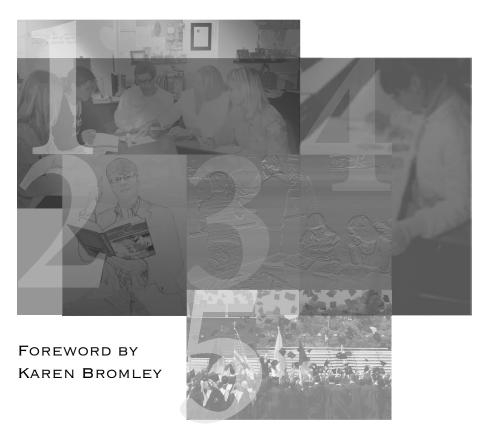
GRADES 7-12

Wordwise Contentrich

FIVE ESSENTIAL STEPS TO TEACHING ACADEMIC VOCABULARY

Douglas Fisher and Nancy Frey



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Foreword

lum coordinators: Sit up and take notice! Here is a book you have long awaited and definitely need to own. For many years, or so it seems, vocabulary teaching in the content areas has suffered from neglect and misunderstanding. In *Word Wise and Content Rich, Grades 7–12: Five Essential Steps to Teaching Academic Vocabulary*, Doug Fisher and Nancy Frey make up for lost time, bringing academic word learning and vocabulary instruction to the forefront of good teaching.

The authors not only give the special considerations of content area teachers their fair due but also consider the unique learning demands of adolescents. They challenge accepted vocabulary practices such as "assign, define, and test," explaining why these practices should be abandoned once and for all (they don't work). They fully lay out the high stakes of this game: Vocabulary matters. Vocabulary affects students' comprehension, fluency, writing, speaking, thinking, learning, and achievement as well as their confidence. If we don't get word instruction right, we clip the wings of our students on many levels.

In separate chapters for each topic, they discuss, show, and provide practical ideas for ways to develop vocabulary through teacher modeling, peer talk, individual activities, and collaboration to provide a schoolwide focus on word learning. Finally, we have a resource that gives us an engaging way to embed vocabulary instruction in an array of daily teaching and learning processes.

This book, based on theory, research, and the teaching experiences of the authors and practicing classroom teachers, shows you how to become intentional in your vocabulary instruction so you can help your students become

independent word learners. Because content areas teachers focus on teaching their subjects, and many of them assume their students learned vocabulary strategies in earlier grades, these teachers often teach new words ineffectively or leave little time for teaching them. But the specialized, technical vocabulary middle and high school students need to know in order to learn and achieve in school requires effective and efficient vocabulary teaching. Fisher and Frey provide a much-needed set of criteria for selecting words that warrant teaching, and they give readers a sound framework for teaching these words effectively and efficiently.

This book is unique in several ways. First, with examples and vignettes from various classrooms and a reader-friendly style, Fisher and Frey show us, but do not tell us, how to improve content area vocabulary instruction. Their real-life classroom examples make clear how to use such things as context, morphology and word parts, peer interactions, reciprocal teaching, and graphic organizers to help students learn words in science, social studies, math, English, and other subjects. As well, they include an entire chapter on individual activities for teaching academic vocabulary. Many examples of student work, teaching materials, drawings, photographs, and charts support and enliven the text, showing how these ideas work in the real world of adolescents in middle and secondary classrooms.

A second unique feature of *Word Wise and Content Rich* is the authors' translation of theory and research into practice. While theory and research thoroughly ground the book, Fisher and Frey have seamlessly woven both into the fabric of the text in such a way that it is an enjoyable read. The authors' style persuades the reader that the strategies and ideas they present have a sound basis, and at the same time, they clearly describe and explain each strategy and activity. Additionally, in the last chapter the authors provide theory- and research-based professional resource materials for further reading about building students' academic vocabulary.

A third unique feature of this book is Fisher and Frey's notion of a school-wide focus on learning words. No other book on vocabulary teaching that I know of addresses this important aspect of word learning. If vocabulary teaching is to have an impact on all students, then everyone needs to share a common perspective on it, and this perspective and the accompanying practices should pervade the entire faculty and school. Fisher and Frey address this notion and offer practical ideas for raising the word consciousness of both teachers and students.

Word Wise and Content Rich is an important book for middle and high school teachers, staff developers, and curriculum coordinators to own. As I read my

prepublication copy in order to write this foreword, it occurred to me that this book is a natural for a teachers' study group. It is well worth the time spent reading and discussing with colleagues because the ideas it holds are basic to rethinking and transforming vocabulary teaching. Fisher and Frey's recommendations about teaching academic vocabulary are not only important and timely but also critical to student learning in every subject area.

