

Unit 5 • Module 2: Morphemic Analysis

Section 1

Slide 1—Title Slide

Welcome to the second module in the Word Study Routines unit, Morphemic Analysis.

Slide 2—Reading Intervention Components

This module addresses the instruction of students identified in diagnostic assessments as having somewhat weak decoding skills and limited vocabulary knowledge. If students are still learning to recognize the six syllable types, as discussed in Module 1 of this unit, class sizes should be kept to very small groups in order to increase the intensity of instruction.

However, students who exhibit reading difficulty, but who are not considered severely disabled readers, can be taught in slightly larger groups.

Handout 1: TEKS/ELPS Connections explains how this routine will assist students in meeting specific subject area expectations of the Texas Essential Knowledge and Skills, or TEKS, and the English Language Proficiency Standards, or ELPS.

Slide 3—Objectives

The objectives for this module are: to understand how increasing knowledge of word parts improves students' ability to recognize and comprehend the meanings of new words; to analyze words by breaking them into their meaningful parts; and to apply the three-step process for explicit instruction to help students learn and analyze word parts.

Morphemic analysis assists with two key reading skills: quickly and accurately decoding words, and acquiring vocabulary.

The ultimate goal of morphology is to better equip students to read and understand text.

As we begin the module, you may hear or see some unfamiliar terms. These will be explained as we work through the slides.

Slide 4—Morphemes

It is important to understand how morphemes differ from phonemes. Morphemes are units of meaning, not units of sound. When using the routine for identifying and pronouncing multisyllabic words in Unit 2 Module 2, we did not address units of meaning. The word identification strategy is meant to be flexible and result in only the correct pronunciation of words.

However, in this module, we are concerned with the identification of word parts that will also result in the correct meaning of words. Therefore, it is important to adhere to a stricter definition of prefixes, roots, and suffixes as they relate to the origins of English words.

Slide 5—Terminology

A morpheme is the smallest part of a word that still carries meaning.

All words must begin with a base or a root to which other parts can be affixed. These “other parts” may be additional roots or base words, prefixes, or suffixes.

Unlike most roots and base words, affixes typically have a common placement, spelling, and pronunciation.

Please review the definitions on the slide.

The speaker pauses for 15 seconds.

Slide 6—Vocabulary Explosion in Fourth Grade and Beyond

The ability to identify and manipulate the morphemes in a word is increasingly important as students advance into secondary school, as it is impossible for students to memorize the definitions of all unfamiliar words they will encounter.

Due to the increase in affixed words, particularly derivatives, school texts in grades 3 through 9 contain over 88,000 distinct and uncommon word families.

Slide 7—The Relationship of Morphology and Reading Ability

When used as a strategy, analyzing the morphemes in words helps students become more independent in both their word learning and comprehension. In fact, researchers estimate that up to 60% of the new words students will encounter are derived from Greek and Latin roots and affixes.

Slide 8—Supporting Students’ Language Development

Morphemes allow students to build their vocabularies more quickly. Teaching students to recognize and manipulate morphemes assists in the development of their English proficiency. English language learners who can recognize and use the cognates tend to have better reading comprehension.

Cognates are words in different languages that have the same origin, such as *science* in English and *ciencia* in Spanish. Cognates are most common among Latin-based languages. It is estimated that 10,000–15,000 cognates exist between English and Spanish; that is up to one-third the average educated person’s active vocabulary.

Slide 9—How Will Students Recognize Morphemes?

Encountering words and discussing the parts that contribute to their meaning help students to distinguish between patterns of letters that constitute morphemes and those that just represent sounds. This is why it’s important to directly and explicitly teach roots and affixes, and then generalize to new and unfamiliar words.

Students, particularly those with reading difficulties, may have trouble determining whether a word begins with a prefix or a root and whether a string of letters constitutes a morpheme. For example, consider the words *predict* and *pretty*. The letter string *pre-* in the word *pretty* could easily be confused with the prefix *pre-* in the word *predict*. Similarly, the prefix *re-* in the word *rewrite* is not the same as the beginning letters in the word *rent*.

Prefixes, in particular, can be challenging to correctly identify in complex words since they are not present in every word. Sometimes, the first part of a word looks like a prefix but is really part of the root. This often results from the difference between the Greek and Latin origins of English. Consider, for example, the words *descend* and *democracy*. *De-* is a Latin prefix that means “from” or “down.” *Dem* is a Greek root that means “people.”

