

Methods of Comprehension Instruction I: Vocabulary and Language Development

Chapter Five

- I. Developing Oral Language Skills
- II. Specific Vocabulary Word Instruction
- III. Word Learning Instruction

For many years, educators, researchers, and parents have noticed a disheartening trend in reading performance on standardized tests. Between the third and fourth grades, the reading scores of low-income students sharply and suddenly decline. Reading researcher Jeanne Chall called this drop in test performance the “fourth grade slump.” Chall noted that while average low-income students in second and third grades score at or even slightly above the national average in reading, the test scores of that same group of students begin a decline in fourth grade that grows wider as they advance to higher grades.⁸² What could account for such a sudden, dramatic change in reading performance in the course of one school year?

Related Readings

Along with this chapter, please read the excerpt located in the Related Readings section at the end of this text:

- Put Reading First, pp. 39-51

To answer that question, consider the following. Fourth grade texts are more academic and increasingly complex; works of fiction are likely to include some advanced literary devices (such as symbolism and irony) while nonfiction texts often provide information about topics less familiar to students (such as world history and cultures, or fundamental science concepts). To understand much of their upper elementary school reading, students must be able to make inferences that require background knowledge in a given area. For example, readers who lack background knowledge of Greek mythology may find it difficult to understand why overcoming some challenges requires a “Herculean effort.” Clearly, readers of these more challenging books need to have large numbers of words in their vocabularies and an ever-growing understanding of the world around them. Without this “word and world knowledge,”⁸³ reading comprehension will be highly challenging.

Unfortunately, broad “word and world knowledge” is exactly what many of our students lack. As Hart and Risley’s research demonstrated, low-income and minority students tend to have oral language deficits that are the result of hearing far fewer words in their early childhoods than their wealthier peers.⁸⁴ It appears that the “fourth grade slump” does not represent a sudden change in students’ reading abilities. Rather, it is not until the fourth grade that standardized test data reveals the vocabulary deficits that have been present in many children since Kindergarten.

This vocabulary and knowledge gap only widens with time. First grade students from lower income groups know half as many words as first grade students from higher-income groups.⁸⁵ **By 12th grade, the lowest-**

⁸² Hirsch, E.D., Jr. “Reading Comprehension Requires Knowledge- of Words and the World: Scientific Insights into the Fourth-Grade Slump and the Nation’s Stagnant Comprehension Scores.” *American Educator*. American Federation of Teachers, Spring 2003.

⁸³ Expression attributed to Hirsch, E.D., Jr. “Reading Comprehension Requires Knowledge- of Words and the World: Scientific Insights into the Fourth-Grade Slump and the Nation’s Stagnant Comprehension Scores.” *American Educator*. American Federation of Teachers, Spring 2003.

⁸⁴ Hart, Betty and Todd Risley. *Meaningful Differences in the Everyday Experience of Young American Children*. Baltimore, MD: Paul H. Brookes Publishing, 1995.

⁸⁵ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002.

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performing students have vocabularies equal to the highest-performing third graders.⁸⁶ For most students, regardless of economic status, excellent instruction in the building blocks of literacy and in reading fluency is a prerequisite for comprehension but does not *ensure* that students will understand what they read. Reading comprehension is complex, but we know that it is comprised of at least two distinct parts: using vocabulary and background knowledge, and applying comprehension strategies and skills.

This chapter will examine how to teach students the first piece of the comprehension puzzle (chapter six will focus on teaching comprehension strategies and skills). Part I examines ways to develop the **oral language skills** of our students, paying particular attention to creating a language rich environment that encourages incidental vocabulary learning. In Part Two, we will consider how to build students' word knowledge through **specific vocabulary instruction**, and we will conclude by looking at the types of **word learning instruction** that are effective in teaching students to be independent word solvers.

Decoding						Comprehension			
Book and Print Awareness	Phonological and Phonemic Awareness	Phonics and The Alphabetic Principle	Word and Structural	Fluency			Background Knowledge	Vocabulary	Comprehension Strategies
				Sight Words	Automaticity	Phrasing			

I. Developing Oral Language Skills

Most words that are rooted firmly in a student's vocabulary are picked up incidentally over time, through immersion in a world rich with language.⁸⁷ To encourage students' oral language development, teachers must create that language-rich world within their classrooms. To do this, they:

1. Use mature vocabulary repeatedly and in multiple contexts.
2. Encourage students to speak in complete sentences and incorporate learned vocabulary into their comments and questions.
3. Provide opportunities for students to engage with others in conversation—about familiar personal or shared experiences, problems in the classroom, the community and world, books and articles, etc.

Teachers whose classrooms are ideal communities for incidental word learning are aware of the importance of their own word and language choices. They use words again and again that stretch the limits of students' current vocabularies. Vocabulary experts Isabel Beck, Margaret McKeown, and Linda Kucan describe many opportunities to use sophisticated vocabulary in everyday classroom conversations:

- When children talk about others "copying them," the teacher offers *imitate*.
- When the children complete good work, the teacher calls it *exceptional*.
- When the teacher announces that an individual who had a particular skill would be visiting, he is called an *expert*.
- When the class is behaving well, she calls them *mature*.

⁸⁶ Ibid.

⁸⁷ Hirsch, E.D., Jr. "Reading Comprehension Requires Knowledge- of Words and the World: Scientific Insights into the Fourth-Grade Slump and the Nation's Stagnant Comprehension Scores." *American Educator*. American Federation of Teachers, Spring 2003.

- When the weather forecast predicts rain on a field trip day, the teacher calls the news *discouraging*.
- A student who keeps asking, “When are you going to give us our tests back?” is called *relentless*.
- A student who plans ahead for completing her homework for the week is called *pragmatic*.
- A student who works and works at writing his name clearly is called *persistent*.⁸⁸

Though it’s necessary for students to hear sophisticated words in the classroom, teacher modeling does not sufficiently prepare students to add those words to their own vocabularies. Students must hear words in multiple contexts and have many opportunities to engage in conversations with others.

In Kindergarten through second grades, the teacher may set aside a few minutes of the day for students to engage in conversation about personal experiences, school problems or community events so that they can practice speaking in complete sentences and so that the teacher can add unfamiliar words to students’ vocabularies. For example, first graders might turn to their partner and talk about their favorite foods, after which the teacher asks one pair to share their response in a complete sentence. Then, the whole class repeats the sentences about favorite foods together, counting the number of words in the sentence and making sure it is complete. The daily oral language exercise is complete when the teacher, acting as scribe, records the students’ thoughts on paper and leads them to read aloud the message that they have all worked to create.

