

Effective Academic Vocabulary Instruction in the Urban Middle School

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To ensure that students enter high school able to handle sophisticated texts, academic vocabulary instruction should be incorporated into standard practice to improve language skills and consequently boost reading comprehension for struggling readers.

In urban middle schools across the United States, large numbers of struggling readers walk into classrooms every day. These students, many of whom are learning English as a second language (ESL) and/or come from low-income backgrounds, are hard to reach and even harder to teach through no fault of their own. They enter school with more limited vocabulary knowledge than their middle-income and native English-speaking counterparts (e.g., Cobo-Lewis, Pearson, Eilers, & Umbel, 2002; Hart & Risley, 1995) and fall further behind in vocabulary and reading as they move through school (Kieffer, 2008; Nakamoto, Lindsey, & Manis, 2007).

Research in urban middle schools has found that academic vocabulary, the specialized and sophisticated language of text, is a particular source of difficulty for students who struggle with comprehension. For instance, in a study conducted in seven urban middle schools, Lesaux and Kieffer (2010) found that the struggling readers—language-minority (LM) learners and native English speakers alike—had generally good foundational skills for word reading but tended to be “word callers.” Word callers are students who read print (some fluently) without understanding

deeply what they read. A second study conducted in the same district showed that a group of Spanish-speaking LM learners, enrolled in these schools since the primary grades and followed from fourth grade into middle school, had good word reading skills but vocabulary and reading comprehension scores around the 20th percentile (Crosson & Lesaux, 2010; Kieffer & Lesaux, 2007; Lesaux & Kieffer, 2010).

Although research has shown that gaps in reading performance are often associated with gaps in vocabulary knowledge, attention to developing language is not occurring in most schools (e.g., Scott, Jamieson-Noel, & Asselin, 2003; Watts, 1995). Most middle school English language arts (ELA) programs emphasize literary analysis over direct instruction in comprehension strategies. For many of these learners, what is missing from class work is direct instruction focused on academic vocabulary that will support them as they read expository texts in their academic future.

Designing and Evaluating an Academic Vocabulary Program

The Partnership With an Urban District: Finding Locally Effective Solutions

To address the needs of struggling readers, including LM students and their native English-speaking classmates, and fill the gap in vocabulary instruction, we developed and evaluated an academic language program in partnership with an urban school district characterized by linguistic and socioeconomic diversity. Our goal was to determine if regular, systematic

instruction in academic vocabulary in mainstream classrooms could be effective in boosting students' reading comprehension skills.

The majority of the district's middle schools are made up of large, heterogeneous classes. Typical of diverse urban schools, the mainstream classrooms (not beginner ESL classrooms or advanced seminars) we targeted for this instructional work included approximately 70% LM learners, and the average students were reading below grade level as they entered sixth grade.

What Did the Research Tell Us About Designing Effective Vocabulary Instruction?

In the planning stages, we turned to relevant research for guidance, which has identified three guiding principles for teaching vocabulary. First, because truly knowing all levels and meanings of a word is a complex process, there is a growing consensus that vocabulary instruction should focus on deeply understanding a relatively small number of words, their elements, and related words in rich contexts (e.g., Graves, 2000, 2006; Stahl & Nagy, 2006). This contrasts with the more common practice of teaching a large number of words per week from a list or workbook, a practice that results in relatively shallow knowledge that is rarely maintained for long.

Second, research (Beck, McKeown, & Kucan, 2002; Graves, 2000, 2006; Stahl & Nagy, 2006) suggested choosing these words carefully, making sure they are high utility in nature. Spending precious instructional time on the deep learning of general-purpose academic words (e.g., *analyze*, *frequent*, *abstract*), or "delivery words"—those that deliver the content to the reader (Nair, 2007)—is more valuable than targeting the low-frequency and relatively unimportant words (e.g., *refuge*, *burrow*) highlighted in bold in many textbooks (Hiebert, 2005). Word selection is especially important when teaching students with low vocabularies; they need to know the delivery words deeply to access the content-specific words they encounter in texts. Although this academic vocabulary is different from conversational language and essential for academic success, surprisingly, it is infrequently taught in schools.

Finally, the third principle tells us to balance direct teaching of words with teaching word-learning strategies. With instruction such as using contextual

cues (Fukkink & de Glopper, 1998; Swanborn & de Glopper, 1999) and using one's morphological awareness skills (Kieffer & Lesaux, 2007; Nagy, Berninger, & Abbott, 2006), students gain the cognitive tools they need to learn a large number of words independently.

