



Research-Based Vocabulary

WORDLY WISE 3000

Kenneth Hodkinson and Sandra Adams

By Lee Mountain

Young children learn many words through listening and speaking. The next step in vocabulary development is learning words through reading. While extensive reading promotes greater vocabulary growth, only a minority of students read extensively. Thus, there is a growing consensus among educators regarding the need for direct teaching of vocabulary in a systematic program.

The words in the *Wordly Wise 3000* series will expand the vocabularies and minds of today's students. This series, which extends from the primary grades through high school, provides teachers with effective research-based lessons for direct instruction in vocabulary.

In this millennium, educators are becoming increasingly aware of the benefits of a structured vocabulary curriculum. Thomas Gunning, author of *Creating Literacy Instruction for All Children*, calls a planned program of vocabulary development "highly advisable," and he suggests that a certain amount of time be set aside each week for vocabulary instruction: "A planned approach ensures that vocabulary instruction is given the attention it deserves. Important words and techniques for learning words are taught systematically and in depth" (2003, p. 236). Research studies have established that, even though children learn many words incidentally, they also need and profit from the direct teaching of vocabulary (Curtis, 1987; Petty, Herold, and Stoll, 1968). "It is important that teachers provide explicit and direct vocabulary instruction for all students" (Vacca et al, 2003, p. 308).

Andrew Biemiller of the Institute of Child Study in Toronto recommends an increased emphasis on vocabulary instruction. He suggests "a teacher-centered and curriculum-structured approach to ensure adequate vocabulary development" (2001, p. 24). *Wordly Wise 3000* embodies this approach.

Wordly Wise 3000 is a vocabulary series that spans grades 2 through 12 and includes reproducible test books. The entire program introduces over 3,000 words. The A, B, C books are theme-centered and the words are illustrated. Books C and 1-9 include pronunciation. Exercise formats become more challenging for upper grades. The books feature dictionary definitions, using each word in a complete sentence, a variety of exercises, nonfiction passages, which use all the words in a lesson, puzzles, and word histories.

The Gap in Vocabulary Instruction

In the past, vocabulary was often addressed indirectly through a core reading, language arts, or spelling program. Moreover, researchers in the last century, such as Thorndike (1921, 1944), Rinsland (1945), and Fry (1957), developed word lists and teacher's word books, suggesting which words to teach. Even today, word-frequency research is a building block of textbook programs (Steinmetz, 1999; Harris and Jacobson, 1982).

No longer, however, can vocabulary instruction be treated as merely a subsection of reading, language arts, and spelling programs. Vocabulary knowledge is essential for success on all of today's high-stakes tests. Even if teachers did not emphasize word study for its own sake, they would be held accountable for the performance of their students on state and national assessments. Many of the words tested on those assessments appear in the *Wordly Wise 3000* series.

The standards movement has raised the bar for all students, making vocabulary instruction essential. Expectations are higher, and the curriculum is more challenging (Wixson and Dutro, 1998; Editorial Projects in Education, 2001). The need is greater, therefore, for vocabulary instruction for the many students who are struggling to pass the high-stakes tests based on the new standards.

The research of the late Jeanne Chall and her colleagues showed a pressing need for direct vocabulary instruction for many children. Those researchers pointed out that, even after strong phonics instruction, children who are not exposed to broad vocabulary outside school declined in reading comprehension between grades 3 and 7 because of their vocabulary limitations—the limits of their language (Chall, Jacobs, and Baldwin, 1990). But research has also shown that those limits can be extended: Stahl and Fairbanks (1986) established that direct vocabulary instruction can significantly improve comprehension. In fact, vocabulary knowledge is the most important factor in reading comprehension (LaFlamme, 1997).

Better comprehension is one of the primary benefits of the vocabulary curriculum of *Wordly Wise 3000*. But the other benefits extend into all areas of oral and written communication. Vocabulary is also an avenue to better writing



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(Tompkins, 2003). Students are led to use the featured words from their *Wordly Wise 3000* lessons in their writing, as well as to comprehend them in reading.

According to Kenneth Hodkinson, the author of series, “We have to stop thinking of vocabulary as a supplemental activity. We must put it where it belongs, at the very core of the curriculum” (2002, p. 4).

Choosing Words and Designing Exercises for *Wordly Wise 3000*

When Kenneth Hodkinson speaks to teachers around the country about his *Wordly Wise 3000* series, he frequently gets inquiries about how he chose the words for his vocabulary books and what he considers important in vocabulary exercises. His answers show both his research orientation and his creativity.

Hodkinson’s starting point was the research by Harris and Jacobson (1982) on word frequency in school readers and the grade level of a word’s first appearance.

