

# Text Complexity and the Common Core State Standards

Module 4 of 5

# Analyzing the Words in Narrative and **Informational Texts**

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#### **Overview**

#### Read and Learn

#### **Activity 1**

Read foundation material:

• Unique Words Require Unique *Instruction: Teaching Words in Stories* and Informational Books, Text Matters

## Reflect and Respond

#### **Activity 2**

Compare vocabulary in two texts to examine the words that fall beyond the core or high frequency vocabulary

## Analyze and Apply

#### **Activity 3**

Identify ways in which the unique vocabulary of the two texts might be taught and identify relevant instructional routines and cognitive strategies

#### **Activity 4**

Explore what the differences in complexity of vocabulary found in texts for PK-12 students mean for instruction

#### **Activity 5** (optional)

Select a vocabulary instructional routine suitable for narrative and informational texts analyzed at various websites

## **Background**

The vocabulary found in a given text often contributes to the complexity of that text. The vocabularies of stories and of informational texts can be quite different—differences that can influence students' ability to comprehend and remember texts. One misconception is that the vocabulary of informational texts is considerably harder than the vocabulary of narrative texts. But this pattern is not always so—especially in elementary texts where content words (e.g., *photosynthesis*) are



repeated frequently and new vocabulary in the sciences and social studies may be controlled such that the key words are repeated in context often, yet they are not overwhelming. At times, critical vocabulary is taught early in a unit, grade level, or other instructional sequence with repetitions of that vocabulary occurring frequently within the content area or domain. For example, students encounter the words *divide* and *subtraction* in mathematics courses many times over the course of their educational careers. Such repetition reduces the complexity of the vocabulary found in texts students read because terms are very familiar due to their repetition.

The nature of differences in the vocabularies of informational and narrative texts can consume an entire course but the emphasis in this module is on understanding the ways in which vocabulary increases or decreases the complexity of text, depending on the type of text PK–12 students read for instructional purposes.

Four ideas will inform your thinking as you move through the activities in this module.

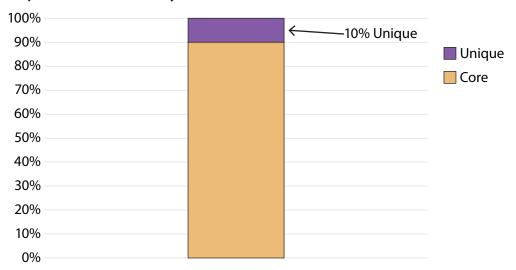
- **1.** Instructional routines (often called "strategies") should be carefully selected to match the demands of the vocabulary as it appears in texts students will read.
- **2.** The cognitive strategies students might employ (using context cues, for example) and their familiarity with the terms impact reading fluency, which, in turn, influences the depth of students' comprehension.
- **3.** Readers tend to remember morphological (or word) families rather than creating separate entries in long-term memory for each word they encounter and for which they have deep knowledge.
- **4.** Within a given domain or content area (e.g., mathematics, literature study, science) there are often words students need to know to understand the domain, but these may not be directly reflected in the reading. How teachers treat these words may be of significant importance as students work to read closely (see Module 1) and understand key concepts embodied in the words they see in a given text.

#### The Unique Words of Narrative and Informational Texts

In the last module, you learned about the 4,000 simple word families. The bulk of all the words in texts—typically 90% or more—comes from these 4,000 simple word families. It doesn't matter if the texts are narrative or informational, members of these 4,000 simple word families will account for the majority of the words in the text.

It is in the "other 10%" of the total words in texts that is unique to narrative and informational texts—the words marked in Figure 1. The other 10% of the words in texts come from a huge group of words—up to 250,000 or more words. These words are much less frequent in texts but they serve important roles in telling a story or conveying information. It is in the nature of low-frequency words that stories and informational texts differ.

Figure 1 **Proportion of Vocabulary** 



Before describing this difference, there's an important aspect of vocabulary that requires attention when making sure that middle graders and beyond (i.e., middle and high school) have the ability to reach complex text. This aspect has to do with understanding the connections among words that share the same morpheme or meaning base.

#### Knowing complex as well as simple members of word families

A morpheme is the smallest meaning unit in language. There are base morphemes (e.g., cat, jump), often called root words. There are also are bound morphemes (e.g., -s, -ed, -ing). Base morphemes have meaning on their own; bound morphemes always need to be attached to a base morpheme.

Only the simplest of bound morphemes were used in creating the 4,000 simple word families—all of them at the end of a word (e.g., -s, -ed, -inq). But there is also a group of bound morphemes that change the meaning and function of words in more complex words. These include prefixes (e.g., re-, un-) and suffixes (e.g., -ion, -ive, -ment).

Many of the words in the 4,000 simple word families have related words that use these more complex bound morphemes. For example, *locate* (with endings *locates*, *located*, *locating*) is a member of the 4,000 simple word families. By using the more complex bound morphemes, the family becomes much larger with *location*, locative, allocate, relocate, and dislocate.