Karen Bromley
Distinguished Teaching Professor
School of Education
Binghamton University
State University of New York

Make It Useable

Building Academic Vocabulary Through Peer Talk 4

aurice and Francisco trade conspiratorial whispers in their tenth-grade world history class. They and their classmates are pairing up to devise games that will help one another prepare for the final exam. Ms. Schaeffer, their teacher, has used a variety of games to reinforce key vocabulary terms since the beginning of the year, so her students are well versed in the formats of bingo, *Jeopardy, Who Wants to Be a Millionaire? Hollywood Squares*, Balderdash, Scrabble, *Wheel of Fortune*, and *Password*.

Maurice and Francisco are designing a category game based on the old \$25,000 Pyramid show to help their peers shore up their understanding of ancient Greece. To pull this off, they have to determine the key understandings in the Greek unit the class completed; these will be the hidden categories on the game board (see Figure 4.1). The players will have to name these categories (e.g., art, philosophy, science) based on the examples they are given. Maurice and Francisco have compiled a list of possible examples for each category, which took quite a bit of discussion, negotiation, and reviewing of the unit. These boys know the examples they offer up to classmates must represent the category well or the game won't be fair—or fun to play (see Figure 4.2).

"We need more contributions to science," says Francisco. The boys flip through a pile of materials from the unit and begin rereading and skimming.

"Hey, here's one. I forgot about siphons," Maurice says. "Let's add that to the list." Francisco admits that he doesn't remember what a siphon is. "It's like when you take a tube and suck some air out of it so you can get water to go

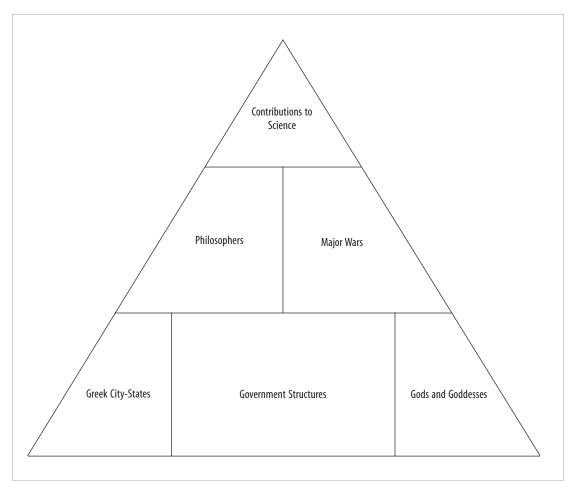


Figure 4.1 Pyramid game on ancient Greece

from one bucket to another," Maurice explains. "It's how hydraulics work." Ms. Schaeffer, who has been listening in on partner conversations, smiles to herself. The vocabulary development that accrues from a student conversation like this one is the real McCoy; the actual playing of the game is the icing on the cake. She loves hearing the excited tone in students' voices and the confidence they exude when they explain their reasoning and new knowledge.

■ The Importance of Oral Language

Vocabulary doesn't exist only as an academic skill to be tested through multiplechoice items. It is a dynamic aspect of our daily speech, and it helps define how

Greek City-States	Government Structures	Gods and Goddesses	Philosphers	Major Wars and Battles	Contributions to Science
Pylos	oligarchy	Nike	Thales	Persian	measuring the Earth
Corinth	tyranny	Apollo	Plato	Marathon	charting the stars
Ithaca	monarchy	Persephone	Socrates	Peloponnesian	
Thebes	representative democracy	Artemis	Aristotle	Thermopylae	diving bell
Athens	direct democracy	Atlas		Trojan	Hippocratic oath
Sparta		Hermes			siphon
		Athena			
		Zeus			

Figure 4.2 List of clues for the pyramid game

others perceive us. Vocabulary can work against us—those who are too wordy are called *verbose*, while others who lack the verbiage to express themselves clearly are labeled as *inarticulate*. Our speech differs from written language as well. It is punctuated with social markers that reveal our cultural and class origins, our gender, as well as our experiences. Clichés and colloquial expressions, the presence or absence of profanity, even the extent to which we ask questions in a conversation disclose our identity to others. Our relative ability to use vocabulary with precision is not something that is limited to the school day; we carry our vocabulary with us every moment of our lives.

The language of young children gives us insight into vocabulary development. A toddler who has just learned *dog* labels every four-legged beast this way, be it cat, horse, or elephant. Over time, she acquires more labels and can discern the difference between a dog and a cat. Still later, she possesses the vocabulary of *beagle* and *poodle*. If she grows up to be a dog breeder, she'll correctly identify a Rhodesian ridgeback and a Portuguese water dog.