While the above example might allow children an opportunity to engage in conversation with others, it will do little to build vocabulary, as students will use only words they already know to share thoughts and ideas with their classmates. To increase the challenge of this language activity, Kindergarten and first grade teachers can use “concept sorts” to give students practice thinking about the meaning of new words. Donald Bear and colleagues describe this method and its usefulness for young students:

In concept sorts, students take collections of objects or pictures and group them according to like attributes. We may sort as a whole class, such as when we sort shoes by various features; we may sort with a small group of students; or we may guide students as they sort individually or with partners in parallel fashion. As the process of sorting is introduced, we demonstrate and describe the reason we are categorizing the objects as we go (Nielson-Dunn, 2002). We begin by sorting dualistically—those that belong to a category and those that do not. For instance, in a food picture sort, we may classify pictures into those items that students have eaten and those that they have not. Later these same pictures may be sorted into the more complex categories of vegetables, meats, breads, and so forth.

Concept sorts provide the content to which students can attach new oral vocabulary. A previously unknown food such as *asparagus* can be learned in a concept sort where there is meaningful context with visual support. We advance students’ vocabularies and verbal reasoning by talking about the way they sort.⁸⁹

⁸⁸ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002.

⁸⁹ Bear, D.R. & Lori Helman, “Word Study for Vocabulary Development in the Early Stages of Literacy Learning,” in *Vocabulary Instruction: Research to Practice*, edited by James F. Baumann and Edward J. Kame’enui, New York: Guilford Press, 2004, p. 146.

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A concept sort allows students to begin with what they know—foods that they have eaten, (like *pizza*, *chicken*, or *green beans*), and continue on to explore what they don't know—foods that may be completely outside of their own experiences (such as *asparagus*, *artichokes*, or *mangoes*). In this way, any conversation about everyday activities can become a chance to enrich young students' vocabulary. Classroom chatter about students' moods might lead students to use words like *happy*, *sad*, or *excited*; by adding a concept sort for words that describe emotions, you can teach students advanced vocabulary to describe how they're feeling, such as *joyful*, *melancholy*, or *ecstatic*.

Daily oral language activities should increase the number of words that students can use as they talk about personal or shared experiences, classroom or world problems, or academic content that they are learning. Additionally, **challenging language instruction must extend to books during Read Aloud or Shared Reading, as they are perhaps our best source for rich words to discuss and use with our students.** Isabel Beck and colleagues describe a story that contains a collection of words for students to examine:

For example, while reading *Catherine, Called Birdy*, historical fiction set in the Middle Ages by Karen Cushman (1994), students can suggest words to put on a bulletin board or poster with pictures or explanations. From the first chapter, students might suggest *abbey*, *monk*, *vespers*, *crusades*, *solar*, *privy*, *shire*, *minstrel*, and *knight*. After the words have been posted, they can be sorted into categories, such as church words, rooms and places, and people. The display can be referred to as the novel is read, and more words can be added.⁹⁰

We know that given the right classroom environment, students can add words to their vocabularies each day, simply by hearing and thinking about a wide variety of words. By using sophisticated language on a regular basis, encouraging students to engage in conversations with others, and providing multiple opportunities for students to think about and work with word meanings, you will be able to create a classroom in which the following exchange, overhead in a first grade classroom, is commonplace:

Jason: Is this going to be an ordinary day?

Ms. H: What would make it ordinary?

Jason: If we like did the same old thing.

Ms. H: What might make it not ordinary, make it exceptional?

Jason: If you gave us prizes for being good—I mean exceptional and mature.⁹¹

II. Specific Vocabulary Word Instruction

Researchers have found that students with limited vocabularies experience less success than peers with more advanced vocabularies in learning words incidentally (through immersion or exposure). Psychologist Keith Stanovich calls this the "Matthew effect," the idea that in reading development, the rich get rich and the poor get poorer. In other words, students with weak decoding and fluency skills read less and therefore have much less exposure to vocabulary. This reality is one explanation for why we

⁹⁰ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002, p. 124.

⁹¹ Ibid p. 47.

must teach directly some of the unfamiliar words that our students will undoubtedly encounter while reading. However, not all teachers recognize how challenging it is to explicitly teach vocabulary. Unfortunately, perhaps the most obvious (if not most common) approaches to vocabulary instruction are also the least effective.

Many of us remember having to look words up in the dictionary and memorize their meanings, or being presented with a list of ten or more unrelated words to learn each week. These familiar approaches to teaching new words are all but useless as instructional methods, as researchers attest:

The most frequently used inappropriate technique is that of giving students a list of words out of context and telling them to look up their meanings in the dictionary. Three facts argue against this. First, most words have several meanings and many shades of meaning. Taken out of context, there is no way for students to decide which dictionary definition is most nearly appropriate. Second, unless a learner has some knowledge of a word and its meaning already, dictionary definitions are often inadequate...Finally, asking students to do something does not constitute instruction.⁹²

So, what are we to do? Researchers generally agree that students can learn some new words (perhaps 3 – 15 new words out of 100 unfamiliar words) by reading them and determining their meaning from context.⁹³ This slow progress in learning words in context is most likely due to the fact that discerning the meaning of a word by using the oft-espoused “context clues” is surprisingly challenging, especially for beginning and struggling readers. Using context clues demands the ability to make connections to background knowledge and make inferences within the passage, often beyond the surrounding few sentences. Next time you come across an unfamiliar word in a text, try to track the cognitive circumvolutions⁹⁴ you use to determine the meaning from the context clues. It isn’t always easy. And for beginning and struggling readers, it’s often an impossible task.

As opposed to relying *solely* on students learning new vocabulary words incidentally from hearing sophisticated language spoken in the classroom and using context clues during independent reading, researchers promote systematic and explicit vocabulary instruction, especially for struggling readers and students with weak vocabularies. When engaging in this explicit vocabulary instruction, the most effective approaches require that the teacher:

- (1) Carefully choose a limited number of words and provide direct, student-friendly explanations of their meanings.
- (2) Create meaningful interactions with the words in a variety of formats and contexts.
- (3) Ensure that students have multiple exposures to the new words.

Let’s look at each of these three points in turn to see how we can help students learn, use, and remember the vocabulary words we teach them.

⁹² Ryder, Randall and Michael Graves. *Reading and Learning in the Content Areas, 2nd edition*. Wiley Text Books, 2002.

⁹³ Baumann, James F. and Edward J. Kame’enui, ed. *Vocabulary Instruction: Research to Practice*. New York: Guilford Press, 2004, p. 15

⁹⁴ If you didn’t automatically know the meaning of circumvolution, you probably first thought about the context in which it was used: to describe the challenging mental steps people go through to determine a word’s meaning. Then, you looked at the prefix, *circum*, and knew that meant “around.” *Volution* might have posed more of a problem, but you know other words with that root, such as “revolution” and so probably deduced that it had to do with turning. You pretty much got it: Circumvolution, *noun*. The act of turning, winding or folding around a central axis.

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1. Carefully choose a limited number of words and provide student-friendly explanations of their meanings.

