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## MODULE

## Make It Intentional



Photo by Ralph Blanchard.

## Learning Intention

We are learning about the different types of vocabulary words and how to select words for instruction.

## Success Criteria

We have successfully completed this module when

1. We can explain the differences among three types of vocabulary words.
2. We can apply a decision-making model to guide word selection.
3. We can describe the importance of an instructional framework that includes modeling, peer practice, and independent activities.

## Case in Point

Norman Yang's class is focusing on antonyms. Mr. Yang provided students with the vocabulary word list to study for the week. Each word pair in the list represented an example of antonyms.

| factual | entice | reverence | lenient | malice |
| :--- | :--- | :--- | :--- | :--- |
| fanciful | repel | disrespect | severe | kindness |

Mr. Yang had students look up the words in the dictionary, write a definition in their own words, and use each word in a sentence. He also had students work in pairs to discuss the meanings of the words and work together to decide on their part of speech (noun, verb, adjective, etc.).

Mr. Yang's students often did well on their vocabulary quizzes at the end of each week, but he was disappointed when students didn't seem to remember the definitions of the words they had previously studied, and he didn't see evidence of students incorporating the words into their writing or other general academic discussions. Even more frustrating for Mr. Yang was when his students struggled to read the words and comprehend their meaning in context when they encountered them in the texts they read.

Reflecting on Mr. Yang's instruction, how much better might his students have achieved had they experienced a combination of wide reading and deliberate vocabulary instruction? Of course, this begs a whole new set of questions. Which words? What is the best way to teach the selected words? How do students become independent vocabulary learners? As Beck et al. (2002) remind us, we don't teach words just because they are in context; we teach words because students can learn from contexts. Before we consider approaches to academic yocabulary instruction, we have to decide which words we should teach.


## Selecting Words to Teach

Probably the most important question to consider relative to academic vocabulary instruction is "Which words will you teach?" Once upon a time, our answer to this question was to focus on the words that students would encounter in their reading. This answer is faulty for a number of reasons, not the least of which is that this approach limits the range of words to those currently appearing in the books students are reading. Please don't misunderstand what we are saying-selecting

> Research shows that some words can be learned from reading, but not until students encounter the new words repeatedly. vocabulary from a reading is useful and necessary. However, this approach to vocabulary selection, when used in isolation, is insufficient because it leaves too much to chance. Students need instruction on a wider range of words at their grade level than the text can possibly offer up, and it creates the false impression that reading the text is the best and chief forum for learning new words. Research shows that some words can be learned from reading, but not until students encounter the new words repeatedly-through reading many other texts, engaging in verbal discussion, and so on (e.g., Beck et al., 2008; Lane \& Allen, 2010).

A sole focus on text-based word selection also doesn't capitalize on all the books that students might want to read independently. Consider Lina, a third grader, who wants to be a wildlife veterinarian. If she were taught only words from the books she's currently reading in school, it's unlikely that she would spend much time in the world of words that interest her. Fortunately, her teacher knows Lina's interest and encourages her to learn words related to the biological world. The school librarian gave her a copy of Wild Vet Adventures: Saving Animals Around the World with Dr. Gabby Wild (Wild \& Szymanski, 2021), a book filled with pictures and information about animals from all over the world and the amazing way Dr. Wild cares for them. Although Lina can't read all the words in the book, the librarian knows that her family will use it as a discussion text at home. The librarian also shared a collection of videos on witd animal care with Lina. In doing so, she introduced Lina to a host of words that weren't found in the books she was reading but would be useful as she eagerly gathered information about the wild animals she was interested in most. Deliberate vocabulary instruction involves keeping apace of our students' interests and improvising easy, authentic word learning to support their pursuits.

## EQUITY AND ACCESS

When vocabulary is limited to the words students will encounter in specific texts, there are likely to be gaps in word knowledge. It is a hit-or-miss approach, because the selected texts may or may not contain the range of words that students need to learn. Instead of limiting vocabulary instruction to words that students encounter in their assigned readings, teachers can focus on a range of words that students need to know to talk about, think about, and write about the content they are learning.

In general, experts agree that there are three types of words that students need to know. Beck et al. (2013) identify these as Tier 1, Tier 2, and Tier 3 words. Others, such as Vacca and Vacca (2007), identify these words as general, specialized, and technical. In some cases, Tiers 1 and 2 are combined and called general academic words, and Tier 3 is known as domain-specific vocabulary.

## TIER 1: GENERAL VOCABULARY

Tier 1 or general vocabulary includes the commonplace words that students typically learn from interacting with other people. These words are typically in the spoken
vocabulary of most students and rarely need their meanings to be taught. However, students likely need instruction in reading these words, especially if the words have parts that are difficult to decode. For example, most students will come to school knowing the word all, and it will be in their spoken vocabulary. But they may have difficulty reading the word, which may require instruction, as the word has an unusual spelling pattern. In some classrooms instructional time is wasted on instruction of word meanings, when what students really need to learn is how to read the word and practice it such that it orthographically maps into their sight word vocabulary.

## TIER 2: SPECIALIZED VOCABULARY OR GENERAL ACADEMIC TERMS

Tier 2 or specialized words are those high-utility terms that often change meaning in different contexts or disciplines in which they are used. These general academic words and phrases confuse readers because the context matters. These words and phrases are significantly under-taught in most classrooms. This category also includes words for which students often know some part of the meaning but have not mastered the complexity of the words' meaning. These words are critical for understanding, and typically students can define these words with easier words. Imagine the student who is working with the word expression as it relates to a character's facial expression in a piece of fiction. Later that day, the student might be expected to write an expression during math.