There's something happening to fuel this development, something that cannot be forgotten in the classroom: Academic vocabulary development doesn't come about only through listening. Yes, listening is important (as we discussed in the previous chapter). But listening is only one side; speaking is the other. To develop language, the child must engage in conversation with others who

shape her understanding of concepts, correct her errors, and give her new labels to use. The vocabulary she develops over time comes in part from the opportunities she has to use vocabulary in spoken language. She then carries the oral language awareness into her reading and writing experiences.

■ The Evidence on Oral Language and Vocabulary Development

Now, for the bad news: Our teaching doesn't reflect what we know both intuitively and through the research about the benefits of talking to learn. Almost three decades ago, Watson (1980) noted that the discourse in secondary classrooms is dominated by teacher-led discussions that limit participation to a handful of students. Not much has changed since then.

We want to be clear here: Discourse is great when it's a true, classwide exchange. It's a vital element to content learning, as evidenced by the national standards in nearly every subject. What's askew is that in most middle and high school classes, the teacher *dominates* the spoken language, asks questions occasionally, and is answered by the same few students (Cazden 2001). So much potential language and academic development are lost in this unfortunate state of affairs, for adolescent oral language development and vocabulary acquisition are strongly linked. One study of eighth-grade mathematics students found that students taught to use heuristic vocabulary in their work with one another improved their mathematical learning, and the effect was even greater for lower-achieving students (Koichu, Berman, and Moore 2007). (Here's a bit of vocabulary development: *heuristics* in math are problem-solving approaches such as *make a graph, confirm the prediction,* and *keep track of calculations*.)

In another study, researchers investigated the language gains made by first-and second-language learners in an undergraduate psychology course that featured small-group discussion. Importantly, both groups (first- and second-language learners) improved in their vocabulary and content learning as a result of the discussions they had with peers (Burger and Chretien 2001). It seems that small-group oral language activities that target vocabulary development are useful. A comparative study of high school students enrolled in a first-year world language course found that those who constructed word maps with peers acquired more new vocabulary than those who did not use the mapping activity (Morin and Goebel 2001).

But conversations involving academic vocabulary don't just break out in the classroom, whether they be among the whole class or small groups. Students have to be taught to have these conversations. And you have to create a culture in the classroom where pursuing word meanings is fun and where it's OK to be in the dark about a word. Let students know when you don't know a word that you came across in your reading outside of school, and let students know you love it when they speak up about a word they don't know. Celebrate it and pursue the answer together, right on the spot if at all possible. And when you can, invite your English language learners to provide insights about a vocabulary word's equivalent in their native language.

■ Characteristics of Productive Group Work

As you know, fostering meaningful work between partners or in small groups is more complicated than simply throwing students together and assigning them a task. It is useful to consider these characteristics of effective peer learning (Johnson, Johnson, and Smith 1991).

- *Positive Interdependence*: The activity should necessarily require the participation and contribution of all members of the group and cannot be done by one member. Lack of participation by any member would diminish the likelihood that the task can be completed successfully.
- Face-to-Face Interaction: Never underestimate the power of personal connections between students, especially when the intent is the development of language. Communicators need face-to-face interaction in order to communicate.
- Individual and Group Accountability: This is undoubtedly the most common complaint among teachers and students when group assignments are mentioned. The solution is an easy one but is usually overlooked. Every member needs to be held individually accountable. A group grade in the absence of individual accountability is a surefire recipe for unrest. Our solution? Require all participants to use different ink colors and sign their names accordingly. The evidence of everyone's contribution is instantly apparent.
- Interpersonal and Small-Group Skills: Just because they are in middle or high school doesn't mean students know how to work well with one another.
 Establish your rules of engagement and teach them. Our rules include the following:
 - 1. Listen as an ally.
 - **2.** There is value in every voice.



Students engaged in production group work in geography

- **3.** If you have a disagreement, try to solve it together.
- **4.** If you can't resolve it, talk to the teacher.
- *Group Processing*: Students need time to discuss their work together. In a busy secondary classroom, it's easy to push this component aside. Make a habit of building a few minutes into the end of the activity to allow participants to discuss the process they used.

■ Three Tips for Successful Peer Interactions

We always believe in stacking the deck in the favor of the teacher, and peer collaboration activities are no exception. We have found that when we are clear on the purpose of the activity, when we are deliberate in varying the vocabulary enrichment activities, and when we integrate the activities into content learning, the success rate accelerates.

