

LEARNING TO READ
The Great Debate

THIRD EDITION

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INTRODUCTION TO THE THIRD EDITION

THIS IS THE THIRD edition of *Learning to Read: The Great Debate*. The first edition was published in 1967; the second in 1983, which was essentially an updated edition. This third edition contains a further update of research and practice in beginning reading to 1993 and also includes the text of the original and the earlier update.

The first two editions are kept intact to present a historical picture of *The Great Debate*. When it was first published in 1967, the debate on beginning reading was exceptionally heated. By 1983, when the first update was published, the debate had eased up somewhat. By the early 1990s, the debate had heated up again. Because of the long-term concern with beginning reading, I thought it would be instructive to researchers, teachers, administrators, and educational publishers to view the debate at successive historical periods—from 1910 to 1965, as reported in the first edition; from 1965 to 1983, the second edition; and 1983 to 1993, the third edition. *

An update, rather than a revision, seemed appropriate because the book had become a standard work in reading research and practice. The first book was an educational best-seller and was declared a classic in the 1980s.*

*The *Great Debate* was updated several times prior to the updated edition of 1983 in *Instructor* (Chall, 1974), in a *Phi Delta Kappan* Fastback (Chall, 1979), and in a research volume on early reading edited by Resnick and Weaver (see Chall, 1979).

Between the 1983 and the present edition, several updates were published: in *Phi Delta Kappan* (Chall, 1989a), in a position paper written at the request of the U.S. Secretary of Education (Chall, 1989b), in a book published by the Orton Dyslexia Society (Chall, 1991), and in an article in *The Teachers College Record* (Chall, 1992).

The Original (Chall, 1967) and the First Update (Chall, 1983a)

Learning to Read: The Great Debate (1967) was a report of a three-year research study, sponsored by the Carnegie Corporation of New York, which sought to understand why there had been such consistent controversy in the United States on teaching beginners to read. The research consisted of a synthesis of the relevant research evidence from 1910 to 1965; an analysis of the most widely used reading textbooks (basal readers) and their accompanying teachers manuals, published in the late 1950s and early 1960s; interviews of authors and editors of various beginning reading programs on their views of beginning reading instruction; and visits to hundreds of classrooms in the United States, England, and Scotland.

Based on these analyses, I found that beginning readers learn better when their instruction emphasizes learning the alphabetic code, one that places first importance at the beginning on learning the relationship between letters and their sounds (that is, learning the alphabetic principle). They learn less well when taught by a meaning-emphasis, that is, one that emphasizes, at the very beginning, how to understand what is read.

It should be noted that in reading, *both* meaning and the use of the alphabetic principle are essential. To read, one needs to be able to use *both* the alphabetic principle and the meaning of words. What distinguished the more effective beginning reading instruction was its early emphasis on learning the code. Instruction that focused, at the beginning, on meaning tended to produce less favorable results.

Thus, it is the acquisition of the alphabetic code, the alphabetic principle, in the early grades that leads to quicker acquisition of reading skills than an emphasis on responding to the text meaning. The research also suggested that a code-emphasis was particularly beneficial for children at risk—children from low-SES families, children with suspected learning disabilities, children with below-average intelligence, and children for whom English is a second language.

The effects of the *Great Debate* were almost immediate. In spite of some early negative reviews, the major reading textbooks (basal readers) adopted its recommendations. After publication of *The Great Debate*, most basal readers contained a stronger and earlier emphasis on teaching the alphabetic code (Popp, 1975). Textbooks on the teaching of reading also put a heavier emphasis on the importance of teaching the alphabetic principle in early grades (Chall, 1983a).

For the second edition of *The Great Debate* (1983), my analysis of the research evidence from 1967 to 1983 found an even stronger advantage of a code-emphasis over a meaning-emphasis.

As will be reported next, the research evidence and the theory of the third period, 1983 to 1993, continued to give strong support to a code-emphasis for beginning reading. However, in spite of the strong evidence on the advantages of a code-emphasis as compared to a meaning-emphasis, practice and rhetoric moved in the direction of a meaning-emphasis. The meaning-emphasis approaches of the third period—whole language and literature-based reading instruction—have

only recently begun to seek evidence to support the effectiveness of their approaches. (See the compilation of research on whole language by Diane Stephens, 1991.) There have been some attempts in the 1990s to call for a greater concern for the learning of the alphabetic principle. But on the whole, there has been a negative stance on code-emphasis and on the research that has supported it by those who associate themselves with whole language. (See Marie Carbo [1988], and Chall's response [1989a].)