As another example of the power of these specialized words, read the following sentence from a sixth-grade textbook:

Catherine the Great, a minor aristocrat from Germany, became Empress of Russia when her husband Peter, the grandson of Peter the Great, was killed.

The specialized word in this sentence is minor. To test our hypothesis that students use context in determining word meaning, we asked one hundred fourth graders one hundred seventh graders, and one hundred tenth graders what minor meant in this sentence. On a multiple-choice test, the majority of fourth graders indicated that Catherine the Great was "digging for gold" when she met her husband. Interestingly, the majority of seventh graders got the question right, selecting the

The important words to teach are those that are critical for understanding the text or the content. response that she "wasn't very important." The highest percentage of incorrect answers came from the tenth graders ( 70 percent), who most often selected the choice that Catherine the Great was "underage when she married Peter."

Again, context matters. Students use what they know and are familiar with to determine word meanings. In California, fourth graders study the Gold Rush, and in tenth grade, students think about their age all of the time as they wait to drive, vote, and legally enter a bar. To ensure their understanding of this text, the teacher would have to attend to the word minor by providing students multiple opportunities to use this specialized term in different contexts. This might occur through word sorts, word maps, or writing tasks.

## EQUITY AND ACCESS

These multiple-meaning, or polysemous, words are likely to trip up multilingual learners and students who have limited vocabulary knowledge. You will notice that we use the term multilingual learners as a more contemporary designation for students who are adding English to their language and literacy skills. The term multilingual rightly positions learning as an additive, whereas English learner or English language learners can reinforce a deficit mindset that highlights what a student can't do. The evidence suggests that readers and listeners activate all known definitions of a word simultaneously and use context to determine meaning. Thus, if a student has only one meaning for a word, they are going to use it even if it doesn't make a lot of sense.

## TIER 3: TECHNICAL VOCABULARY OR DOMAIN-SPECIFIC TERMS

Tier 3 or technical words are those that are bound to a specific discipline. These are the content or domain-specific words and phrases that teachers love to focus on: ecology, pointillism, hieroglyphic, vowel, parallelogram, and so on. Sometimes these words need to be directly taught, and other times they simply need to be defined. The decision to teach the word versus explain the word should be based on the future utility of the word and its relative importance in facilitating or blocking understanding. Again, conceptual difficulty plays a role in what gets taught and how, and the important words to teach are those that are critical for understanding the text or the content.

For example, while reading Mango in the City: A Mango Delight Story (Hyman, 2020), drama teacher Maria Baharona chose to explain the word anticipation rather than spending extended time teaching it. The passage that opens Chapter 2 reads as follows:

A couple of hours later, Bob, Mom, Dada, and I were seated around our kitchen table. The adults were having a serious conversation, and I was just sitting there like a kid, arms folded across my stomach, which was aching in anticipation of a decision.

While the word anticipation is important to understanding the text and needed to be defined, Ms. Baharona was more interested in the story that would unfold once the main character, Mango Delight, moved to New York City to live with her aunt for the summer and star in an off-Broadway production of Yo, Romeo! Ms. Baharona knew that she would teach the words from the book that related to drama such as scenery, balcony, audition, rehearse, backstage, orchestra, and onstage. These words were consistent with the visual and performing arts standards Ms. Baharona wanted to teach and were words that students of drama should know. In other words, they are the technical words that help define the discipline.

## THINK AND REFLECT

Think about the information shared above about each type of vocabulary word. In the chart below, summarize the key points of each tier, and record at least three example words from your own grade level and discipline.

| Word Type |  | Examples |
| :--- | :--- | :--- |
| General Words <br> (Tier 1) |  |  |
| Specialized Words <br> (Tier 2) |  |  |
| Technical Words <br> (Tier 3) |  |  |

## Let's Try It: Analyzing a Typical Textbook Passage

Let's consider a typical text passage and identify the Tier 1, Tier 2, and Tier 3 words. This passage comes from a book titled George Washington, Spymaster: How the Americans Outspied the British and Won the Revolutionary War. The opening three paragraphs read as follows:

On an October day in 1753, Robert Dinwiddie, Royal Governor of His Majesty's Colony in Virginia, sat in his office in Williamsburg, the capital of Virginia, reading the latest reports from the frontier. The French were causing trouble again, pushing their way into British land. There was a whiff of war in the air.

Dinwiddie must have realized that Virginia's western boundary was fuzzy. Some Virginians even said that their colony stretched across the continent. But Dinwiddie knew that grand old claim was not realistic. He needed only turn to a map to see North America as it really was.

Thirteen British Colonies stretched along the Atlantic Coast from New Hampshire to Georgia, with a long piece of Massachusetts land called Maine in the north and, south of Georgia, a small piece of land called British Florida. Spain held the rest of Florida, along with most of the land west of the Mississippi River. The French occupied land in the Mississippi Valley called Louisiana and much of the land north of the Saint Lawrence River. They called that possession New France. If the French kept expanding their hold, they could link their southern lands with New France. (Allen, 2004, pp. 1-2)

Of course, there is no scientific way to identify specifically which words would be placed into the various categories. Typically, we put words in the general category if they are common enough that most of our students know them. We put words in the specialized category if our students can generally define them with terms that are less specific, or if a word has multiple meanings and the meaning might interfere with understanding. And finally, we put words in the technical category when they are specifically aligned with the content under investigation Although this may differ slightly from the organizational system developed by Beck et al. (2002), it has worked for us in our efforts to focus on vocabulary. Using these lenses, here are the words we selected from the George Washington passage.

