Bilingual Word Power

Research-Based Vocabulary Strategies for English Language Learners

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Few things have greater impact on how well one listens, speaks, reads and writes than the depth and breadth of one's vocabulary knowledge. To be *articulate*, whether we are describing a person's oral or written language skills, is to be a person who uses the most accurate and powerful word to express a concept.

Many benefits result from having word power: the ability to better comprehend what is read, the ability to express oneself well when speaking or writing, and, of great interest in today's political climate, the ability to score well on standardized and criterion-referenced tests of many kinds.

It is also clear that acquiring knowledge in all realms of learning – the natural and social sciences, the arts, and mathematics – requires one to master the meanings of the related technical vocabulary terms for that field.

A Lot of Words to Learn

Estimates of the number of words that the average high school senior knows range from a high of 50,000 to a low of 17,000 (Nagy and Anderson, 1984; D'Anna et al., 1991). This translates to learning 3,000 to 4,000 new words a year for English speakers.

Second language learners have an even greater vocabulary acquisition task in front of them (García, 2003; Hirsh and Nation, 1992).

Students from low-income backgrounds also tend to have limited vocabularies, especially for academic terms. Hart and Risley estimated a 30-million word gap by age three between the average number of words heard by the children of parents on welfare and those whose parents are professionals (2003).

Oral language does not typically use the rich variety of vocabulary words that written language, especially expository text, does. Hayes and Ahrens analyzed the distributions of words in a variety of oral and written contexts ranging from printed scientific texts to television shows to adult speech (1988).

Most speech was found to be lexically impoverished when compared to written language (see box below). Cunningham and Stanovich noted that the "relative rarity of the words in children's books is, in fact, greater than that in all of adult conversation, except for…courtroom testimony" (1998).

Vocabulary Instruction Research

Because of the large number of words individuals need to learn, direct instruction cannot be

used to teach the meaning of all words that students will encounter during their school years. Students must be taught how to acquire word meanings independently, both as they hear new words and as they encounter them in reading. They need to be encouraged to read as widely as possible to be exposed to greater quantity and variety of words.

Wide area reading can mean a dramatic difference in the number of words students are exposed to every year. Anderson, Wilson and Fielding found that 30 percent of children read less than 90 seconds per day outside of school (1988). This means they read 100,000 or fewer words per year. Compare that exposure to the top 2 percent of readers who read 65 minutes or more per day, reading at least 4,358,000 words a year.

In its comprehensive review and analysis of 30 years of reading research, the National Reading Panel described five main methods of teaching vocabulary:

- explicit instruction, such as providing definitions;
- implicit instruction (exposure as students read widely);
- multimedia methods, such as graphic representations and hypertext;
- capacity methods in which practice is emphasized to make reading automatic; and
- association methods in which learners draw connections between known and unknown words (2000).

The NRC found that vocabulary knowledge is significantly increased by multiple exposures to words in a variety of rich contexts, making connections with other reading material or oral language, pre-instruction of word meanings before reading, and active engagement of the learner in acquiring and using vocabulary. Computer programs designed to teach vocabulary were also seen as promising as adjuncts to direct vocabulary instruction.

Graves and Watts-Taffe recommend four components to any vocabulary instruction program: wide reading so that implicit learning can occur; teaching individual words; teaching word learning strategies; and fostering word consciousness. The teaching of individual words is "most effective when learners are given both definitional and contextual information, when learners actively process the new word meanings, and when they experience multiple encounters with words" (2002).

Recommended ways to teach word learning strategies include using context, using word parts to unlock the meanings of unknown words, and teaching students how to use the dictionary.

Word consciousness is "awareness of and interest in words and their meanings… and integrates metacognition about words and motivation for learning words." (McKeown and Beck, in press).

In their study, McKeown and Beck, for example, had teachers keep Word Wizard Charts to encourage students to become more word conscious. Students were challenged to find outside of class the words they had been taught in class in books, newspapers, radio, television, and adult conversation – and were rewarded for bringing in examples of how the words were used.

