Presentation Materials

- 2-slides-to-a-page handout of the Adobe Flash presentation

- Handouts 1 to 10

- Equipment

    - Projector

    - Sound system (speakers)

    - Laptop or other computer

    - Laser pointer

Handouts

- Handout 1: TEKS/ELPS Connections

- Handout 2: Morphemes: Order of Acquisition

- Handout 3: Common Prefixes

- Handout 4: Common Suffixes

- Handout 5: Common Latin and Greek Roots

- Handout 6: Sample Word Parts

- Handout 7: "What is a Tropical Rainforest?"

- Handout 8: Scaffolding Morphemic Analysis

- Handout 9: Reflection Log

- Handout 10: References

Videos Embedded

- Slide 20: Morphemic Analysis: Prefix Lesson (6:07)

- Slide 30: Morphemic Analysis Routine (2:56)

Time

This module will take approximately 75 minutes.

Unit 5: Word Study Routines

TEXAS
TALA
ADOLESCENT
LITERACY
ACADEMIES

Module 2:
Morphemic Analysis

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Slide 1—Title Slide

This is the second module in the **Word Study Routines** unit, **Morphemic Analysis**.

Reading Intervention Components

Unit 5: Word Study Routines	
Module	**Title**
1	Identifying Syllable Structures
2	Morphemic Analysis

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Slide 2—Reading Intervention Components

This module is intended to address the instruction of students who were 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 are not considered severely disabled readers can be taught in slightly larger groups.

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

Take a moment to review and discuss this handout with a partner at your table.

Allow 2 minutes. Monitor and address any questions or concerns.

Notes continue on the next page.

Now that you have had an opportunity to review the relevance of this module to your particular subject area, let's examine our objectives for the session.

Objectives

- Understand how increasing knowledge of word parts improves students' ability to recognize and comprehend the meanings of new words.

- Analyze words by breaking them into their meaningful parts.

- Apply the three-step process for explicit instruction to help students learn and analyze word parts.

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Slide 3—Objectives

Morphemic analysis assists with two key reading skills:

- Quickly and accurately decoding words
- Acquiring vocabulary

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

Set expectations for this session.

As we begin the module, you may hear or see some terms with which you are not familiar. These will be explained as we work through the section of slides employing the explicit instructional routine (*I/WE/YOU Do*).

I/WE/YOU DO adapted with permission from Archer, Isaacson, & Peters, 1988.

Morphemes

Greek and Latin:

- Prefixes

- Roots/combining forms

- Suffixes

Slide 4—Morphemes

Review the information on the slide.

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 the vocabulary unit (Unit 2, Module 2), we were not concerned about discussing units of meaning. The word identification strategy is meant to be flexible and to 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.

Terminology

Morpheme: Smallest unit of language that carries meaning

- **Affix**: Any part added to a root/base word

    – **Prefix**: Word part that is attached to the beginning of a word (*pre-*, *deci-*)

    – **Suffix**: Word part that is attached to the end of a word (*-er*, *-ing*)

- **Base word**: Word that can stand alone and to which affixes can be added (*teach*, *study*)

- **Root**: Unit of meaning that cannot stand alone but that can be used to form words with related meanings (*agri*, *duc*, *migr*)

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Slide 5—Terminology

Review the information on the slide.

Morphemes are 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. Those "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.

SOURCES: Microsoft Corp., 1999; Moats, 2000.

Vocabulary Explosion
in Fourth Grade and Beyond

- Due to the increase in affixed words, particularly derivatives. . .

  (Anglin, 1993)

- . . . school texts in grades 3 through 9 contain over 88,000
  distinct and uncommon word families.

  (Nagy & Anderson, 1984)

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Slide 6—Vocabulary Explosion in Fourth Grade and Beyond

Review the research statements on the slide.

> Being able to identify and manipulate the morphemes in a word becomes more important as students advance into secondary school. It quickly becomes impossible to memorize the definitions of all the unfamiliar words students will encounter.

REFERENCES: Anglin, 1993; Nagy & Anderson, 1984.

The Relationship of Morphology and Reading Ability

- Learning morphemes can improve students' ability to infer the meanings of unfamiliar words.

  (Baumann, Edwards, Boland, Olejnik, & Kame'enui, 2003; Wysocki & Jenkins, 1987)

- Being able to analyze the parts of words is associated with better overall reading ability.