Tip 1: Provide Students with a Purpose Statement

Adolescents are sensitive to busywork. The moment they decide that you've given them a task to keep them busy and buy yourself some peace, you're going

to have some understandable civil disobedience—mostly in the form of complaining! But when you establish a clear purpose with students and link it to their overall mastery of the content, they'll get on board. This is different from giving directions, which merely list a sequence of steps. Purpose provides students with a model of metacognition so that they recognize a path to learning. In our many visits to classrooms, we have found that establishing a clear purpose is the most neglected instructional design element. We often ask students a simple question: "How do you know when you're done?" If the answer is "When the teacher tells me" or "When the bell rings," we know that no clear purpose has been established for that learner.

Write a purpose statement for your students that includes three components: First, tell them the *outcome*. (By the end of this activity, you and your partner should be able to describe the characteristics of plant and animal cells.) Second, tell them how the task relates to their *content mastery*. (An objective of this unit is that you are able to compare and contrast these types of cells and explain how they reproduce.) Third, tell them how they will *measure success*. (You'll know you've done this correctly when you are able to explain the differences to one another without using the graphic organizer you've developed.) We've developed a habit over the years of posting the purpose on the board as well as saying it orally.

Tip 2: Remember That Variety Is the Spice of Life—Especially for Adolescents

Variety is especially important when it comes to academic vocabulary development. Secondary students satiate quickly on any one particular vocabulary activity, so we've found it helpful to get into the mindset of offering up a few different types of peer activities each week. Graphic organizers are great, but not if they are used five days a week. It is a fine balance between establishing habits of work and allowing students to habituate to too few vocabulary activities. Rotating effective vocabulary learning strategies, such as the ones outlined in this book, will ensure that students remain focused on the instruction provided.

Tip 3: Integrate Vocabulary Activities into the Content Flow

As much as possible, avoid activities that isolate academic vocabulary from the conceptual understandings of the unit of study. The goal of any activity should center on the necessary use of the vocabulary to complete the task. You won't find activities in this book that have students endlessly looking up dictionary

definitions and mindlessly copying them onto worksheets. Nor do we ask students to write contrived sentences containing targeted vocabulary words. We learned our lesson the hard way years ago when we received this assignment from Edgar:

- 1. Stoic is a word.
- **2.** Narcissism is a word.
- **3.** *Draconian* is a word.

And so on—you get the idea. Choose activities for peer interaction that rely on the verbal and written use of vocabulary that is contextually bound. Words serve as the proxy for a multitude of concepts and ideas. You'll find that both academic vocabulary and content knowledge are built together.

Semantic Feature Analysis: Exploring Relationships Between Words

Another specific type of graphic organizer is the semantic feature analysis. It's a matrix of sorts. Using this tool, students can examine related concepts (words) and make distinctions between them. We know that semantic feature analyses facilitate comprehension and engagement (Pittelman et al. 1991). We also know that this tool is a powerful way for engaging students in world learning (Stahl 1999). In working on the distinction between words, ideas, and categories, students use academic vocabulary, both specialized and technical. The key for us is to get students talking about the categories, persuading one another whether or not a characteristic applies.

It's easy to see the value of students building their academic vocabulary using semantic feature analysis by visiting Jeff Bonine's biology class. Mr. Bonine focuses a great deal of instructional attention on cells, parts of the cell, cellular life, and so on. At one point in his course, students complete a semantic feature analysis chart comparing plant and animal cells. Mr. Bonine explained, "They really need to see the differences between these two cells. I have them evaluate illustrations, but I want students talking about the differences. And I want them to record the differences for later reference. Along the way, I want students to become comfortable with the scientific vocabulary."

Using the tool found in Figure 4.6, students met in groups and debated the answers with one another. Here's a part of the conversation one group had:

Javier: They both gotta have a membrane. That's what keeps them together, all of the other stuff inside. Without that membrane, the nucleus would be rolling around in space. And the cell couldn't sustain itself. It needs a membrane to exist.

Hector: Yeah, it's like the film said, a cell is like a little room. Remember, it was named after the little room that the monks lived in. They didn't need a lot of room 'cuz they was working all the time.

Maria: OK, so both have cell membranes. That must mean that both have cell walls, right? I mean those monks had walls, so the cells must have walls, too.

Hector: But not chloroplast. They both don't got that. Remember that *chlor*-means green, so that's gotta be for the plants only, right?

