

PROGRAM RESEARCH

Jamestown Reading Navigator Trek 1: Research-based Phonics and Language Instruction

Edward Fry, Ph. D
Professor Emeritus
Rutgers University

Research and Development for



Jamestown
**READING
NAVIGATOR**



Glencoe



Jamestown Reading Navigator Trek 1: Research-based Phonics and Language Instruction by Edward Fry

The following describes the philosophy behind *Jamestown Reading Navigator Trek 1* and gives a brief background of the basic research underlying its pedagogy.

Onset and Rime

Jamestown Reading Navigator Trek 1 provides explicit phonics-based language instruction that includes building phonemic awareness. The instructional model presents phonics patterns, or particular combinations of letters that make certain sounds. More specifically, the model teaches phonics and language structure by using what linguists call onset-and-rime patterns, with *onset* referring to the beginning consonant sound(s) and *rime* referring to the succeeding vowel-plus-consonant sound(s). Because research has determined that the break between the onset and rime is a more natural one than the break between the vowel and the end consonant, using it has become a commonly accepted practice of phonics instruction (Fry 1997; Cunningham 1991; Adams 1990; Treiman 1985).

Phonograms

The phonograms, or word families of onset and rime, of the Trek 1 journeys are sequenced according to the frequency of their occurrence in the English language as demonstrated in extensive research conducted by Paul Hanna, Jean Hanna, Richard Hodges, and Edwin Rudorf at Stanford University (1966) and later Edward Fry (2005). The Hanna study used a corpus that consisted of 17,310 words selected from the Thorndike-Lorge *Teacher's Word Book of 30,000 Words* developed at Columbia University (1944). It classified each phoneme into a 22-vowel and 30-consonant system according to the pronunciation given in a Merriam-Webster dictionary, and it determined the frequency of different phonics and language uses (for example, the frequency with which the letter *a* makes the short sound or long sound).

Fry later revised and simplified the Hanna study's frequency count to provide teachers and curriculum developers with practical information for developing phonics and language instruction for beginning or remedial readers and English language learners. Fry's work corroborates the Hanna study and produces all the major phonograms in rank order. Both studies validate which phonics correspondences should be taught first as well as later, and which are more important. *Jamestown Reading Navigator* Trek 1 includes and presents all major phonograms systematically according to the scope and sequence supported by the significant research of these studies.

Initial Consonants and Consonant Blends

Jamestown Reading Navigator Trek 1 thoroughly covers all initial consonants. They are presented at point of use as they occur in words representing the word families. Trek 1 also repeatedly covers 90 percent of all major consonant blends, such as *br*, *cl*, and *st* (Fry 1997). These initial consonants and consonant blends are taught explicitly in each interactive phoneme-grapheme correspondence activity in which students manipulate word parts to pair onsets with their corresponding rimes. This type of interactive format provides the main vehicle for the phonics and language instruction.

Instant Words

Another important component of the phonics and language instruction in *Jamestown Reading Navigator* Trek 1 is the introduction of the first 100 Instant Words, also known as high-frequency words, or "sight words" as they are called throughout Trek 1. The Instant Words are based on a count of more than five million words done by John B. Carroll and others (1971) that was later modified by Elizabeth H. Sakiey (1977) and Edward Fry (1999, 2005). This word count of 5,088,721 words, known as the Carroll List or the American Heritage List, was based on a wide variety of school texts and popular magazines. A newer word-frequency count (Zeno et al. 1995) shows little change in the words that Sakiey and Fry found to occur with the highest frequency.

The importance of Instant Words in reading instruction has been validated by many years of classroom use. Instant Words were first employed in the Reading Clinic of Loyola University in Los Angeles and later at Rutgers University in New Jersey. They have appeared subsequently in numerous college textbooks on methods for teaching reading, and they have been incorporated into the curricula of many school districts for both reading and spelling instruction. The practical utility of learning the Instant Words is underscored by the fact that the first 100 Instant Words account for half of all words appearing in written material. It is nearly impossible to read or write any sentence that does not include some of these words.

The challenge for beginning readers is that Instant Words do not provide phonemic sound-spelling correspondences, so students must learn to recognize them. Trek 1 introduces a limited number of Instant Words in each journey to offer practice in word recognition that is distinct from the manipulation of word-family onset and rime. Activities then blend the two skills together to form total in-context instruction.

Together, these three components—phonograms, initial consonants and consonant blends, and Instant Words—cover the most basic and compelling phonics and language structure practices and establish an extensive foundation from which students can transfer and extend their knowledge to other reading skills. Recursive instruction further supports students’ retention of new information and strategies.

