

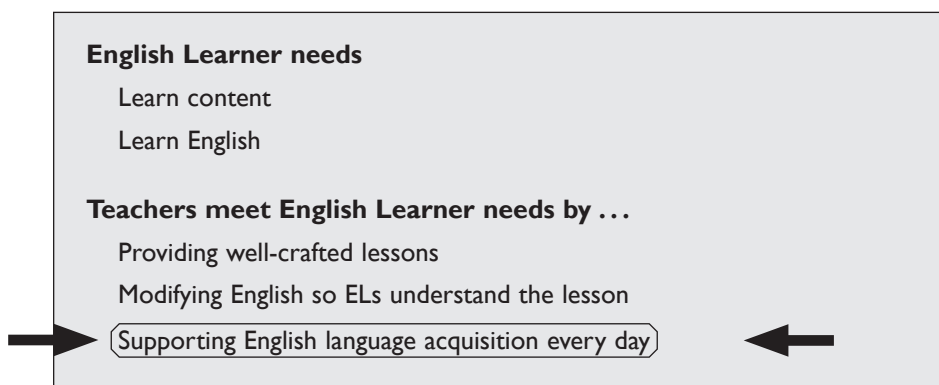
Part II

Strategies for English Learners

4 Vocabulary Development

How to Teach English Learners New Words in Every Lesson

Let's recap English Learner needs. They have a double duty in school: ELs need to learn content while simultaneously learning English. We've discussed how ELs need well-crafted lessons. In this chapter, we'll describe how to provide vocabulary development for ELs within the context of EDI lessons.



We'll start by classifying vocabulary words into three categories to clarify our thinking on the relative importance of learning specific words. Then, we'll describe eight field-tested strategies that can be used to convey the meaning of new words and how to select which strategy to use.

VOCABULARY DEVELOPMENT

What is vocabulary development? *Vocabulary* refers to all the words that make up a language. *Development* is the process of enlarging or advancing something. So, “vocabulary development” means “learning more and more words.”

There are two schools of thought on vocabulary development. One states that vocabulary should be taught *implicitly*. The other states that it should be taught *explicitly*. Both methods are used in school.

The *implicit vocabulary development* approach assumes that students learn vocabulary by exposure, mainly through independent reading. The logic behind this idea is that the number of words an average adult recognizes is too large to have been taught, so it must have been picked up through reading or conversing with others.

Implicit vocabulary development is promoted by programs or content standards that require students to read independently. Here’s a Common Core Content Standard for independent reading for seventh graders:

By the end of the year, read and comprehend literary nonfiction at the high end of the Grades 6-8 text complexity band independently and proficiently, with scaffolding as needed at the high end of the range.

The *explicit vocabulary development* approach calls for teachers to overtly teach vocabulary to their students. The intent is improved reading comprehension when the pre-taught words show up in written text.

Sample Vocabulary Words for Sixth Grade

accurate, acquire, adapt, additional, adequate, affect, analyze, approach, appropriate, assertion, calculate, clarify, coherent, collaborate, command, compare, complex, component, comprehend, computation

Vocabulary Strategies Instruction

Besides teaching individual words, effective vocabulary development for English Learners includes teaching vocabulary *strategies* they can apply to new words they encounter; for example, the meaning of *audi* (to hear, to listen) can be used to determine the meaning of many English words such as *audio, audible, auditorium, audiologist, audition, and audiotape*.

Most language arts standards call for teaching vocabulary strategies. The Common Core State Standards, for example, call for teachers to teach lessons explicitly showing students how to determine or clarify the meaning of

unknown words by analyzing meaningful word parts. Vocabulary standards such as these are taught with fully developed EDI lessons. However, you can use word parts as a vocabulary strategy in any lesson.

EDI VOCABULARY DEVELOPMENT

Teach Vocabulary Within the Context of the Lesson

In *EDI for English Learners*, we adopted a unique approach to vocabulary development. English Learners need to learn more English words every day. English Learners also need to understand the specific words and language structures contained in each lesson in order to fully participate successfully in the lesson and to learn the new content. So, what we do is strategically identify and teach two to seven new vocabulary words that are already contained in each lesson. And we do this for every lesson, every day, for the entire year.

The EDI approach, therefore, is not to pre-teach vocabulary words in isolation before the lesson. Instead, we define and teach vocabulary words as they show up during the lesson.

With this method, ELs are continually learning new vocabulary, plus their understanding of the lesson is increased because they are being taught the meanings of the specific words needed to understand the lesson itself.

It's important not to overwhelm ELs with too many new words at once. Table 4.1 shows the approximate number of new words to teach in each lesson for different grade levels.

Table 4.1 Number of New Words by Grade Level

Grade	Number of new words per lesson
K–2nd	2–3
3rd–5th	3–4
6th–8th	3–6
9th–12th	4–7

In *EDI for English Learners*, you identify vocabulary words already contained in the lesson and then teach them within the context of the lesson—two to seven new words in every lesson, every day, for the entire year.

Classification of Vocabulary

Before selecting specific vocabulary words to teach, you need to have criteria for identifying them. Some words are more important than others in advancing English Learners' understanding of academic content.

For EDI, we divide words into three vocabulary categories: Content, Academic, and Support. The amount of effort and the approach taken for teaching the meaning of words often depend on the category of the word. Let's examine each category.