McKeown and Beck say that a mature, literate individual's vocabulary comprises three tiers. Tier One has the most basic words, such as *bed, brother, sky,* and *run*. Most learners already know the meanings of Tier One words.

Tier Three consists of rare words such as *apogee, precinct, peninsula* and *ecclesiastical* which

tend to be limited to specific domains.

Tier Two, in the middle, consists of words like *compromise, scrutinize, diligent* and *typical* which are of high frequency for mature users and found across a variety of domains.

The researchers found that instruction directed at Tier Two words is the most productive. Their vocabulary development program helps teachers determine which words to teach and to what depth as well as showing them how to directly teach students to use context efficiently. It incorporates a number of innovative vocabulary development techniques that they call "rich instruction" to produce "deep and facile word knowledge… needed to affect comprehension" including ones called Word Wizard as described above, Overheard Conversations, and Word Lines for Tier Two words.

Use of Cognates for English Language Learners

Bilingual students whose first language is a Romance language like Spanish, French, Italian, Portuguese and Romanian, are not beginning from ground zero when it comes to vocabulary acquisition in English. According to data from the 2000 Census, the majority of English language learners in the United States are Spanish speakers. Texas, for example, has 94 percent of its English language learners who are Spanish speakers.

These students can often call on their knowledge of cognates in their native language to determine the meanings of the words in their second language. The number of cognates they will encounter tends to increase with the grades as they encounter increasing numbers of words with Latinate roots, especially in their science and social studies courses.

Nagy and Nagy, et al. found that not all second language learners automatically recognize and use cognates (1988; 1993). The teachers in their studies were able to teach their students to better use the cognate knowledge that they did posses in their native language, Spanish.

Words have two dimensions, a *label* and the *concept*(s) or meaning(s) behind the label. Often English language learners, especially if they are orally proficient and literate in their first language, already know the equivalent concept for new English words they encounter. In these cases they can be quickly taught the English label, usually by just translating the English word for them into their native languages. In other cases, they know both the concept and the label in the form of a cognate (see box below).

It should also be noted that some cognates are well known in one language, but not the other. Consider for example, *infirm/enfermo* or *difficult/difícil*. In both cases, the English word is a rare one and the Spanish is the most common label used for the concept.

A teacher does not need, by the way, to be bilingual in order to use cognates for teaching. The teacher can look words up in a bilingual dictionary to see if it is a cognate or ask the students if they know of a similar word in Spanish.

Rodríguez suggests the following steps for teaching Spanish-speaking literates to use cognates and context in reading texts in English (2001).

1. Have students read the text silently or aloud to a partner. Discuss what it means with

   the partner or in a small group.
2. Discuss the vocabulary with the whole class. Use cognates and context clues to figure out meanings. Point out spelling patterns, like –*tion* in English becomes –*ción* in Spanish.
3. Discuss grammatical differences between English and Spanish such as word order for nouns and adjectives.
4. Read the text aloud as students follow along. Have students listen for words they recognize orally.
5. Read a similar text with Germanic-based words in place of the cognates. Compare.
6. Clarify and explain words in the texts that cannot be figured out from cognates or context.

Unique Vocabulary Learning for English Language Learners

English language learners may bring linguistic knowledge in the area of cognates to their learning of new English words, but they also will have special vocabulary learning needs that English speakers will not.

They need to learn basic, survival words that English speakers begin school knowing, words such as *house*, *school*, *walk*, and *eat*. They also need to learn the multiple meanings of many of these basic words.

English lacks many of the morphemic markers that other languages have that can indicate what part of speech it is. Spanish, for example, has an extensive verb system that indicates person, number, and tense. *Jugaremos* is *we will play*. As a consequence, Spanish speakers have trouble knowing what syntactical function English words play, making it difficult for them to use context to determine word meanings.

Play, for example, can be a noun, a verb, or an adjective. Translated into Spanish, a theater *play* is *un drama*, to *play* a game is *jugar*, to play an instrument is *tocar*, and a *play* thing is *de juguete*. In addition, many common phrases, expressions, and idioms cannot be translated directly and retain meaning. A play on words is not un juego de palabras; a power play is not un juego de poder.