Comprehension, Fluency, and Vocabulary

Comprehension, fluency, and vocabulary development also figure prominently in Trek 1. Comprehension and vocabulary skills for beginning readers are taught in the context of the phonics-based language instruction.

For adolescents at the first-grade reading level, aural knowledge of word meaning is much higher than reading ability. *Jamestown Reading Navigator* Trek 1 focuses on raising students’ reading ability to meet their aural capacity by teaching the sound- spelling correspondences that enable students to recognize the printed words of the aural language they already know. Another highly effective method of integrating comprehension and vocabulary skills into phonics and language instruction focuses on discovering word meaning in context (Beck & McKeown, 1991; Beck, Perfetti, & McKeown, 1982; Anderson & Freebody, 1981; Werner & Kaplan, 1950). Trek 1 delivers systematic and thorough practice reading words in meaningful contexts with the introduction of Instant Words and word family words. Each new word is introduced in the context of a phrase or sentence and further reinforced within the context of poetry. Additionally, each new word, phrase, or sentence is accompanied by relevant picture-text support. Through this method, vocabulary instruction comes from reading words in context. Furthermore, the high-interest poetry, supported by animated illustrations and nested in the concept of the keenly motivational teen poetry slam (Biancarosa & Snow, 2004), incorporates meaningful aural lessons that contain word groupings for fluency instruction.

Fluency is another strong indicator of reading comprehension, as research from the National Reading Panel clearly demonstrates (National Institute of Child Health and Human Development 2000; Fuchs 2001). Each Trek 1 journey contains a fluency activity. Students listen to an expert reader and then have the opportunity to make and listen to their own recordings, thereby increasing their sense of self-efficacy.

Jamestown Reading Navigator Trek 1 provides research-based instruction that effectively accelerates growth in struggling students' basic reading comprehension and fluency skills by offering a jump-start phonics and language program that paves the way for further development of reading and comprehension skills.

References

- Adams, M.J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: The MIT Press.
- Anderson, R.C., & Freebody, P. (1981). Vocabulary knowledge. In J.T. Guthrie, ed., *Comprehension and teaching: Research reviews*, 77–117. Newark, DE: International Reading Association.
- Beck, I.L., & McKeown, M.G. (1991). Conditions of vocabulary acquisition. In R. Barr, M.L. Kamil, P.B. Mosenthal, & P.D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 789–814). New York: Longman.
- Beck, I.L., Perfetti C.A., & McKeown M.G. (1982). Effects of long-term vocabulary instruction on lexical access and reading comprehension. *Journal of Educational Psychology* 74, 506–521.
- Biancarosa, G., & Snow, C.E. (2004). *Reading next—a vision for action and research in middle and high school literacy: A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.
- Carroll, J.B. (1971). *The American Heritage Word Frequency Book*. Boston: Houghton Mifflin Company.
- Cunningham, P.M. (1991). *Phonics they use: Words for reading and writing*. New York: HarperCollins Publishers.
- Fry, E.B. (1997). *Phonics patterns: A ready reference of 321 word families*. Chicago: Contemporary Books.
- Fry, E.B. (1999). *1000 instant words: The most common words for teaching reading, writing, and spelling*. Westminster, CA: Teacher-Created Resources.
- Fry, E.B. (2005). Phonics: A large phoneme-grapheme frequency count (revised). *Journal of Literary Research*.

- Fuchs, L.S., Fuchs, D., Hosp, M.K., & Jenkins, J.R. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading* 5(3), 239–256.
- Hanna, P.R., Hanna, J.S., Hodges, R.E., & Rudorf, E.H. (1966). *Phoneme-grapheme correspondences as cues to spelling improvement*. Washington, DC: U.S. Department of Health, Education, and Welfare.
- National Institute of Child Health and Human Development, NIH, DHHS. (2000). *Report of the National Reading Panel: Teaching Children to Read: Reports of the subgroups*. Washington, DC: U. S. Government Printing Office.
- Sakiey, E.H. (1997). Syllables: A weighted graphemic inventory. Ph.D. dissertation, Rutgers University.
- Thorndike, E.L., & Lorge, I. (1944). *The teacher's word book of 30,000 words*. New York: Teachers College, Columbia University.
- Treiman, R. (1985). Onsets and rimes as units of spoken syllables: Evidence from children. *Journal of Experimental Child Psychology* 39(1), 161–181.
- Werner, H., & Kaplan, E. (1950). Development of word meaning through verbal context: An experimental study. *Journal of Psychology* 29, 251–257.
- Zeno, S., Ivens, S.H., & Koslin, B.L. (1995). *The educator's word frequency guide*. Brewster, NY: Touchstone Applied Science Associates, Inc.