary floods. Although experimental evidence showing positive effects of word-flooded classrooms was lacking, Pressley, Disney, and Anderson (2007) expressed optimism that "real teachers can learn to immerse their students in vocabulary instruction," concluding that "the only way to know is to try" (p. 225). Acting on Pressley's suggestions, several researchers have conducted quasi-experimental studies in which teachers learned to flood classrooms with vocabulary.

Labbo, Love, and Ryan (2007) tested Pressley's recommendations for vocabulary instruction with teachers of 85 students in kindergarten through second grade. Pretests showed that the majority of these students had below-average scores on measures of receptive and expressive vocabulary. The researchers helped teachers create five-day cycles of vocabulary floods lasting over four months. Labbo and

her colleagues taught teachers to do interactive read-alouds and create wall charts where students accumulated thematically related sets of words. They expanded on Pressley's (2006) suggestions by adding digital language experience stories in which children recycled vocabulary from readings as they composed and illustrated their own texts. This electronically enhanced vocabulary flood yielded pre-to-posttest increases in percentages of students at or above average that went from 13% to 39% on receptive and 24% to 57% on expressive vocabulary measures.

Baumann, Ware, and Edwards (2007) released a deluge of vocabulary in a fifth-grade classroom over a full school year. Although these researchers did not refer to their study as a word-flood approach, they opened the article describing their formative experiment with the following statement: "Immersing students in a vocabulary-rich environment and providing them instruction in words and word learning strategies can help them develop greater depth and breadth of vocabulary knowledge" (2007, p. 108). Baumann's group created word immersion by having the teacher provide multiple exposures to unfamiliar, interesting words in daily read-alouds, time for self-selecting books and independent reading, interactions with words in literature circles, and explorations of word choice in writing.

Like students in classrooms in which Labbo et al. (2007) turned on torrents of words, the fifth graders studied by Baumann et al. (2007) demonstrated substantial pre-to-posttest vocabulary gains. The researchers found that students used 36% more total words and 42% more low-frequency words in writing samples at the end than at the start of the program and that their expressive vocabulary acquisition exceeded expectations for the school year. Results indicated that students with below-average receptive vocabularies at the beginning of the year made greater gains than students who started the year with above-average word knowledge. Additionally, children's attitudes toward vocabulary learning improved, and their use of word-learning strategies and time spent playing with words increased dramatically by the end of the study.

We still do not have true experimental research proving that teachers who flood classrooms with scores of words each day and week produce significantly greater vocabulary learning than more conservative approaches teaching 10 or 12 words a week. We do, however, have experimental evidence accumulated by Biemiller (2001, 2004) and others (Biemiller & Boote, 2006; Coyne, Simmons, Kame'enui, & Stoolmiller, 2004) showing that treatment groups receiving interactive read-alouds with discussions of meanings for lots of new

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words made statistically significant and larger vocabulary gains than control groups with no explanations of meanings.

Vocabulary gains reported by Biemiller (2004) were similar to those from the single-classroom study conducted Baumann et al. (2007). Biemiller concluded that "children with initially smaller vocabularies (specific to the books instructed) have at least the same gains and sometimes even larger gains" than word-wiser peers and that "those with relatively smaller vocabularies are most in need of added words" (2004, p. 37). Based on these findings, Biemiller urged teachers to read aloud and reread texts with rich vocabulary and target at least 8 to 10 words to talk about and teach each day.

Increasing numbers of words targeted for direct instruction is a good start toward expanding students' vocabularies and reading power. However, boosting numbers alone may not result in accelerated or lasting word learning. Teachers also need techniques for organizing and teaching an abundance of words in ways that help children absorb and learn copious amounts of vocabulary instead of drowning in the deluge.