## SELECTED WORDS FROM GEORGE WASHINGTON, SPYMASTER (ALLEN, 2004)

| office | whiff | fuzzy |
| :--- | :--- | :--- |
| capital | war | realistic |
| royal | reports | majesty |
| western | frontier | colony |
| boundary | held/hold | continent |
| possession | claim | occupied |

As you can see, we did not include the proper nouns, such as the names of people, states, and countries. We assumed that students would have experience with these words based on the fact that they were learning about American history. We'd also
provide context for this passage by having students first look at a map, so they would have a visual image of the locations being discussed as they read the passage.

## YOUR TURN

Think about the information shared about each vocabulary tier. Place each word above into the table based on how you would classify them according to the categories of general (Tier 1), specialized or general academic (Tier 2), or technical and domain-specific (Tier 3).

| General (Tier 1) | Specialized or General <br> Academic (Tier 2) | Technical and <br> Domain-Specific (Tier 3) |
| :---: | :---: | :---: | :---: |
|  |  |  |

Now that you have had time to reflect on how you would identify the terms by tiers, here is how we decided to categorize the words.

OUR CATEGORIZING OF SELECTED WORDS FROM GEORGE WASHINGTON, SPYMASTER (ALLEN, 2004)

| General (Tier 1) | Specialized or General <br> Academic (Tier 2) | Technical and <br> whiff <br> wuzzy <br> realistic |
| :--- | :--- | :--- |
| office <br> capital <br> reports <br> frontier <br> western <br> boundary <br> claim <br> held/hold <br> occupied <br> possession | royal <br> governor <br> majesty <br> colony <br> continent |  |

## YOUR TURN

What words would you select to teach from the text passage? Reflect on why you select them.


## WORDS THAT MIGHT BE WORTH TEACHING: THE SEMIFINALIST'S

So which words would we focus on? Words that might need instructional attention. This simple analysis revealed fifteen words in the specialized or technical category that are candidates for instruction. That doesn't mean that these fifteen

We know that there is a limit to the number of individual words a student can learn in any given week: about eight to ten. words should necessarily all be taught. We know that there is a limit to the number of individual words a student can learn in any given week. Generally, this is about eight to ten words per week (Graves, 2016; Scott et al., 2003). Given this, you want to narrow down the number of words to a manageable number. We know that this isn't an easy process, but we have identified a list of questions to ask ourselves as we determine which words will receive instructional attention and which will not.

## EQUITY AND ACCESS

Cognitive overload happens to us all, but when learners are continually translating ideas and words between languages, cognitive overload can occur more quickly. To minimize that and keep vocabulary learning at the forefront, increase the frequency of retrieval practice. When students are asked to produce responses more frequently rather than waiting for longer periods of time (and especially when the class does this together), the cognitive demands are reduced. In addition, when content is chunked and organized, cognitive demands are reduced.

## A DECISION-MAKING MODEL TO GUIDE WORD SELECTION

The work of Nagy (1988), Marzano and Pickering (2005), Graves (2016), and Beck et al. (2013) has informed our understanding of how to select words. To help you select your heavy hitters, it's helpful to evaluate the words you're considering from these vantage points:

- Is the word representative?
- Is it transportable and needed for discussion and/or writing?
- Does it occur frequently?
- Can it be understood by students through contextual analysis?
- Can it be understood by students through structural analysis?
- Does it overburden the cognitive load?

Representation: Representation may be the aspect most frequently used by teachers when choosing a word for vocabulary instruction. Is the term representative of an important idea or concept that students need to learn? Does the new term represent a shade of meaning or a more precise/mature way to describe a concept/topic that students already are familiar with? These words often come in the form of labels, such as energy, patriot, and fortunate. At other times, it may be a gateway word for a series of related words. For instance, teaching create can lead to learning several variants, including creator, creative, and recreation.

Shanahan (2019b) provides an important distinction between vocabulary and concept when considering representation. He reminds us that "vocabulary refers to the label that we associate with particular concepts or ideas, while the concepts are those ideas that the words refer to." We can build students' understanding of a concept through deliberate vocabulary instruction. But if students have a lack of concept, vocabulary instruction will likely not be enough to support their learning.

Transportability: Another consideration in selecting a word for instruction is transportability. Is it likely that this word will be useful in another learning arrangement, such as a classroom discussion or written assignment? Words that are transportable may be useful in other content areas as well. An example is the word temperate, which is used in English to describe an even-mannered character and in science to describe a mild climate.

Repeatability: If a word is going to be used repeatedly, either within a unit of instruction or throughout the school year, it may be a good candidate for instruction. Novel words that appear only once are not good choices, because the learner won't receive multiple exposures to the word-a necessary condition of vocabulary learning (Beck et al., 2013; Manyak et al., 2014; Stahl \& Fairbanks, 1986). However, if the word occurs several times in a text (which may be planned and is called instructional redundancy), we may not have to teach the word, because the frequency of encountering the word in different contexts may develop students' word knowledge.