If you preview a Read Aloud story or an informational article to be used in Shared Reading and identify all the words that you anticipate students not knowing, you will probably come up with a lengthy, overwhelming list. As teachers, we need to know how to narrow our focus for the number of words we teach our students. How do we do that? First, consider how researchers Isabel Beck and Margaret McKeown have grouped an individual's vocabulary into three tiers:⁹⁵

Tier one: the most basic words, such as *water, picture, girl, money* that rarely require explicit instruction in school, as their meanings are acquired through day-to-day conversation.

Tier two: words that occur in the vocabulary of "mature language users" and are used in a variety of written and oral communication, such as *compromise, absurd, diligent, and typical*.

Tier three: words that are mostly unique to a particular content area, such as *watershed, rhombus, amnesty, and peninsula*.

As a general rule of thumb, during the balanced literacy block, we should focus on tier two words, perhaps the most critical for our students to master in order to have a broadly applicable vocabulary and enhanced reading and writing ability. During math, science, or social studies instruction, we will need to teach content-specific tier three words.

When choosing tier two words to explicitly teach and reinforce with students, consider the following questions⁹⁶:

- Which words are *important* and have *high utility*, appearing frequently across a variety of domains?
- Which words have *instructional potential* and can be worked with in many different ways so that students can understand their meanings and connect them to other words and concepts?
- Which words will students be able to *understand conceptually*?

Now we know what we mean by *carefully* choosing the vocabulary words we teach. What do we mean by a *limited number*? Researchers generally agree that students can learn three new words a day, at most. Consider the first paragraph of an old tale about a donkey who is under a spell and must do work for some lazy servants (appropriate for use with third or fourth graders). Try to identify all potential tier two words that you might teach:

Johnny Harrington was a kind master who treated his servants fairly. He was also a successful wool merchant, and his business required that he travel often. In his absence, his servants would tend to the fields and cattle and maintain the upkeep of his mansion. They performed their duties happily, for they felt fortunate to have such a benevolent and trusting master.⁹⁷

Did you choose *merchant, required, tend, maintain, performed, fortunate, and benevolent*? Though there is no science that dictates exactly how to choose vocabulary words, these seven words are all in the oral

⁹⁵ Baumann, James F. and Edward J. Kame'enui, ed. *Vocabulary Instruction: Research to Practice*. New York: Guilford Press, 2004, p. 14.

⁹⁶ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002, p. 19.

⁹⁷ Ibid p. 16.

vocabularies of mature language users. Given that this paragraph has many tier two words, it's necessary to consider which will be most helpful for students to know in order to understand the rest of the story. Which would you choose to teach directly to your students?⁹⁸

After you have chosen a few tier two words to teach your students, consider how you will introduce and explain them. As you try to create student-friendly definitions, keep in mind two basic steps. First, characterize the word and explain how it is used, and then explain the meaning of the word in simple, everyday language.¹⁰⁰ When you characterize a word, you are trying to make its meaning specific. Think about how you use the word *most* often and avoid overloading your students with all of its multiple meanings. To facilitate student understanding, define new words by using everyday, student-friendly language.

Some Student-Friendly Definitions⁹⁹

- **Exhausted** means feeling so tired that you can hardly move.
- **Strange** describes something different from what you are used to seeing or hearing.
- **Covert** describes something that is done in a secret or hidden way.
- **Improvise** means to make something you need by using whatever is available at the moment.

2. Create meaningful interactions with the words.

Providing student-friendly definitions of a few targeted vocabulary words is a solid first step in helping students to acquire new words. The next stage of instruction involves creating meaningful ways for students to interact with new words. Here we will focus on a handful of strategies that will support students in learning new words, each of which can be used at any grade level.

It is critical to provide students with many examples of a word's use **beyond the context of the story** in which it was read. Beck and colleagues admit that creating examples is a difficult task; they recommend thinking about places young children are familiar with (school, playground, street, store), things they like to do (play, eat, go to school, sleep), and things they are interested in (animals, toys, games, nature).¹⁰¹ Consider the following examples for the words defined in the box above:

- For **exhausted**: how someone would probably feel if they had been running away from a mean dog; how someone might feel if they had played basketball for a long, long time.
- For **strange**: a baby driving a car; a grandma going down a water slide.
- For **covert**: how you write in a diary that you keep locked and hidden under your bed; how you plan a surprise party for your dad.
- For **improvise**: what you do when it's raining and you forgot your umbrella so you use your backpack to keep your head dry; what your mom does when she runs out of chocolate chips while baking cookies and uses the raisins she has in the refrigerator.

Once you've provided examples that show how to use the targeted words beyond the story, it's time to involve your students in meaningful activities that help them to internalize new vocabulary words. The following menu of activities and accompanying questions will challenge your students to think about a word's meaning to complete the task:

⁹⁸ Beck and colleagues suggest *fortunate*, *benevolent*, and *merchant*. The first two words help to set up the conditions of the story, while the third is a vocabulary word often found in upper elementary social studies textbooks.

⁹⁹ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002, pp. 38-39.

¹⁰⁰ Ibid p. 35.

¹⁰¹ Beck, Isabel et al. "Taking Delight in Words: Using Oral Language to Build Young Children's Vocabularies." *American Educator*. American Federation of Teachers, Spring 2003.

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Give Questions, Reasons, and Examples

- If you are walking around a dark room, you need to do it *cautiously*. Why? What are some other things that need to be done cautiously?
- What is something you could do to *impress* your teacher? Why? What is something you could do that might *impress* your mother?
- Which of these things might be *extraordinary*? Why or why not?
 - A shirt that was comfortable, or a shirt that washed itself?
 - A flower that kept blooming all year, or a flower that bloomed for three days?
 - A person who has a library card, or a person who has read all the books in the library?

Prompt Students to Make Choices

- If any of the things I say might be examples of people *clutching* something, say, “clutching.” If not, don’t say anything.
 - Holding on tightly to a purse
 - Holding a fistful of money
 - Softly petting a cat’s fur
 - Holding on to branches while climbing a tree
 - Blowing bubbles and trying to catch them
- If any of the things I say would make someone look *radiant*, say, “You’d be radiant.” If not, don’t say anything.
 - Winning a million dollars
 - Getting a hug from a favorite movie star
 - Walking to the post office
 - Cleaning your room
 - Having the picture you painted hung up in the school library

Ask Students to Relate Words

- If you get your clothes ready to wear to school before you go to bed, would that be *sensible* or *raucous*?
- If you and your friends were watching a funny TV show together and began to laugh a lot, would you sound *pounce* or *raucous*?

Offer One Context for All the Words

- What would an *immense* plate of spaghetti look like?
- Why might you feel *miserable* after eating all that spaghetti?
- What would it look like to eat spaghetti in a *leisurely* way?

To Encourage Children Create Examples

- If there were an *emergency* at an amusement park, what might have happened?
- If you had a friend who watched TV all the time, how might you *coax* him into getting some exercise?¹⁰²

¹⁰² Ibid.

Sample Instructional Sequence

As an example of how you might structure a vocabulary lesson, read the following lesson sequence for three target words (*reluctant*, *insisted*, and *drowsy*) from *A Pocket for Corduroy*.