Content Vocabulary

Content Vocabulary includes words that are specific to a given subject area. These words are rarely used outside of their content areas. Content Vocabulary for language arts includes words such as *character*, *plot*, *theme*, *soliloquy*, and *future perfect progressive verb tense*. Mathematics Content Vocabulary includes words such as *place value*, *fraction*, *linear inequality*, *x-intercept*, and *quadratic equation*. Science Content Vocabulary includes *herbivore*, *solar system*, *meiosis*, and *photosynthesis*. Social Science Content Vocabulary includes words or phrases such as *Manifest Destiny*, *checks and balances (of the three branches of government)*, and *Great Depression*.

The Common Core State Standards has its own term for Content Vocabulary: They label these “domain-specific words” *Tier Three Words*.

The key Content Vocabulary words in every lesson come directly from the content standards themselves and are included in the lesson's Learning Objective. During Concept Development, you teach the definitions of the lesson's Content Vocabulary. Here are some Learning Objectives with the Content Vocabulary shown in bold.

Recognize simple **affixes**.

Identify and describe the function of **dialogue**.

Write numbers in **scientific notation**.

Describe the process of **respiration** in plant and animal cells.

Analyze the effects of the **Industrial Revolution**.

Many lessons contain additional Content Vocabulary words besides those contained in the Learning Objective. For example, a lesson on the Pythagorean Theorem would include mathematics Content Vocabulary words such as *right angle*, *right triangle*, *hypotenuse*, and *legs* (of a triangle). ELs need to be taught, to understand, and to be able to use all the Content Vocabulary contained in each lesson.

For the most part, Content Vocabulary words are nouns. Be careful, however, because they can occasionally be verbs, especially the first time the standards introduce a new skill. For example, in the kindergarten objective “Add numbers using objects,” *addition* is the new concept. You need to teach your ELs that “addition means finding out how much you have altogether.”

Below are some additional examples of Learning Objectives in which you need to explicitly define the Skill (the verb) in the Learning Objective, and teach it as a Concept during Concept Development. Note: Sometimes a phrase or the entire Learning Objective is a concept.

Compare and **contrast** characters from two different stories.

Compare and **contrast** means to describe how two or more things are the same and how they are different.

Solve linear equations.

Solving linear equations means finding the value of the unknown that makes the equation true. For example, $x + 3 = 5$ is true only if $x = 2$.

Teach Content Vocabulary During Concept Development

Content-specific vocabulary words in standards-based lessons are usually new words for all students in the class, not just for ELs. In EDI, a significant part of every lesson is spent explicitly teaching Content Vocabulary. You do this during Concept Development using formal, written Concept Definitions; examples that show what the concept means; and Checking for Understanding questions. You use pair-shares before each question and provide sentence frames, cueing your ELs to answer in complete sentences so they start using the new Content Vocabulary words right away. With these strategies, ELs have ample opportunity to learn the Content Vocabulary necessary to be successful in the lesson.

We’ll cover some strategies for introducing the meaning of Content Vocabulary later in this chapter. Then, in Chapter 9, we’ll describe the formal teaching of Content Vocabulary during the Concept Development component of an EDI lesson.

Teaching Content Vocabulary Is Important

Although ELs need to be taught new Content Vocabulary in every lesson, the words are actually low-frequency words not used often in general conversation or text. However, teaching these words is essential to enable ELs to learn new concepts, to successfully complete grade-level work, to prepare them for college and careers, and to prepare them to answer state test questions.

Test questions often directly assess knowledge of Content Vocabulary words. *Which phrase from the passage is a simile? Which of the following statements correctly describes meiosis? What was the purpose of the Manhattan Project in World War II?*

Even state questions that look like computational questions are concept-based questions. *A Ferris wheel at the local fair has a diameter of 52 meters. Which expression can be used to find its circumference, C , in meters?* This is actually a conceptual question. If ELs don't know the definition of *circumference* and its formula, they can't answer the question. And the state test writers will definitely include one answer (a distractor) that is actually the area of the circle. This will cause some students who can't explicitly connect the Content Vocabulary word *circumference* to its formula to select the wrong answer.

From John: Students who mix up a circle's circumference with its area on a state test did not receive enough Concept Development during the initial teaching. Their circumference lesson probably focused on decimal arithmetic; they multiplied 3.14 by various diameters over and over. The students didn't connect their answers to the concept—the distance around the circle, the circumference.

Academic Vocabulary

Our second category of vocabulary words for EDI is Academic Vocabulary. Academic Vocabulary includes words that appear regularly in academic texts and tests. Academic Vocabulary words are not content specific and are used across content areas.

consist, constitute, distribute, establish, evident, indicate, occur, significant, recognize, respond

The Common Core State Standards use the term *Tier Two Words* to refer to “general academic words.” Here are examples they provide:

relative, vary, formulate, specificity, accumulate, calibrate, itemize, periphery

Academic Vocabulary words often show up as the skills (verbs) in content standards and Learning Objectives.

analyze, critique, determine, evaluate, interpret, synthesize

Academic Vocabulary can appear anywhere in a lesson, including the Learning Objective, Concept Development definitions, Skill Development steps, or lesson Importance. Academic Vocabulary also occurs in the passages ELs read, especially in expository text. Let's look at how Academic Vocabulary words (shown in bold) are interspersed throughout a lesson.

Learning Objectives

Today, we will **trace** the historic influence of manufactured products in China.

Determine how a central idea of a text is **conveyed** through **particular** details.

Analyze how **particular** lines of dialogue in a story **propel** the action and **reveal aspects** of a character.