The confusion can also occur because we break words apart phonetically for pronunciation, but by meaning units for morphemic analysis.

Section 2

Slide 10—Order of Acquisition

Please locate **Handouts 2, 3, 4** and **5**.

The speaker pauses for 10 seconds.

Research suggests students of all ages proceed through a fairly consistent order in developing their understanding of morphemes. This is related to how obvious or transparent the morphemes are in words and how frequently they are encountered and used in both speech and print. **Handout 2: Morphemes: Order of Acquisition** lists this order.

For example, monomorphemic words, or base words, can stand on their own. These words, such as *walk*, are among the first learned.

Compound words are made by combining two otherwise monomorphemic, or base, words, as in the word *cowboy*. These tend to be easier because the two parts are recognizable and have clear meanings.

Twenty prefixes make up approximately 97% of the prefixed words used in school English. **Handout 3: Common Prefixes** lists these most frequently occurring prefixes. Because these prefixes occur often and have fairly consistent meaning, they are usually learned before suffixes. However, as noted in the last section, they can be tricky.

For example, *re-*, meaning “back” or “again,” is one of the most common prefixes, but other words beginning with the letters *re* are not truly made from the prefix. These nonexamples include *ready*, *reason*, *really*, and *regular*.

Inflectional suffixes make the declension of nouns, such as *dogs*, and the conjugation of regular verbs, such as *playing*, *played*, *plays*. These are grammatical markers common in speech and print.

Like many of the inflectional suffixes, some derivational suffixes do not change the pronunciation of the root or base word and, therefore, are easier to acquire. These suffixes, such as *-ness* or *-ly* in the words *loudness* or *loudly*, indicate the part of speech of the word.

Other suffixes and prefixes are less consistent, less common, and/or more likely to change the pronunciation of the root or base word. These nonneutral derivational suffixes and low-frequency prefixes tend to be more difficult to acquire and must continue to be developed through adolescence. They are also commonly a part of longer multimorphemic words, such as *infrastructure*.

See **Handout 4: Common Suffixes** for a list of the 20 most frequently occurring inflectional and derivational suffixes in school English.

See **Handout 5: Common Latin and Greek Roots** for a suggested list of roots that might be part of multimorphemic words. Since multimorphemic words are the most difficult for students to acquire, the morphemic analysis routine presented in this module will be applied to words made of roots and affixes.

Slide 11—Order of Instruction

Proceed from easy to difficult morphemes across types. Give preference to instruction in roots. Consider the frequency of the word family. It is not recommended that your instruction strictly adhere to the order in which students seem to naturally acquire knowledge of morphemes, as discussed on the previous slide. In other words, you should not teach all of the monomorphemic, or base, words before teaching any compound words, and you should not teach all the high-frequency prefixes before you begin teaching suffixes. Rather, you should begin instruction with a combination of easily identifiable and high-frequency prefixes, roots, and suffixes to increase both students' awareness of the word parts and students' skill at using the word parts to derive the meanings of words.

One way to begin moving students to more difficult word parts or multimorphemic words is to use words with which students are likely to be familiar. For example, the word *prediction* is multimorphemic in that it contains three morphemes: prefix: *pre-*; root: *dict*; suffix: *-ion*.

As a multimorphemic word, *prediction* would normally be considered challenging to struggling readers. However, it is a very common word in school. Students in kindergarten are asked to make predictions about what will happen in a story. Moreover, the word has a Spanish cognate: *predicción*. Therefore, the word is not considered as difficult as it might seem on the surface.

Slide 12—Creating Awareness of Word Parts

It's important to define and explain the function of word parts. Please turn to **Handout 6: Sample Word Parts**.

Before learning prefixes, roots, and suffixes, students need to understand that many words are made up of these component parts and that these parts work together to change the meaning of the words. You should begin by defining the terms *prefixes*, *suffixes*, and *roots*. Student-friendly definitions are provided on Handout 6, such as:

Prefix: A word part that is attached to the beginning of a word

Suffix: A word part that is attached to the end of a word

Root: The basic part of a word that carries meaning

Slide 13—Creating Awareness of Word Parts (cont.)

After defining the terms, model for students how the word parts are combined and recombined to make real words. On the slide, we've made the words *preview* and *review*.