Opening Flood Gates for Efficient and Effective Vocabulary Instruction

Developing our own methods and materials for vocabulary flooding in

kindergarten and elementary classrooms, we drew on teaching techniques such as semantic maps and features analyses recommended by Nagy (1988) decades ago because they were research-proven and theoretically grounded. We employed these and other techniques to engage children in word integration, repetition, and meaningful use, which are the trinity of properties for effective vocabulary instruction identified by Stahl (1986) and Nagy (1988). Stacking these techniques back to back, we created coordinated action plans aimed at efficiently using instructional time to provide the following three properties:

1. *Integration* by organizing words taught into "language gestalts" (Nilsen & Nilsen, 2005, p. 200) and semantically related clusters (Beck, Perfetti, & McKeown, 1982; Hiebert, 2005; Marzano & Marzano, 1988) that integrate and teach meaning relationships among known words and many new words simultaneously.
2. *Repetition* by giving students multiple hands-on, minds-on encounters with language gestalts and semantic clusters accumulated in charts, displayed on walls, and even hung from the ceiling.
3. *Meaningful use* by having students verbally, visually, and physically explore degrees of word meaning, multiple meanings, and connections among words and the concepts they represent in their own reading and writing.

Teaching Language Gestalts and Clusters of Words

Language gestalts, according to Nilsen and Nilsen (2005), are sets of related words

that have been in the language the longest and that name the most basic concepts that have the most extended and metaphorical meanings. These include words naming body parts, animals, plants, weather, astronomical and geological formations, numbers, food, clothing, work, and birth and death. (p. 201)

Language gestalts correspond to the 61 super-clusters of words that Marzano (1984) and Marzano and Marzano (1988) identified as the largest and broadest semantic categories of words found in elementary textbooks. In addition to gestalt concepts listed by Nilsen, super-clusters with the most words relate to size/quantity, feelings/emotions, time, acts of communication, and types of people. Marzano (1984) sorted super-clusters into 430 clusters with closer semantic links, such as *people in communities*, the cluster that includes *neighbors, locals, and inhabitants*. Marzano then divided clusters into 1,500 miniclusters with more specific semantic ties; an example is *family*, and *sister, mother, cousin*, and so forth populate this minicluster.

Marzano suggested that effective, efficient programs of vocabulary instruction should take advantage of gestalts and semantic clusters that make up language to provide "necessary associations of new words to old words and conceivably escalate the rate at which students learn new items" (1984, p. 173). And, indeed, vocabulary programs in which words were taught in semantically related sets have proven to be highly effective (Beck, Perfetti, & McKeown, 1982; Beck, McKeown, & Kucan, 2002).

Several experimental studies have isolated and tested the effects of semantic organization. When

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words were taught in meaning-based gestalts or clusters, researchers found significantly improved word knowledge and comprehension for both native English speakers (Durso & Coggins, 1991) and students learning English as an additional language (Hashemi & Gowdasiaei, 2005). A study by Stahl and colleagues examined effects of teaching semantically related versus randomly selected sets of the same words and produced mixed results (Stahl, Burdge, Machuga, & Stecyk, 1992).

Although students in the semantic and random groups learned significantly more words than students in an untreated control group, both treatment groups "had near perfect classification of words" (Stahl et al., 1992, p. 19) when they put them in semantic categories such as *bad people, eating, speaking*, and so forth, suggesting that students may have used knowledge of semantic relations among words regardless of how they were taught.

Texts for Teaching Torrents of Words

Taking research results showing positive effects of teaching semantically related words into our own classrooms, we found that integrating structured sets of new words and providing repeated exposure and meaningful use for those words (Nagy, 1988) has more to do with selecting sets of texts than sets of words. One of our coauthors was a kindergarten teacher who showed us the importance of carefully examining texts and organizing them into sets that can be used to build gestalts and clusters of meaning-related words. Scouring her classroom library, she organized books into sets that contained myriad words related to universal concepts such as *size* or *movement*.

Following her lead, we collected trade books that feature many words related to concepts in gestalts and

clusters identified by Nilsen and Nilsen (2005) and Marzano (1984) and Marzano and Marzano (1988). See the Table for text sets we used to immerse students from kindergarten

through the upper elementary grades in integrated, repeated, and meaningful interactions with concepts and words that can jumpstart and speed up vocabulary acquisition.