Contextual Analysis: Contextual analysis requires looking at the context in which a word or phrase is used rather than viewing it in isolation. If a term used in a reading is accompanied by surrounding words or phrases that help clarify the meaning of the word, then it is probably not necessary to provide direct instruction for this word. Instead, we would focus on word-solving strategies.

Structural Analysis: As with context, the structure of the word may be sufficient for your students to infer the meaning. This judgment requires that you know your students well and are familiar with their exposure to morphology, which includes the prefix, root (base), and suffix in the word. For example, a fifth-grade teacher might decide not to explicitly teach the word information because the affixes and root present in this term
are apparent, and the students have received previous instruction on them. Instead, the teacher may model word solving for students.

Cognitive Load: Unlike the other elements, consideration of cognitive load has less to do with the word itself and more to do with the learning context. At some point, the sheer number of words is daunting, and vocabulary instruction can detract from learning content-a bit like the tail wagging the dog. For example, Beck et al. (2013) note, "When too many words are introduced before reading, students are unlikely to recall the meanings accurately as they meet the words in text. If too many words are introduced during reading, the flow of building comprehension is interrupted" (p. 42). However, there aren't any hard-and-fast rules about what constitutes the right cognitive load, as it varies by learner and content. Questions to ask when selecting words for instruction can be found in Figure 1.1.

Much in the spirit of that famous movie line "Show me the money," we imagine at this point you're saying to yourself, Enough already, just give me the word lists! You may even have flipped to the back, looking for a list or two. The temptation to dive into a word list is strong. Word lists convey a sense of completeness, especially when they are categorized by grade or content level. We find lists to be very useful, too, but only when balanced against an understanding of the types of words as well as a method for deselecting ones that are not needed. In other words, we use lists to inform our instruction, not to formulate it. Keeping in mind the last few pages of discussion on types of words and a method for selecting words for systematic instruction will take you further in your teaching than any list, so thanks for hanging in there.

Figure 1.1 Considerations for Selecting Vocabulary Words

| Topic | Questions to Ask |
| :---: | :---: |
| Representation | - Is the word representative of a family of words that students should know? <br> - Is the concept represented by the word critical to understanding the text? <br> - Is the word a label for an idea that students need to know? <br> - Does the word represent an idea that is essential for understanding another concept? <br> - Does the word represent a shade of meaning or a more precise/mature way to describe a concept/topic that students already have familiarity with? |
| Repeatability | - Is the word used again in this text? If so, does the word occur often enough to be redundant? <br> - Will the word be used again during the school year? |
| Transportability | - Will the word be used in group discussions? <br> - Will the word be used in writing tasks? <br> - Will the word be used in other content or subject areas? |
| Contextual Analysis | - Can students use context clues to determine the correct or intended meaning of the word without instruction? |
| Structural Analysis | - Can students use structural analysis to determine the correct or intended meaning of the word without instruction? |
| Cognitive Load | - Have I identified too many words for students to successfully integrate? |

## THE FINALISTS AND WHY WE CHOSE THEM

Based on the questions in Figure 1.1, we selected six words from the George Washington text to teach. From Tier 2, we selected held/hold, occupied, and possession. Why? We chose them because

- These words are conceptually related, and we know that this helps students transfer words into their knowledge base
- These words are being used in very specific ways (related to history) that are not the ways in which they are commonly used

From Tier 3, we chose colony and continent. Why? We chose them because

- These two words are essential to understanding early U.S. history
- We believe that students will learn the roles of leaders (governor, his majesty) and about royalty in units of study that focus more specifically on these topics

Of course, there is no one right answer to the specific words that you could choose to teach from this reading selection. The choice depends, in part, on the point of the school year in which the reading occurs, the assessed needs of students, and the range of instructional materials students will come in contact with.

That said, we can generalize that systematic vocabulary instruction requires that teachers

1. Know that they have to choose words-it's not a decision that should be left to textbook writers
2. Know where to choose words from
3. Know how to categorize words in order to then narrow the possibilities of what to teach

This requires a decision-making model for selecting words that crack open key content understandings and that moonlight, so to speak, by helping kids infer meanings of many other words via common roots, prefixes, or suffixes. Words such as judge, judgment, judicial, and prejudice are some examples of these words.

Figure 1.2 (on the next page) contains a visual of the process we use to identify words worth teaching.

Figure 1.2 A Decision-Making Model for Selected Targeted Vocabulary Words and Phrases


Source: Fisher, Frey, and Law (2020).

## THINK AND REFLECT

Think about the decision-making model presented in Figure 1.1 and the questions in Figure 1.2. How might this model help you select words to teach in your own classroom?
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## Using Word Lists to Inform Instruction

Who doesn't love a list? Getting to the end of one is a satisfying experience, be it a grocery, chore, or holiday gift list. The same holds true for vocabulary word lists. Many of us may be familiar with commonly used lists, such as the Dolch sight word list. This list of 220 words has been around for many decades and has been utilized in nearly every K-3 classroom in the country. But there are other lists that are helpful in developing an academic vocabulary initiative as well as lists that are best used to inform instruction with upper elementary and secondary students. Let's examine three types of word lists: general academic words, basic English words, and word-part lists.

## GENERAL ACADEMIC WORD LISTS

Academic word lists are useful because they highlight terms commonly used in different content areas, such as science, social studies, mathematics, and the arts. These are composed mostly of Tier 1 (general vocabulary) and Tier 2 (specialized and multiple-meaning) words.

