

## Overview

To be successful in content-area reading—the reading of textbooks and research materials of all kinds—students must possess a protean reading and writing vocabulary. The traditional vocabulary instruction comprising occasional dictionary usage and/or matching glossary words to chapter definitions is anemic at worst and overly randomized at best. What is the most effective way for a student to learn vocabulary in a strategic manner? By mastering a sequenced set of high-frequency Latin and Greek word elements through direct instruction, the student gains a firm grasp of thousands of related-pattern words.

By using *Latin and Greek Roots: Teaching Vocabulary Using Hands-On Activities and Common Objects*, the student, under the direction of a tutor or teacher, will master a comprehensive set of root words through multisensory, discovery-based learning—an approach that provides the learner with long-term knowledge retention and application. In addition, the student will practice the Latin and Greek word parts in word lists for analysis, as well as in the context of textual information for balanced study.

## Description of the Lessons

*Latin and Greek Roots* comprises 40 lessons that feature high-frequency Latin roots or Greek combining forms. The lessons are a scripted discussion between the teacher and students that leads to the introduction of a new Latin or Greek word part.

The teacher can prepare to use this program in the following ways: First, the teacher can administer Appendix A's Pre-/Posttest assessment to the students to determine the students' background knowledge of Latin and Greek word elements. Second, the teacher can begin to collect materials for use in teaching the 40 lessons. (Consult Appendix C: Materials for a complete list of materials needed.) Finally, the teacher can also peruse the 40 lessons to become more familiar with the sequence and structure of each lesson.

Each lesson features three hands-on activities. During these activities, the student discovers a thematic word while engaging in the exploratory activities—discovery of the thematic word *pull* by way of several exploratory *pulling* activities, for example. In addition, the student acquires a word element that takes the place of the common word—the Latin root “tract” is acquired to replace the familiar word *pulling*. The lesson on the Latin root “tract,” which means *to pull*, explores activities to relate the simple term *pulling* to the less common word root “tract”: pulling on a rope during a fun game of Tug-of-War, pulling the juice out of a fruit with a juicer, and placing magnets together so that they pull toward each other.

The “Discovery” section of each vocabulary lesson is a crucial instructional component of this program. Within the Discovery section, the teacher engages in an ongoing dialogue with the students in order to purposefully guide them through three learning activities. The outcome of this dialogue is that the students hear a repeated everyday theme word like *pull*

and relate this word to the recurring word elements within the activity sequence. During the discovery of “tract,” the teacher will talk about how some of the students are not able to pull their opponent team in Tug-of-War, discuss how magnets pull together, and dialogue about a juicer’s ability to pull the juice from the fruit. Later, the teacher will prompt the students to pair the theme word, in this example, *pull*, with a set of preselected discovery words, such as *intractable*, *attracting*, and *extracts*. The teacher will further guide the students to identify the specific form of the word element by asking them to tell what they see in all of the discovery words. The students are to reply, or be prompted to reply, that they see a common letter string. In our example of “tract,” that letter string would be t-r-a-c-t. Finally, the students are led to make a similar meaning connection between the theme word, in this case *pull*, and the word element, “tract.”

In addition to the discovery component within each Latin and Greek word element lesson, the lessons contain a section called “Defining the Discovery Words.” In keeping with the lesson on the Latin root “tract,” the students are guided to apply the definition and theme word *pull* to analyze longer words that contain “tract.” The student is prompted to use *pull* to define a word like *distract* as *to pull away* or *subtract* as *to pull out a smaller number from under a bigger number*.

The lessons conclude with reproducible reading and writing exercises focusing on the featured word element. The students will read words, phrases, and sentences that contain “tract,” for example. After reading phrases and sentences with the featured word element, the students will compose phrases and sentences of their own for extra practice with the new vocabulary element. Students who are unsure of how to compose such phrases or sentences can consult national online newspapers for ideas on how to more appropriately use the featured word element, like “tract,” in context. Finally, the students will complete sentence stems to apply a word element like “tract” in writing. The students write the completion of a sentence stem, such as, “I could tell the student was distracted during the test because....” The teacher is looking to see that the students finish the sentence with feasible conclusions, such as “...because she kept looking out the window.”