Table Text Sets for Teaching Concepts and Semantically Related Words Concepts

Concept	Text sets
Sizes	Barrett, J. (1997). <i>Pickles to Pittsburgh</i> . New York: Aladdin. Gaiman, N. (2008). <i>The dangerous alphabet</i> . New York: HarperCollins. Galdone, P. (1986). <i>The teeny-tiny woman</i> . New York: Houghton Mifflin. Llewellyn, C. (2005). <i>The best book of sharks</i> . New York: Houghton Mifflin. Lucas, D. (2006). <i>Whale</i> . New York: Alfred A. Knopf. McCarthy, M. (2007). <i>The story of Charles Atlas</i> . New York: Alfred A. Knopf. McNaughton, C. (1993). <i>Making friends with Frankenstein</i> . Cambridge, MA: Candlewick. Munsch, R. (2005). <i>The sand castle contest</i> . New York: Scholastic. Potter, B. (2002). <i>The miniature world of Peter Rabbit</i> . Singapore: Tien Wah. Watson, R. (1993). <i>Tom Thumb</i> . Orlando, FL: Harcourt. Wiesner, D. (1992). <i>June 29, 1999</i> . New York: Houghton Mifflin. Wood, A. (1996). <i>The Bunyans</i> . New York: Scholastic. Wood, A., & Teague, M. (1998). <i>Sweet dream pie</i> . New York: Scholastic.
Feelings	Cain, J. (2000). <i>The way I feel</i> . New York: Scholastic. Coles, R. (1995). <i>The story of Ruby Bridges</i> . New York: Scholastic. Janovitz, M. (1994). <i>Look out, bird!</i> New York: North-South. Lindbergh, R. (1990). <i>The day the goose got loose</i> . New York: Penguin. Lionni, L. (1987). <i>Nicholas, where have you been?</i> New York: Alfred A. Knopf. Penn, A. (1993). <i>The kissing hand</i> . Terre Haute, IN: Tanglewood. Ringgold, F. (1999). <i>If a bus could talk: The story of Rosa Parks</i> . New York: Aladdin. Steig, W. (1969). <i>Sylvester and the magic pebble</i> . New York: Aladdin.
Night/Day	Dunbar, J. (1998). <i>Tell me something happy before I go to sleep</i> . London: Doubleday. George, J. (1999). <i>Morning, noon and night</i> . New York: Scholastic. Kajukawa, K. (1999). <i>Sweet dreams: How animals sleep</i> . New York: Henry Holt. Lester, H. (2001). <i>Score one for the sloths</i> . New York: Houghton Mifflin.
Noises	Arnold, T. (1987). <i>No jumping on the bed!</i> New York: Puffin. Arnold, T. (1995). <i>No more water in the tub</i> . New York: Puffin. Fox, M. (1988). <i>Koala Lou</i> . Orlando, FL: Harcourt. Howker, J. (1997). <i>Walk with a wolf</i> . Cambridge, MA: Candlewick. Joyce, W. (1996). <i>The leaf men and the brave good bugs</i> . New York: HarperCollins.
Speeds	Arnold, T. (1993). <i>Green Wilma</i> . New York: Puffin. Carr, J. (1999). <i>Frozen noses</i> . New York: Holiday House. Christelow, E. (1994). <i>The great pig escape</i> . New York: Clarion. Galloway, R. (2003). <i>Smiley shark</i> . London: Little Tiger. Mosel, A. (1972). <i>The funny little woman</i> . New York: Dutton Children's Books. Reid, S. (1992). <i>The wild toboggan ride</i> . New York: Scholastic. Stevens, J., & Stevens Crummel, S. (2003). <i>Jackalope</i> . New York: Harcourt.
Actions	Burningham, J. (1970). <i>Mr. Grumpy's outing</i> . London: Jonathan Cape. Ets, M. (1955). <i>Play with me</i> . New York: Puffin. Fleming, D. (1996). <i>Where once there was a wood</i> . New York: Henry Holt. Kettelman, H. (1995). <i>The Christmas blizzard</i> . New York: Scholastic. Rylant, C. (1985). <i>The relatives came</i> . New York: Simon & Schuster. Shulevitz, U. (1990). <i>Toddlecreek post office</i> . New York: Farrar, Straus and Giroux. Tompert, A. (1993). <i>Just a little bit</i> . New York: Houghton Mifflin.