In the story, Lisa was *reluctant* to leave the Laundromat without Corduroy. *Reluctant* means you are not sure you want to do something. Say the word with me. Someone might be reluctant to eat a food that he or she never had before, or someone might be reluctant to ride a roller coaster because it looks scary.

Tell me about something you would be reluctant to do. Try to use *reluctant* when you tell about it. You could start by saying something like, "I would be reluctant to..." What's the word we've been talking about?¹⁰³

After the teacher defined the word and gave examples of the word beyond the context of the story, the students offered what they'd be reluctant to do.

Child 1: I would be reluctant to leave my teddy bear in the Laundromat.

Teacher: Well, that's just like what Lisa did in the story. Try to think about something you might be reluctant to do that is not like Lisa.

Child 2: I would be reluctant to leave my teddy bear in the supermarket.

Teacher: Okay, that's a little different than what Lisa was reluctant to do, but try to think of something that you would be reluctant to do that is very different than what Lisa was reluctant to do.

Child 3: I would be reluctant to leave my drums at my friend's house.

Teacher: That's pretty different from what Lisa was reluctant to do, but can we think of something that you would be reluctant to do that isn't about leaving something somewhere?

Child 3: I would be reluctant to change a baby's diaper!¹⁰⁴

Notice that even though the teacher presented the word in two different contexts (being reluctant to eat something, being reluctant to ride something), the students all returned to the original story context (being reluctant to leave something behind). The teacher continued to encourage the students to use the word in a completely different way than how it was used in the text, and eventually, one student provided a totally original use of the word! Take a look at how the teacher completes this lesson, involving students in working with each word separately, and then all three target words together.

In the story, Lisa's mother *insisted* that she leave the Laundromat when it was closing. *Insisted* means to say that something **MUST** be done—you won't take no for an answer. Let's say the word aloud.

Your mother might insist that you wear mittens when it is cold outside. She doesn't just TELL you to wear them, she makes sure you have them on before you go out!

¹⁰³ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002, p. 51.

¹⁰⁴ *Ibid* p. 52.

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If you were in charge of helping your class get ready to go on a trip, think of something you would insist that everybody do. Try to use the new word when you tell us. You could start by saying, "I would insist that..." What's the word we're learning?

In the story, Corduroy felt drowsy when he landed in the laundry basket after his adventures in the Laundromat. *Drowsy* means feeling as though you are going to fall asleep. Let's all say our word together.

Sometimes riding in the car makes people feel drowsy, as though they want to take a nap. What might make you feel drowsy, loud drums playing or soft music? Why? When might you feel drowsy? In the middle of your favorite TV program or after swimming on a hot day? Why?

We talked about three words: *insisted*, *reluctant*, *drowsy*. Let's think about them.

Show us how your mother might look if she insisted you go to bed. Show us how you would look if you felt reluctant about taking your little sister to the park. Show us how you would look if you sat down in a comfortable chair and started to feel drowsy.¹⁰⁵

Though the instructional example above asks children to interact with new words through whole class discussion, you might ask students to think and share with a partner before soliciting suggestions from volunteers. In their first interaction with new words, all students will likely need the support and guidance of the teacher to clarify meaning and ensure that words are being used in a variety of contexts. Later practice with these words can happen in small groups, pairs, or individually and can involve writing (particularly for third through fifth graders), drawing, or acting to demonstrate understanding of the word and the ability to convey its meaning.

Using **graphic organizers** is another effective way to involve students in thinking about words and their attributes. One such organizer is a **semantic map**; it can be used with all grade levels to help students classify tier two words found in a class novel or tier three content-area words from a science textbook, for example. Effective instruction using a semantic map has four parts.¹⁰⁶

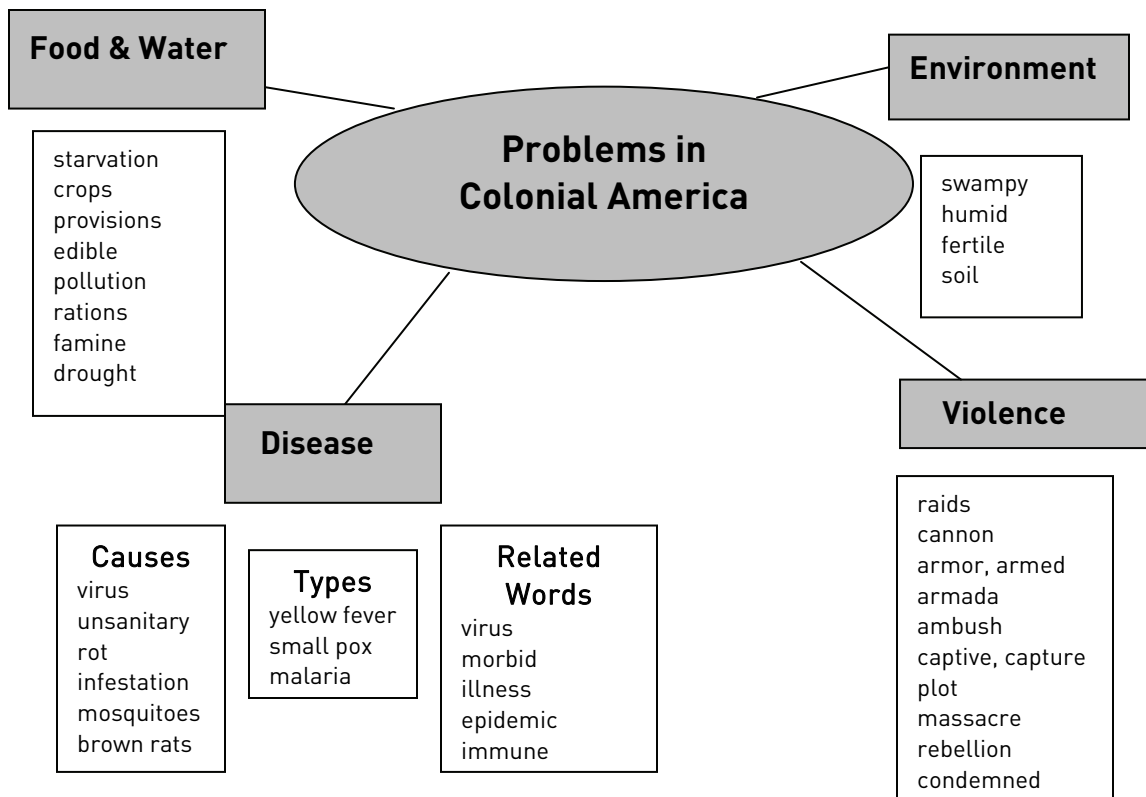
- (1) Brainstorming.** The teacher and class brainstorm ideas having to do with a particular theme. For example, a fourth grade class immersed in a social studies unit on Colonial America might brainstorm ideas related to problems in the colonies. Students might suggest *attacks*, *little food to eat*, *sickness*, *mosquitoes*, *famine*, *small pox*, and many other relevant words and ideas. The teacher explains less familiar words (*famine*, *small pox*) and contributes additional ideas to the list.