  (Carlisle, 2000; Carlisle & Fleming, 2003; Windsor, 2000)

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Slide 7—The Relationship of Morphology and Reading Ability

Review the research statements on the slide.

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 (Nagy & Scott, 2000).

Activity: TELL-HELP-CHECK

At your tables, decide who will be Partner One and who will be Partner Two.

Allow 5 seconds.

Partner One, TELL Partner Two some reasons why studying the meanings of prefixes, roots, and suffixes would help students in your class be more successful with vocabulary. Partner Two, keep track of your partner's best reasons and give HELP if he/she needs it.

Notes continue on the next page.

Repeat directions. Monitor and gather good responses. After 2 minutes, CHECK participant responses:

> Twos, what was one of your partner's best reasons why studying the meanings of prefixes, roots, and suffixes can help students be more successful with vocabulary?

Call on participants identified while monitoring.

Slide 8—Supporting Students' Language Development

Confirm any responses from the last slide's activity that mentioned the recommendations for English language learners (ELLs).

Morphemes allow students to build their vocabularies more quickly.

Review the research statements on the slide.

Cognates are most common among Latin-based languages, such as Spanish. 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 (Nash, 1997).

Additional Information for the Presenter:

Cognates are words in different languages that have the same origin, such as "catastrophe" (English) and "catástrofe" (Spanish). For more information as well as examples of cognates and false cognates, see Unit 2, Module 2: Pronouncing and Defining Words.

REFERENCES: García, 2003; Grognet, Jameson, Franco, & Derrick-Mescua, 2000; Jimenez, García, & Pearson, 1996; Nash, 1997.

How Will Students Recognize Morphemes?

- Directly and explicitly teach roots and affixes.

- Provide examples and nonexamples.

  – *predict* vs. *pretty*

  – *rewrite* vs. *rent*

  – *descend* vs. *democracy*

- Generalize to new and unfamiliar words.

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Slide 9—How Will Students Recognize Morphemes?

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. Consider, for example, the words ***predict*** and ***pretty***. The letter string *pre-* in the word *pretty* could easily be confused as 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 our language. 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 happen because we break words apart phonetically for pronunciation, but by meaning units for morphemic analysis.

Notes continue on the next page.

How Will Students Recognize Morphemes?

- Directly and explicitly teach roots and affixes.

- Provide examples and nonexamples.

  - *predict* vs. *pretty*

  - *rewrite* vs. *rent*

  - *descend* vs. *democracy*

- Generalize to new and unfamiliar words.

DUPLICATE SLIDE

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Repeatedly encountering words and discussing the parts that contribute to their meaning can help build the ability to distinguish between patterns of letters that constitute morphemes and those that just represent sounds.

Order of Acquisition

- Monomorphemic roots (also called base words)

- Compound words and high-frequency prefixes

- Inflectional suffixes

    – In order: Progressive, plural, possessive, past regular, third-person singular regular

- Neutral derivational suffixes

- Non-neutral derivational suffixes and low-frequency prefixes

- Multimorphemic words

(Cazden, 1968; Rubin, Patterson, & Kantor, 1991; Vogel, 2001)

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Slide 10—Order of Acquisition

*Refer participants to **Handout 2: Morphemes: Order of Acquisition**.*

Some research suggests that students of all ages proceed through a fairly consistent order in developing their understanding of morphemes (Cazden, 1968; Rubin, Patterson, & Kantor, 1991; Vogel, 2001). 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.

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/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 (White, Sowell, & Yanagihara, 1989). See **Handout 3: Common Prefixes** for a list of the 20 most frequently occurring prefixes. Because they occur

Notes continue on the next page.

Order of Acquisition

- Monomorphemic roots (also called base words)
- Compound words and high-frequency prefixes
- Inflectional suffixes
  - In order: Progressive, plural, possessive, past regular, third-person singular regular
- Neutral derivational suffixes
- Non-neutral derivational suffixes and low-frequency prefixes
- Multimorphemic words

(Cazden, 1968; Rubin, Patterson, & Kantor, 1991; Vogel, 2001)

DUPLICATE SLIDE

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often and have fairly consistent meaning, they are usually learned before suffixes. However, as noted on the last slide, 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 (e.g., *dogs*, *dog's*) and the conjugation of regular verbs (e.g., *playing*, *played*, *plays*). These are grammatical markers that are common in speech and print.