Putting our text sets to work, we usually started with interactive read-alouds even for older and better readers and followed up with group and independent reading and writing activities to deliver essential types of vocabulary instruction and usage identified by Graves (1985, 2004) and others (Armbruster et al., 2001; Blachowicz & Fisher, 2006). This framework for vocabulary instruction includes teaching new words for known concepts, new meanings for already known words, new concepts and new words that represent them, and clarifications and extended understandings of meanings for known words.

Techniques for Teaching Different Types of Words

To pool semantically related words and the concepts they represent for instruction, we adapted a graphic device that Tompkins (2001) called a concept circle and recommended in *Literacy for the 21st Century* for teaching many related words at once. Landscaping Tompkins' concept circles to fit 8.5-by-11-inch paper and hold as many words as possible, we produced ovals that students dubbed "concept eggs." Egg is an appropriate name because these ovals are well suited for growing the gestalts and clusters of words that are the bodies of living language.

We found that words from concept eggs could be repeatedly revisited by putting them in rows on semantic features charts and letting students help generate columns with meaning characteristics and then mark the presence or absence of features for each word. The analyses charts served as at-a-glance visual records for quick references to features of meanings as students read those words in a variety

of texts and used them in writing. When electronic display boards came into our classrooms, we used their technological magic to project concept eggs and features analyses charts so students could interact with, manipulate, and move words and share pens to make checks indicating word features and add new words learned from readings.

Teaching New Words for Known Concepts by Starting With Known Words

Students cannot be expected to learn new words unless they have an established concept or schema to which those words can be attached and assimilated. To accomplish this goal, we selected books from the set in the Table to fit the amount of word exposure and repetition students needed. For English learners (ELs) and other students with limited vocabularies, we found it necessary to explicitly activate prior knowledge with illustrations of the concept of *size* in Robert Munsch's *The Sand Castle Contest* and David Wiesner's *June 29, 1999* before moving to new words. These texts include only three words representing synonyms and antonyms for the concept: *small*, *giant*, and *enormous*. After interactively reading these texts, we separated the three words to create concept eggs for *big* words and *small* words.

As we read the remaining books in the *size* set, we added new words to our eggs and noted ones that occurred repeatedly in the same and different texts. For students with more developed vocabularies, we skipped the two books containing lots of illustrations and relatively few words and went straight to Audrey Wood and Mark Teague's *Sweet Dream Pie* and Judi Barrett's *Pickles to Pittsburg* and

other vocabulary-rich books in the set to find words such as *miniscule* and *giant* and immerse students in two streams of words with meanings from *small* to *big*.

To explode students' banks of words for *large* and *larger*, we did word searches with different kinds of texts. For example, after shared or choral readings of the poem "I'm Talking Big" from *Making Friends With Frankenstein* (McNaughton, 1993), students inserted rhyming words such as *monstrous/stupendous/tremendous*, and *astronomical/colossal/galactical* into our concept egg (see Figure 1). With all the *big* words in Figure 2 at our disposal, we then returned or went to *June 29, 1999* (Wiesner, 1992) and had students extend the books' alliteration, adding adjectives meaning *big* to nouns naming the oversized vegetables that fell from the ionosphere to earth.

Students then talked and wrote about towering turnips, colossal

Figure 1 Reading to Collect *Big* Words

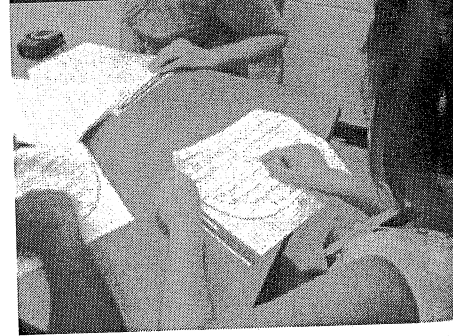
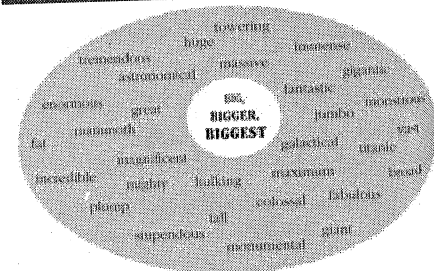


Figure 2 Concept Egg for *Big* Words



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cucumbers and cauliflowers, enormous eggplants, and astronomical artichokes that might "advance on Anchorage" (p. 10). As students debated about which adjectives were larger than others to create a features analysis chart (see Figure 3), they extended and clarified meanings and, in addition, accumulated ready references for seeing degrees of meaning and support for using these synonyms with greater precision (see Figure 4).