What Kind of Curriculum Did We Develop?

Based on the principles described previously, and with our target classrooms in mind, we developed an 18-week academic vocabulary program for sixth graders, featuring 8 two-week units and two review weeks. Each unit consists of an eight-day lesson cycle, and each lesson is designed to be 45 minutes, with lessons delivered four days per week. Every unit revolves around a short piece of engaging informational text from *Time for Kids* magazine, to which the participating school district subscribes.

We selected specific texts on the basis of several criteria: the potential for student engagement, readability at the fourth- to sixth-grade instructional level, length, and the specific vocabulary used. Several of the texts feature topics salient to adolescent youth culture, such as single-gender classrooms and television viewing rates, whereas others address issues of diversity, such as how different ethnic groups in Africa learn to get along.

From each text, we chose eight or nine high-utility academic words that also appear on Coxhead's (2000) academic word list. Exposures to each word varied across the days of each unit, but every word was used on three days between two and five times, and subgroups of those words were used each of the eight unit days. Across the program, 11 words were used in two units, which increased the number of exposures for these repeated words.

Given the research on how infrequently focused vocabulary teaching takes place in a K–12 classroom (Durkin, 1978; Scott et al., 2003; Watts, 1995), and as a result of our meetings with teachers and district leaders, we focused on building teacher capacity around the how and why of daily vocabulary instruction while maintaining a commitment to a program that would be as clear and easy to implement as possible. To support teachers throughout the 18 weeks, a former teacher served as a program specialist, observing the program instruction in classrooms and regularly meeting with teachers to answer questions about the curriculum.

Once developed and ready for use in the middle schools, we designed a study to find out if it worked for students *and* for teachers.

What Was the Design of the Evaluation and Who Participated?

In each of the seven participating schools, the principals selected ELA teachers based on their students' profiles and classroom achievement, and then among those teachers, 12 voluntarily chose to try the vocabulary program. Students' achievement in the classrooms using the vocabulary program was compared with those of seven other teachers who continued to use the standard district curriculum. The teachers' backgrounds ranged from first-year teachers to retiring veteran teachers and were comparable across the two groups. In addition, based on extensive systematic observation, we found that the two groups of teachers were comparable on overall quality of teaching and general classroom practices outside of the intervention (Lesaux, Kieffer, Faller, & Kelley, 2010).

The student participants included 476 sixth graders, of whom 346 were LM learners and 130 were native English speakers. The participating schools served an ethnically diverse and primarily low-income student population, averaging 67% students of color, with some schools as high as 96%, and 58% students receiving free or reduced-price lunch, with some schools at 100%. Before implementing the program, the average student's scores on the Gates-MacGinitie reading comprehension test and SAT-10 reading vocabulary test were at about the 35th percentile. The characteristics of the treatment and control classrooms (e.g., student achievement, student demographics) were an approximate match.

We investigated the curriculum's effects on students' vocabulary and reading comprehension skills by administering assessments to students before and after they received the curriculum. We studied implementation two ways: Teachers completed weekly logs, and we conducted between five and seven observations in each classroom over the course of the 18 weeks.

What Did We Find?

To begin, we found that fidelity of implementation of the curriculum was good. An average of the weekly logs and the ratings of the observations suggested that about 80% of the curriculum was implemented

as designed and with high quality; teachers spent an average of 52 minutes on the daily lesson, very close to the designed 45 minutes. In addition, as we described in more detail in *Reading Research Quarterly* (Lesaux et al., 2010), when we compared the instructional outcomes in classrooms using this curriculum to standard practice in the sixth-grade mainstream ELA classrooms studied, we found that the 18 weeks of designed academic vocabulary instruction resulted in greater gains on standardized and researcher-developed measures of vocabulary, word learning (e.g., morphological ability), and reading comprehension.

Specifically, we found that the students in treatment classrooms had significantly better results on a multiple-choice test of academic words, a curriculum-based measure of deep knowledge of the words taught, and a test of students' ability to break down words into parts (i.e., morphological awareness). One participating student noted, "I felt more comfortable with the words [at the end of the vocabulary program], and I knew them better and how to use them. Maybe before I only knew part of the definitions, but now I know them and use them."

Of critical note was the vastly different amount of attention given to vocabulary in the control classrooms. In these rooms, observers classified only approximately 10% of instructional time as vocabulary teaching, with an emphasis on incidental and superficial instruction that focused on rare, unfamiliar words (e.g., *cannibal*, *azure*, *slurp*) and provided a single definition or example for a given word without time for processing or practice with the meaning. The majority of instructional time in control classrooms focused on literary analysis, and only approximately 10% of time was focused on instruction in reading comprehension skills.