Discuss with students how meaning changes when prefixes change. For example, the prefix *pre-* makes the first word mean “to look at part of something, such as a movie, *before* you see the whole thing,” and the prefix *re-* changes the word to mean “to look *back* or look *again* over something you have already seen.”

Slide 14—Creating Awareness of Word Parts (cont.)

Now combine two word parts that do not make a real English word. It is important to model how to determine whether these combinations form real words.

You might say something like, “I know that *preview* means to ‘look at a sample of something before viewing the whole,’ so perhaps *postview* means something like ‘looking at something after seeing it once.’ I have never heard of *postview*, so I will check the dictionary. No, there is no *postview*. So I know that these word parts do not make a real word.”

You might also point out that *review* means “to look again at something.” Students learning English and other struggling readers often lack the vocabulary and literacy experience to distinguish between real and nonsense words in English. By giving instruction on dictionary use and/or providing a lesson glossary or word list, you allow these students to be successful in this wordplay activity, which in turn builds their vocabulary.

Slide 15—Creating Awareness of Word Parts (cont.)

Now model for students how the suffixes change word meanings. For example, you might add the suffix *-ing* to *preview* and explain how that changes the meaning:

“When the word was *preview*, it could have been something I saw. I went to the movies and I saw a preview of a film that was going to come out next month. In that example, *preview* would be a thing, a noun. If I add the suffix *-ing* to the end of the word, I get *previewing*. Now it is something I am doing. I was sitting in the movie theater, previewing the film that was going to come out next month. *Previewing* in this case would be an action, like watching or seeing. The suffix can change the word from a noun to a verb.”

Slide 16—Creating Awareness of Word Parts (cont.)

Finally, have students copy the sample word parts onto index cards and work in partners to see how many combinations of prefixes, roots, and suffixes they can make that result in real words. Have them write down a list of the words they are able to make.

Monitor partners as they work. Ask students how they determined the combinations are real words and how the addition of a prefix or suffix changed the word.

Also, have the students share the words they made. Be sure to ask them to explain how the prefixes and suffixes changed the meanings.

Section 3

Slide 17—Introducing New Morphemes: Modeling Phase: *I Do*

Now that students know what word parts are and how they function, you are ready to begin teaching specific prefixes, roots, and suffixes. At first, remember to select word parts that are easier or more common. These should also be word parts that students will encounter in your class.

This slide and the next three slides provide a script to suggest how you might introduce new morphemes to your class. You might say, “You have learned that looking for word parts can help you read and understand the meanings of complicated words. Today we will learn a common root. When you can recognize roots and know what they mean, it will help you unlock the meaning of many words you read. That way, you can learn new vocabulary words more easily in all your subjects. Today we will learn the Latin root *port*.”

Slide 18—Introducing New Morphemes: Modeling Phase: *I Do* (cont.)

Write the root and its meaning on the board or overhead as you discuss it. You might say, “The Latin root *port* means ‘to carry.’ One English word that has the root *port* in it is *portable*. My MP3 player is very portable. That means I am able to easily carry it around. The root gave us the meaning ‘carry,’ and the suffix *-able* told me it was something I was capable of doing.”

One example will probably not be sufficient, so you can continue modeling with other words formed from the Latin root *port*, such as: *import* (to carry in): Can you help me import files to my MP3 player?; *exporting* (carrying out): The farmer is exporting his corn to China on a ship; *porter* (person who carries): The porter carried the guest’s suitcases up to her hotel room.

Slide 19—Introducing New Morphemes: Teacher-assisted Phase: *WE Do*

To help students learn to apply their knowledge of morphemes to new words, you need to provide multiple opportunities for them to practice determining the meanings of unknown words. Let’s try one method of doing this.

You might say, “*Transport*. What are the parts of this word, everyone?”

“That’s right, *trans* and *port*. What does *port* mean, everyone?”

“That’s right—‘to carry.’ And, *trans-* is a prefix that means ‘across.’ So, this root means ‘to carry,’ and this prefix means ‘across.’ *Transport*.”

You might then have students get in partners and explain the two sample sentences to one another.

“We will transport the oil from Texas to Iowa. The post office will transport the packages from El Paso to Beaumont.”

Slide 20—Introducing New Morphemes: Independent Phase: *YOU Do*

You can challenge students of varying ability levels by providing both easy and difficult practice words that contain the morphemes you have taught. However, always give students the words in context. This type of practice best simulates the goal of having them apply their knowledge of morphemes to determine the meanings of unfamiliar words.