Measure temperature with **appropriate** tools.

Concept Development

Mitosis is the **process** in which cells divide to **increase** their numbers. The result is two daughter cells with **identical** sets of chromosomes.

Hyperbole is a way of describing something using **exaggeration**.

Importance

It is important to **recognize** idioms because idioms have **specific** meanings in **different** languages. You need to know what idioms mean so you understand what people say.

Skill Development and Guided Practice

Interpret the connotative meaning of words.

Step 1: Read the **passage** carefully.

Step 2: **Analyze** the underlined word. **Describe** what the word **suggests** or how it makes you feel.

Step 3: **Interpret** the connotative meaning in the **passage**.

Academic words occur in passages students read.

Chinese printers **developed** movable type. Each piece of type had one Chinese **character** carved on it. The pieces could be **assembled**

as needed to print a page of text. This **eliminated** the need to carve a new block of text for every page of a book.

Teach Academic Words as They Show up During an EDI Lesson

English Learners need to be taught Academic Vocabulary in order to be successful at school during lessons and on assessments. However, because it's not unique to specific content, Academic Vocabulary is not always sufficiently addressed by teachers or textbook writers.

From Silvia: The other day in a classroom with a high percentage of ELs, the teacher kept asking the students to interpret their answer after solving a linear equation. The students kept responding “4,” which was the answer. The teacher kept saying that “4” was the answer but that she wanted them to interpret the answer. The students kept saying that the answer was “4.”

At the end of the lesson, the teacher concluded that the students were not successful in the lesson. In reality, the students were successful in mechanically solving the equation, but since they were not taught the meaning of *interpret*, they did not know that the teacher wanted them to explain the meaning of their answer.

The teacher should have defined *interpret* during the lesson and then modeled interpreting an answer herself first.

In EDI, you support ELs by teaching Academic Vocabulary during every lesson. You teach academic words when they show up during the lesson. You don't need to pre-teach the words. Just teach them in context as they occur naturally during the lesson.

We'll go over strategies to do this in a moment, but first let's look at another type of Academic Vocabulary: Relationship Vocabulary.

Academic Vocabulary Includes Relationship Vocabulary

The term “mortar words” has been used to describe a set of Academic Vocabulary words that connect or show relationships between ideas. Table 4.2 shows these words organized by relationship and student English language development level. As you look across the table, you can see how the vocabulary becomes more sophisticated.

To support ELs in advancing their use of English, don't just use words from their *current* language level. Teach words from higher levels. In general, teach ELs at a level higher than their current language development level in order to advance their use of English.

Table 4.2 Relationship Vocabulary (Mortar Words)

Relationship	<i>English Learner Differentiation</i>		
	<i>Beginning</i>	<i>Intermediate</i>	<i>Advanced</i>
Compare	like, are the same, both, __er, __est	just like, are similar, have in common, compared to	just as, share/ common attributes, by comparison
Contrast	but, however, unlike, _____er than	in contrast, on the other hand, differences between	whereas, as opposed to, a distinction between
Cause and Effect	because, because of, so	as a result of, therefore, if then, the cause was	consequently, thus, due to, this led to (caused)
Sequence	first, second, then, next, later, before, after	while, now, finally, earlier, for the past	prior to, previously, since, eventually, subsequently
Summarize	The author (story) tells/says	in summary, explains, discusses	illustrates, mentions, concludes, explores, focuses on

Teach ELs at a level higher than their current language development level in order to advance their use of English.

Incorporating Relationship Academic Vocabulary Into Lessons

There are many opportunities in lessons when you can promote the use of Relationship Vocabulary. Many Learning Objectives directly address the relationship structures shown in Table 4.2, and you can incorporate Relationship Vocabulary in the lesson and in sentence frames to promote ELs' use of new relationship Academic Vocabulary words. Imagine how impressive your ELs will sound using your sentence frames to respond.

Relationship-Based Learning Objectives With Sample Sentence Frames Using Relationship Vocabulary

Compare and Contrast Lessons

Compare and contrast two versions of the same story.

Compare a summary to an original.

Compare attributes of quadrilaterals.

Distinguish plant cells from animal cells.

Compare the processes of lawmaking at each of the three branches of government.

Sentence Frames Using Compare and Contrast Relationship Vocabulary

___ and ___ are the **same** because ___.

___ and ___ are **similar** because ___.

Something both passages **have in common** is ___.

Both ___ and ___ **share** these **common attributes** ___.

One of the **differences between** ___ and ___ is ___.

A **distinction** between ___ and ___ was ___.

Cause and Effect Lessons

Recognize cause and effect relationships in a text.

Identify the causes and effects of different types of severe weather.

Analyze the causes and effects of the vast expansion and ultimate disintegration of the Roman Empire.

Sentence Frames Using Cause and Effect Relationship Vocabulary

___ happened **because** ___.

As a result of _____, _____.

Due to _____, this led to _____.

Sequential Order Lessons

Identify text that uses sequence.

Identify changes in natural phenomena over time.

Trace the development of Buddhism in Medieval Japan.

(Continued)

(Continued)

Sentence Frames Using Sequential Order Relationship Vocabulary

Before ____, ____.

After ____, **then** ____.

Earlier ____.

Prior to ____, ____.

Subsequently, ____.

Summarize Lessons

Summarize the key supporting details and ideas.

Summarize the text distinct from personal opinions or judgments.