Calderón, et al. (2003) modified the three-tier system devised by McKeown and Beck into four tiers for the bilingual third and fourth graders they studied in El Paso who were transitioning from Spanish into English reading. A vocabulary development component was added to the *Success for All* program they were using based on the four tiers.

Tier One words required little or no instruction and included basic words, cognates and false cognates.

Tier Two words were explicitly taught and included the high-frequency words in the students' readers or listening comprehension texts. This excluded many of the words McKeown and Beck included in Tier Two because they were clear and obvious cognates (e.g., *coincidence/coincidencia, absurd/absurdo*) and classified as Tier One.

Words with multiple meanings like *push*, *ring* and *gave*, however, would be classified as Tier One words for English speakers, but it was found that their multiple meanings had to be

directly taught to Spanish speakers and so they were included in Tier Two.
Tier Three words corresponded to Beck's Tier Two words and included cognates that were difficult to recognize (e.g., *tend/atender*, *maintain/mantener*).

Tier Four consisted of primarily the same words as Beck's Tier Three, that is words of low frequency and limited to specific domains. Modest, but consistently positive gains were seen in the experimental students as compared to the controls for both English and Spanish reading.

Carlo, et al. designed a vocabulary intervention for Anglo and Latino fifth graders that also focused on using cognates to infer meaning as well as strategies for using information from context and knowledge about multiple meanings (in press).

The program also focused on learning that word knowledge involves spelling, pronunciation, morphology, and syntax as well as depth of meaning. Beck's Tier Two words were the primary targets of study. The results showed the feasibility of improving comprehension outcomes for English language learners and English speakers in mixed classrooms by teaching word analysis and vocabulary learning strategies.

The Intercultural Development Research Association has had success for 10 years in bilingual, ESL and regular classrooms at all grade levels using a vocabulary learning strategy we call *definition diagonals* (see box below). Students are taught how to use a graphic organizer that requires them to come up with at least four "clues to meaning" for each word they are studying.

The Definition Diagonal Clues Menu is used in tandem with the graphic organizer to provide them with ideas for the many kinds of clues they can use on the organizer. A sample definition diagonals lesson is available in pdf.

The strategy follows all of the principles that the National Reading Panel found characterize effective vocabulary instruction: exposure to the word in a variety of contexts, creative usage of the word, and making multiple connections to pictures, personal associations and other words. It also focuses on the oft-recommended structural analysis, Latinate roots (cognates), and translations from first language as well as allowing for the more traditional techniques such as definitions and synonyms.

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	Rare Words per 1000	Rank of Median Word
I. Printed texts		

Abstracts of scientific articles	4389	128.0
Newspapers	1690	68.3
Popular magazines	1399	65.7
Adult books	1058	52.7
Comic books	867	53.5
Children's books	627	30.9
Preschool books	578	16.3
II. Television texts		
Popular prime-time adult shows	490	22.7
Popular prime-time children's shows	543	20.2
Cartoon shows	598	30.8
Mr. Rogers and *Sesame Street*	413	2.0
III. Adult speech		
Expert witness testimony	1008	28.4
College graduates to friends, spouses	496	17.3
Source: Hayes and Ahrens, 1988.		

Type of Cognate	Spanish	English
Identical	Hotel	Hotel
	Actor	Actor
Spelled nearly the same	Absurdo	Absurd
	Nación	Nation
Less obvious	Deporte	Sport
	Peligroso	Perilous
Oral cognate	Paz	Peace
	Placer	Pleasure
Cognate for one meaning,but not another	Letra	Letter
	Carta	Letter
False cognate	Embarazada	Pregnant
	Bigote	Moustache
Source: Rodríguez, 2001.		

Definition Diagonals

stingy, greedy

DESCRIBING WORDS

ICON

MISTER

EXAMPLE

NON-EXAMPLE

Scrooge

Santa Claus

Source: Intercultural Development Research Association. More information on definition diagonals is available online at www.idra.org/lessons/definitiondiagonals.htm.