Especially promising for students' long-term academic success, we found that the program helped those in the treatment classrooms comprehend passages that included words we had taught. We also found that these students showed more improvement on the Gates-MacGinitie reading comprehension test

In [control classrooms], observers classified only approximately 10% of instructional time as vocabulary teaching.

than students in the control classrooms, and this effect was equal to about eight to nine months of extra growth in reading comprehension (see Lesaux et al., 2010, for more details on these assessments and statistical values). Analyses also showed that the curriculum was equally beneficial for LM and native English-speaking learners.

Our observations in the treatment classrooms, interviews with teachers, and focus groups with students confirmed and provided more depth to our findings. Overall, treatment teachers were better than control teachers at providing students with multiple opportunities to use words, posting visual resources for learning words, affirming correct use of words, using personal anecdotes to give examples for words, supporting students' writing, and facilitating student talk. Our end-of-curriculum interviews with teachers indicated that the curriculum helped them increase their facility with teaching vocabulary and building language. For example, one teacher wrote in her daily log, "OK, to be honest, I always get affect and effect mixed up. This lesson actually helped me with it. I explained it to [another teacher] also. Thanks."

That said, it wasn't necessarily an easy or smooth transition to this type of vocabulary instruction that revolves around a text. Teachers cited students' lack of subject area background, minimal prior practice (e.g., answering questions from text), and weaknesses in general literacy skills as challenges to taking up the work with ease. A participating teacher's log entry described the kinds of challenges faced in the classroom: "Many [students] are stuck on their prior understanding of *welfare* as a check for poor people (a concrete noun) and had a hard time getting that the original meaning is about their well-being (an abstract noun, and thus a harder concept)." When deep word understanding is the goal, students need instruction, discussion, and lots of practice.

Many teachers reported responding to these early challenges by modeling additional examples and providing requisite information. Despite the extra time and effort required of instructors and students alike, however, teachers believed that the program's rigor encouraged student growth. As one teacher explained, although the expectations were high, her students eventually met them. In particular, although writing activities took a long time to complete, teachers believed that the organizational support built into the program's writing days was helpful for students for completing each unit's required paragraph and

resulted in increased writing competence by the final units. We describe the key issues related to the writing instruction in the subsequent section.

Our findings take many forms and dimensions, telling us not just about the effects of the program itself, but perhaps more importantly, also shedding light on practices to strengthen and improve vocabulary instruction in classrooms, particularly those with high numbers of LM learners who struggle to comprehend text. In the next section, we describe what our findings mean for classroom practice in similar schools across the United States.

Specific Program Elements and Universal Learnings: What Does This Mean for the Middle School Classroom?

The findings show promise in developing effective, multifaceted vocabulary instruction for implementation by ELA teachers in middle school classrooms with high numbers of LM learners. Of utmost importance for reading professionals is that the principles and activities at the core of the program, based on specific practice recommendations gleaned from research (including but not limited to our own), theory, and the basic tenets of good literacy teaching, can be re-created in anyone's classroom. To incorporate our learnings into instruction, we recommend the following plan.

Start With a Short Piece of Engaging Text

To promote deep word understanding, instruction has to begin with good conversation about rich topics and ideas. However, the discussion must be anchored in text to promote literacy and encourage the use of academic vocabulary over conversational language. We need to support students as they read texts that discuss subjects of interest and are at, or just above, their reading ability. Struggling readers especially need to be set up to succeed with texts so that they increase their skills and their confidence. Short texts are easier to reread and revisit, and work best to reduce the overwhelming feeling that struggling readers have when they approach a long piece of text.

What Did the Instruction Look Like? We selected specific texts on the basis of several criteria: the potential for student engagement, readability at

the fourth- to sixth-grade instructional level, length, and the specific vocabulary used in the text. In the evaluation, teachers and students clearly indicated that texts that related to the students' lives (e.g., children's television viewing rates, Internet bullying, single-gender classrooms) were better received and ultimately more successful in engaging students. As one treatment teacher's log illustrated, the texts often inspired both new thinking and the sharing of these new ideas: "All students were against single-gender classes at the beginning of the lesson, a sign, I think, that they hadn't given the issue much thought. After discussion and reading the article, about half (mostly girls) were able to see some of the benefits." The program's instruction encouraged engagement and response, especially when the students felt personally connected to the text's subject.