Summarize the points a speaker makes.

(Students can also summarize any lesson for note taking or for Checking for Understanding questions.)

Sentence Frames Using Summarizing Relationship Vocabulary

The story **tells** ____.

The author **says** ____.

The article **discusses** ____.

The passage **illustrates** ____.

The author **explores** the idea that ____.

Support Vocabulary

Support Vocabulary is the third category of vocabulary words used in EDI. Support Vocabulary refers to additional words that English Learners need to know so they can understand the meaning of a specific sentence or phrase used in the lesson. Support words are unrelated to grade-level Concepts and Skills and occur most often in text or passages that ELs read. For example, *The ship turned to starboard*. ELs might need to know that “port” means “left” and “starboard” means “right” to understand which direction the ship turned in a story, but EDI does not focus on teaching Support Vocabulary.

Distinguishing Support Vocabulary from Academic and Content Vocabulary is very important so you can effectively allocate your class time to advancing ELs’ knowledge of the proper words.

From John: Silvia and I have seen many examples of lessons focusing on students being taught Support Vocabulary instead of Content and Academic Vocabulary. I was in a class where the teacher was working hard teaching students the meaning of these words flagged in the passage: hammock, halibut, port, and starboard. The definition of a tall tale was written on the top of the worksheet. “A tall tale is an exaggerated story.” A more important word to teach English Learners in this lesson would have been *exaggerated*, yet it was not defined.

Support Vocabulary can show up anywhere in a lesson. It can be in the sentences ELs are reading to locate a noun or pronoun. It can be in a poem ELs are reading to recognize alliteration. Support Vocabulary can show up in the word problems used in math or in history or science passages.

Let’s look at some examples of Support Vocabulary (shown in bold).

In the language arts lesson below, ELs need to recognize the items they are to separate with commas. They don’t need to learn the Support Vocabulary words *attic* or *marbled cane* to be successful in the lesson.

Add commas to separate three or more items.

1. Our **attic** is filled with boxes bags and books.
2. The **marbled cane** was carved with tigers lions and elephants.

Solve simple interest problems.

3. David **invested** \$1,000 in **stocks**. The value of the **stock** increased 15%. What is the current value of the **stock**?

In the math word problem above, *invested* and *stocks* are Support Vocabulary. ELs need to be given enough information about these words to understand the problem, but they don’t need to learn these terms to be successful in *this* lesson. Note: In a high school economics lesson, however, *invested* and *stocks* would be Content Vocabulary, and these words should be explicitly taught.

We’ve spent a lot of time classifying vocabulary words. This is mainly so you can identify which words ELs need to learn and where to focus your efforts. It doesn’t matter if you spend extra time on a Support word here and there, but you must stay focused on continually expanding your ELs’ knowledge of Content and Academic Vocabulary. Now, let’s look at the strategies for teaching vocabulary.

From John: State tests assess student knowledge of Content and Academic Vocabulary, not conversational English or Support words. Teach Content and Academic Vocabulary every day.

EDI-EL VOCABULARY STRATEGIES

We adapted, developed, and field-tested eight strategies to teach vocabulary embedded in EDI lessons. Although the strategies are not limited to one vocabulary type, we have grouped the strategies by the type of vocabulary they are most often used for—Support, Content, or Academic. And remember, in EDI, the general approach is to define new words as they show up in a lesson.

EDI-EL Vocabulary Development Strategies

Support Vocabulary

1. Contextualized Definitions Strategy

Content Vocabulary

2. Develop Concept Strategy
3. Attach a Label Strategy
4. Multiple-Meaning Words Strategy
5. Homophone Strategy

Academic Vocabulary

6. Synonyms Strategy
7. Definitions Strategy
8. Word Morphology Strategy
9. Relationship Vocabulary Strategy

Support Vocabulary Strategies

In EDI lessons, we don't spend extensive instructional time on Support Vocabulary because our goal is different. We want ELs to understand, learn, and use more and more Content and Academic Vocabulary every day. On the other hand, ELs need to understand Support Vocabulary in order to understand a specific piece of text or passage used in a lesson. We are not trying to teach ELs the Support Vocabulary words. We provide meaning for Support Vocabulary in order to teach content, which leads us to our Support Vocabulary strategy.

EDI-EL Vocabulary Development

- I. Contextualized Definitions Strategy
 - A. Insert a definition near an unknown word.

When you provide a contextualized definition for Support Vocabulary, you purposefully insert a definition (or a few words of explanation) near an unknown word. There is little or no student interaction. You don't stop and have the students copy down the word or add Checking for Understanding questions. Just insert the definition and move on with the lesson. Contextualized definitions are generally added orally during a lesson.

*In front of the old inn sat the ostler. **An ostler is a person who takes care of the travelers' horses.***

*The captain saw the galleon, **the large sailing ship**, far off on the horizon.*

*Blue whales look blue underwater, but their skin is actually a mottled blue-gray. **Mottled skin means the skin has spots of blue and gray.***

Using contextualized definitions is the primary strategy for providing meaning of Support Vocabulary. ELs only need to know these words to follow the lesson.

Use Contextualized Definitions to Reinforce Content and Academic Vocabulary Definitions

We have talked about using contextualized definitions for Support words you are not going to formally teach. However, contextualized definitions can be very effective in reinforcing definitions of Content and Academic Vocabulary you have already taught. Just include contextualized definitions as you use new words. The repetition helps ELs remember and provides a transition as they learn the new words.