As these examples show, the addition of prefixes can substantially influence the meaning of a word. Adding prefixes and suffixes to the same root word can make the meaning even more complicated (e.g., *allocation*).

Many rare words are either the complex forms of the 4,000 simple word families or the root word itself is complex. Learning to use the meanings of root words and complex prefixes and suffixes can go a long way to giving students the foundation to read complex texts where these words are often prominent.

#### The difference between the unique words in narrative and informational texts

In **narrative** texts, authors use a variety of words to develop their characters' traits and problems and the story's setting. To describe a character who is typically sloppy, an author does not repeat the word *sloppy* but creates a sense of this trait with words such as *slovenly*, *chaotic*, and *disorganized*. The unknown words in narrative texts are often synonyms for concepts students already have but are often words that they have not encountered before. The new words in the text create nuances in students' existing understanding of basic ideas. They know that people walk and run but in good narrative texts, they learn that there are numerous ways in which walking can be described—on the tips of one's toes (*tiptoe*), for pleasure (*stroll* or *saunter*), and unsteadily (*stagger*).

Since authors vary their descriptions and attributions, students can be confronted with many new words in narrative texts. The instructional task is to support students in understanding this rich use of language and the variety of ways to express known concepts.

In **informational** texts, the unique words typically represent conceptually complex concepts that are new to students. These concepts are complex because they depend on a related system of ideas to understand—and often the underlying ideas themselves are new. For example, understanding the term *electrochemical energy* requires familiarity with terms such as *chemical energy*, *conversion*, and *electric energy*. These terms usually have neither synonyms nor are they likely known by students without instruction. The kind of instruction that supports the learning of complex vocabulary in science, social studies, and mathematics takes quite a different form than the instruction with narratives. Acquiring new vocabulary for ideas that are complex and interrelated requires hands-on experiences, extensive demonstrations, and discussions. This learning requires careful design to ensure that students learn connections across words that make up a concept.

## **Key Terms**

**Lexicon:** For purposes of this module, lexicon refers to the stock of words to which an individual has access under a variety of contexts.

*Morphology:* In this module, morphology refers to the structure of words based on the word roots, affixes, and part of speech.

**Derivation:** Affixes that change the semantic nature of a given word are derivational in character. For example, the word *inflect* is semantically different from the word *genuflect*; however, both share the root *-flect*. Prefixes and some suffixes tend to change the meaning of the original word.

*Inflection:* Inflection changes the nature of a word but not its essential meaning. Thus, the word *derive* can be inflected as *derives* or *derived* while still representing the essential nature and meaning of the original verb. Suffixes tend to change the grammatical function of the word relative to tense, mood, case, and so on.

*Word Zones:* An organizational principle for scaffolding the complexity of word learning relative to a given text founded on the idea that frequently occurring words are more recognizable; however, novice readers must increase their capacity to recognize and understand terms that occur less frequently as the texts they read become more complex.

**4,000 Simple Word Families:** The 4,000 simple word families represent 5,586 words grouped by word family that are among the most common or frequently encountered words (see Module 3).

#### The Activities

## Read and Learn

#### **Activity 1**

In this module, you will learn how informational texts and those written in a narrative style may differ. There are additional differences between the informational texts students encounter in various domains (science, social studies, etc.); however, these are not the subject of this module. The differences in vocabulary for narrative and informational texts are described in the Text Matters article *Unique Words* Require Unique Instruction: Teaching Words in Stories and Informational Books (Hiebert, 2012), which is included in the resources for this module. As you read, think about these purpose-setting questions:

- What narrative texts do your students read? What informational texts do your students read?
- What do you notice about the frequency and types of words found in stories and other types of narrative texts? What do you notice about the frequency and types of words found in informational texts?
- In what ways should vocabulary instruction differ depending on the type of texts student are to read?

# Reflect and Respond

## **Activity 2**

In this activity, based on your reading of the Text Matters article, you will compare vocabulary in two texts from the CCSS exemplars (CCSS, 2010) to examine the words that fall beyond the core or high frequency vocabulary.

<b>CCSS Exemplars</b>	Grade 2-3	Grade 4–5	Grade 9–10
Narrative	My Father's Dragon	The Secret Garden	The Gift of the Magi
Informational	Boy, Were We Wrong About Dinosaurs	Hurricanes	Gettysburg Address

Using two word lists (provided in the resources for this module along with the exemplar texts) that contain unique and rare words from CCSS exemplar texts—one narrative, one informational—you will examine the words from each text that fall beyond the 4,000 simple word families. Select the pair of texts in the set closest to the grade level in which you work. The conceptual complexity scheme explained here will assist you as you consider the texts' vocabulary:

- 1. How many times a given term appears in the text
- **2.** How frequently the word is estimated to appear per million words in school books
- **3.** How likely it is that student readers will be able to decode the word given the reading skills appropriate for their grade levels
- **4.** Whether the word can be figured out in the context of the reading material
- **5.** Whether the word represents a concept that is probably unknown to students

As you work, consider what is the same and different among the unique or rare words from the narrative and informational texts appropriate for the grade you teach or plan to teach.

