

# How Research Guided the Development of Chall-Popp Phonics

by Helen M. Popp

The *Chall-Popp Phonics* program was created because more than 70 years of research has shown that children who learn phonics achieve better scores on tests of word identification, accuracy of oral reading, silent reading comprehension, and fluency than those who do not learn phonics. Perhaps the earliest and most dependable research was that of Jeanne Chall herself (*Learning to Read: The Great Debate, Stages of Reading Development*). *Beginning to Read: Thinking and Learning About Print*, by Marilyn Jager Adams, published in 1990, provided a thorough analysis of the research that reached the same conclusion. More recently, the report of the National Reading Panel showed that research continues to attest to the value of direct, explicit instruction in phonics. Other studies of importance include those by Grossen, Perfetti, Feitelson, Iverson and Tunmer, and Snow, Burns, and Griffin.

The instructional design of *Chall-Popp Phonics* was guided by research on prerequisites to reading: phonemic awareness and visual discrimination, phonic generalizations and word patterns, syllabication, the study of affixes, and automaticity. Teachers are alerted to the prerequisite skills, outlined by Helen Popp, that may slow down the student's progress in acquiring reading skills. Those explicitly addressed in Level A (kindergarten) include instructional vocabulary; concepts about letters, words, sentences, and stories; the concept that print represents sound in a left to right, top to bottom sequence; and motor skills (letter tracing).

Research over many years by I.Y. Liberman and colleagues focused on the importance of phonological tasks and phonemic awareness. Similarly, Chall, Roswell, and Blumenthal, Durkin and others have found that phonemic awareness was a strong factor in the success of beginning reading instruction. *Chall-Popp Phonics* emphasizes these skills systematically through rhyming, segmentation, blending, hearing sounds that are represented by initial and final consonants and also vowels, consonant substitution, and eventually syllabication. The use of phonograms (onset and rime) as a vehicle for segmenting and blending is supported by the work of Wylie and Durrell, as well as Treiman.

Empirical evidence in support of a best order for teaching the letter/sound correspondences and generalizations is not

definitive, but research evidence does support the decision to teach first those single consonant letter correspondences that are discriminated more easily, both visually (Popp) and orally (Francis); those sounds that are more easily sounded in isolation (Francis); and those which in combination yield a large number of high frequency single-syllable words (see the studies of Venezky, Clymer, and Roswell and Chall). In *Chall-Popp Phonics* the most useful phonic elements and generalizations for identifying words are taught earliest; the harder or less reliable generalizations are taught later in the program.

As an extension of decoding instruction, children are taught to look at chunks of words—first with syllabication and then with affixes. Sternberg and Powell and O'Rourke provide evidence that even older students are not aware that deconstructing words into their parts can help with deriving their meanings. In his summary, Stahl states that facility and ease in identifying polysyllabic words, and in inferring their meanings from a knowledge of prefixes, suffixes, and roots, helps students with comprehension. *Chall-Popp Phonics* teaches strategies for breaking words into their component parts using syllables and affixes. The prefixes and suffixes selected for inclusion in the program are based on the research of White, Sowell, and Yanagihara, who found that third graders who were given training on the nine most frequent prefixes and a strategy for deconstructing words into roots and affixes performed better than a control group on several measures of word meaning.

Research also guided the creation of the pages in the *Chall-Popp Phonics* student books. Formats for pages were tested informally with students and teachers in selected Cambridge, Massachusetts, schools; teachers who have used the program also provided feedback and were helpful in making decisions for the latest edition. Research has also shown that a teacher is critical to the success that students achieve in learning to read. John B. Carroll concluded that teachers who understand the fundamentals of the relationship of print to speech will be better equipped to help all their students. The teacher's editions of *Chall-Popp Phonics* have been designed and written to provide specific background phonics information on every page for teachers who may not have had the advantage of formal study in teaching phonics. ■

### **Jeanne S. Chall**

Jeanne S. Chall, former professor at Harvard University, was director of the graduate program in reading and language at the Graduate School of Education. She founded the Harvard Reading Laboratory and was its director for 25 years. Dr. Chall was the author of more than 200 books, articles, and tests, including *Learning to Read: The Great Debate*, *Stages of Reading Development*, *The Reading Crisis: Why Poor Children Fall Behind*, and the Dale-Chall readability formula. Dr. Chall served on the Board of Directors of the International Reading Association and the National Society for the Study of Education. She was a member of the National Academy of Education and the Reading Hall of Fame. Dr. Chall was honored for her research and scholarship by many associations, including the American Psychological Association, the American Educational Research Association, the International Dyslexia Association, and the International Reading Association.

### **Helen M. Popp**

Helen M. Popp is a former Associate Professor of Education at Harvard University. She has worked with students and educators for many years on relating theory and research to reading instruction. Challenged by her earlier work as a librarian and primary school teacher, Dr. Popp focused her research and instruction on young children's acquisition of reading as well as the development of their skill and interest in reading.

Dr. Popp has written many articles and has been a member of the editorial board of the *Harvard Educational Review*. She has served as a consultant/advisor to many projects and organizations, including Project Literacy at Cornell University, WGBH-TV, Boston, the Children's Television Workshop, the National Institute of Education, and the U.S. Office of Education. She has been active in the International Reading Association, the American Education Research Association, and the National Council of Teachers of English.