## Pre-/Posttest

The Pre-/Posttest assessment in Appendix A tests a student’s general knowledge of 40 Latin and Greek word elements. The test features matching and multiple-choice items and is easy to both administer and score. The student is assessed on the ability to match a word element to its simplest definition, or to choose the correct word to complete a sentence. The student who picks *pull* as the definition for the Latin root “tract” will be scored as correct on this item. The breadth of any word element’s definitions is not the focus of these assessments; a student’s ability to link the word part to its most basic definition and use it in a sentence is the central purpose of the assessment. For example, the students will have to choose “tract” from a word bank to complete a sentence, such as: “The word part \_\_\_\_\_ means to pull.” If the instructor administers the Pre-/Posttest prior to instruction, and then again after instruction, a response to instruction can be documented for both grading and vocabulary-proficiency-evaluation purposes.

## Supporting Research

There is a wealth of current research that supports a more explicit, interactive approach to vocabulary study using Latin and Greek word elements. Researchers have found that a student's morphological awareness of words is a critical component of vocabulary learning (Carlisle, 2003). Students who have been taught morpheme awareness can achieve better textual comprehension. Content-area science, history, and literature textbooks are rife with Latin and Greek word elements. To further highlight the importance of learning vocabulary with a morphologic lens, Larsen and Nippold (2007) asserted that an ability to perform a morphological analysis of novel vocabulary words is a milestone of acquiring academic language. Based upon their work with sixth-grade students, Larsen and Nippold found that students who were successfully able to analyze words morphologically fared better on vocabulary assessments, such as the *Peabody Picture Vocabulary Test—Third Edition* (PPVT-III; Dunn & Dunn, 1997).

Beck, McKeown, and Kucan also argued that students must possess an in-depth word knowledge that includes a personal knowledge of how words both connect and interrelate (2002). Morphology instruction, then, provides the vehicle to see word interrelationships. This book is a primary resource for morphology instruction via Latin and Greek word elements. That studying morphology is crucial for a student's vocabulary instruction has been proven in ample previous and current research.

Research further advocates that vocabulary and morphology instruction be personalized for the student (Blachowicz & Fisher, 2000). It is essential that students find a connection between sophisticated vocabulary and their own life experiences. In addition, the effective vocabulary teacher must provide students with multiple personal connections to new words. Harmon and Hedrick (2005) claimed that vocabulary learning necessitates several exposures to a given word before the word is truly understood and accessible in a student's lexicon. This book provides students with three personalized discovery-based exposures to Latin and Greek word elements in order to maximize students' opportunity to retain the word and use it in speaking, reading, and writing. The book also provides accessible reading and writing activities such that students have additional exposures and necessary practice. Harmon and Hedrick further argued that students require strong mental connections in order to fully learn vocabulary. Teachers must help students to create mental schema to connect their preexisting vocabulary knowledge to novel vocabulary they acquire, such as that contained within *Latin and Greek Roots*. This book helps students forge these strong mental connections to a sophisticated English vocabulary based in the Latin and Greek languages by offering students experiential, discovery-oriented activities. A cooking, crafting, or building experience incorporating a word element will provide the student with a much more powerful mental connection than a paper-and-pencil glossary activity or sets of bland vocabulary memorization drills. Wood (2001) suggested that vocabulary instruction must be able to capture a student's attention by employing game-like formats. This book provides students with a game-like strategy for learning Latin and Greek word elements. Students will play games that involve ropes (Tug-of-War and jump-rope games), darts (target-practice games), and juicers (cooking games), for example, to learn Latin and Greek word elements like "tract," "audi," and "ject."