One of our favorites comes from the work of Avril Coxhead of Massey University in New Zealand. She analyzed the running text of 414 textbooks from the major content areas and identified the most frequently used terms. She eliminated the first 2,000 terms, as they consisted of high-frequency words and other simple terms. She then applied further criteria regarding the range of texts in which the terms appeared as well as their frequency, and she clustered them by word families (Coxhead, 2000). The resulting 570 most frequently used word families include words such as data, procedure, response, and theory and can be found at http://language.massey.ac.hz/staff/awl/awlinfo.shtml.

> Grouping related words allows students to make connections among the words and use what they know about some words to understand others.

This academic word list can be sorted in a number of different ways, depending on the purpose. Not every word on the list is suitable for instruction at the elementary level, but it is an excellent starting point for choosing targeted terms, especially from the early lists. Colleagues at our school have used the list to identify terms used on tests and have incorporated these to strengthen students' test-wise strategies. We have even experienced grade-level teams and secondary departments that have worked together to locate terminology from Coxhead's list used frequently in their own classes. In addition, because the words are arranged according to word families, teachers are able to extend student knowledge to related words.

## EQUITY AND ACCESS

These word lists can be especially valuable to students with interrupted formal schooling as well as newcomers to the English language. It's likely that they have concepts and will rapidly learn the English labels for these concepts. In addition, these word lists contain articles and connecting words that will allow students to communicate their ideas more easily to others. Focusing on concepts that students have already developed in their home/primary language builds on strengths and can provide students an opportunity to share their home languages with others.

Another academic word list consisting of Tier 1 and Tier 2 words comes from Marzano's (2020) work over the past 30 years. It contains about 8,000 words organized into groups of related words called semantic clusters. Examples of semantic clusters include pronouns, colors, transportation types, time, and units of measurement. By grouping
related words, it provides students with the opportunity to make connections among the words and use what they know about some words to understand other terms that are new to them in that cluster. Simply put, "Teaching vocabulary in semantic clusters aids student learning of those terms" (Marzano, 2020, p. 5).

## BASIC ENGLISH WORD LISTS

Many of our students are new to English and are simultaneously challenged to learn English and learn in English. Mora-Flores (2011) likens this to sitting in a chemistry class that is being taught in French and you only know English. Then, the teacher tells you there is a quiz on Friday and you're still trying to figure out what was said in the first five minutes of class. This is how it can feel for English learners in our classrooms. Therefore, these learners need to acquire a tremendous volume of vocabulary in a short period of time (e.g., Wei, 2021).

We were intrigued when we learned of a list developed in 1930 by Ogden. His list began as a constructed language of 850 words that are phonetically regular and therefore easy to pronounce (see Figure 1.3). In addition, these words can be used in combination with others to form other words. For a time after World War II, it was even touted as a universal language that could bring about world peace. While we haven't had quite that much success with it, Ogden's list has been a great tool for working with multilingual learners who are new to the language. Ogden's list has acquired a new life in the twenty-first century, as it forms the core of the 2,000-word list used to write entries for the Simple English Wikipedia (http://simple.wikipedia.org).

Figure 1.3 Ogden's Basic Word List

## OPERATIONS: 100 Words

come, get, give, go, keep, let, make, put, seem, take, be, do, have, say, see, send, may, will, about, across, after, against, among, at, before, between, by, down, from, in, off, on, over, through, to, under, up, with, as, for, of, till, than, a, the, all, any, every, little, much, no, other, some, such, that, this, I, he, you, who, and, because, but, or, if, though, while, how, when, where, why, again, ever, far, forward, here, near, now, out, still, then, there, together, well, almost, enough, even, not, only, quite, so, very, tomorrow, yesterday, north, south, east, west, please, yes

## THINGS: 400 General Words

account, act, addition, adjustment, advertisement, agreement, air, amount, amusement, animal, answer, apparatus, approval, argument, art, attack, attempt, attention, attraction, authority, back, balance, base, behavior, belief, birth, bit, bite, blood, blow, body, brass, bread, breath, brother, building, burn, burst, business, butter, canvas, care, cause, chalk, chance, change, cloth, coal, color, comfort, committee, company, comparison, competition, condition, connection, control, cook, copper, copy, cork, cotton, cough, country, cover, crack, credit, crime, crush, cry, current, curve, damage, danger, daughter, day, death, debt, decision, degree, design, desire, destruction, detail, development, digestion, direction, discovery, discussion, disease, disgust, distance, distribution, division, doubt, drink, driving, dust, earth, edge, education, effect, end, error, event, example, exchange, existence, expansion, experience, expert, fact, fall, family, father, fear, feeling, fiction, field, fight, fire, flame, flight, flower, fold, food, force, form, friend, front, fruit, glass, gold, government, grain, grass, grip, group, growth, guide, harbor, harmony, hate, hearing, heat, help, history, hole, hope, hour, humor, ice, idea, impulse, increase, industry,
ink, insect, instrument, insurance, interest, invention, iron, jelly, join, journey, judge, jump, kick, kiss, knowledge, land, language, laugh, law, lead, learning, leather, letter, level, lift, light, limit, linen, liquid, list, look, loss, love, machine, man, manager, mark, market, mass, meal, measure, meat, meeting, memory, metal, middle, milk, mind, mine, minute, mist, money, month, morning, mother, motion, mountain, move, music, name, nation, need, news, night, noise, note, number, observation, offer, oil, operation, opinion, order, organization, ornament, owner, page, pain, paint, paper, part, paste, payment, peace, person, place, plant, play, pleasure, point, poison, polish, porter, position, powder, power, price, print, process, produce, profit, property, prose, protest, pull, punishment, purpose, push, quality, question, rain, range, rate, ray, reaction, reading, reason, record, regret, relation, religion, representative, request, respect, rest, reward, rhythm, rice, river, road, roll, room, rub, rule, run, salt, sand, scale, science, sea, seat, secretary, selection, self, sense, servant, sex, shade, shake, shame, shock, side, sign, silk, silver, sister, size, sky, sleep, slip, slope, smash, smell, smile, smoke, sneeze, snow, soap, society, son, song, sort, sound, soup, space, stage, start, statement, steam, steel, step, stitch, stone, stop, story, stretch, structure, substance, sugar, suggestion, summer, support, surprise, swim, system, talk, taste, tax, teaching, tendency, test, theory, thing, thought, thunder, time, tin, top, touch, trade, transport, trick, trouble, turn, twist, unit, use, value, verse, vessel, view, voice, walk, war, wash, waste, water, wave, wax, way, weather, week, weight, wind, wine, winter, woman, wood, wool, word, work, wound, writing, year