Much like many of the inflectional suffixes, some **derivational suffixes** do not change the pronunciation of the root or base word and, hence, 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 **non-neutral derivational suffixes** (e.g., *-tion*, *-ure*) **and low-frequency prefixes** (e.g., *at-*, *oe-*) 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 would 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.

REFERENCES: Cazden, 1968; Rubin, Patterson, & Kantor, 1991; Vogel, 2001; White, Sowell, & Yanagihara, 1989.

Slide 11—Order of Instruction

Review the information on the slide.

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/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.

After providing students multiple opportunities to practice with more common morphemes, gradually increase the difficulty and complexity of the morphemes and the numbers of morphemes within the practice words. Stronger effects have been associated with teaching students roots and the more difficult derivational suffixes rather than focusing on the most common prefixes and less challenging inflectional suffixes (Reed, 2008). Therefore, it is important to include root word

Notes continue on the next page.

instruction early and to progress to more complex morphemes when students are able.

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

In addition, the suffix is non-neutral because it changes the pronunciation of the hard *t* in *predict* to the sound /sh/. As a multimorphemic word with a non-neutral suffix, *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 would seem on the surface.

REFERENCE: Reed, 2008.

Creating Awareness of Word Parts

- Define and explain the function of word parts.

- Using transparency pieces, model how to manipulate word parts to make real words.

- Have students write word parts on index cards and work in partners to make real words.

- Discuss how adding or removing affixes changes the meaning of the words.

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Slide 12—Creating Awareness of Word Parts

Review the first bullet on the slide.

Before learning prefixes, roots, and suffixes, students need to understand that many words are made up of these parts and that they 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: Sample Word Parts**.

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. Copy **Handout 6** onto a transparency and cut out the boxes containing the sample prefixes, roots, and suffixes. Using an overhead projector, show how to combine the word parts 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."

Additional Information for the Presenter

All references to using an overhead or writing on the board are intended as instructions for participants when implementing the lesson in their classrooms, not as a directive for you. All visuals for your presentation have been included on the slides.

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 point out that *review*, instead, means "to look again at something." English learners and other struggling readers often lack the vocabulary and literacy experience to distinguish between real and nonsense words in English. By providing instruction on dictionary use or providing a lesson glossary or word list, you allow these students to be successful in this word-play 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.

Model a think aloud:

"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 theatre, 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.

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

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 be encountering in your class.

This slide and the next three slides provide a script to suggest how you might introduce new morphemes to your class.

Model and read the slide.

I/WE/YOU DO adapted with permission from Archer et al., 1988.

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

- 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.

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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.

Model and read the slide.

One example will probably not be sufficient, so you can continue modeling with other words formed from the Latin root *port*, such as:

- *Import* (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.

I/WE/YOU DO adapted with permission from Archer et al., 1988.

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.

Click to make the word "transport" appear on the slide. Read "transport."

What are the parts of this word, everyone?

Participants should chorally respond: "trans-" and "port". As they respond, click to make the brackets appear under each word part.

What does *port* mean, everyone?

Participants should chorally respond: "to carry". Click to make the meaning appear under the root.

Very good. And, *trans-* is a prefix that means "across".

Notes continue on the next page.

Introducing New Morphemes:
Teacher-assisted Phase: *WE Do*

transport

across | to carry

- We will transport the oil from Texas to Iowa.

- The post office will transport the packages from El Paso to Beaumont.

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Click to make the meaning appear under the prefix. Use your laser pointer to point to each word part as you say the following:

So, this root means "to carry," and this prefix means "across". *Transport.*

Click to make the first sentence appear as you say the following:

Partner Two, explain this sentence to Partner One: **We will transport the oil from Texas to Iowa.**

Allow 20 seconds for partners to explain the sentence. Then, click to make the second sentence appear as you say the following:

Partner One, explain this sentence to Partner Two: **The post office will transport the packages from El Paso to Beaumont.**

Allow 20 seconds for partners to explain the sentence.

I/WE/YOU DO adapted with permission from Archer et al., 1988.