It's clear that these students need continued work on their biology vocabulary relative to plant and animal cells. It's also obvious that they have

Component	Plant Cells Only	Animal Cells Only	Both Plant and Animal Cells	Neither Plant nor Animal Cells
Cell membrane	0	0	+	0
Cell wall	+	0	0	0
Chloroplast	+	0	0	0
Cytoplasm	0	0	+	0
Cytoskeleton	0	0	+	0
Endoplasmic reticulum	0	0	+	0
Golgi apparatus	0	0	+	0
Lysosomes	0	+	0	0
Mitochondrion	0	0	+	0
Neurons	0	0	0	+
Nucleus	0	0	+	0
Peroxisomes	0	0	+	0
Ribosomes	0	0	+	0
Vacuoles	0	0	+	0

Figure 4.6 Semantic feature analysis for cell parts

ways for figuring out how these words work. They use the technical terms with one another and figure out the task at hand. They also trust one another and engage in interesting discussions about the ideas of biology. Mr. Bonine knows that his students will come to understand the academic vocabulary as they use it. He listens in on group conversations so he knows which words are still difficult for his students. With this information in mind, Mr. Bonine can plan subsequent opportunities for interaction as well as individual activities for his students.

Concept Circles: Understanding Attributes

To know a word is to know its attributes. Recall the contentious debate in 2006 among members of the International Astronomical Union as they argued, and eventually voted on, a definition of *planet*. We'd like to think that these experts would have agreed long ago about what constitutes a planet, but it turns out that the more you know about something, the more precise the language must be to describe and define it. After all, if it is round, large, and orbits a star, isn't it a planet? It turns out that this definition is simplistic, because it allows for too many objects to be classified as a planet. The experts determined that in order for something to be considered a planet, it also had to possess enough gravity to be able to clear a path for itself in its orbit; in other words, it had to be able to push other debris out of its way through gravity, not just collision.

If we arranged the pre- and post-August 2006 definitions of a planet into concept circles, they would look like Figure 4.7.

Poor little Pluto lost its status as a planet because of this change in definition. There is still much debate about this definition (particularly because Neptune doesn't completely sweep its orbit; Pluto is in the way), but the point here is that knowing the attributes of a word allows us to know the word. Concept circles are a way of representing those attributes visually through knowledge mapping.

Concept circles can be used in a variety of ways. The most obvious are ones that are teacher created, which are necessary for modeling how concept circles are developed and interpreted. Once students are comfortable with the process, allow them to create concept circles in partners or small groups. These student-created concept circles can be collected by the teacher and redistributed to other groups and used as games. Choose one of the following conditions for students to apply as they develop original concept circles:

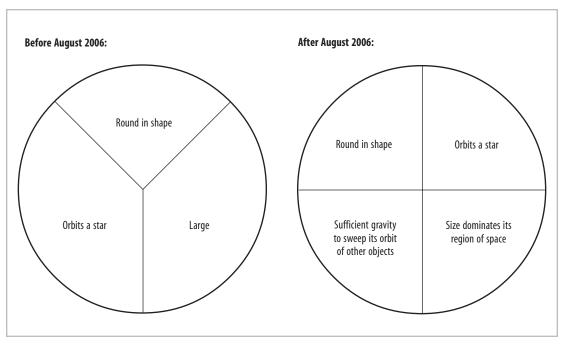


Figure 4.7 Concept circles of two definitions of planet

- Player identifies concepts based on attributes.
- Player identifies the incorrect attribute in a concept circle.

Danny and Steve developed a concept circle about free verse in their English class (see Figure 4.8). They were asked to use an incorrect attribute, so the boys decided to link some poets to this form. There had been confusion in the class regarding blank verse and free verse, so they identified a poet known for each of those types of poetic forms. Given their focus on attributes, concept circles are a great way for students to develop their outside-the-word problem-solving skills.

Shades of Meaning: Noticing Subtle Differences

The subtle differences between related words can be very confusing for students. While they might have a general sense of the difference between *overjoyed* and *ecstatic*, most students would be hard-pressed to define and use these terms in specific ways. In other words, most likely they would see these two

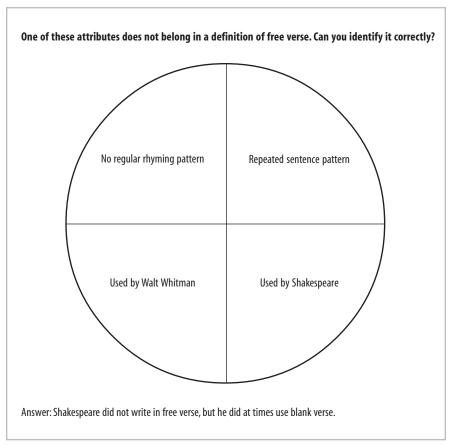


Figure 4.8 Concept circle for free verse in poetry

words as synonyms and not comprehend the differences authors intend when they use one or the other.