## THINGS: 200 Picturable Words

angle, ant, apple, arch, arm, army, baby, bag, ball, band, basin, basket, bath, bed, bee, bell, berry, bird, blade, board, boat, bone, book, boot, bottle, box, boy, brain, brake, branch, brick, bridge, brush, bucket, bulb, button, cake, camera, card, cart, carriage, cat, chain, cheese, chest, chin, church, circle, clock, cloud, coat, collar, comb, cord, cow, cup, curtain, cushion, dog, door, drain, drawer, dress, drop, ear, egg, engine, eye, face, farm, feather, finger, fish, flag, floor, fly, foot, fork, fowl, frame, garden, girl, glove, goat, gun, hair, hammer, hand, hat, head, heart, hook, horn, horse, hospital, house, island, jewel, kettle, key, knee, knife, knot, leaf, leg, library, line, lip, lock, map, match, monkey, moon, mouth, muscle, nail, neck, needle, nerve, net, nose, nut, office, orange, oven, parcel, pen, pencil, picture, pig, pin, pipe, plane, plate, plough/plow, pocket, pot, potato, prison, pump, rail, rat, receipt, ring, rod, roof, root, sail, school, scissors, screw, seed, sheep, shelf, ship, shirt, shoe, skin, skirt, snake, sock, spade, sponge, spoon, spring, square, stamp, star, station, stem, stick, stocking, stomach, store, street, sun, table, tail, thread, throat, thumb, ticket, toe, tongue, tooth, town, train, tray, tree, trousers, umbrella, wall, watch, wheel, whip, whistle, window, wing, wire, worm

## QUALITIES: 100 General Words

able, acid, angry, automatic, beautiful, black, boiling, bright, broken, brown, cheap, chemical, chief, clean, clear, common, complex, conscious, cut, deep, dependent, early, elastic, electric, equal, fat, fertile, first, fixed, flat, free, frequent, full, general, good, great, grey/gray, hanging, happy, hard, healthy, high, hollow, important, kind, like, living, long, male, married, material, medical, military, natural, necessary, new, normal, open, parallel, past, physical, political, poor, possible, present, private, probable, quick, quiet, ready, red, regular, responsible, right, round, same, second, separate, serious, sharp, smooth, sticky, stiff, straight, strong, sudden, sweet, tall, thick, tight, tired, true, violent, waiting, warm, wet, wide, wise, yellow, young

## QUALITIES: 50 Opposites

awake, bad, bent, bitter, blue, certain, cold, complete, cruel, dark, dead, dear, delicate, different, dirty, dry, false, feeble, female, foolish, future, green, ill, last, late, left, loose, loud, low, mixed, narrow, old, opposite, public, rough, sad, safe, secret, short, shut, simple, slow, small, soft, solid, special, strange, thin, white, wrong

Similarly, The First 4,000 Words list, developed by Graves et al. (2008), provides a list of words that make up 80 to 90 percent of words found in a typical text. According to Graves (2016), "If students cannot read them, they will repeatedly stumble when reading all but the most basic of texts" (p.57). Most native speakers of English will have experience with these words and recognize them in their listening vocabularies by about first grade, and will work to incorporate them into their reading and writing vocabularies by about fourth grade. For multilingual learners, especially newcomers in higher grade levels, or for students who have small vocabularies, it is important to learn these words so that they are not repeatedly stumbling over them in text and negatively affecting comprehension. The First 4,000 Words list can be found at https://michaelfgraves.net.

## WORD-PART LISTS

Vocabulary instruction should always look toward the ultimate goal, which is student independence, since it's a certainty that you won't be there every time students encounter an unfamiliar word. Students' ability to structurally analyze a word to identify its word parts and then make an educated prediction about the meaning is important, because about 60 percent of the words students encounter in their reading have recognizable word parts (Nagy et al., 1989). The ability to make meaning of words by examining their word parts is especially useful given that academic vocabulary is largely of Latin and Greek origin (Harmon et al., 2005). In fact, 90 percent of multisyllabic English words are Latin based; most of the remaining 10 percent are Greek based (Brunner, 2004).