Teaching Known and New Words to Build New Concepts

Concept eggs and semantic features analyses can also be used to integrate schemata in ways that move students from known to new concrete words, expand word consciousness, and teach terms for unknown, abstract concepts. Most school-age children are familiar with lots of words representing concrete objects, but many, including EL students, are unaware of the super-ordinate term, or *hypernym*, representing the abstract concept that unites these subordinate items or *hyponyms* (Carlo et al., 2004). Many

"Students then talked and wrote about towering turnips, colossal cucumbers and cauliflowers, enormous eggplants, and astronomical artichokes that might 'advance on Anchorage'."

of the books we read to and with students and had students then read independently contain known and new words for concrete objects, plants, or animals, but the abstract category or hypernym to which these concrete hyponyms belong may or may not be clearly depicted in the text.

In June 29, 1999, author David Wiesner (1992) states up front and shows repeatedly that vegetables are clearly the topic or hypernym, and he sets the stage for learning relationships among known and new names for specific vegetables, the hyponyms, that are likely to be familiar (*pepper, pea, potato*) and unfamiliar (*arugula, avocado, artichoke*) to students in kindergarten and elementary grades. Most of the books in our classroom

libraries, however, do not clearly identify connections among hyponyms and the hypernyms that contain them, so students must infer or be taught these semantic relationships.

Unexplained links among common words such as *couch* or *sofa* and *cabinet* and unfamiliar terms such as *divan* and *cupboard* abound in children's literature and serve as obstacles to comprehension for our students. Concept eggs studded with words generated from students' searches and sorts can be followed by work with semantic features analyses that clarify and show relationships among the concrete hyponyms and the abstract hypernym. See Figure 5 for an example of a concept egg and Figure 6 for a features analysis chart for words depicting concrete hyponyms