What Does This Mean for All Classrooms? Use classroom sets of accessible and engaging magazine articles, newspaper stories, letters to the editor and op-ed columns, and other short, appropriately leveled texts that will not overwhelm reluctant readers. When possible, choose texts that feature topics salient to adolescent youth culture. Students need to be motivated to read, and supported in their reading, to access what is chosen for them in class.

Less Is More, so Focus on Depth Over Breadth

We can't possibly cover and teach all of the words that students need to learn, but we can choose a small set of high-utility academic words students need and then use those as a platform for teaching word learning, increasing academic talk, and promoting more strategic reading. Students and teachers need to learn how to think about language and how words work. The learning process is key and takes time. Instruction on a multitude of words within a lengthy text will not be as effective or rewarding as digging deeply into a short but substantive text and focusing on a thorough understanding of fewer high-utility words.

What Did the Instruction Look Like? In addition to using a short piece of informational text, we limited the number of words studied and chose words used frequently in middle and high school textbooks. As previously noted, eight or nine academic words were the focus of each unit, which moved through oral and written vocabulary instructional activities that

promote academic development in reading, writing, and speaking. This allowed for additional instruction and practice, working on word knowledge from several angles and through several media. A less-is-more design carved out class time for focusing on breadth of word knowledge and increasing understanding and interest in words.

What Does This Mean for All Classrooms? Limit the number of words you teach, choose high-utility academic words, and take twice as long to teach those words (e.g., nine words over two weeks). Your goal should be to help the students attain the deep understanding that Beck and McKeown (1991) described as truly knowing a word: "a rich, decontextualized knowledge of each word's meaning, including its relationship to other words, and its extension to metaphorical use" (p. 19).

Students often think they know words that they actually do not know deeply. As one teacher reported, "In my class, many kids think they already know the definitions of words, but are actually confusing them (i.e., *motive* and *incentive*)." Encouraging students to use a dictionary is not the best way to help them find definitional clarification, however. Although students are often told to look up unknown words in the dictionary, research has told us that dictionary definitions are inaccessible to most students (Marzano, 2004; Scott & Nagy, 1997). Struggling readers especially need lots of relevant examples and explanations that use familiar language, yet dictionaries are organized with abbreviated definitions to conserve space and fit as many entries as possible (Feldman & Kinsella, 2005).

Instead of using dictionaries as the sole source for word information, allow students to hear and practice using the target words in many contexts, in their speech *and* writing, so that they can grapple with shades of meaning and better understand all the ways that the words can be used. As a rule, students are not given an opportunity to delve deeply into words' meanings, yet there is obvious satisfaction when they finally feel ownership of a word. As one student noted, "The thing is, [in school] you read the definition and you know the sounds of the word and you can memorize the spelling, but with this vocabulary program, you read it, know how it's used, hear it, do all the things that we do with it, then put them together and you know *exactly* what it means." Classroom vocabulary instruction must begin with academic words and go beyond the study of superficial meanings.

Increase Opportunities to Talk

Language is social, and so are kids. To promote deep understanding, teachers need to structure ways for students to hear more academic language used, hear words analyzed in a fun way, and practice using academic words. Research has confirmed that language and metacognitive development are improved through peer interaction (see August & Hakuta, 1997; Ellis, 1994; McLaughlin, 1985); therefore, vocabulary instruction should include collaborative learning activities. Structured discussions boost the chance that students will own the new words that they are introduced to in class and will encounter in their reading.

What Did the Instruction Look Like? A whole-class text discussion at the beginning of each unit set the stage for a language-filled unit. We designed this structured conversation to give teachers the opportunity to elaborate on the ideas presented while supporting students as they broaden their awareness of the concepts.

As noted earlier, to ensure that the class conversations were authentic, and therefore more meaningful to the students (i.e., had more effective learning results), the subject matter was chosen for its potential to engage 11- and 12-year-olds. We knew that if the students cared about the subject, we would have our best chance at attaching them to the concepts and encouraging them to talk using the target words. Indeed, teacher log comments included references to animated discussions. One teacher wrote,

My kids had a heated verbal discussion on the word *period*. I shared one sentence a student used: "Mrs. M kept us longer in the *period* than usual." Another student argued that the word *period* was not used correctly. The rest of the students set him straight that it was indeed consistent with the definitions. Interesting, what a long way they have come.

Activities throughout the eight-day cycle encouraged student talk, including partner discussions before answering text questions, mock interviews in which students assumed characters and asked each other questions containing target words, whole-class discussions to create personal target word definitions, and pair-shares used regularly.