While it may not seem that elementary students can learn Latin and Greek words, there are several pathways that can ignite their learning. Consider, for example, the ability of even young children to name dinosaurs. Triceratops ("three-horned face") and Tyrannosaurus rex ("tyrant lizard king") consist of Latin words that vividly describe these creatures. Attention to word parts like these serves as a gateway to other terms. Once students know that tri- from Triceratops means "three," it can lead them to understand that a tricycle has three wheels, a triangle has three sides, and a trilogy is a series that contains three books. The meaning of tyrann- in Tyrannosaurus is "an absolute ruler or oppressor," which can then help students make meaning of the words tyrant, tyranny, and tyrannical.

In addition to learning the meanings of Latin and Greek root words, students benefit from understanding prefixes and suffixes (collectively called affixes). Teaching students the high-frequency affixes can equip them with the tools they need to deconstruct an unfamiliar word to understand it. For example, the prefix un- appears in 26 percent of all English words with a prefix, while the suffix variant -s or -es is featured in 31 percent of all suffixed words (White et al., 1989).

There are many websites featuring Latin and Greek roots, and most have been developed for elementary and secondary students. One of our favorites is sponsored by the Kent (Washington) School District and can be found at www.kent.kl2.wa.us/ksd/ MA/resources/greek_and_latin_roots/transition.html.

## THINK AND REFLECT

How can the use of word lists help you in selecting which words to teach? How could word lists help you support specific subgroups in your classroom (e.g., multilingual learners)?

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## Selecting Technical Words

So far, we have discussed the types of vocabulary, a decision-making model for identifying words for possible instruction, and examples of useful word lists. The final step in selecting words is identifying words as a grade-level or department/content-area team. This helps ensure that students move through a sequence of classes or courses with a growing base of academic vocabulary knowledge.

In many schools, teachers who teach the same grade level or who teach in the same department or content area are identifying technical vocabulary that requires instruction. Teachers meet in grade-level or department teams to identify essential terms, and all agree to teach them during each unit of instruction. This approach is consistent with the curricular initiatives common to school reform, especially standards alignment and the development of pacing guides (e.g., Wiggins \& McTighe, 2005). By agreeing to teach specific technical words, teachers ensure that students arrive in subsequent grades or courses with grounding in the targeted terminology. For example, it is useful for the tenth-grade biology teachers to know that the ninth-grade earth science instructors taught students Tier 2 words such as passage, dissolve, and concentration as well as Tier 3 words like acid, alkaline, capillary action, hydrologic, and osmosis during the unit on water science. These terms and the related concepts are relevant to teaching about cell membranes, so the biology teachers are then able to make connections back to earth science, helping students understand that the movement of water shares common attributes whether it is moving through a valley or a semipermeable cellular membrane.

Two sources of information are useful for identifying grade-level or department vocabulary. The first is the state content standards document, whose descriptions feature many vocabulary terms. We often think of these documents as being written for an adult audience, but they can be a treasure trove of student vocabulary. For example, the second-grade science standards document for California contains the following technical vocabulary terms: organisms, offspring, parents, and butterflies. In addition, these specialized terms appear in the same standard: predictable, cycles, stages, environment, population, and variation (California Department of Education, 2000). (Interestingly, several of these Tier 2 words appear on Coxhead's academic word list as well.)

A second source for identifying vocabulary words is the curricular materials themselves. The glossary and bolded words in the textbook are obvious choices for consideration, and most instructor materials also contain additional support materials for vocabulary instruction. It should be noted that we are discussing vocabulary lists from textbooks last. While they are a good source, they are not going to be very useful if merely photocopied and assigned to students to learn somehow. Effective vocabulary development requires careful and purposeful selection of words. It also requires that the instruction of vocabulary honors what we know about good teaching and learning.

## YOUR TURN

Select one or two sources of technical vocabulary unique to your grade level, for example, your grade-level state standards and your content-area core curriculum. Examine them for technical/Tier 3 vocabulary words. Record those words here.


## INSTRUCTION OF THE WORDS YOU SELECT

Word learning cannot be left to chance. Instead, it is useful to implement an instructional framework for fostering word knowledge. This model doesn't depend on hours of instruction devoted to learning just a few words, but rather it requires that vocabulary development become a natural part of classroom instruction. In other words, deliberate instruction of vocabulary doesn't stand apart from the content-it is a necessary factor in content mastery.

Our framework for vocabulary instruction is based on a gradual release of responsibility model (e.g., Pearson \& Gallagher, 1983). In essence, the gradual release of responsibility model suggests that teachers move from assuming all the responsibility to sharing responsibility with students to transferring responsibility to students. This release of responsibility occurs at the macro and micro levels as teachers plan daily lessons, units of study, and entire semesters and school years. In our work on vocabulary, we have found three components of the gradual release of responsibility especially helpful:

- Demonstrations and modeling
- Practice with peers
- Independent applications

In addition, our work with entire school buildings suggests that a schoolwide focus on vocabulary can raise the level of word consciousness and create a much-needed focus on word learning.

# A Framework for Deliberate Vocabulary Instruction 

## DEMONSTRATIONS: THE IMPORTANCE OF MODELING AND DIRECT INSTRUCTION

One component of the gradual release of responsibility requires that teachers demonstrate and model their own thinking and understanding. Teacher read-alouds, think-alouds, and shared readings are particularly effective ways for providing the modeling that students need. These approaches can be used to raise word consciousness, teach word-solving strategies, and foster vocabulary metacognition. In addition, some words require direct instruction to develop students' understanding of word meanings and pronunciations (again which help with reading, because students need practice mapping the phonemes on the graphemes so that they automatically recognize the words in the future when they are reading). Modeling and direct instruction are a focus of Module 2.