For example, consider Hodkinson’s reasoning regarding the words *enormous* and *gigantic*: “*Enormous* occurred two hundred times and first appeared in most third or fourth grade readers. *Gigantic* occurred fifty times, and in the majority of readers did not appear until fifth or sixth grade level. *Enormous* is in the first book of the series, and *gigantic* appears several books later” (2002, p. 13). Other factors that Hodkinson considered in the choice of words were usefulness (thereby favoring *arduous*, and eliminating *aardvark*), multiple meanings (including *mammoth*, as both noun and adjective, and rejecting *mermaid*), and correlations with the SAT and similar tests (2002, p. 14).

Hodkinson maintains that questions of all kinds, even multiple choice, can be engaging, challenging, and creatively designed. He gives this example:

“Which of the following is ancient?”

- (a) a joke you’ve heard before
- (b) last year’s calendar
- (c) an Egyptian mummy
- (d) dinosaur bone



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More than one answer may be correct, which of course makes it harder. An Egyptian mummy and a dinosaur bone are obviously ancient, while last year's calendar may be out of date but it is hardly ancient. But what about a joke or a juicy bit of gossip you've heard before? A typical response might be, 'Oh! That's ancient!' using the word colloquially. Is that a correct answer? Opinions could differ" (Hodkinson, 2002, p.10).

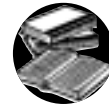
Differing opinions make for lively discussions of words. Active participation in such discussions promotes the learning of vocabulary (Carr and Wixson, 1986).

Organization and Progression of *Wordly Wise 3000*

The progression of the primary books (Books A, B, and C) in the *Wordly Wise 3000* series is developmentally appropriate, with pictures to enrich definitions (Mountain, 2000). Book A, for second graders, has 8 lessons; each lesson features 10 words, making a total of 80 words. There are 10 lessons in Book B (total of 100 words), and 12 in Book C (total of 120 words). The manageable numbers of words and lessons incrementally lead young students into awareness and appreciation of vocabulary as an ongoing part of their elementary curriculum.

Each of the books for grades 4–12 features 300 words. Research indicates that 300 words (20 lessons of 15 words each) is a realistically achievable number to be taught through direct instruction in the middle grades (Stahl, 1999). While working with struggling readers in the eighth grade, Beers (2003) determined that 20 words per lesson were too many. She suggested a more intense focus on fewer words.

Test books are the newest addition to the *Wordly Wise 3000* series. They contain multiple-choice questions on every word from each lesson, in formats resembling those of mandated standardized tests. In addition to being effective for test preparation, the tests also reinforce learning the words, since they include fiction and nonfiction passages with questions about the words as used in the passages. These tests provide further practice on using context clues, and context, even with its limitations, is the most frequently invoked aid to comprehension (Allen, 1999; Alvermann and Phelps, 1998; Nagy, 1988).



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The test books also provide cumulative midterm and final tests with answer keys. These midterms and finals include passages with questions similar to those that the students will encounter on high-stakes state and national assessments.

Research-based Structure of Lessons in Wordly Wise 3000

Children learn words best by meeting them many times in many different contexts. The structure of lessons in *Wordly Wise 3000* helps retention, since repeated engagements with a new word can lead to deep processing of the meaning (Dole, Sloan, and Trathen, 1995; Rosenbaum, 2001).

Throughout the *Wordly Wise 3000* series, students receive multiple exposures to each word. They meet the word again and again in the lesson (and in subsequent lessons and reviews) in a variety of reading and writing situations. Estimates of mastery differ, since children learn words in stages (Graves, 1987; Dale and O'Rourke, 1971). While researchers differ on the ideal number of exposures, ranging from two to a dozen (Beck, McKeown, and Omanson 1987; Stahl and Fairbanks, 1986), they agree that multiple exposures help a child learn a word.

Wordly Wise 3000 lessons use definitions, pronunciations, parts of speech, and a sentence using the word as starting points. These lessons quickly branch into activities in which the students encounter and use the words, culminating with a narrative where all the words appear in context. This methodology is supported by the studies of Stahl and Fairbanks (1986) and Stahl (1999), which recommend that direct instruction should include both definitional knowledge and contextual knowledge. The activities also encourage students to use the words in their own writing, as recommended by Beers (2003).

The closing section of each lesson is a *Wordly Wise 3000* trademark, an entertaining and informative commentary on word histories, homophones, derivations, shades of meaning, roots and affixes, word relationships, and extended meanings.

Frequent reviews (every four lessons within each book) come in the form of hidden message puzzles and crossword puzzles. Thus, study and game playing combine for reinforcement (Mountain, 2002).



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Just the Right Word

Improve each of the following sentences by crossing out the italicized phrase and replacing it with a word (or a form of the word) from the word list.



In English the letter “c” *stands in place of* two different sounds.

Applying Meanings

Circle the letter of each correct answer to the questions below. A question may have more than one correct answer.

Which of the following *represent* other people?