What Does This Mean for All Classrooms?

Increase language in the classroom. Across the United States, teachers talk more than their students (Cazden, 1988; Flanders, 1970; Heath, 1978; Seiler,

Schuelke, & Lieb-Brilhart, 1984; Snow, Tabors, & Dickinson, 2001). However, if we are going to close achievement gaps and develop students' critical thinking and oral- and written-language skills, we need to provide students with significant opportunities to speak and write.

Incorporate structured opportunities for student talk into the classroom culture. Repeat targeted vocabulary words in different contexts (e.g., types of texts, oral, graphics). Help students attach to the meanings of words by using target words in speech to describe a personal event or opinion. There is greater likelihood that students will internalize the new academic vocabulary and add the words to their lexicons if they are set up to use them in class, producing them orally and in their writing.

Teach Specific Strategies for Word Learning

Students need to be directly instructed on how to figure out unfamiliar words, as they are constantly coming up against unfamiliar words in texts. Students could skip new words repeatedly, and potentially lose overall meaning, or be more constructive and pull the words apart, dig deeply enough to find a helpful context clue, think of a related word that looks the same, or think about when they heard the word prior to this reading.

What students do at these crossroads will be determined by the strategies they have in place. Yet, what emerged from the observations of control classrooms is that only 10% of instructional time is spent on teaching vocabulary or word analysis as part of standard practice, despite the fact that knowing how to break words down into component parts is one of the essential strategies for figuring out unknown words. In order for students to be better able to work through more challenging texts, they need direct and explicit teaching of word-learning strategies regularly and frequent review of these strategies.

What Did the Instruction Look Like? Mid-unit in the lesson cycle, the focus shifted from the teaching of target word meanings to learning how words work in order to better support students when they encounter unfamiliar words as they read. One day per unit was devoted to morphology, direct instruction on how affixes change base words into a variety of word forms. For example, students were taught how the suffix *-tion* changes verbs into nouns (e.g., *act*, *action*) or how the *-al* suffix changes nouns into adjectives (e.g.,

topic, topical). When reviewing the suffixes *-ify* and *-er*, students worked together on an activity that asked them to come up with definitions for nonsense words ending in these suffixes (e.g., *nerdify, Facebooker*).

Teachers commented often on how much the morphology lessons and practice helped their students and forced them to think differently about word parts. One teacher wrote, “I like that we are going into the different forms of the words. This is very helpful. The kids were excited when they started to realize the connection. ‘Oh, so when you say *revise* and then talk about *revisions*....’” Another participating teacher explained,

Students were interested in the *-er/-or* morphology lesson and tried thinking about words they knew or silly words like “pigger—a person who takes care of pigs.” Using the target words in a sentence helped them make more sense of the words and how the suffix changes the meaning of the word.

As these log entries demonstrate, the morphology instruction helped students focus on word parts and finding familiar patterns in unfamiliar words, all in an effort to help students make sense of the way words work and improve understanding.

What Does This Mean for All Classrooms? Again and again, teachers told us that there is no built-in time or standard practice for deep word study in the middle school ELA classroom, and our observations in control classrooms confirmed the scarcity of vocabulary and word study opportunities. Our findings indicate that teachers should carve out regular blocks of class time to be used in the systematic instruction of morphology: Teach students about suffixes and prefixes and have them make charts that show that, by adding affixes, words can change form and part of speech. Have students revisit text and highlight any words that contain the suffix being studied. Given opportunities to practice using the different forms of words in different contexts, students will increase their understanding of how words work and have strategies in their toolkit for when they encounter unfamiliar words, especially while reading independently.

Incorporate Activities to Promote Word Consciousness

To exponentially increase vocabulary, students need to develop word consciousness and a curiosity about words. Through playing with and talking about

words, students are more likely to become attached to the words in print and willing to work harder to understand unknown words they encounter.

What Did the Instruction Look Like? From the first day of the first unit, the teachers were encouraged to talk about target words intentionally and ignite student interest in words in general. Across each unit, for example, students took part in a number of fun word tasks, such as a word hunt contest, writing down target words heard outside of the classroom (McKeown, Beck, Omanson, & Pople, 1985), sharing those words orally, and posting them on a classroom word wall. Additionally, students searched for word errors in a paragraph and figured out nonsense compound words by looking closely at the two words within each compound. From the early whole-class discussion about definitions for each word to the instruction on multiple meanings, the instruction fostered word consciousness and encouraged a more general interest in word analysis.