¹⁰⁵ Ibid pp. 53-54.

¹⁰⁶ Baumann, James F. and Edward J. Kame'enui, ed. *Vocabulary Instruction: Research to Practice*. New York: Guilford Press, 2004.

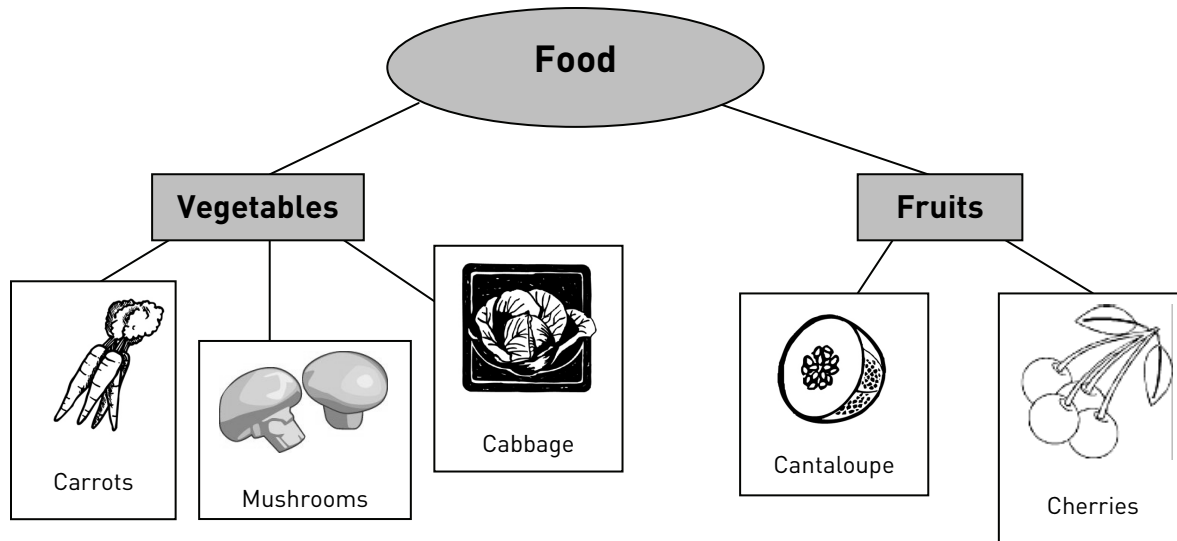
- (2) Mapping.** The teacher guides the students to examine the list of ideas and create three or four categories in which to classify the words. In our Colonial America example, students group the words into three categories of *problems*, *disease*, *violence*, and *food and water*. The teacher and/or students draw a map to represent the categories and subset ideas. For beginning readers, labeled pictures can be used.
- (3) Reading.** After drawing the map, the class reads a selection about the theme. Depending on the reading abilities of the students, the selection might be read aloud, read chorally as a whole class, or read in partners. The fourth grade teacher gives each of her students a copy of *You Wouldn't Want to Be an American Colonist! A Settlement You'd Rather Not Start* by Jacqueline Morley, and guides them to use the table of contents to locate sections that might provide information on colonial problems. The students read several sections of the informational text with a partner.
- (4) Completing the map.** After reading the text, the teacher and students discuss new ideas they have learned and return to examine the map. Often, students will add a category to the map, as well as many ideas to the categories. After reading about colonial problems, the fourth graders decide that they need to add a category that can include problems colonists faced because of the land and water. The teacher provides the students with the word *environment* and students add it to their map. The teacher guides students to look back to specific sections of the text to find words and ideas that might be added to each category. To complete the lesson, partners share the ideas they found and the class adds them to the map.

Consider the following semantic map produced by our fourth grade social studies class:



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A semantic map that builds the vocabulary of beginning readers or English Language Learners can use labeled pictures to represent ideas:



By structuring students' interactions so that they have to think about the meaning of the word in order to complete a task, you can ensure that the vocabulary you have introduced will be used and remembered by your students.

3. Ensure students have multiple exposures to the new words.

After you and your students have finished reading a book or completed a science or social studies unit, what happens to all of the new words your students learned? If they disappear from your classroom forever, your students will have a difficult time remembering and using them, no matter how many times they interacted with those words during the unit. Vocabulary research indicates that students need to have frequent, ongoing encounters with words if they are to become a part of students' permanent vocabularies.

One obvious way to ensure that learned words don't disappear is to continue to use them in your own language and to praise your students who do the same. The following are ways that you can continually reinforce learned vocabulary words with your students:

- (1) "Favorite Words" Bulletin Boards.** Create a "Favorite Words" bulletin board in your classroom. After you've read a book, copy its cover and post the related words and student-friendly definitions underneath. Involve students in adding words (and example sentences) to the board, as doing so will require them to continue to grapple with the meaning of learned words.
- (2) Content/Concept Charts.** Similarly, create a chart that displays the words students have learned in social studies, science, or mathematics units. Whether it's a social studies chart with words learned in the Colonial America unit, a science chart showing weather-related concepts, or a math chart listing geometry-related words, it's helpful to include some visual representations of newly learned ideas. After the unit is complete, you can group charts together according to content area and allow students to reference them throughout the year.

We work on vocabulary by drawing pictures of words, acting out words in short skits, and playing vocabulary bingo. Our literacy program has unit vocabulary that I use. I also select tier II and III words from other texts that we are reading. I give my students weekly vocabulary tests so I can track their progress.

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(3) Apply Learned Words to New Stories. Children will probably recognize when a word they've learned through a previous story appears in a new one. Challenge them further by asking them to apply a learned word to a new story. For example, during the Read Aloud a teacher might ask students to relate words they've already learned to *Curious George Goes to a Chocolate Factory* by asking the following questions:

- We learned some words in other stories that could fit here, too. How about the word *craving*? How does that describe something that happened in this story?¹⁰⁷
- Remember the word *deserve*? George got a box of chocolates as a present at the end. Do you think he deserved to get that? Why?¹⁰⁸
- Does anybody remember a word that George might use to talk about the candy? It's a word we used to talk about the things the wolf baked for the chickens in *The Wolf's Chicken Stew*. George thought the candy was... [*scrumptious*].¹⁰⁹

(4) Use Learned Words in Reading and Writing. By including learned words in daily reading and writing activities, you'll ensure that students have opportunities to hear and use new vocabulary again and again. Consider the following suggestions:

- Incorporate the words in the **morning message**. For example, you might write, "Today is Tuesday. It is a *lovely* day outside. The sun is *radiant* and the temperature is *balmy*. I *insist* that we work hard this morning so that we can go outside and play at recess."¹¹⁰
- Create a **class dictionary** that includes meanings and example sentences for all the vocabulary words you've learned.¹¹¹
- Include work with learned vocabulary words at **literacy centers**. As an example, you could make a board game that requires students to interact with the meanings of different words.
- Encourage students to **use learned words in their own writing**. If a student writing a personal narrative about a trip to the amusement park describes a ride as scary, challenge him to use a word he's learned instead (such as *menacing* or *intimidating*).¹¹²
- Play **games with vocabulary** during transition times or when you have a free moment. For example, write words on a piece of paper and place them in a "Magic Word Hat." Before lining up for lunch or recess, ask a student to choose a slip, read the word, and call on a classmate to use that word in a sentence.¹¹³

Providing specific word instruction that expands students' vocabularies is a difficult but critical task. By providing student-friendly definitions for a few, carefully chosen words, creating meaningful ways for students to interact with their meanings, and ensuring that students have multiple exposures to the words, you will guide your students to increase their vocabularies significantly and thus, improve their reading comprehension.