*I am going to look for the **setting**, where the story takes place.*

*I need to **determine**, to figure out, the meaning of the unknown word.*

Content Vocabulary Strategies

Content Vocabulary is lesson specific, and the words have only one meaning in the lesson. You teach Content Vocabulary using strategies that include extensive student interaction—including Checking for Understanding with sentence frames and pair-shares—so ELs learn, remember, and start using the new vocabulary right away.

Now we will look at strategies that address Content Vocabulary.

EDI-EL Vocabulary Development

2. Develop Concept Strategy

- A. Develop concept and label (new vocabulary word).
 - Provide formal, written Concept Definition.
 - Explain definition using examples and non-examples.
 - Include extensive student interaction.

In EDI, key Content Vocabulary is explicitly taught during Concept Development, a major part of every EDI lesson. You present formal, written definitions along with examples and non-examples (if applicable) of the concept. You provide extensive student interaction including Checking for Understanding with sentence frames and pair-shares. It is important that the Concept Definitions are written for ELs to read and refer to throughout the entire lesson.

Content Vocabulary is the most important vocabulary in every lesson. English Learners need to learn, remember, and use Content Vocabulary. Teaching Content Vocabulary is described in detail in Chapter 9 under Concept Development.

EDI-EL Vocabulary Development

3. Attach a Label Strategy

A. Attach a label to a concept students already know.

- Teacher activates—asks students to do something they already know that connects to the new vocabulary word.
- Students interact.
- Teacher labels—provides the new vocabulary word that labels what students already know.

This approach is used when ELs already understand the concept, but they don't know the new vocabulary word that defines it. In other words, they know the idea, but they don't know the label. In EDI lessons, this approach is often used during Activate Prior Knowledge to connect existing knowledge to new vocabulary prior to the introduction of a formal, written definition during Concept Development.

Attach a Label Strategy Example I

Mrs. Jackson is preparing a language arts lesson: “Draw inferences from text.” The most important Content Vocabulary word in this lesson is *inference*. Students already know how to infer in daily life, but they don't know the specific word *inference*. Because students already know how to infer, she decides to use the EDI-EL Attach a Label Strategy. She will use it during Activate Prior Knowledge.

(Teacher activates by asking students to do something they already know that connects to the new vocabulary word.)

Mrs. Jackson points to a sentence on the board and says, *Students, let's read this sentence together . . .*

Activate Prior Knowledge

The principal would like to see Roberto in the office.

She continues, *Why do you think the principal wants to see Roberto in the office?*

(Student interaction)

Get out your whiteboards. Write your answer on your whiteboards. Then turn to your partner and explain what you wrote and why you think the principal wants to see Roberto. Partner B explains first.

She waits a moment while the students write on their whiteboards and pair-share. Then she continues, *Students, chin-it! Hold up your whiteboards for me to see.* She looks around the room from left to right. Most students have written *in trouble*.

Mrs. Johnson calls a non-volunteer Angelica. “I think Roberto is in trouble.” Mrs. Jackson follows up, *Why do you think Roberto is in trouble at school?* Angelica responds, “I know that when you are in trouble, you get sent to the principal’s office.”

(Teacher labels by providing the new vocabulary word that labels what students already know.)

Mrs. Jackson turns away from Angelica to address the entire class, *Students, most of you wrote in trouble on your whiteboards. You read the sentence about Roberto and then you thought about what you already know about being sent to the office.*

She continues, *Today, we have a new word for what you just did. It’s inference. You just made an inference. You wrote what you think is happening based on the information that you had, including what you already know.*

Look up here on the board where I have the definition of inference. I am going to read the definition first and then we will read together . . .

Attach a Label Strategy—Example 2

Students, look at these sentences. Which one is probably not true? Write the answer on your whiteboard and then tell your partner why you picked your answer. You can say, Sentence ___ is probably not true because _____. Partner B go first and then A.

Activate Prior Knowledge

1. Jesse, I told you a million times to clean your room.
2. Jesse, I told you three times to clean your room.

Chin-it. Good, I see that you all selected sentence number 1. I am going to select some of you to tell me why. After calling on non-volunteers to answer in complete sentences, the teacher says, You're correct, Jesse was not actually told to clean his room one million times, yet we talk like this all the time.

There is a name for this type of sentence. It is called hyperbole. Students, look up here at the definition of hyperbole on the board. I'm going to read it first and then we'll read it together . . .

EDI-EL Vocabulary Development

4. Multiple-Meaning Words Strategy

A. Provide new meanings for known words.

- Present the new multiple-meaning word.
- Acknowledge the known meaning.
- Provide the new meaning.
- Note the similarities between the meanings (if any).
- Provide student interaction (CFU of definition of word).

Multiple-meaning words are words that have more than one meaning, such as plane (airplane), plane (flat surface), and plane (tool for smoothing wood). Often, ELs already know one of the meanings but not the specific new meaning used in the lesson.

Multiple-meaning words can show up anywhere in a lesson and can be Academic, Content, or Support Vocabulary. It's important for you to recognize and teach multiple-meaning words because ELs often apply their existing definitions to the words instead of the new content-specific definitions. For example, some students might think a right triangle points to the right instead of knowing that *right* in this case refers to a 90-degree angle.

Sometimes, the multiple meanings are an extension of the same idea. When they are, you use this as a strategy and acknowledge the similarity when teaching new meanings to known words. For example, the *drop-down menu* in a computer program is similar to the *menu* in a restaurant. They both provide choices.