You can also let students experiment with creating words from the morphemes and then discussing whether they made real words and how they determined whether the words were real.

Finally, you can have students give you examples and nonexamples for a word made from the morphemes. With the word *portable*, for instance, students might offer a video phone, laptop computer, and suitcase as examples. A widescreen television, desktop computer, and dresser would be nonexamples.

In the next classroom video, the reading teacher introduces the prefix *e-*, confirming students’ existing knowledge of the prefix’s meaning by having them sort known words into examples and nonexamples. She is using this as a review activity before students read a story in which they will encounter unfamiliar words, some of which start with the prefix *e-* and some of which start with the letter *e*. Pay attention to how the teacher establishes the purpose for studying morphemes and prepares her students to discriminate between examples of the prefix’s use and nonexamples. How does she help them learn to determine the meaning of unfamiliar words?

Video: Morphemic Analysis: Prefix Lesson (6:07)

Section 4

Slide 21—Morphemic Analysis Routine

Once students understand how words are made from meaningful parts that can be identified and manipulated, encourage them to use their knowledge of morphemes to better understand new words encountered in text.

Because it is impractical to directly teach all morphemes a student might encounter, it is important to provide a procedure for analyzing unfamiliar words and using morphemes to infer the meaning in context. Establishing a routine will help students process words systematically to determine their meaning. The morphemic analysis routine is the following: Find the root, find the prefixes and suffixes, think about what each part means, combine the meanings of the parts, try the possible meaning in the sentence, and ask yourself, “Does it make sense?”

Slide 22—Morphemic Analysis: Modeling Phase: *I Do*

Now let’s look at how you would teach this routine to students.

This slide, as well as the next seven, provide a suggested script for how you might introduce the morphemic analysis routine in a lesson.

You might begin by saying something like this: “Sometimes, we can use the parts of a word to understand what it means. These parts might be a little different from the parts we use to pronounce the word. That is because we want to find the parts that have meaning, not just a sound.”

Slide 23—Morphemic Analysis: Modeling Phase: *I Do* (cont.)

Though not a high-frequency word typically used in instruction for struggling readers, *anarchy* will be useful in modeling the morphemic analysis routine:

“Let’s look at an unfamiliar word I came across while reading my social studies assignment: *anarchy*. ‘After the king was killed, the country was in total anarchy.’ First, I want to find the root of the word. Every word has to have a root. I do not see a root we have learned in class, but I have seen similar words like *monarchy* and *oligarchy*. Those words have to do with who leads a country. The part they have in common is *arch*, so I think *arch* is the root, and it must mean something like ‘leader’ or ‘chief.’”

Slide 24—Morphemic Analysis: Modeling Phase: *I Do* (cont.)

“Next, I want to find any prefixes or suffixes in the word. Prefixes are before the root, and suffixes are after. I see one prefix in this word: *an-*. Now I want to find any suffixes. This word has one suffix: *-y*.”

Slide 25—Morphemic Analysis: Modeling Phase: *I Do* (cont.)

“Now, I want to think about what each part means. I remember the prefix from English class when we talked about an anonymous author: a writer who did not give his or her name. *Anonymous* means ‘without a name,’ so *an-* means ‘without’ or ‘not.’”

Slide 26—Morphemic Analysis: Modeling Phase: *I Do* (cont.)

“I see the suffix *-y* on words like *honesty* and *comedy*. Usually *-y* means ‘the state or quality of something.’”

Slide 27—Morphemic Analysis: Modeling Phase: *I Do* (cont.)

“If I put all these parts together, I get ‘the state of not having a leader.’ Let me try it in the sentence: ‘After the king was killed, the country was in total anarchy.’ Does that make sense? *Anarchy* could mean the country was ‘without a leader.’”

Have students return to the context to help them practice inferring the meanings of unknown words in their reading. Start and end the routine by reading the word in the sentence in which it was encountered.

In the case of the word *anarchy*, you could also rely on students’ knowledge of Spanish cognates. In Spanish, the word is *anarquía*.

Slide 28—Morphemic Analysis: Teacher-assisted Phase: *WE Do*

After you have modeled the morphemic analysis routine several times, have students work in pairs to practice applying this routine on multimorphemic words made of prefixes, roots, and suffixes you have previously taught.