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

You can challenge students of varying ability levels by providing easy and difficult practice words that contain the morphemes you have taught. However, you should always give students the words in context. This type of practice best simulates the goal of having students apply their knowledge of morphemes to determine the meanings of unfamiliar words.
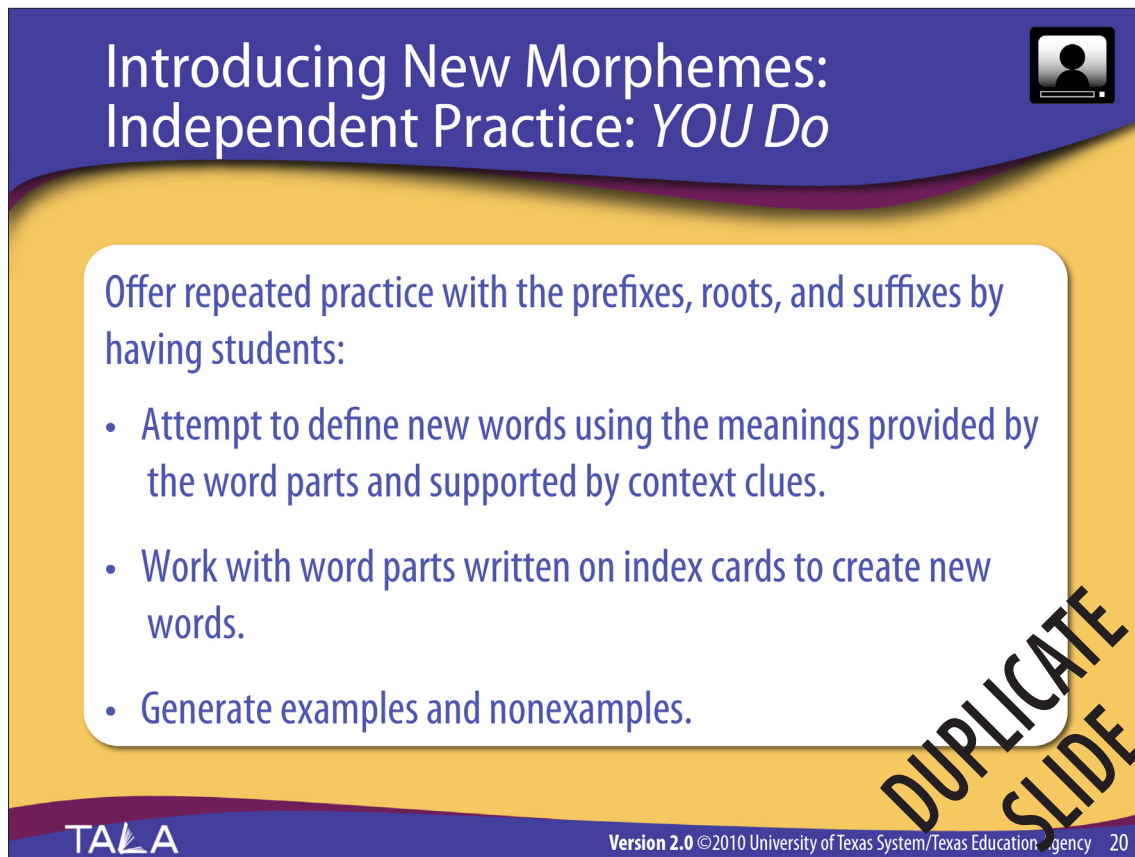
You can also let students experiment with creating words from the morphemes and then discussing whether they made real words and how they determined whether the words were real.

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.

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

Notes continue on the next page.

Introducing New Morphemes:
Independent Practice: *YOU Do*

Offer repeated practice with the prefixes, roots, and suffixes by having students:

- Attempt to define new words using the meanings provided by the word parts and supported by context clues.

- Work with word parts written on index cards to create new words.

- Generate examples and nonexamples.

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In this video, the reading teacher is introducing the prefix *e-* and 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 starting with the prefix *e-* and some of which starting with the letter *e*. As you watch, 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?

Click the icon to play the video.

Activity: Tell-Help-Check

TELL me what the teacher did to establish the purpose for studying morphemes and to prepare her students to discriminate between examples of the prefix's use and nonexamples. How did she help the students learn to determine the meaning of unfamiliar words in their reading?

Call on participant. Acknowledge and repeat/rephrase response.

Can anyone HELP by adding some other things you saw the teacher doing to prepare her students to determine the meanings of unfamiliar words in their reading?

Call on participant. Acknowledge and repeat/rephrase response.