Use the EDI-EL Multiple Meaning Word Strategy when ELs already know a common meaning and the lesson is using a new meaning.

Multiple-Meaning Words Strategy Example I

From Silvia: I wrote and taught an EDI science lesson recently and was surprised at the number of multiple-meaning words it contained. Here's how I addressed the multiple-meaning words in this lesson

Learning Objective

Describe the parts of a tree.

Content Vocabulary for this lesson included *crown*, *trunk*, *bark*, *cambium*, and *roots*. Except for cambium, these are all multiple-meaning words. ELs are more than likely already familiar with some of the common meanings, but not necessarily with the meanings used in science. I wrote my definitions for Concept Development.

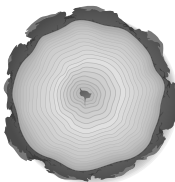
Concept Development

A **tree** is a woody plant that usually is more than 10 feet tall and has one main stem. Trees come in different shapes and sizes but have the same basic parts.



The **crown** of a tree is the upper leaves and branches. *(Point to illustration.)*

The **trunk** of a tree supports the crown and serves as a highway for food. *(Point to illustration.)*



The **bark** layer is on the outside of the trunk and branches and protects the tree from insects and disease. *(Point to illustration.)*

The **cambium** is a layer of cells inside the bark. *(Point to illustration.)*



The **roots** are underground and hold the tree in the soil. *(Point to illustration.)*

Here is how I addressed *crown* using the EDI-EL Multiple-Meaning Words Strategy.

- Present the word. *Students, look at this word while I say it: crown.*
- Acknowledge the known meaning. *Students, you already know that a crown is the round ring that kings and queens wear on their heads.*
- Give the new meaning. *In today's science lesson, the word crown is the name for the top of a tree.*
- Note the similarities between the meanings, if any. *Students, the new meaning of crown is similar to the old meaning. A king wears a crown on top of his head. The top of a tree is also called a crown. The meanings are close and that will help you remember the new meaning. Point to the king's crown and the crown of a tree.*
- Student interaction. *Students, I have a question for you. I want you to tell me the meaning of crown as we will use it today. And how does the meaning compare with the meaning of crown that you already know? Partner A, point to the crown of the tree in the picture and explain to your partner. Call on non-volunteers.*

My approach was slightly different for *bark* and *trunk*. For *bark*, ELs probably already know that dogs *bark*. I told them that they already know this meaning, but we have a new meaning for *bark* today, and I defined it. I didn't provide any connection between the *bark* of a dog and the *bark* of a tree.

Some ELs may already know *trunk* (large suitcase), *trunk* of an elephant, *trunk* of a car, swimming *trunks*, or *trunk* (upper body). I stated these meanings and acknowledged that they already know some of these meanings. I continued saying that we would learn a new meaning today. I didn't try to connect the meanings.

(Actually, *trunk* in the sense of upper body is similar to the *trunk* of a tree. Both words refer to a main part that has limbs attached. I could have used this relationship when teaching *trunk* in a different class, but I didn't use it here. When building on multiple-meaning words, I always connect from a more common meaning to a new meaning.)

I did not teach *root* as a multiple-meaning word because ELs most likely already know the meaning of *root* in relation to a tree, which is the meaning used in this lesson. *Root*, however, could be taught as a multiple-meaning word if the lesson were addressing the "roots of capitalism" or "square root" because these would be new meanings.



EDI-EL Vocabulary Development

5. Homophone Strategy

- A. Provide meanings for new words that sound like known words.
- Present the new word.
 - Acknowledge the known homophone.
 - Provide the new meaning.
 - Provide student interaction (CFU of definition of word).

We just talked about multiple-meaning words and how ELs tend to use their existing definitions if they aren't explicitly provided new definitions. A similar effect occurs with homophones. Homophones are words that sound the same but have different spellings and meanings, for example, *mode, mowed; coarse, course; cell, sell; pie, pi* (3.14); and *sum, some*. It's important to recognize and define homophones whenever they occur during EDI lessons because ELs will often “hear” the meaning they are most familiar with.

The approach to use for these homophones is similar to the EDI-EL Multiple-Meaning Strategy.

Homophone Strategy Example I

Students, an important word in our science lesson is cell. This new word sounds like a word you already know—sell, as in they sell food at the grocery store. Cell is a completely different word. It's even spelled differently: c-e-l-l. I am going to read the definition and then we will read it together. (Teacher continues teaching the definition of cell and asks CFU questions about its meaning.)

Use this strategy anytime homophones might lead to misunderstandings. Be on the lookout for homophones. They can show up as Content, Academic, or Support Vocabulary in a lesson: *jeans, genes; martial, marshal; medal, meddle; tide, tied; attendance, attendants; and cymbal, symbol.*

Academic Vocabulary Strategies

We have just discussed strategies to teach Content Vocabulary. These words have very specific meanings in standards-based lessons, and explicitly teaching their definitions is included in every EDI lesson during Concept Development.

Now, we are going to shift to strategies for Academic Vocabulary. These words are not discipline specific. Academic words are used in multiple

situations across multiple subject areas. Because of this, *when teaching Academic Vocabulary, you generalize the definitions so your ELs can recognize and understand the words when they show up in another subject area, too.*

There are several strategies for teaching Academic Vocabulary. You can teach definitions orally, or you can refer to footnotes or definitions. When you write your own lessons, you can add footnoted definitions.