¹⁰⁷ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002, p. 70.

¹⁰⁸ *Ibid* pp. 70-71.

¹⁰⁹ *Ibid*.

¹¹⁰ *Ibid* p. 70.

¹¹¹ *Ibid*.

¹¹² *Ibid*.

¹¹³ *Ibid*.

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III. Word Learning Instruction

Thus far, we have examined how to create a language-rich classroom environment and how to provide direct instruction in specific vocabulary words. In this section, we will focus on a final, crucial aspect of vocabulary development: word learning instruction. When teachers offer word learning instruction, they give students tools that will aid their ability to determine a word's meaning on their own. We'll examine three such tools for solving words, including:

- I. Using the dictionary
- II. Using meaningful word parts (morphemes)
- III. Using context clues

Using the Dictionary

Though dictionary definitions can be unhelpful to children (and sometimes adults) who seek to understand a word's meaning, it is important that our students know how to access this resource. To use the dictionary effectively, students must know and be able to use the following prerequisite information and skills:

- (1) How to put a list of words in alphabetical order
- (2) Organizational features of the dictionary, including the sequencing of words according to alphabetical order and the use of guide words to help readers locate words quickly
- (3) Organizational features of an entry, including pronunciation, part of speech, and all possible meanings of the word
- (4) How to use organizational features of the book and its entries to locate a word entry and determine its meaning, part of speech, or correct pronunciation

As this tool will probably be the least helpful for your students in determining word meaning, it's best not to spend excessive time developing dictionary skills. If your school has a librarian, you might attempt to coordinate instruction so that students can spend part of their library time learning and practicing dictionary skills.

Using Meaningful Word Parts

Perhaps the most powerful type of word learning instruction that we can offer our students is an in-depth study of *morphemes*, the smallest meaningful units in the English language (including whole words, prefixes, suffixes, or roots). These meaningful units are classified by type: *free morphemes* stand alone as a meaningful word (such as *man*, *blue*, *she*, and *under*) while *bound morphemes* (roots, prefixes, and suffixes) work as meaningful units only when combined with other morphemes (such as *revise*, *telephone*, *underline*, and *unknown*). Mounting research indicates that attention to morphemes supports students' vocabulary growth.¹¹⁴ If you consider that knowing only 20 prefixes allows us to determine the meaning of nearly 3,000 words, the importance of morphology becomes clear.¹¹⁵

Our first task is to determine which morphemes to teach to our students and in what order to teach them. Literacy expert Louisa Cook Moats recommends beginning instruction in morpheme analysis in the first grade and continuing through high school.¹¹⁶ Some districts mandate a specific sequence of instruction in morphemes, aligned with state standards and standardized tests. If your district does so, you should

¹¹⁴ Baumann, James F. and Edward J. Kame'enui, ed. *Vocabulary Instruction: Research to Practice*. New York: Guilford Press, 2004, p. 120.

¹¹⁵ Ibid p. 87.

¹¹⁶ Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000, p. 74.

follow the provided scope and sequence. Researchers, many of whom advise states as they create grade-level standards, recommend a logical instructional sequence that teaches the most common and transparent morphemes first, and moves to more complex morphemes later.

Specifically, you should teach first through third graders compound words (combinations of two free morphemes, such as *earring* and *homemade*), inflected suffixes (grammatical endings such as *-ing*, *-er*, *-y*, *-s*, and *-ed*), and the most common prefixes (*re-* and *un-*).¹¹⁷ In third through fifth grades, teach students to recognize and know the meanings of many prefixes and suffixes. Fourth and fifth grade teachers add instruction of Greek and Latin roots, as well as the process for breaking a word into its component parts to derive its meaning.¹¹⁸

In addition to the general grade-level sequence provided above, we know that it makes sense to teach first the morphemes that students will encounter most often in their reading (just as we do when we teach letter-sound relationships). To provide you with even more guidance, consider the following tables; both provide an overview of the twenty most common prefixes and suffixes and their meanings:¹¹⁹

The Twenty Most Frequent Prefixes			
Prefix	Words with the Prefix	Prefix	Words with the Prefix
un- (not, opposite of)	782	pre- (before)	79
re- (again)	401	inter- (between, among)	77
in-, im-, ir-, il- (not)	313	fore- (before)	76
dis- (not, opposite of)	216	de- (opposite of)	71
en-, em- (cause to)	132	trans- (across)	47
non- (not)	126	super- (above)	43
in-, im- (in or into)	105	semi- (half)	39
over- (too much)	98	anti- (against)	33
mis- (wrongly)	83	mid- (middle)	33
sub- (under)	80	under- (too little)	25

The Twenty Most Frequent Suffixes			
Suffix	Words with the Suffix	Suffix	Words with the Suffix
-s, -es (plurals)	31%	-ity, -ty (state of)	1%
-ed (past-tense verbs)	20%	-ment (action or process)	1%
-ing (verb form/present participle)	14%	-ic (having characteristics of)	1%
-ly (characteristic of)	7%	-ous, -eous, -ious (possessing the qualities of)	1%
-er, -or (person connected with)	4%	-en (made of)	1%
-ion, -tion, -ation, -ition (act, process)	4%	-er (comparative)	1%
-ible, -able (can be done)	2%	-ive, -ative, -itive (adjective form of a noun)	1%
-al, -ial (having characteristics of)	1%	-ful (full of)	1%
-y (characterized by)	1%	-less (without)	1%
-ness (state of, condition of)	1%	-est (comparative)	1%

¹¹⁷ Ibid pp. 74-76.

¹¹⁸ Ibid.

¹¹⁹ Modified from Beers, Kylene. *When Kids Can't Read: What Teachers Can Do*. Portsmouth, NH: Heinemann, 2003.