Goodman (2004) developed the shades-of-meaning strategy as a way to address this need and help students develop their understanding that many words can be organized in gradients of meaning. The strategy encourages students to talk about words and arrange them along a continuum. As an interesting side note, the ability to distinguish subtle meaning is one of the skills assessed on the Scholastic Aptitude Test.

The easiest way to develop students' understanding of the differences between related words is to use paint chips. Most hardware stores will provide you with paint chips for free. Using a paint chip, students identify a continuum of words and then write the words in the colored sections of the paint chip.

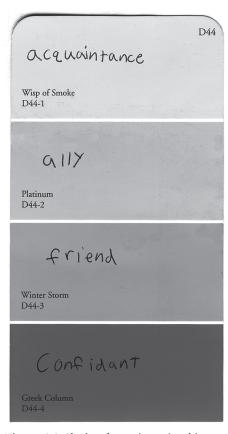
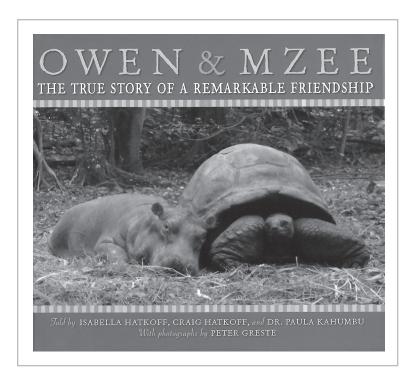


Figure 4.9 Shades-of-meaning paint chip

Figure 4.9 contains a sample of a paint chip continuum related to friendship that a group of middle school students created after reading the book *Owen and Mzee: The True Story of a Remarkable Friendship* (Hatkoff, Hatkoff, and Kahumbu 2006).

As you can imagine, the conversations this group of students had about friendship and the words related to friendship was powerful. During their discussion, students used specialized words to convey their understandings. They also clarified their understanding of the words and provided one another with examples from their own experiences. For instance, Mubarik said, "Ally means friend, right? Someone who can help you, like provide assistance, like a friend."

Tynesia agreed but added, "I see a friend as an ally, but I think that an ally doesn't have the depth of a friendship. Friends are there regardless, in any circumstance. Being friends extends beyond being an ally."

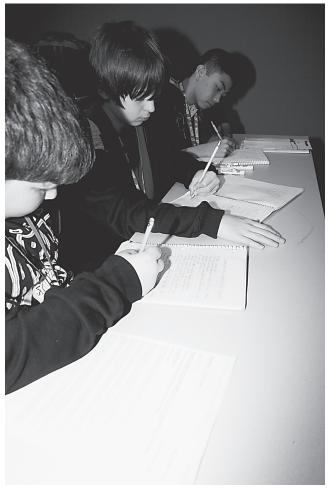


■ Written Approaches to Building Academic Vocabulary

The overarching goal of the interactive activities described in this section is to cause students to integrate Tier 2 and Tier 3 vocabulary into their written communication. The tasks involve traditional composition, and we know that the likelihood that students will use this vocabulary in written work increases as they have more opportunities to use academic vocabulary in their writing. As with the other strategies we've discussed, it is critical to select specific academic vocabulary for use with these activities. Middle and high school students simply do not have time to work with words they already know and use. They need to spend time integrating new technical vocabulary and novel uses of specialized vocabulary into their daily writing tasks.

Text Impressions: Making an Impact

Text impressions, also known as story impressions (McGinley and Denner 1987) and semantic impressions (Richek 2005), provide students an opportunity to build their academic vocabulary as they read a list of words, write a



Students using vocabulary while writing in history

paragraph containing those words, and then discuss the topic with their peers. The key to text impressions is the writing that students do. They have to place the words in context, often demonstrating their knowledge of the definitions, to write the paragraph.

The process for using text impressions is fairly simple. It starts with the teacher identifying key vocabulary words from an upcoming reading or unit of study. The selected words should meet the criteria outlined in Chapter 2, and the list of words should number between ten and twenty. Text impressions are most effective when there is a mix of specialized and technical words. Of course, students will not develop deep knowledge of all of these words from

this one activity, but remember that this will not be the only exposure students have to the words. They'll read them or use them later.

Once the words have been selected, the teacher arranges the words and phrases vertically with arrows signifying the sequence in which they appear in the text. For example, Figure 4.10 contains a list of words used in a text impression in an earth science class. Students in the class were studying the Arctic region and were about to read a piece of text focused on the Arctic chill (Farndon 2007).