What Does This Mean for All Classrooms? Talk about interesting words that you encounter or different uses of words that have been studied in class. Call your students’ attention to words used incorrectly in the newspaper or by someone on television. Have students find words with similar roots, suffixes, or prefixes in magazine articles. Add board or card word games (many good commercially made games and websites with word games are available) to class vocabulary lessons to increase word play, heighten word awareness, and ultimately improve access to unfamiliar words. Use crossword puzzles, for example, to focus students automatically on individual words and their meanings. During transition times, play word games orally to keep classroom language levels and word interest high.

By infusing all that you do with talk of words and word play, you will help students become metacognitive about language and curious about how words work. Through increased attention to words, students will start to see similarities and realize that they can find recognizable word parts in unfamiliar words and thereby gain understanding.

The Writing Process Is a Powerful Vehicle for Vocabulary Development

When students can accurately use new vocabulary in writing, clearly they have a sound understanding of the word’s definition and usage. Our findings indicate

that many middle school students need a structured approach to writing assignments to successfully respond to writing prompts or text questions. For writing samples to assess and promote vocabulary knowledge, students need to be scaffolded as they generate and organize their ideas, incorporate the target words, and/or move from notes to a flowing paragraph.

What Did the Instruction Look Like? At the end of each unit, as a result of a writing instructional routine, students wrote a paragraph using five target words. Each stage of the writing routine was heavily supported, and gradually students began to own more of the process. The majority of teachers reported that they felt student confidence increased and writing ability grew over the course of the 18 weeks. Teachers appreciated that the routine was modeled regularly and practiced during each unit. They cited the paragraphs produced as useful assessment tools, indicating whether students fully understood the target words that they chose to include.

What Does This Mean for All Classrooms? Overall, teachers in our study agreed that writing a paragraph is a difficult exercise for sixth graders. In fact, writing days were demanding for teachers and students alike, and assignments took time. To successfully take on the tough job of writing expository text, therefore, students need concrete steps provided for them. They also need practice, since most do not practice writing often enough. Teachers are advised to develop set writing routines, build writing practice into each week's lessons, keep track of how much writing each student produces each week, and set high goals for output.

Good prewriting work begins with teacher direction and modeling, and encourages structured academic talk as students generate and/or organize ideas with the help of a classmate. At the next stage, students need some kind of support to move to written organization, such as a graphic organizer, and then additional support as they work to incorporate the sentences they wrote in boxes on a graphic organizer into a flowing paragraph with transitional words and phrases.

Remember the Importance of Personal Connections

It was strikingly clear to us that students were more attached to the school material when there was a

personal connection made to either the material itself or the teacher. To keep students motivated and engaged, and therefore learning continually, teachers should try to personalize examples given in class and choose substantive materials that will be of particular interest to early adolescent students.

What Did the Instruction Look Like? Throughout the program, teachers were encouraged to make personal connections to discuss and review target words. They talked about an *incident* that happened to them that morning, described their *community* or the *complex* they live in, or discussed how they *identified* with bullied students read about in a chosen text.

What Does This Mean for All Classrooms? We know that students need systematic, planned literacy instruction featuring language and vocabulary, but to maximize student attachment and vocabulary growth, students need to be personally connected. Texts and topics should reflect the students' world when possible, and teachers should take every opportunity to use target words, for example, including them while sharing a personal anecdote related to the instruction. Students will be more likely to attend to what teachers are saying and attach to vocabulary words when they are worked into middle school topics, woven into personal stories, and repeated regularly in many contexts.

Equip Students for Success

To ensure that our students will enter high school able to handle sophisticated texts, we need to prepare them during the middle years; academic vocabulary instruction should be incorporated into standard practice to improve language skills and consequently boost reading comprehension for struggling readers. This instruction should target high-utility academic words; teach a small number of these words in depth; anchor the words in engaging text; incorporate multiple, planned exposures to each word; and balance direct instruction in word meanings with teaching word-learning strategies. For ease of implementation, as in all academic domains, any vocabulary instruction should be designed in a manner that makes delivering the instruction easy and clear for teachers, as well as structured and supported for students.

Given the enormity of the word-learning task, no teacher or curriculum can teach or expose students to the thousands of unknown words they will need to

know to succeed academically. If our goal is to help students improve understanding of academic text, then words need to be pulled apart, put together, defined informally, practiced in speech, explained in writing, and played with regularly; only then will students have a chance at deeply understanding the approximately 50,000 words (Stahl & Nagy, 2006) they need to know before they graduate. Equipped with more knowledge *of* and *about* words, students will be set up for success in high school and beyond.