Vocabulary researchers also warn teachers not to reserve in-depth vocabulary instruction for the secondary student. Biemiller (2003) advised that it is imperative to address

vocabulary instruction in the primary grades, when it is possible to effect the most change, effectively avoiding the huge lexical discrepancies that appear over time if such instruction is neglected. Vocabulary instruction that includes Latin and Greek root word study must begin early. This book is suitable for primary- and secondary-grade instruction. Students from as young as second grade to as old as college level can benefit from this morphologically driven instruction. Instruction in root words has been proven by research to be an effective way for students to learn the large numbers of words required by academic language content-area studies (Biemiller & Slonim, 2001). This book teaches students to effectively learn and use 40 commonly occurring Latin and Greek word elements that, in turn, form thousands of content-driven words required for their academic core classes, such as science, history, and the humanities, to name just a few.

Researchers also propound the importance of teaching students to do far more than recite definitions of newly learned words. Instead, students must study the many facets of words—their origins, their history, and their usage. Knowing the multifaceted nature of words helps the student to build what researchers are now calling *word consciousness* (Baumann, Edwards, Boland, Olejnik, & Kame'enui, 2003). *Latin and Greek Roots* allows students to explore words in many ways, including all of the facets listed previously (i.e., word origin, history, and usage), with the added benefit of also creating personal connections through experiential, hands-on activities.

## Supporting Educational Legislation

The 2001 Elementary and Secondary Education Act, reauthorized in 2002 as No Child Left Behind (NCLB), dictates that schools must provide evidence that students are making adequate yearly progress (AYP). Under this legislation, students must meet minimal state standards in core-curriculum classes, such as language arts and math. One of the challenges of core classes is that a student must master a voluminous list of content-area vocabulary. For the high school math student, this could be geometric terms, like *protracted angles*, *transformations of quadrilaterals*, and *regression in the angles of triangles*. For the world history student, this could be terminology like *autocracy*, *anthropoids*, and *oligarchy*. This book equips students with the tools—Latin and Greek word elements—for understanding the terms that appear and reappear in their core classes. A working knowledge of the word elements that comprise academic terminology from multiple academic classes will better insure that students can make the AYP as dictated by NCLB.

According to Part A, Section 2101, of the Elementary and Secondary Education Act, schools are held accountable for student achievement. In fact, schools are to make improvements to curricula so that student achievement is facilitated. This book provides a strategic manner for teachers to enable their students to achieve an improved vocabulary and better comprehension of content-area materials.

Clause 2 of Section 1201 of Subpart 1 of the Reading First program under NCLB explains that teachers need professional development and/or other support so that they are better equipped to identify the reading challenges facing their students. The legislation goes further. It states that once teachers identify these barriers to a student's reading success, they need to be given tools to help their students learn to read. *Latin and Greek Roots* is one example of an

effective teacher's tool for helping students learn to read the content-area vocabulary terminology that appears in texts as early as second and third grade. Without a strategic system for instructing students in how to read and comprehend the word elements found in their academic textbooks, students could be barred from making improvements in their reading.

According to Clause 3 of this Section 1201, schools need assistance with choosing and conducting classroom-based instructional reading assessments. This book provides for classroom-based reading assessments by offering pre- and posttest assessment materials on Latin and Greek word elements.

## **Sources of the Latin and Greek Word Elements in the Book**

The creation of *Latin and Greek Roots: Teaching Vocabulary Using Hands-On Activities and Common Objects* merged three source lists of Latin and Greek word elements: Suzanne Carreker's *Basic Language Skills*, lessons on Latin and Greek roots reading; Ann Tuley's list of word parts from her book *Never Too Late to Read*; and Marcia Henry's list of the most common roots and affixes as identified in her lecture *What's In a Word*, presented during the 2002 Annual Academic Language Therapy Association Conference in Dallas, Texas. *Latin and Greek Roots* follows the order of the high-frequency word parts suggested in *Basic Language Skills*, then the additional word parts endorsed by Marcia Henry, and concludes with any remaining word parts suggested by Ann Tuley in her book. In addition, I have added some of my own word part entries throughout the merged lists.