- (a) state senators (c) storekeepers
(b) taxi drivers (d) lawyers
-

Completing the Thought

Read each sentence below and fill in the blank with the correct word (or form of the word) from the word list.

The Changs decided to try the Golden Grill because their friends told them that the food there was delicious. They went there because their friends _____ it.

(Student comes up with the word recommended to write in the blank.)

Narrative, Questions, and Wordly Wise

The student reads a passage in which the words from the lesson appear. Then the student writes answers to questions about words like represent and recommend as they are used in context. Enrichment material about words provides Wordly Wise conclusions for the lessons.

Reviews and Tests

Within and beyond each book, there are reinforcements to continue the students' association with each featured word. In the case of the word *represent*, for example, students encounter it still again, and are questioned about it, in a passage in the test book on the Grade 4 Midterm Test 1 (on Lessons 1–10), which begins with this sentence.

**Nadia Comaneci, a fourteen-year-old gymnast,
was representing Romania at the Olympic Games.**

As the series advances, the words, activities, and passages are increasingly challenging. Throughout the series, the first exercise in each lesson focuses on meanings of the words, and the last exercise requires students to write answers to questions about a passage in which the words appear in context.

From Book 2 (recommended for grade 5) to Book 9 (recommended for grade 12), there is more intensive work with synonyms, antonyms, analogies, and images. The efficacy of such word work is well supported by research. Stahl (1999) places the teaching of synonyms and antonyms first on his list of things a teacher might do to provide definitional information. Tompkins (2003) sees the study of synonyms and antonyms as an effective route to the thesaurus. The benefits of instruction in analogies carry over into the content areas (Glynn, 1994).

The activities demonstrate to students the shades of meaning of each word. Students form a network of associations and connections with a word when they identify its synonyms and antonyms, determine whether it fits certain contexts, encounter it in an article, and answer questions that make it clear that the comprehension of the material depends upon word knowledge. Each word in the *Wordly Wise 3000* series is taught thoroughly and memorably.



Alignment of *Wordly Wise 3000* with NCTE/IRA and McREL Standards

The standards movement has set higher goals for all students, including students from disadvantaged backgrounds, ESL students, aliterate students— all groups who are struggling and not achieving (Stotsky, 1997; Biemiller, 1999). These students are in dire need of a vocabulary curriculum.

The curriculum of the *Wordly Wise 3000* series is closely aligned with the national standards of the National Council of Teachers of English and the International Reading Association (1996). Most state standards for reading, language arts, and vocabulary have been drawn from these national standards. The alignment of *Wordly Wise 3000* materials is evident in the inclusion of nonfiction passages on a wide variety of topics in both the books of the series and the test books that accompany them. The standards emphasize the desirability of range, variety, and diversity in students' reading.

Additional standards focus on reading and writing strategies. These standards point out the importance of context and knowledge of word meaning, as well as the use of vocabulary in effective communication. The *Wordly Wise 3000* series is constant in relating writing, as well as reading, to vocabulary study. The series also addresses language conventions and figurative language.

McREL (Mid-continent Research for Education and Learning) has worked with many states, attempting to add some grade-level specificity to the standards. For example, a draft of the eighth grade standards for English/language arts includes this statement under Vocabulary Development: "Students use their knowledge of word parts and word relationships, as well as context clues (the meaning of the text around a word), to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words" (McREL Standards Vocabulary, 2002).



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Conclusion

The research-into-practice aim of the standards movement parallels the aim of the *Wordly Wise 3000* series. The lessons in this series give specificity to the standards and put them into teachable form.

“Given the pressures of extensive curricula, limited time, and a wide range of student abilities, teachers need vocabulary strategies that can yield the greatest benefit in student learning with the least cost in planning and instructional time” (Alvermann and Phelps, 1998, p. 261).

This quotation describes the perennial problem teachers face: too much to do in too little time. The *Wordly Wise 3000* series addresses that problem. The series is a time-saver in that it provides teachers with an organized vocabulary curriculum that has sequence, structure, and research-based strategies for instruction.

Kenneth Hodkinson has taught English to elementary, junior high, and high school students in the United States, Canada, and England. A playwright who studied at the Yale Drama School, Mr. Hodkinson has had several plays performed, and is also a poet and an inventor of games. His puzzles have appeared in newspapers and books, and he gives workshops on vocabulary development to teachers, students, and administrators.

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With degrees from George Washington University in Washington, D.C. and from Pennsylvania State University, Mountain has extensive teaching experience. In 2000 she received the National Freedom Foundation Award for contributions to education. Her textbooks have received both the McGuffey Award (*Uncle Sam and the Flag*) and the Texty Award (*Pocketful of Posies Primer*). She is a Fellow of the Text and Academic Authors Association, a member of Phi Beta Kappa, and recipient of the Distinguished Career Award at the University of Houston.



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