	Narrative Text	Informational Text
Number of rare words (in most sets the total words in the two text samples are equal)		
The degree to which rare words can be decoded and/or recognized by context		
Suggest ways that words representing unknown concepts might be taught		

#### *Instructional Options*

Your instructor may ask you to read the article independently then work together to discuss the features of the words using the conceptual complexity scheme, above. Next, you and your group members will summarize your findings in a short presentation to the class.

Online, you may use a spreadsheet program to replicate the chart, and post it for the other participants. Next, using a threaded discussion group or forum, you will review either your own chart or that of a colleague and write a short paragraph describing the overall pattern of similarities and differences of the two texts.

#### **Activity 3**

In the third task, you will identify ways in which the unique vocabulary of the two texts might be taught and identify relevant instructional routines and cognitive strategies. How many of the words might be captured within the context of the reading material? Focus on strategies that feature the five elements of the vocabulary conceptual complexity scheme (how frequently the term appears in the text, frequency per million words, decodable, term can be figured out in context, and term represents a new or unknown concept).

#### **Instructional Options**

Your instructor may ask you to create a chart on poster paper and working in a small group to teach four or five selected terms based on the features of the conceptual complexity scheme found in your grade-band texts. If you are working online, your instructor may ask you to use a synchronous tool (e.g., Skype, instant message) to devise an approach for teaching four or five selected terms. You might also be asked to use a collaborative tool, such as Bubbl.us or Google Docs, to work in small groups for the purpose of creating a diagram of instructional steps in teaching the terms from selected texts. These products would then be shared in your online classrooms.

## Analyze and Apply

#### **Activity 4**

In the informational text Hurricanes (Lauber, 1996), there are many words weather, direction, ocean pressure, conditions, source, masses, region, motion, flow, normal, opposite, atmosphere, degrees, storm, column, moisture, hemisphere—that fall into word zones 0-5.

In this phase of the module, the focus is on thinking about what these differences in the complexity of vocabulary found in texts PK-12 students will read mean for instruction. Take a look at the exemplar texts and the words lists provided in Activity 2.

- 1. Describe potential differences in the two groups of words (one of the big differences has to do with the number of appearances of words).
- **2.** Which of these words might fourth graders who are struggling readers and/or English learners be able to recognize with their linguistic knowledge?
- **3.** Rate the unique words from 1 to 3 as to whether English learners in the fourth grade are likely to have the underlying concepts of the word.

As you work, try to cluster the words and describe which words might be easily acquired through context and which words might be part of an intentional lesson you design. From our perspective as teacher educators, a cluster of topically related words from Hurricanes (Lauber, 1996), for example, merit attention, either before or after an initial reading. With a few exceptions, the words in *The Secret Garden* (Burnett, 1911) can be figured out by context—especially the handful of compound words.

#### **Activity 5** (optional)

In this activity, you may be asked to visit one of the websites listed here and select a vocabulary instructional routine that might be appropriate for teaching vocabulary in the narrative and informational texts they analyzed. For each text, attempt to explain why the instructional routine is appropriate given the features of the terms you identified in Activity 3.

- **1.** Prince George's County Public Schools Vocabulary Resource (<a href="http://www.pgcps.pg.k12.md.us/~elc/readingacross2.html">http://www.pgcps.pg.k12.md.us/~elc/readingacross2.html</a>)
- **2.** The Reading Educator Vocabulary Strategies (<a href="http://www.readingeducator.com/strategies/vocabulary.htm">http://www.readingeducator.com/strategies/vocabulary.htm</a>)
- **3.** Greece Central School District's Instructional Tools and Techniques for Targeting Essential Skills. Scroll down to the section titled, "Understanding Vocabulary in Context section. (<a href="http://web001.greece.k12.ny.us/district.cfm?subpage=519">http://web001.greece.k12.ny.us/district.cfm?subpage=519</a>)
- **4.** Readingquest.org Making Sense in Social Studies. Concept of Definition Maps (<a href="http://www.readingquest.org/strat/cdmap.html">http://www.readingquest.org/strat/cdmap.html</a>), and Word Map (<a href="http://www.readingquest.org/strat/wordmap.html">http://www.readingquest.org/strat/wordmap.html</a>).

You may be familiar with other vocabulary development strategies you would like to analyze as well. Your instructor may ask you to analyze instructional choices from two grade-level texts (one informational and one narrative) using Flanigan and Greenwood's (2007) scheme for choosing words to teach and customizing it for instructional and narrative texts. Think about the differences that exist between the two kinds of texts.

## **Looking Ahead**

In Module 5, the final module in the series, you will learn about qualitative measures of text complexity, where the teacher's expertise is especially important in matching texts to particular students and reading activities. You will analyze texts for factors such as levels of meaning/purpose, structure, language conventions and clarity, and knowledge demands, as well as explore how to identity the needs of readers and the contexts and tasks involved with reading events.

#### References

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