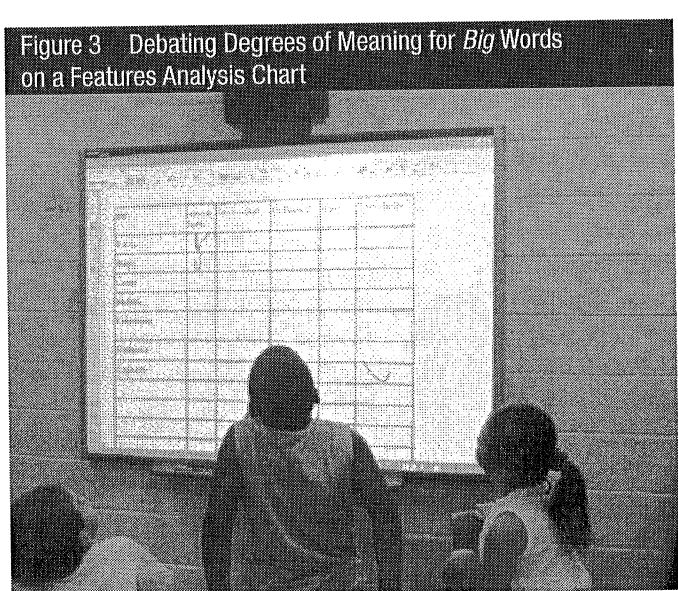


Figure 3 Debating Degrees of Meaning for Big Words on a Features Analysis Chart

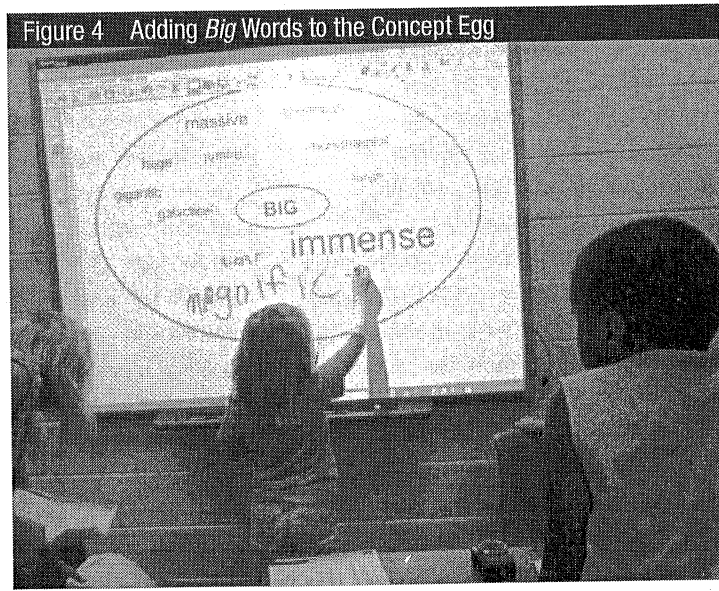


Figure 4 Adding Big Words to the Concept Egg

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Figure 5 Concept Egg for the Hypernym Furniture and Hyponyms That Are Examples

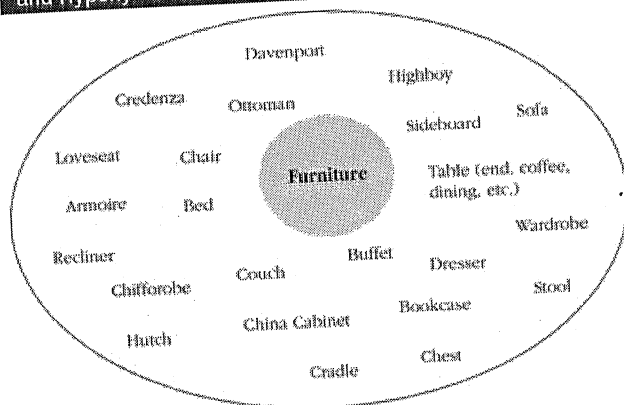


Figure 6 Semantic Features Analysis Chart for Furniture

Examples (the hyponyms)	Legs	Cushions	Shelves	Drawers	Surface to put things on	Surface for sitting	Low	High
chair								
recliner								
loveseat								
davenport								
sofa								
couch								
bookcase								
armoire								
chifforobe								
sideboard								
table								
dresser								
bench								

that students collect from books and experiences in our classrooms and their own homes to populate eggs and charts for the more abstract hypernym *furniture*.

Teaching New Meanings for Known Words

Building breadth and depth of word meaning requires students to learn about *polysemous* words, or words with multiple meanings. Students who have limited vocabularies, especially EL students, are often unaware of the "polysemous possibilities" (Carlo et al., 2004, p. 192) that many words carry when they move into different contexts, and these familiar words with new and confusing meanings present serious obstacles to reading comprehension (Verhallen & Schoonen, 1993). Wide reading coupled with explicit instruction and assistance as students encounter the same words in a variety of texts allows them to explore multiple meanings and compare the unfamiliar meaning in a text with definitions and examples from dictionaries or glossaries to derive a best fit meaning for that context (Blachowicz & Fisher, 2006).

Both EL and English-only (EO) students who participated

Figure 7 Chart for Teaching Polysemous Words

Word	Adjectives				Verbs				Nouns		
light	not heavy	moderate or slight	easy	pale	illuminate	stop flying, moving	ignite	chandelier	rays from sun	moon beams	candle flame
land					come to shore	stop flying, moving	catch	ground or soil	estate property	nation, country	people
state	ceremonial	governmental	not national		make a case	tell or declare	set or fix	social standing	territory in a country with its own laws, rights	condition of mind or health	form taken by an element
plane	even, level	smooth			lift out of the water	soar, fly in a straight line	shave wood	any flat surface	tool for shaping wood	trowel to flatten mud	aircraft
trade	for sale to any buyer	usual, customary	job related		sell or buy	barter, exchange one item for another		a deal, purchase, or exchange	a job or business	a set of skills for laborers	
train											
head	principal, chief	at or from the top or front			move on or toward	lead, direct, control, supervise	steer a course		body part with brains, sense organs, mouth	source of a stream or river	blister sore with puss

in interventions with instruction on multiple meaning words and assessment in which they generated different sentences showing their knowledge of different meanings for the same words achieved greater gains in word knowledge and reading comprehension than control groups of EL and EO students who did not receive instruction on polysemous words (Carlo et al., 2004). Flooding activities for teaching polysemy may include having students collect and accumulate multiple meanings for

words on charts such as the one in Figure 7, on word chains with meanings stapled and looped together, or on tail pieces attached to kites featuring the words. The amount of classroom wall and ceiling space may be the only limit to imaginative techniques for teaching new meanings for known words.