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The following list of common Greek and Latin roots, meanings, and example words will be helpful as you plan instruction for your fourth and fifth graders:

Common Greek Roots		
Root	Meaning	Example
graph	writing	autograph
meter	measuring	centimeter
micro	small	microphone
logy	study of	biology
photo/phos	light	photograph
scope	instrument for viewing	telescope
tele	far, distant	telephone
thermo	heat	thermostat
Common Latin Roots		
Root	Meaning	Example
aud	to hear	audible
dict	to speak	dictate
port	to carry	transport, portable
rupt	to break	rupture, interrupt
scrib/script	to write	describe, prescription
spect	to look at	spectacles, perspective
struct	to build	construct, structure
trac/tract	to drag or pull	tractor, subtract
vis	to see	visible, supervise

Now that we have guidance on when to teach our students particular morphemes, let's take a look at how to help our students understand what these units of language mean and figure out a word's meaning by examining its parts. Researchers advise teachers to follow these four guidelines as we teach morphemic analysis:

- (1) Provide explicit instruction in how morphemic analysis works.**
- (2) Examine relationships between words through "word families."**
- (3) Provide structure so that students can use morphemic analysis independently.**
- (4) Be clear with students that morphemic analysis does not always work.**¹²⁰

We'll take a more in-depth look at each of these recommendations to understand better how they guide classroom instruction.

(1) Provide explicit instruction in how morphemic analysis works. Be clear with your students that morphemic analysis involves breaking a word into meaningful parts, knowing the meanings of those parts, and putting them back together again to determine the word's meaning. Explain to your students why it is important that they learn to do this—share that they will be able to read and understand many, many words if they can use this process.

¹²⁰ Baumann, James F. and Edward J. Kame'enui, ed. *Vocabulary Instruction: Research to Practice*. New York: Guilford Press, 2004, p. 164-166.

After students understand why you are teaching them the meanings of small parts of words, you should identify, pronounce, and define the morpheme that you are teaching.¹²¹ Students find it helpful to have a formal definition of the morpheme that they are learning, such as, “A *micrometer* is an instrument that lets us measure in small units.”¹²² In this way, students will have a model by which to determine a definition of a word that they are examining independently. When they approach *telescope* in their science textbook, they will be able to craft a similar definition: “A *telescope* is an instrument that lets us see things that are far away.”

What does an explicit definition of a morpheme sound like?

A second grade teacher might explain compound words by saying, “When we take one word that means something on its own, like *dog*, and combine it with another word that means something on its own, like *house*, we make a new, compound word: *doghouse*.”

A fourth grade teacher might explain prefixes by saying, “A prefix is a word part that is placed before a base or root word and changes the word’s meaning. For example, if we add the prefix *re-* to the base word *read* we have changed the base word’s meaning. When we *reread* we read something again, because the prefix *re-* means again.”

(2) Examine relationships between words through “word families.” It’s important to make students aware that many words are connected because they share a word part. Many related words are pronounced in significantly different ways (*preside* and *president*, for example), so students may have difficulty hearing that they share a common word part. For this reason, and so that they can improve their spelling, students need to see these words grouped together as “word families.”

Even when introducing morphemes, it is helpful to begin to build students’ understanding of the network of words that they can read and understand by knowing one word part. Consider the following snapshot of a fifth grade classroom in which the teacher is teaching his students how Latin word roots work within words:

“In thousands of words, there is a word part that is like a base word in that prefixes and suffixes attach to it. Unlike base words, however, this word part usually cannot stand by itself as a word. Still, it is the most important part of the word in which it occurs. We call it a *word root*. Let me show you one that’s in a couple of words you know quite well.”

Mr. Ramirez then writes *fracture* and *fraction* on the board: “We know what these two words are and what they mean. What happens when you *fracture* your arm? [You break it.] What do you do when you divide something into *fractions*? [Mr. Ramirez elicits from the students that you break whole numbers down into fractions.] Good! Now, both of the words *fracture* and *fraction* have the word root *fract* in them. Is *fract* a word? [No.] It’s a very important part of the words *fracture* and *fraction*, however. We call *fract* a word root. It comes from a word in Latin that means ‘to break.’ Remember our discussion about the history of English and how so many words and word parts in English come from Greek and Latin languages? So, *fract* is a Latin word root and it lives on in the words *fracture* and *fraction*.”

“Word roots are everywhere! Let’s look at these words. [Mr. Ramirez writes *construct*, *construction*, and *structure* in a column on the board.] What’s the same in these three words? [Students point out *struct*.] Good! You’ve found the word root! Now, let’s think about what this word root might mean—think about what happens when construction

¹²¹ Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000, p. 76.

¹²² Ibid.

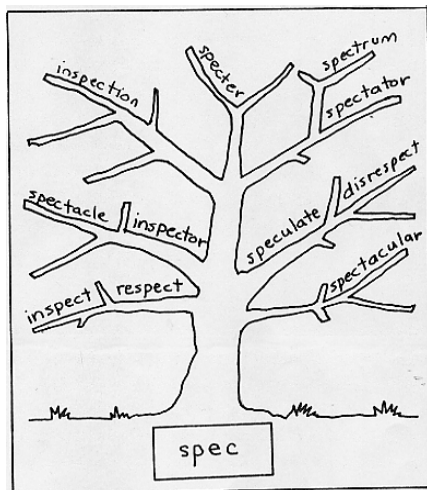
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workers construct a building or structure. [Students engage in a brief discussion in which the meaning “to build” emerges.] Right! *Construct* means ‘to build something’ and structure is another term we often use to refer to a building or something that has been built.”

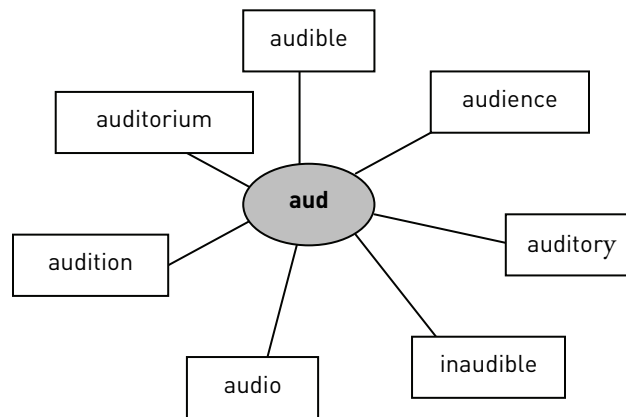
Next, Mr. Ramirez adds the word *instruct* to the list and asks the students how the meaning of “build” might apply to the word. Through discussion, students come to the realization that *instruct* refers to how learning or knowledge is “built.”¹²³

Teachers often guide their students to use a graphic organizer such as a **word tree** or **root web** to help them sort and classify related words. These graphic representations of relationships between words help students store and retrieve information from their memories, and also can be used for quick reference if they are kept in a vocabulary notebook.

Word Tree¹²⁴



Root Web



(3) Provide structure so that students can use morphemic analysis independently. Your goal in teaching students to recognize and use morphemes is to increase their word solving skills so that they know how to approach a new, unfamiliar word. To this end, it’s not necessary that students memorize entire families of related words; indeed, there are far too many prefixes, suffixes, and roots to teach them all directly. Instead, provide tools that will help your students to continue their word learning on their own.