Suggested responses:

- *Had students explain how studying morphemes would help them in this and other classes*
- *Modeled analyzing word parts*
- *Provided different example sentences using words with the prefix*
- *Had students activate their background knowledge by sorting examples and nonexamples*

Morphemic Analysis Routine

- Find the root.
- Find the prefixes and suffixes.
- Think about what each part means.
  – Use lists.
  – Use other words that contain the part.
  – Use context clues.
- Combine the meanings of the parts.
- Try the possible meaning in the sentence.
- Ask yourself, "Does it make sense?"

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Slide 21—Morphemic Analysis Routine

Once students have an understanding of how words are made from meaningful parts that can be identified and manipulated, they should be encouraged to use their knowledge of the 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 systematically process words and strategically figure out their meaning.

Review the steps of the routine on the slide.

MORPHEMIC ANALYSIS ROUTINE adapted and reprinted with permission from Archer, Gleason, & Vachon, 2005.

Morphemic Analysis: Modeling Phase: *I Do*

- 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.

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

We're going to look at how you would teach this routine to students.

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

Model and read the slide.

I/YOU/WE DO adapted with permission from Archer et al., 1988.

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

- 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*.

  arch

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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 for you.

Model and read the slide.

I/YOU/WE DO adapted with permission from Archer et al., 1988.

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

anarchy

- 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

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

Model and read the slide.

I/YOU/WE DO adapted with permission from Archer et al., 1988.

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

anarchy

- 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/her name. *Anonymous* means "without a name," so *an-* means "without" or "not".

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

Model and read the slide.

I/YOU/WE DO adapted with permission from Archer et al., 1988.

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

anarchy

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

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

Model and read the slide.

I/YOU/WE DO adapted with permission from Archer et al., 1988.

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

anarchy   anarquía

- 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".

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

Model and read the slide.

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.

Click the slide for the word to appear.

In Spanish, the word is **anarquía**.

The Spanish form of the word also assists with the irregular pronunciation of the consonant digraph *-ch*. In Spanish, the *-qu* makes the hard *k* sound that *-ch* makes in *anarchy*.

I/YOU/WE DO adapted with permission from Archer et al., 1988.

Morphemic Analysis: Teacher-assisted Phase: *WE Do*

With your partner, try using the morphemic analysis routine to figure out the meaning of this word used in math and science:

Bilateral

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

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

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

Use the routine as suggested in the script on this slide.

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

Click the slide for the butterfly image.

A butterfly is bilateral. Notice the right wing and the left wing could be folded on top of each other.

Click again for the amoeba image.

An amoeba is not bilateral. I can turn it all around and not figure out which is

Notes continue on the next page.

the right, left, top, or bottom. If I 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*.

Allow 1 minute. The activity continues on the next slide.

I/YOU/WE DO adapted with permission from Archer et al., 1988.
MORPHEMIC ANALYSIS ROUTINE adapted and reprinted with permission from Archer et al., 2005.

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

With your partner, try using the morphemic analysis routine to figure out the meaning of this word used in math and science:

Bilateral

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

Morphemic analysis routine:

- 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.
- Ask yourself, "Does it make sense?"

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

Review the morphemic analysis routine with participants. Provide answers if necessary.

What was the root in this word?

lat

What does it mean?

side

What was the prefix?

bi-

What does it mean?

two

What was the suffix?

Notes continue on the next page.

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

With your partner, try using the morphemic analysis routine to figure out the meaning of this word used in math and science:

Bilateral

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

Morphemic analysis routine:

- 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.
- Ask yourself, "Does it make sense?"

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-al; though some may say -eral, which is acceptable.

What does it mean?

relating to/having

If I put those morphemes together, what must *bilateral* mean?:

having two sides

Now, reread the sentence that contains the word *bilateral* to see whether the meaning you developed makes sense.
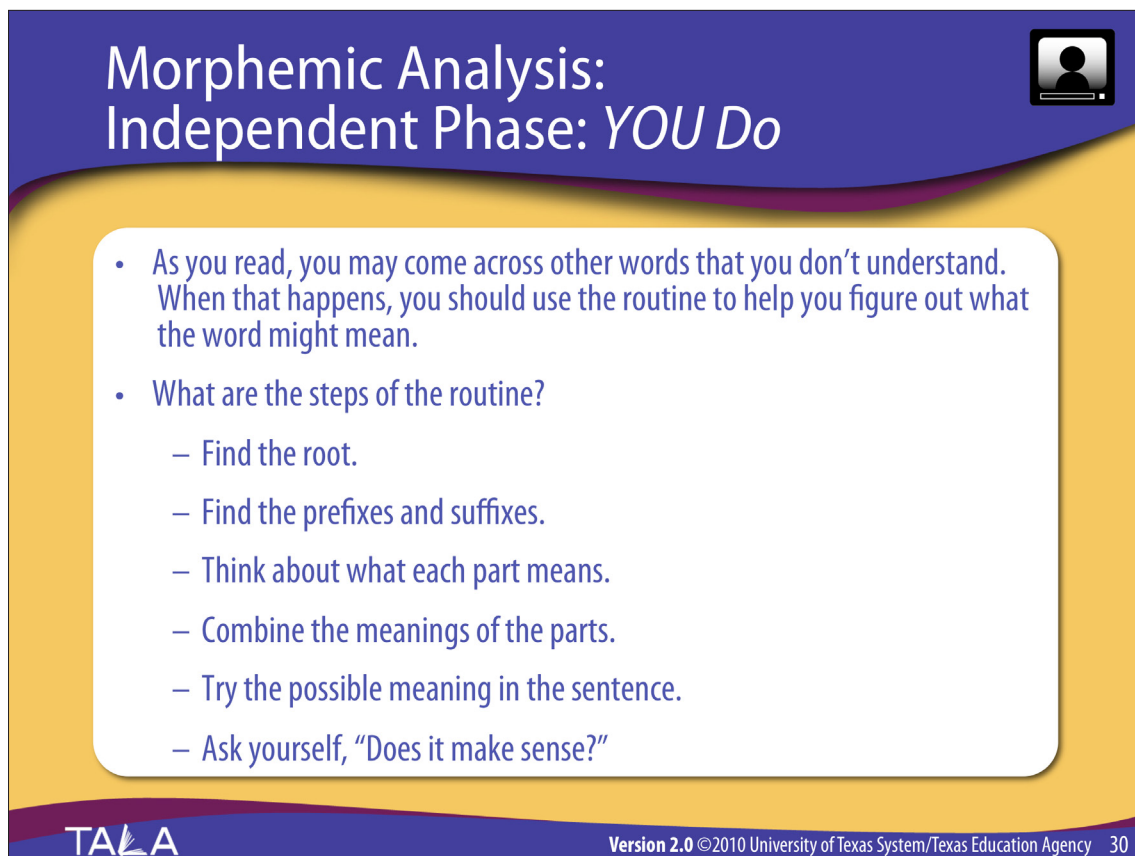
"A figure with bilateral symmetry can be cut into identical mirror halves."

"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.

I/YOU/WE DO adapted with permission from Archer et al., 1988.
MORPHEMIC ANALYSIS ROUTINE adapted and reprinted with permission from Archer et al., 2005.

Morphemic Analysis: Independent Phase: *YOU Do*

- As you read, you may come across other words that you don't understand. When that happens, you should use the routine to help you figure out what the word might mean.

- What are the steps of the routine?
  - 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.
  - Ask yourself, "Does it make sense?"

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

You would not shift to *YOU Do* until you were confident students could handle the routine on their own. It will be necessary to stay in *WE Do* whenever you are introducing vocabulary words that are academic or content-specific words for which students need more background or conceptual knowledge to understand.

Model and read the slide.

Have students verbalize the steps of the routine several times.

Video: Morphemic Analysis Routine (2:56)

Activity: Think-Pair-Share

This 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. THINK about how the students are applying the morphemic analysis routine in context. What types of support has the teacher provided to help her students be successful in the lesson?

Notes continue on the next page.

Morphemic Analysis:
Independent Phase: *YOU Do*

- As you read, you may come across other words that you don't understand. When that happens, you should use the routine to help you figure out what the word might mean.

- What are the steps of the routine?

    – 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.

    – Ask yourself, "Does it make sense?"

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Click the icon to play the video.

Take a moment to PAIR with your partner and SHARE what you observed as the students applied the morphemic analysis routine to unfamiliar words encountered in their reading. How would you help your students use morphemes to better comprehend material in your course?

Monitor participants. Allow 1 minute. Reconvene group.

Partner Two, tell me your partner's best observation about applying the morphemic analysis routine.

I/YOU/WE DO adapted with permission from Archer et al., 1988.
MORPHEMIC ANALYSIS ROUTINE adapted and reprinted with permission from Archer et al., 2005.
THINK-PAIR-SHARE adapted from Lyman, 1981.