Tips for Successful Modeling Word Solving

- Preview the text and plan what you will model.
- Signal students that you are thinking aloud: Point to your head, put on a thinking cap, or provide some other visual cue.
- Make first-person statements, such as "I noticed...," and include context clues or morphology.

Tips for Direct Instruction

- Identify words that cannot be easily solved with context clues or morphology.
- Show students the word in context.
- Read the word, and have students repeat it aloud.
- Explain what the wordmeans, using the word several times.
- Provide contextual information about the word, depending on students' ages (part of speech, related words, other forms of the word, or synonyms and antonym or contrastives).


## PEER PRACTICE: THE IMPORTANCE OF CONSOLIDATING NEW LEARNING

Building word learning through peer interaction is another component of our instructional design. We know it is not enough for teachers to model and teach the use of vocabulary; students must have lots of opportunities to build their nascent knowledge using oral language. You can't be the arbiter of all that talk, so you'll need to structure lots of opportunities for students to work in peer groups. We know you're thinking that a social event seems to break out each time you allow some peer talk in your classroom. We assure you that the strategies we discuss in Module 4 will at least result in talk that is on topic.

Oral language experiences, also discussed in Module 4, are essential to the social and cognitive development of young learners. These opportunities are even more critical
for young children who are simultaneously learning English and learning in English (Pollard-Durodola et al., 2006). The intent of these interactions is to provide learners with a chance to clarify their understanding of new words, apply these words to new situations, and deepen their conceptual understanding by linking prior knowledge to new learning.

We know that students build their understanding of subject matter word learning through activities that cause them to discuss, clarify, and collaborate. Our experiences suggest that having students produce something as a result of their collaborative efforts results in increased use of targeted vocabulary. The use of words with peers provides an opportunity for consolidation of learning. Accordingly, we regularly use semantic feature analyses and word maps. We also ask students to work together to develop concept circles, collaborative posters, and shades-of-meaning cards. We invite them to make predictions about readings using text impressions and to think aloud with one another as they engage in partner reading. The discussions that emerge from these interactions foster a deepening understanding of academic vocabulary and the related concepts under investigation

## INDEPENDENT ACTIVITIES: THE IMPORTANCE OF APPLICATION

At some point, students need time to apply what they have learned through teacher modeling and peer collaboration by consolidating their understanding of the vocabulary. We want individuals to utilize writing in order to strengthen their own command of the language. As we explain in Module 5, activities such as word sorts encourage students to group and categorize concepts. Students also used words in generative sentences, journal writing, and paragraph frames. In addition, they need to further develop their metacognitive awareness about how they learn words, so they assess their knowledge using vocabulary self-awareness techniques and develop vocabulary cards based on the Frayer model (Frayer et al., 1969) when they need more formal study techniques. Students then need opportunities to extend and apply their word and conceptual knowledge through wide reading.

## EQUITY AND ACCESS

Using a gradual release of responsibility framework provides teachers with opportunities to scaffold students' learning rather than simply assign tasks for students to complete. Modeling, for example, provides students an opportunity to apprentice into more complex thinking than they may be doing on their own. Peer collaboration provides opportunities for students to support one another, clarifying information, switching between languages, and practicing language.

The most successful vocabulary learning is embedded within the overall instructional design of the class. However, attention to vocabulary development within this framework can increase word learning. In Figure 1.4, you will find a five-day schedule of a fifth-grade human body unit. Notice all the opportunities these students had to acquire and use targeted vocabulary during this unit of instruction. Although this specific example shows an elementary classroom, the same approach can be used in secondary classrooms as well.

Figure 1.4 Vocabulary Instruction Using a Gradual Release of Responsibility Approach

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Demonstrations | Direct instruction of terms | Teacher read-aloud: focus on word solving | Teacher read-aloud: focus on using resources | Teacher read-aloud: focus on contextual clues | Teach modeling of writing using targeted vocabulary |
| Practice With Peers | Partner discussion using terms | Create body diagram and label parts | Reciprocal teaching with textbook passage | Complete a semantic feature analysis of concepts | Collaborative poster: Groups develop concept circles for classmates on their body system |
| Independent Applications | Vocabulary self- <br> awareness chart | Science journal writing using targeted vocabulary; independent reading from selected texts | Science <br> journal <br> writing <br> using <br> targeted vocabulary; independent reading from selected texts | Open word sort of terms; independent reading from selected texts | Science journal writing using targeted vocabulary |

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## MODULE REFLECTION

Now that you have finished this module, rate yourself on each of the following success criteria.

| I can explain the difference between three types of <br> vocabulary words. | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| I can apply a decision-making model to guide word selection. | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| I can describe the importance of an instructional framework that <br> includes modeling, peer practice, and independent activities. | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |

Now, reflect on your overall learning using the What? So What? Now What? protocol developed by Thompson-Grove (2004).

| What? | So What? | Now What? <br> What did you learn about <br> vocabulary instruction and <br> word selection as a result of <br> this module? |
| :--- | :--- | :--- | | What is the importance |
| :--- |
| of the information |
| you learned? |$\quad$| You may not yet be at the |
| :--- |
| expert level, as it takes time |
| to integrate knowledge |
| into practice. Use this |
| information to identify areas |
| of continued learning. What |
| actions are you considering |
| based on your learning? |