Clarifying and Enriching Meanings of Known Words

To clarify and enrich meanings of known words, we borrowed

Figure 8 Lining Up to Create a Semantic Gradient for Words Describing Speed



Figure 10 Selecting Words for Speed on a Semantic Gradient in Sentence Contexts

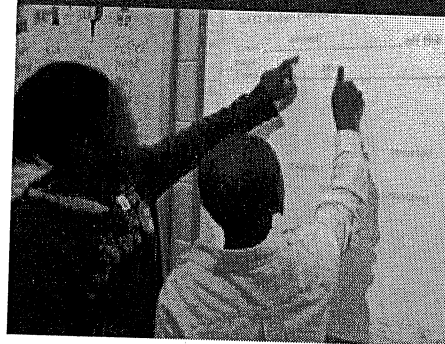


Figure 9 Features Chart for Degrees of Meaning for Mad Words

Mad	Just A Little	Somewhat	Definitely	Very	Extremely	Violently
angry						
peevd						
furios						
piqued						
perturbed						
agitated						
enraged						
provoked						
irritated						
virulent						
irate						
ireful						
livid						
tiffed						
chafed						
incensed						
vexed						
infuriated						

along continuums made by children in lines or projected on the electronic display board. As and after students heard or read *The Christmas Blizzard* by Helen Kettman (1995), they pondered meanings of and ranked *croaked*, *fizzled*, and *howled* or *settled*, *slipped*, and *barreled* along semantic gradients describing different degrees of speed and loudness. For younger students and those needing more support, we found that allowing children to physically move themselves and their words helped extend their knowledge of relationships among known and new words and what semantic gradients are.

After reading the book, we made cards for verbs describing speed. Each student wore a word on a string around the neck, and, with much discussion, they lined up to show the range of meanings from slow to fast (see Figure 8). For upper elementary students, we used features charts to have students record words, check, and visually display degrees of meaning for a concept such as *mad* (see Figure 9) or to create semantic gradients for *speed* or *loudness* words encountered in *The Christmas Blizzard* and other books (see Figure 10).

teaching ideas from Greenwood and Flanagan (2007). They used paper-pencil semantic gradients with upper elementary students to overlap

vocabulary and comprehension instruction. We built semantic gradients with synonyms and antonyms that students manipulated

Unleashing Limitless Founts for Word Consciousness and Learning

Systematically flooding classrooms with “dozens of novel vocabulary words” (Pressley, 2006, p. 15) each day has the potential to expand word learning for students with rich vocabularies and accelerate vocabulary acquisition for students with less developed vocabularies. Through interactive read-alouds and other literature experiences, teachers can introduce new words and then solidify and expand those meanings by providing follow-up activities such as word searches and sorts to populate concept eggs with semantically related words; semantic and syntactic features analyses; multiple meaning charts, chains, and kites; and charts showing degrees of meaning.

Understanding the protean nature of vocabulary, our goals include not only creating great swells of vocabulary words for teaching, but also fostering readers’ fascination for learning more

about the breadth and depth of words and language on their own. We hope that both teachers and students will become collectors of words who know and practice the wisdom expressed in *Poemcrazy: Freeing Your Life With Words* by Susan Wooldridge (1997) when she sagely stated, “The great thing about collecting words is that they’re free; you can borrow them, trade them in, or toss them out. Words are lightweight, portable, and they’re EVERYWHERE!” (p. 9).

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TAKE ACTION!

1. Build word consciousness in your students. Introduce and talk about many words from readings every day.
2. Use word walls with semantic clusters of words in sets, concept eggs, and charts to keep words visible and in circulation.
3. Involve students in collecting, sorting, and identifying semantic relationships among words.
4. Model and encourage students to share enthusiasm and fascination for learning more about words and language during and after school and everywhere they go.