There are many examples of tools that help independent word learners. Many are as simple as creating and displaying a **class reference chart** that lists learned morphemes, their definitions, and examples of words that contain them. On an individual level, some teachers require students to maintain their own **“affixionary”** that includes an alphabetical listing of prefixes and suffixes, one entry per page, with a definition and sentence example for each.¹²⁵ In a similar fashion, older students can keep a **notebook that**

¹²³ Bear, Donald R. et al. *Words Their Way: Words Study for Phonics, Vocabulary, and Spelling Instruction*, 3rd Edition. New Jersey: Pearson Prentice Hall, 2004, p. 258.

¹²⁴ Ibid.

¹²⁵ Baumann, James F. and Edward J. Kame’enui, ed. *Vocabulary Instruction: Research to Practice*. New York: Guilford Press, 2004, p. 165.

lists Greek and Latin roots.¹²⁶ Students can build these notebooks as they learn word parts over time and can reference them as they encounter unfamiliar words.

(4) Be clear with students that morphemic analysis does not always work. Without a doubt, morphemic analysis is a powerful tool for students to use. But as we all know, it does not always work perfectly. Let your students know this and as a class, consider examples of words that contain inconsistent prefixes (such as *in-*, which can mean both *not* and *into*), words that appear to have a prefix but have no meaningful base or root word (such as *intrigue*), and words whose meanings could be misconstrued if students simply use morphemic analysis (students might think that *unassuming* means *not assuming* instead of *modest*).¹²⁷

Teaching students how to examine meaningful word parts to determine a word's meaning gives them a strategy to use when they approach unfamiliar words in their reading. Additionally, understanding the morphological relationship between words will help students to improve their spelling. As students progress through elementary school and begin to encounter more content-specific words in their textbooks, a working knowledge of prefixes, suffixes, and Greek and Latin roots will be invaluable. Imagine how impressed a middle school earth science teacher will be when all of your former students are able to say, "I know about *hydrology*. It comes from Greek roots and it means the study of water!"

Using Context Clues

Given our earlier explanation of how difficult it is to determine word meaning from context, it may surprise you that we are examining how to do just that. It is true that many so-called context clues are not clear enough to allow students to ascertain the meaning of an unfamiliar word. It is also true that many of our students struggle to make meaning with even the most obvious clues. However, by providing our students with guidance on and practice in the *process* of using context to figure out word meaning, we can help them to add this word solving strategy to their expanding reading repertoire.

Isabel Beck, Margaret McKeown, and Linda Kucan suggest that teachers guide their students through the following five-step process as they attempt to use context to infer a word's meaning.

- First, the teacher and students **read and paraphrase** a section of the text, placing particular emphasis on the unfamiliar word.¹²⁸
- Next, the teacher helps the students to **establish meaning of the context** by asking students, "What's going on in this section? What's being said right here? Tell us what those sentences are all about."¹²⁹
- The third step is to ask students to give an **initial identification and rationale** for what the unfamiliar word might mean, being sure that they explain how the context supports their idea.¹³⁰
- In the next step, the teacher helps students to **consider further possibilities** and when appropriate, lets students know that it might not be possible to find one right meaning from the context.¹³¹
- Finally, the teacher asks students to **summarize** the ideas that were generated in the discussion in order to draw a conclusion about the meaning of the word.

¹²⁶ Ibid p. 165.

¹²⁷ Ibid p. 166.

¹²⁸ Beck, Isabel et al. *Bringing Words to Life: Robust Vocabulary Instruction*. New York: Guilford Press, 2002, p. 108.

¹²⁹ Ibid p. 109.

¹³⁰ Ibid p. 109.

¹³¹ Ibid p. 110.

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Take a look at the following classroom example and consider how the teacher asks students to think critically about what's happening in a small chunk of a book as the class grapples with an unfamiliar word. Try to discern the steps of the process in action.

Teacher: "As for Rusty, he scowled at Mary before stamping out of the room. 'And I'm not coming back either, see!'" Now, let's kind of reread these sentences to figure out what's happening. Rusty does this *scowled* thing at Mary and then stamps out of the room. As he does this he says, "And I'm not coming back either, see!" What's happening in these sentences?

Student: Rusty is mad at Mary about something, and he stamped out of the room.

Teacher: Good, is there anything else?

Student: Well, he yelled at her as he went out the door that he wasn't coming back.

Teacher: What do you think *scowled* might mean?

Student: "Yelled."

Teacher: Why do you think it is "yelled"?

Student: Well, he is mad at her and then he yelled that he wasn't coming back.

Teacher: Let's look at the sentence with *scowled* again: "As for Rusty, he scowled at Mary before stamping out of the room." When someone stamps out of a room, what do you think they are feeling?

Student: Mad or upset.

Teacher: Right, so if Rusty is mad or upset, what are some things he might do at Mary?

Student: Yell or throw something.

Teacher: Can you think of some other possible meanings?

Student: Make faces at her.

Teacher: Why do you say "make faces at her"?

Student: If you are mad at someone, you might make a face at her before you stamp out of the room.

Teacher: Can you think of anything else *scowled* might mean?

Student: Shake your fist.

Teacher: What made you say that?

Student: I shake my fist when I'm mad at my sister.

Teacher: Great! So what do we know about *scowled*?

Student: It is something Rusty did at Mary.

Teacher: And...?

Student: He was mad because he stamped out of the room telling her he wasn't coming back. It could be "yelled" or "shook his fist" or "made an angry face at her."

Teacher: Any one of those might be possible meanings for *scowled* based on these sentences. *Scowled* **does** mean one that you suggested—"made an angry face."¹³²

As you can see from this example, it's critical that we ensure our students see using context clues as a *process* for grappling with possible word meanings, not as a quick way to produce one correct answer. Guide your students through this process many, many times, and they will begin to be able to use context as one way to determine word meaning in their own reading.

¹³² Ibid pp. 108-111.

Conclusion

This chapter has explored the first piece of the reading comprehension puzzle—developing students’ oral language skills and vocabularies.

- First, we considered ways to build a classroom environment rich with language, a place that is ripe for incidental word learning. Teachers do this by using mature vocabulary repeatedly and in multiple contexts, and encouraging students to incorporate learned vocabulary into their comments and questions.
- Then, we examined how to choose and teach the specific vocabulary words that will help our students to become mature language users. Students’ vocabulary knowledge will increase if you abide by the following principles of effective vocabulary instruction: carefully choose a limited number of words and provide a direct, student-friendly explanation of their meanings, create meaningful interactions with the words in a variety of formats and contexts, and ensure the students have multiple exposures to the new words.
- Finally, we focused on how to teach word learning skills so that our students are able to determine the meaning of unfamiliar words independently. We must especially teach students how to use meaningful word parts (morphemic analysis) and context clues.

In the next chapter, we will turn our attention to the second part of reading comprehension instruction—comprehension strategies.