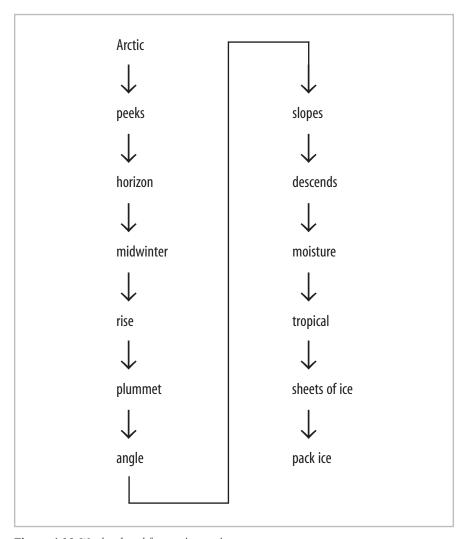


Figure 4.10 Words selected for text impression

The teacher then introduces the words and phrases, explaining each. Typically, the teacher facilitates a conversation about the words and provides students opportunities to talk about the terms and ask questions. This generates a great deal of attention to the words. As the conversation comes to an end, students write paragraphs containing the words. Our experience suggests that these paragraphs are best written in partners or small groups. Of course, all of the students don't need to be working on this task at the same time, but they do need to accomplish it at some point in the lesson. Figure 4.11 contains the paragraph written by one of the groups in Ms. Harvey's class. Ms. Harvey has groups of students rotate through stations, completing different tasks during the period.

It's easy to see that the students in this group have a reasonable understanding of many of the academic vocabulary words, both specialized and technical, that they need to know to read the text. It's also easy to see that their understanding of some of the concepts is limited. For example, they may or may not know what *peeks* means. Similarly, the use of *horizon* is fairly basic and their understanding of the word will likely expand when they read the text and learn specific scientific information about horizons.

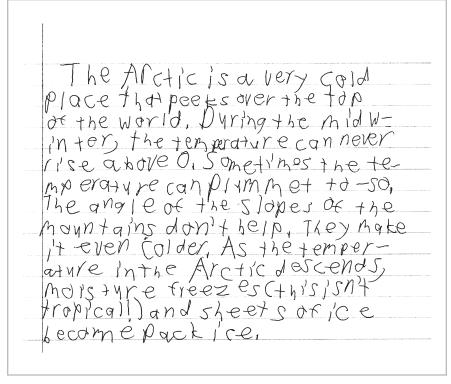


Figure 4.11 Sample text impression paragraph

When they have all completed their paragraphs, Ms. Harvey has her students share them with the class and discuss their thinking. After this has occurred, students can read the targeted text, looking for the words from the text impression chart. Ms. Harvey asks students to write definitions inferred from the reading on sticky notes when they find the words so that they can review their group paragraph and write an individual paragraph with more precise meanings for the selected words.

Text impressions provide students multiple opportunities to build their academic vocabulary. They can use both inside-the-word and outside-the-word strategies to think about word meaning. Inside-the-word strategies are fairly obvious; outside-the-word strategies may not be as obvious. To figure out unknown words, students will have to use other words on the list, information presented by the teacher, and data from the class discussion. As such, students build their academic vocabulary as they listen to their teacher introduce the words, when they talk about the words, as they write in small groups using

the words, when they read a text containing the words, and finally as they write their own paragraph with enhanced knowledge of the words.

Collaborative Posters: A Meeting of the Minds

When students gather to work in groups of four or five, it can become more difficult for them to see their ideas and those of their partners represented on a document. We've been unsatisfied with allowing groups to select a recorder, because it generally devolves into the work of that one person. Instead, we ask them to work together on a collaborative poster. The written portion of the task is completed on chart paper, and each member has a marker in a different color. They sign the poster, making it easy for the teacher to identify the work of each student.

Rachelle, Amie, Lorena, and Brock created a collaborative poster in their English class using the book *The Outsiders* (Hinton 1995). They had selected this title from a list of thematically linked books on coming of age in America. Their task was to analyze the socioeconomic differences between two groups, the Socs and the Greasers, then link them to symbolic devices. After dividing the chart into three sections and labeling each column, the conversation began.

Rachelle: I think the obvious one is possessions. The Socs were rich and

the Greasers didn't have anything.

Brock: Yeah, but we gotta go deeper. Like looking for the symbols of

that.

Lorena: Cars. That's one.

Rachelle: Like what?

Lorena: Well, cars were the most important thing for the Socs . . .

Amie: Status symbol. No difference from now.

Lorena: Exactly. They all had these cars . . .

Brock: Not just cars. Expensive cars.

Brock: But the Greasers just fixed 'em. They were the repairmen.

Rachelle: Better put that down, both of you. Any other ideas?

The group continued its discussion of class symbolism for the next ten minutes and ended up with the poster shown in Figure 4.12.