Developing Consciousness of Morphemes

- Post roots and affixes in room.

- Actively involve students in constructing words and manipulating word parts.

- Make cross-curricular connections by showing how one morpheme can make words used in English language arts, math, science, and social studies (e.g., **circu**mstance, **circu**mference, **circu**lation, **circu**mnavigate).

- Have students look for other uses of the morphemes they have studied.

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Slide 31—Developing Consciousness of Morphemes

Review the information on the slide.

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 or in others. Keep a word wall where students can go to "make" a new word by combining the parts of the words you have posted.

Activity: Think-Pair-Share

Not every word lends itself well to morphemic analysis. Find **Handout 7: "What is a Tropical Rainforest?"** THINK about which of the words printed in bold could be defined using morphemes, and pick three of these words.

Allow 2 minutes.

PAIR with your partner and practice helping each other use the morphemic analysis routine to define the words you identified. Talk through how you would define the word by using the roots and affixes.

Notes continue on the next page.

Developing Consciousness of Morphemes

- Post roots and affixes in room.

- Actively involve students in constructing words and manipulating word parts.

- Make cross-curricular connections by showing how one morpheme can make words used in English language arts, math, science, and social studies (e.g., **circu**mstance, **circu**mference, **circu**lation, **circu**mnavigate).

- Have students look for other uses of the morphemes they have studied.

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DUPLICATE SLIDE

Allow 5 minutes. Monitor. Coach.

> Ones, SHARE your favorite word that your partner helped you define using morphemes.

Call on participants.

Suggested words:

Equator (equa = equal; -tor = person/thing that does something)

Interdependence (inter- = between/among; de- = from; pen = to hang; -ence = start or quality of)

Biomass (bio- = life; mass = a base word meaning the sum of organisms or matter that forms a whole)

Evaporate (e- = out, away; vapor = a bimorphemic base word from the Latin "vapore," meaning steam; -ate = to make)

THINK-PAIR-SHARE adapted from Lyman, 1981.
SOURCE: Silber & Kelman, 2004.

Sources of Greek and Latin Morphemes

- Web search

- Florida Center for Reading Research:
  www.fcrr.org/Curriculum/StudentCenterActivities45.shtm

Slide 32—Sources of Greek and Latin Morphemes

Resources are available to help you identify and define other morphemes.

Using the **search** terms "prefix," "suffix," or "root" will produce various **Web** sites with lists and examples. You can also access free activities from the **Florida Center for Reading Research**. The address is shown here.

As you introduce morphemes, you can add them to the word wall in your classroom. This will keep the word parts visible for students to use when applying the routine during reading.

Scaffolding

- Make morphemic analysis a habit.

- Provide corrective feedback.

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

- Challenge students to find additional examples of the correct use of morphemes.

- Provide a word list or glossary for students to check when combining word parts.

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Slide 33—Scaffolding

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

To **make morphemic analysis a habit**, you must frequently encourage its use. Students will not adopt it as a strategy if they think you are assigning it only for extra work. Make it part of the routine of figuring out new and unfamiliar words.

Students will not always be successful in applying the routine. Do not let students develop misunderstandings by defining words incorrectly or struggling to the point of frustration. If they are not catching on or if they are misapplying the routine, you must **provide corrective feedback**. Tell students the meanings of the word parts and model using the word parts to correctly derive the definition of the word.

One of the benefits of directly teaching morphemes is that the approach makes differentiating instruction much easier than when you directly teach a given set of

Notes continue on the next page.

words. With morphemic analysis lessons, you can **offer students of different ability levels easier or harder 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 readers and users of morphemes can work with words such as *theorize*, *trivialize*, and *monopolize*.

Have students find 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, as well as provide repeated exposure to new vocabulary.

Scaffolding (cont.)

Students who are struggling may be experiencing one of two problems:

1. The practice word is too difficult.

2. The type of morpheme is too difficult for their ability level.

Slide 34—Scaffolding (cont.)