EDI-EL Vocabulary Development

6. Synonyms Strategy

Define new words using synonyms.

- Present the new word.
- Provide synonyms that are easy to understand.
- Generalize the new word to other situations and to other word forms.
- Provide student interaction (CFU of word definition).

Use the EDI-EL Synonyms Strategy when a new word can be defined using common synonyms that ELs already know. For example, *enormous* means *large, big*. Also, this strategy is used for words that can be explained with synonyms. It is not for words that need a definition or more elaborate explanation.

Synonyms Strategy Example I

Learning Objective

Describe the Kinetic Molecular Theory of Gases.

The Kinetic Molecular Theory of Gases is composed of several postulates that explain the behavior of gases. One of the postulates states that “gas particles are in constant, rapid, random motion, continually colliding.” *Colliding* is an important word in this lesson because it explains some of the gas behaviors.

- Present the new word. *Students, look up here. There’s an important word in the third postulate: colliding. Let’s read it together. Colliding. One more time. Colliding.*
- Provide easy-to-understand synonyms. *If you look at the footnote, you can see that “colliding” means “crashing and bumping.”*
- Generalize to other situations and to other word forms. *For example, sometimes we see students colliding in the hallways. They are crashing or bumping into each other. We sometimes see cars colliding*

on the freeway. Television news sometimes shows car collisions, cars crashing into each other.

- Student interaction. *Students, what does it mean when we say that the gas particles are continually colliding? Tell your partner.* Call on non-volunteers.
- Cross-reference the brain to help students remember definitions.

Use the Cross-Reference the Brain technique to help students remember synonym definitions. You say the word, and the students call out the synonym. You say the synonym, and students call out the word.

Students, if I say “colliding,” you say “crashing and bumping.” If I say “crashing and bumping,” you say “colliding.” Ready?

Colliding.

Crashing and bumping.

Colliding.

Crashing and bumping.

Crashing and bumping.

Colliding.

Students, repeat after me. Colliding means crashing and bumping. Crashing and bumping means colliding.

Not all Academic words are suitable to be taught using synonyms. Some will require a short definition, which is our next strategy.

EDI Vocabulary Development

7. Definitions Strategy

A. Define complicated words.

- Present the word.
- Provide a definition.
- Generalize to other situations.
- Provide student interaction (CFU of meaning of word).

When you provide your definition, check that the words in it are appropriate for your grade level. Often definitions are provided using vocabulary that is more difficult than the word being defined.

From John: I observed an elementary school science class in which the teacher asked a student to look up the dictionary definition of *vibration*. I remember the student reading, “Vibration: equilateral displacement across a neutral point.” This was too complicated for the elementary school students.

The strategy of providing quick, short definitions is fine for Academic Vocabulary, but don't use it for Concepts. Concepts are formally taught during Concept Development using written definitions, examples and non-examples, and extensive Checking for Understanding. We'll cover Concept Development in Chapter 9.

From John: The next example has both Academic and Content Vocabulary in the Learning Objective. Here is my thinking on how to address the vocabulary using EDI.

Definitions Strategy Example I

Learning Objective

Today, we will use prefixes and suffixes to determine the meanings of words.

There are three vocabulary words in this Objective: *prefixes*, *suffixes*, and *determine*. The words *prefixes* and *suffixes* are Content Vocabulary for this lesson. I teach them during Concept Development with formal, written definitions; tracked reading; examples; non-examples; and extensive Checking for Understanding.

The word *determine* is Academic Vocabulary. It can be used across content areas. I could use a synonym such as “figure out,” but I use a more comprehensive definition: “use information to figure out.” I teach the definition of *determine* while I present the Learning Objective because that is the first time the word occurs in the lesson. I refer to the definition again during Skill Development when I actually use the meaning of prefixes and suffixes to *determine* the meaning of words.

- Present the word. *Students, look at this word in our Objective. The word is determine. Let's say it together, determine.*
- Provide an easy-to-understand definition. *Look at the footnote. You can see that “determine” means “to use information to figure out or find out something.”*
- Generalize to other situations. *For example, we might need to determine whether we have enough money to go to the movies. We would use information such as how much money we have and how much the tickets cost to figure out whether we have enough money to buy the tickets.*

Teachers use information, including your test scores, to determine your grade in the class. Look at our Objective. Today, we will

use information—in this case, prefixes and suffixes—to determine, or figure out, the meaning of words.

- Student interaction. I could ask the students to restate the definition of *determine* in a complete sentence. *Determine means . . .* However, I want to use a higher order application question, so I ask them to create their own sentence using the new word. Also, hearing the new word in different sentences helps ELs develop an ear for the use of the word. It's better than just hearing the definition. I provide an example first.

Students, I want you to use determine in your own sentence. For example, you could say, I want to determine when my favorite TV show starts. Talk with your partner and create your own sentence using determine. Be ready, in case I call on you.

If some students' sentences are not perfect, I will elaborate (reword) them when I echo their sentences. That's the Effective Feedback in TAPPLE: Echo, Elaborate or Explain.

EDI-EL Vocabulary Development

8. Word Morphology Strategy

- A. Use word parts to understand new words.
- Present the word.
 - Point to and define the word parts.
 - Generalize to other words.
 - Student interaction (CFU of meaning of word).

Here's our next strategy for vocabulary development: Word Morphology. Words that contain recognizable roots, prefixes, or suffixes can be taught using the meanings of the word parts.