Socs	Greasers	Symbolism
owned expensive cars	repaired cars	status symbol
short, conservative hairstyles	long, greasy hair	measure of conformity to society
Bob uses his rings in fights to hurt opponents	Two-Bit's switchblade	weapons connote strength and power

Lorena Amie Brock Rachelle

Figure 4.12 Collaborative poster for The Outsiders

Vocabulary Games: Playing with Words

We opened this chapter with an example of the use of vocabulary games. We did so because we wanted to emphasize that academic vocabulary development can be fun. We also know that the use of vocabulary in games can be an effective way to build students' word knowledge (Beck, McKeown, and Kucan 2002; Richek 2005). For example, Selvidge (2006) demonstrated improved content knowledge as well as academic vocabulary development through the use of a board game focused on Egypt. In a study of college engineering students, Yip and Kwan (2006) demonstrated the positive impact that online vocabulary games had on student achievement.

From our experience, the key to using vocabulary games in the classroom lies in getting students to do the work—and getting each student to do a sufficient amount of work. When students write questions, for example, they have to consider the role that word meaning plays in the answers. Similarly, as they construct games, students have to consider the multiple meanings of words so that they don't confuse their players. There are a number of vocabulary games that teachers can use to build students' academic vocabulary, including

• *Crossword Puzzles*: Student-created crossword puzzles require that students focus on word meanings, providing just enough information but not too much information. Discovery Education offers a web-based puzzle-creation tool that students can use to create their masterpieces (http://puzzlemaker.school.discovery.com).

- Jeopardy! Wheel of Fortune, and Who Wants to Be a Millionaire? Following the formats of popular TV quiz shows, students create questions and answers based on specific vocabulary words. Again, the goal is to provide increasingly difficult questions to elicit responses. There are free PowerPoint downloads students can use to create these games at http://jc-schools.net/tutorials/vocab/ppt-vocab.html.
- *Wordo*: Students enter vocabulary words into the squares of a bingo card and then write definitions for each of the terms. The teacher can call definitions while students mark off the words. Again, the key is to have students develop the game. A sample Wordo card can be found in Figure 4.13.
- *Flip-a-Chip*: Lee Mountain (2002) developed this game that uses poker chips or any other small round chips. After being introduced to the game, students write prefixes, suffixes, and bases on the chips. They then flip the chips and determine if the resulting word is real or not. Mountain introduces the game with two chips. On the first, one side says *pro-* and the other says *re-*. On the second chip, one side says *-duce* and the other says *-voke*. By flipping the two chips, students see that they can make the following words: *produce, provoke, reduce,* and *revoke*. By adding affixes and roots themselves, students learn a variety of combinations that do and do not produce real words.

Of course there are many other vocabulary games that students can play that build their academic vocabulary. As you can see, each of these games involves students writing and using the words. They are also talking with one another and creating visuals. In doing so, they are building their stores of words and beginning to use these words as they complete tasks, engage with others, and read increasingly complex texts.

Conclusion

Vocabulary learners need time to build their understanding of words and terms through peer interactions. Regular use of partner and small-group discussion provides students with opportunities to clarify their thinking and extend each other's knowledge. Other interactions that utilize oral language include jigsaws, which encourage learners to retell new information, and reciprocal teaching, which formalizes the comprehension strategies used by proficient readers. Student think-alouds extend the work of the teacher, as described in Chapter 3, by shifting the cognitive load to the learner as she builds metacognition.

Other strategies capitalize on the visual arrangement of information in order for students to create knowledge maps that show relationships between and

WORDO Free Space!

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Figure 4.13 Sample Wordo card

among words. Word mapping allows students to arrange information in a hierarchical manner, from larger concepts to smaller details. Semantic feature analysis adds another level of complexity, as students juxtapose ideas across two planes in a matrix form. Concept circles allow students to consider the attributes of a word, while the shades-of-meaning strategy encourages students to see a group of related words on a continuum or gradient of intensity.

The final group of peer interaction activities ask learners to apply their growing word knowledge using writing. Working together, they analyze a list of words and link them into a paragraph that might predict the reading to come. Collaborative posters move small-group work from the task of one recorder to a shared responsibility where all members are required to contribute their ideas in writing. Lastly, students play and create original games for others utilizing the vocabulary of the content. These playful development tasks extend student learning beyond passive experiences. Building vocabulary requires active learning, and peer interactions let students see words from the inside and the outside, making academic vocabulary a part of *their* everyday discourse. Thus, the acquisition of words and ideas becomes central to their lives rather than something school focused, and we all get that much closer to achieving true content knowledge.



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