Notes

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References

August, D., & Hakuta, K.E. (Eds.). (1997). *Improving schooling for language-minority children: A research agenda*. Washington, DC: National Academy Press.

Beck, I.L., & McKeown, M.G. (1991). Conditions of vocabulary acquisition. In R. Barr, M.L. Kamil, P.B. Mosenthal, & P.D. Pearson

(Eds.), *Handbook of reading research* (Vol. 2, pp. 789–814). New York: Longman.

Beck, I.L., McKeown, M.G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford.

Cazden, C.B. (1988). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.

Cobo-Lewis, A.B., Pearson, B.Z., Eilers, R.E., & Umbel, V.C. (2002). Effects of bilingualism and bilingual education on oral and written Spanish skills: A multifactor study of standardized test outcomes. In D.K. Oller & R.E. Eilers (Eds.), *Child language and child development: Vol. 2. Language and literacy in bilingual children* (pp. 98–117). Tonawanda, NY: Multilingual Matters.

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2), 213–238.

Crosson, A.C., & Lesaux, N.K. (2010). Revisiting assumptions about the relationship of fluent reading to comprehension: Spanish-speakers' text-reading fluency in English. *Reading and Writing*, 23(5), 475–494. doi:10.1007/s11145-009-9168-8

Durkin, D. (1978). What classroom observations reveal about reading comprehension instruction. *Reading Research Quarterly*, 14(4), 481–533. doi:10.1598/RRQ.14.4.2

Ellis, R. (1994). *The study of second language acquisition*. New York: Oxford University Press.

Feldman, K., & Kinsella, K. (2005). *Narrowing the language gap: The case for explicit vocabulary instruction*. New York: Scholastic.

Flanders, N.A. (1970). *Analyzing teaching behavior*. Reading, MA: Addison-Wesley.

Fukkink, R.G., & de Glopper, K. (1998). Effects of instruction in deriving word meaning from context: A meta-analysis. *Review of Educational Research*, 68(4), 450–469.

Graves, M.F. (2000). A vocabulary program to complement and bolster a middle-grade comprehension program. In B.M. Taylor, M.F. Graves, & P. van den Broek (Eds.), *Reading for meaning: Fostering comprehension in the middle grades* (pp. 116–135).

Take ACTION!

Incorporating this kind of vocabulary teaching into your classroom will most likely require a personal paradigm shift on two fronts.

First, increase the quality and quantity of language in your classroom with the following tips:

- Cut out newspaper headlines or captions to share interesting words with students at the beginning of class.
- Start a conversation about a big idea that you learned of from the radio or newspaper.
- Choose to use a higher level word in place of a word you commonly use in class (e.g., "I'd like Sammy

to *distribute* the papers, that is, pass one out to each person.").

- When appropriate, call attention to the morphology of a word you use in speech (e.g., "Now that we raised the money, we need a *communal* decision about where the donation should be made. Do you know a word that sounds like *communal*?").

Second, regarding the direct instruction of vocabulary, teach a limited number of words over an extended period of time, using speech and writing.

- Cut half the words from your vocabulary list and get the kids to dig deeply on the remaining words.

- Do not give students lists of unknown words to look up in isolation. Start your vocabulary study by having students think-pair-share about what they already know about each word. Then, as a class, come up with accurate definitions. Show students how everyone grapples with shades of meaning and help them get invested in the process of understanding a word fully.
- When possible, choose words from the text you are using that students will encounter across their academic subjects (e.g., *effect, integrate, interpret, function, structure*; see Coxhead [2000] or Marzano [2004]).