When using this approach, you generalize the word parts so your English Learners can apply this knowledge to other words they encounter. In this manner, you are building their capacity to understand additional words, not just the specific word you are teaching at the moment.

Word Morphology Strategy Example I

Learning Objective

Describe the theological, political, and economic ideas of the major figures during the Reformation.

From Silvia: I have taught this lesson several times. I don't define *theological* during the Learning Objective. Instead, I define *theological*, *political*, and *economic* during Concept Development because the bulk of the lesson is spent classifying the ideas of Martin Luther, John Calvin, and Desiderius Erasmus into these three areas. I use the Word Morphology strategy for *theological*.

- Present the word. *Students, look closely at this word: theological.*
- Point and define word parts. *Look at the first part of theological. Point to theo. Theo is from an old word that meant God. Today, theo is used in words to refer to religion in general. So, "theological" means "related to religion."*
- Generalize to other words. *Theo is used with the same meaning in other words, too. For example, "theology" means "the study of religion." "Theocratic" means "government by a god or religious leaders."*
- Student interaction. *Students, I want you to tell me the meaning of theological and how you can remember it just by looking at the word. Make sure you answer in a complete sentence. Theological means _____. I can remember because _____. Tell your partner your answer. Partner B go first and then partner A. Call on non-volunteers.*

Word Morphology Strategy Example 2

Concept Development

Homophones are words that have the same sound but different meanings and spelling.

Examples: blue, blew; hair, hare; no, know; ate, eight

The word *homophone* is Content Vocabulary in this lesson. Its definition would be taught during Concept Development using a written definition and examples. The teacher can then follow up with the EDI-EL Word Morphology Strategy to provide additional meaning and to show how to remember the definition.

- Present the word. *Students, let's look closely at the word homophone one more time.*
- Point to the word parts. *This first part—homo—means "the same." The last part—phone—means "sound." So, the word "homophone" means "same sounds" or words that sound the same.*

- Generalize to other words. *These word parts—homo and phone—have the same meanings in many words. Here are some other words related to sound: telephone and microphone. The word homograph refers to words that have the same spelling.*
- Student interaction. *Students, I want you to tell me the meaning of homophones and how you can tell just by looking at the word. Make sure you answer in a complete sentence. Homophones are _____. I know this from the word homophone because _____. Tell your partner first. Be ready in case I call on you.*

EDI-EL Vocabulary Development

9. Relationship Vocabulary Strategy

- A. Support students in using new Relationship Vocabulary.
 - Replace simple relationship words with more sophisticated relationship words.
 - Provide a sentence frame with Relationship Vocabulary.
 - Define the Relationship Word, if necessary.

We've already described Relationship Vocabulary. When you have lessons, or Checking for Understanding questions, based on relationships (compare and contrast, cause and effect, sequence, and summarize), you can support ELs' use of Relationship Words. The goal is for ELs to use more sophisticated vocabulary. Most often, Relationship Vocabulary is used in sentence frames to answer CFU questions. In the examples below, you can see how Relationship Vocabulary became more sophisticated.

___ and ___ are ~~the same~~ similar because ___.

The passage ~~tells about~~ discusses ___.

One ~~difference~~ distinction between the characters is ___.

SUMMARY: VOCABULARY DEVELOPMENT

This chapter contained many strategies for vocabulary development. Let's recap what we covered.

- English Learners have dual needs in school: learning content while simultaneously learning English.
- Although vocabulary words can be taught from lists, EDI focuses on teaching English Learners two to seven new vocabulary words in every lesson, every hour, for the whole school year. The vocabulary words to teach are selected from the words contained in the lesson.

Types of Vocabulary

Content Vocabulary is the discipline-specific vocabulary unique to a given lesson. The most important Content Vocabulary is contained in the Learning Objective and is explicitly taught during Concept Development. Content Vocabulary includes words such as *personification*, *compound sentence*, *fraction*, *decimal*, *atmospheric pressure*, *cell wall*, *Bill of Rights*, and *Age of Enlightenment*.

Academic Vocabulary is the vocabulary used in academic text and tests. These words are used across disciplines. Examples include *appropriate*, *correspond*, *distinguish*, *interpret*, *organize*, *preliminary*, and *statement*. Because Academic Vocabulary words are not discipline specific, they are not always well covered in textbooks. EDI lessons teach the Academic Vocabulary contained in the lesson. Academic Vocabulary includes Relationship Vocabulary that describes relationships between ideas.

Support Vocabulary is the vocabulary that needs to be defined for ELs so they can follow the lesson, but the focus is not on learning these words. Support Vocabulary most often occurs in texts ELs read. Examples are words such as *whistled*, *humongous*, *smearred*, and *grinned*. Examples also include old-fashioned or archaic words found in literature: “They talked in the *parlor*.”

This chapter provided nine strategies to address lesson-embedded vocabulary:

EDI-EL Vocabulary Development Strategies

Support Vocabulary

1. Contextualized Definitions Strategy

Content Vocabulary

2. Develop Concept Strategy
3. Attach a Label Strategy
4. Multiple-Meaning Words Strategy
5. Homophone Strategy

Academic Vocabulary

6. Synonyms Strategy
7. Definitions Strategy
8. Word Morphology Strategy
9. Relationship Vocabulary Strategy

Now we’re ready for the next chapter, in which we describe more strategies to support English Learners—Language Objectives: Listening, Speaking, Reading, and Writing.