If a student continues to struggle with identifying and understanding morphemes in words, you will need to modify your instruction. Start by adjusting **the difficulty level of the practice words** in which the morpheme is used. Remember that monomorphemic and compound words of higher frequency are easy, bimorphemic words are little more challenging, and multimorphemic and low-frequency words are the most challenging. Have the student practice identifying morphemes and analyzing the meaning of easier words, and then gradually increase the complexity of the practice words.
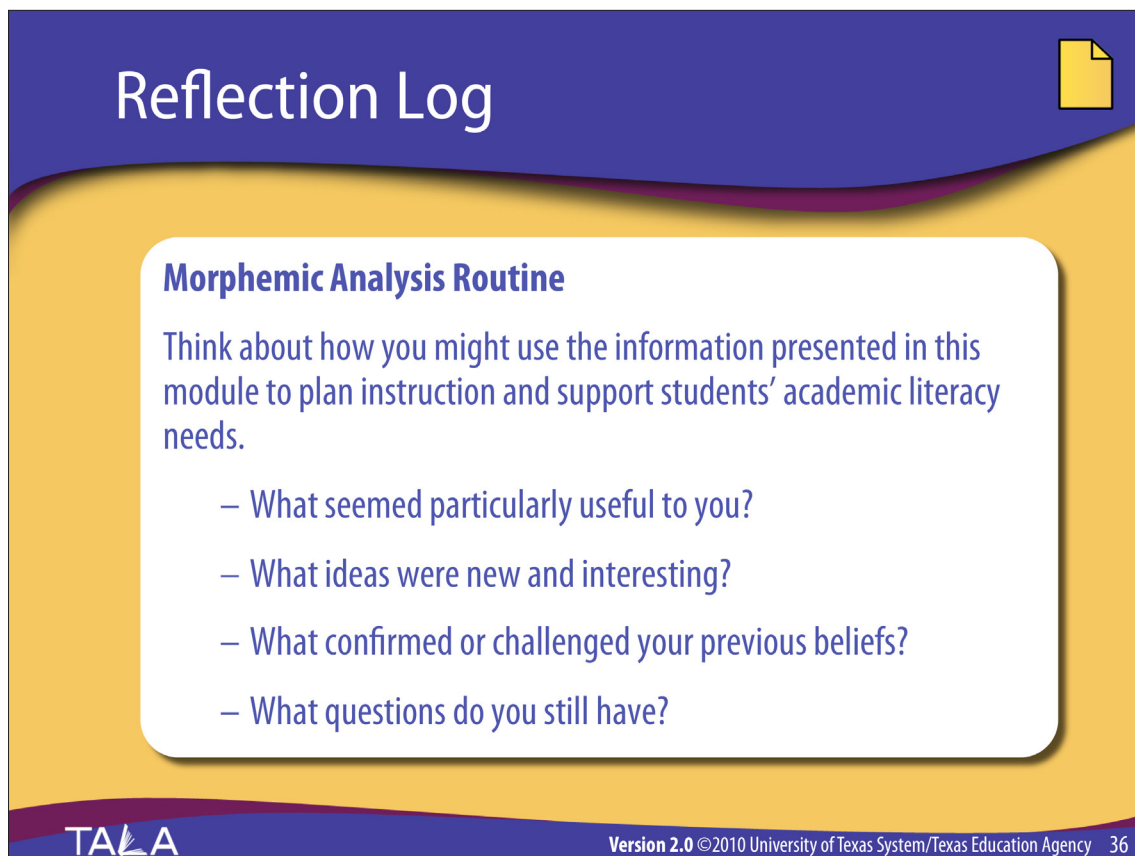
If the student continues to struggle with the easier words, it is possible that the **type of morpheme is particularly challenging**. Suffixes, in particular, are difficult and often cannot be directly taught without giving students a lot of exposure to suffixed words in context. Try returning to easier types of morphemes, such as prefixes or compound words, for practice 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.

Summary

- Understand how increasing knowledge of word parts improves students' ability to recognize and comprehend the meanings of new words.

- Analyze words by breaking them into their meaningful parts.

- Apply the three-step process for explicit instruction to help students learn and analyze word parts.

Slide 35—Summary

Review the objectives.

Reflection Log

Morphemic Analysis Routine

Think about how you might use the information presented in this module to plan instruction and support students' academic literacy needs.

– What seemed particularly useful to you?

– What ideas were new and interesting?

– What confirmed or challenged your previous beliefs?

– What questions do you still have?

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Slide 36—Reflection Log

Activity: Reflection Log

*Refer participants to **Handout 9: Reflection Log**.*

Read the directions on the slide.

Allow 2 minutes for participants to write quietly.