- New York: Teachers College Press; Newark, DE: International Reading Association.
- Graves, M.F. (2006). *The vocabulary book: Learning and instruction*. New York: Teachers College Press; Newark, DE: International Reading Association; Urbana, IL: National Council of Teachers of English.
- Hart, B., & Risley, T.R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Paul H. Brookes.
- Heath, S.B. (1978). *Teacher talk: Language in the classroom*. Arlington, VA: Center for Applied Linguistics.
- Hiebert, E.H. (2005). In pursuit of an effective, efficient vocabulary curriculum for elementary students. In E.H. Hiebert & M.L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice* (pp. 243–263). Mahwah, NJ: Erlbaum.
- Kieffer, M.J. (2008). Catching up or falling behind? Initial English proficiency, concentrated poverty, and the reading growth of language minority learners in the United States. *Journal of Educational Psychology, 100*(4), 851–868. doi:10.1037/0022-0663.100.4.851
- Kieffer, M.J., & Lesaux, N.K. (2007). Breaking down words to build meaning: Morphology, vocabulary, and reading comprehension in the urban classroom. *The Reading Teacher, 61*(2), 134–144. doi:10.1598/RT.61.2.3
- Lesaux, N.K., & Kieffer, M.J. (2010). Exploring sources of reading comprehension difficulties among language minority learners and their classmates in early adolescence. *American Educational Research Journal*. Available: aer.sagepub.com/cgi/content/abstract/0002831209355469v1
- Lesaux, N.K., Kieffer, M.J., Faller, S.E., & Kelley, J.G. (2010). The effectiveness and ease of implementation of an academic vocabulary intervention for linguistically diverse students in urban middle schools. *Reading Research Quarterly, 45*(2), 196–228. doi:10.1598/RRQ.45.2.3
- Marzano, R.J. (2004). *Building background knowledge for academic achievement: Research on what works in schools*. Alexandria, VA: Association for Supervision and Curriculum Development.
- McKeown, M.G., Beck, I.L., Omanson, R.C., & Pople, M.T. (1985). Some effects of the nature and frequency of vocabulary instruction on the knowledge and use of words. *Reading Research Quarterly, 20*(5), 522–535. doi:10.2307/747940
- McLaughlin, B. (1985). *Second-language acquisition in childhood: Vol. 2. School-age children* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Nagy, W.E., Berninger, V.W., & Abbott, R.D. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle-school students. *Journal of Educational Psychology, 98*(1), 134–147. doi:10.1037/0022-0663.98.1.134
- Nair, M. (2007). *An analysis of the words appearing in middle school textbooks*. Unpublished doctoral dissertation, Harvard University, Cambridge, MA.
- Nakamoto, J., Lindsey, K.A., & Manis, F.R. (2007). A longitudinal analysis of English language learners' word decoding and reading comprehension. *Reading and Writing, 20*(7), 691–719. doi:10.1007/s11145-006-9045-7
- Scott, J.A., Jamieson-Noel, D., & Asselin, M. (2003). Vocabulary instruction throughout the day in twenty-three Canadian upper-elementary classrooms. *The Elementary School Journal, 103*(3), 269–283. doi:10.1086/499726
- Scott, J.A., & Nagy, W.E. (1997). Understanding the definitions of unfamiliar verbs. *Reading Research Quarterly, 32*(2), 184–200. doi:10.1598/RRQ.32.2.4
- Seiler, W.J., Schuelke, L.D., & Lieb-Brihlhart, B. (1984). *Communication for the contemporary classroom*. New York: Holt, Rinehart and Winston.
- Snow, C.E., Tabors, P.O., & Dickinson, D.K. (2001). Language development in the preschool years. In D.K. Dickinson & P.O. Tabors (Eds.), *Beginning literacy with language: Young children learning at home and school* (pp. 1–25). Baltimore: Paul H. Brookes.
- Stahl, S.A., & Nagy, W.E. (2006). *Teaching word meanings*. Mahwah, NJ: Erlbaum.
- Swanborn, M.S.L., & de Glopper, K. (1999). Incidental word learning while reading: A meta-analysis. *Review of Educational Research, 69*(3), 261–285.
- Watts, S.M. (1995). Vocabulary instruction during reading lessons in six classrooms. *Journal of Reading Behavior, 27*(3), 399–424.

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MORE TO EXPLORE

ReadWriteThink.org Lesson Plan

- “Flip-a-Chip: Examining Affixes and Roots to Build Vocabulary” by Lee Mountain

IRA Books

- *Essential Readings on Vocabulary Instruction* edited by Michael F. Graves
- *Instructional Strategies for Teaching Content Vocabulary, Grades 4–12* by Janis M. Harmon, Karen D. Wood, and Wanda B. Hedrick

IRA Journal Articles

- “The Vocabulary-Rich Classroom: Modeling Sophisticated Word Use to Promote Word Consciousness and Vocabulary Growth” by Holly B. Lane and Stephanie Arriaza Allen, *The Reading Teacher*, February 2010
- “What Reading Teachers Say About Vocabulary Instruction: Voices From the Classroom” by Jennifer I. Berne and Camille L.Z. Blachowicz, *The Reading Teacher*, December 2008

Other

- “Teaching Vocabulary in Middle and High School” (podcast): www.reading.org/General/Publications/Podcasts.aspx

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