In addition to context, you can offer concrete examples and nonexamples to assist students in determining how to put together the meanings of the parts. This will help students as they encounter similar information in expository texts across content areas.

For example, you might say, “A butterfly is bilateral. Notice the right wing and the left wing could be folded on top of each other.”

“An amoeba is not bilateral. You can turn it all around and not determine which is the right, left, top, or bottom. If you were to fold it in half, the portions would not match up evenly.

“Now, derive the meaning of the word with your partner. Concentrate only on the meaning of *bilateral* before you apply it to the current context: *bilateral symmetry*.”

Slide 29—Morphemic Analysis: Teacher-assisted Phase: *WE Do* (cont.)

Ideally, the students should go through a question-and-answer process, such as the one I’m going to model with a think-aloud.

“First, I’ll find the root of the word. The root here is *lat*.

“Then, I think about what it means. *Lat* means “side.”

“Next, I find the prefix. It is *bi-*.

“I then figure out what the prefix means. *Bi-* means “two.”

“Now I turn to the suffix. The suffix is *-al*; though some may say *-eral*, which is acceptable. The suffix means ‘relating to or having.’

“If I put those morphemes together, *bilateral* must mean ‘having two sides.’

“Now, I reread the sentence that contains the word *bilateral* to see whether the meaning I developed makes sense.

“A figure with bilateral symmetry can be cut into identical mirror halves.

“A figure that has two sides that are symmetrical can be cut into identical mirror halves.”

It may be helpful to post the steps of the routine in your classroom.

Slide 30—Morphemic Analysis: Independent Phase: *YOU Do*

Have students verbalize the steps of the routine several times.

Don’t shift to *YOU Do* until you’re confident students can handle the routine on their own. It will be necessary to stay in *WE Do* whenever you introduce vocabulary words that are academic or content specific and for which students need more background or conceptual knowledge to understand.

The next classroom video returns to our reading class as the students work with partners to read a story and determine the meanings of unfamiliar words they encounter. As you watch,

notice how the students apply the morphemic analysis routine in context. What types of support has the teacher provided to help her students be successful in the lesson?

Video: Morphemic Analysis Routine (2:56)

Section 5

Slide 31—Developing Consciousness of Morphemes

It may be necessary to teach the meanings of additional roots and affixes as they appear in text material or assignments, especially if they are likely to recur in your class. Keep a word wall where students can go to “make” a new word by combining the parts of the words you have posted.

Actively involve students in constructing words and manipulating word parts.

Slide 32—Scaffolding

Now turn to **Handout 8: Scaffolding Morphemic Analysis**, which lists Web resources and the scaffolding steps presented on this and the following slide.

To make morphemic analysis a habit, you must frequently encourage its use.

Provide corrective feedback; do not let students develop misunderstandings by defining words incorrectly or struggling to the point of frustration.

Offer students of different ability levels different application words with which to practice.

Consider the range of complexity in a given word family and tailor students’ assignments accordingly. For example, when teaching the suffix *-ize*, students who have a limited vocabulary or who read at lower grade levels can work with words such as *memorize* and *finalize*. Meanwhile, students who are more advanced can work with words such as *theorize*, *trivialize*, and *monopolize*.

Finally, have students locate additional examples in various texts, including newspapers, advertisements, books, manuals, and brochures. Group the words made with a common morpheme and discuss what they all have in common. This will help students develop their awareness and understanding of morphemes and provide repeated exposure to new vocabulary.

Slide 33—Scaffolding (cont.)

If a student continues to struggle with identifying and understanding morphemes in words, you should modify your instruction. Start by adjusting the difficulty level of the practice words in which the morpheme is used.

If the student continues to struggle with the easier words, it is possible that the type of morpheme is particularly challenging. Suffixes, in particular, are difficult and often cannot be directly taught without giving students a lot of exposure to suffixed words in context. Try returning to easier types of morphemes, such as prefixes or compound words, for practice in manipulating word parts while also increasing students' incidental exposure to words containing the difficult morpheme. You can do this by using sample words in class, modeling how to analyze sample words as they come up in class readings, and posting sentences containing the sample words in your room.

Slide 34—Summary

The objectives for this module were: to understand how increasing knowledge of word parts improves students' ability to recognize and comprehend the meanings of new words; to analyze words by breaking them into their meaningful parts; and to apply the three-step process for explicit instruction to help students learn and analyze word parts.