In the present update, I review the research evidence and the major theories published from 1983 to 1993 on the major issue of the *Great Debate*: code-emphasis versus meaning-emphasis. After reviewing the evidence, I will try to explain why practice went in a direction opposite from the evidence.

Evidence from 1983 to 1993

BASIC RESEARCH

The research evidence presented here comes from cognitive psychology, psycholinguistics, developmental psychology, neurology, and the study of reading and learning disabilities.

Cognitive psychologists have been particularly interested in the relationship between word recognition and reading comprehension—an issue that has been central in the debate on beginning reading for more than a century. Overall, their studies have led to the conclusion that recognition and decoding, or facility with the alphabetic principle, is a necessary step in the acquisition of reading comprehension and other higher-level reading processes, the agreed-upon objectives of reading instruction. Therefore, any program that results in better word recognition and decoding at the early stages of learning to read—and especially with students at risk—provides an advantage to students, and this advantage is bound to pay off over time (Perfetti, 1985; LaBerge and Samuels, 1976; Stanovich, 1986 and 1991; Freebody & Byrne, 1988). With regard to the influence of word recognition and decoding on reading comprehension, Perfetti (1985) writes, "Evidence suggests that . . . word-processing efficiency leads to better comprehension, rather than merely being a by-product of comprehension" (p. 231).

Keith Stanovich (1986), who has conducted numerous studies on how reading is acquired among general and clinical populations, notes how inadequate word recognition can lead to inadequate reading comprehension:

Slow, capacity-draining word recognition processes require cognitive resources that should be allocated to higher-level processes of text integration and comprehension. Thus, reading for meaning is hindered, unrewarding experiences multiply, and practice is avoided or merely tolerated without real cognitive involvement.

(Stanovich, 1986, p. 364)

Research on eye movements has also found that reading is a "letter-mediated" rather than a "whole-word-mediated" process (Just and Carpenter, 1987).

Research on development from prereading to real reading also confirms the importance of learning letter-sound clues. Ehri (1987) concludes that the learning of letter-sound clues is important because they are required for storing words and accessing words from memory.

Nicholson (1992) found that poor readers use context to help with their reading, whereas good readers, who are skilled at decoding, do not need to do so, thus supporting early findings that learning to read involves learning how to decipher.

Freebody and Byrne (1988) found that more than 80 percent of the reading comprehension of second and third graders was accounted for by phonemic awareness and decoding strategies. They also found the relationship between decoding and comprehension changed with the age and grade of the readers.* That is, whole-word readers (termed Chinese readers) did better than the phonetic readers (termed Phoenician readers) in comprehension in the second grade. However, in the third grade, the Phoenician readers significantly outperformed the Chinese readers.

The authors suggest that a whole word method (meaning emphasis) may serve a student adequately up to about second grade. But failure to acquire and use efficient decoding skills will begin to take a toll on reading comprehension by grade 3. In contrast, Phoenicians may be hindered in comprehension by performance in the early years, but begin to improve comparatively as they progress through school.*

(Freebody & Byrne, 1988, p. 441)

PHONEMIC AWARENESS

From about the early 1980s, there has been an increasing number of studies on phonemic awareness—the ability to detect rhymes, alliteration, to segment and blend sounds in spoken words—in relation to learning to read (Bradley and Bryant, 1983, and Lundberg, 1987). Stanovich (1987) reported that "phonological awareness measures administered in kindergarten or earlier are superior to IQ tests as predictors of future reading achievement" (p. 11).

Sensitivity to the sounds of words is generally acknowledged to be causal with reading as well as correlational. Segmenting and blending phonemes (separating the sounds in words and putting them together again) are considered to be essential to early reading development. Moreover, when students are trained to develop an awareness of phonemes, their reading achievement improves.

Some researchers have treated phonemic awareness as a separate concept from phonics and decoding. Yet phonemic awareness is highly related to the

*Compare with Chall (1983a and 1983b)

ability to learn phonics. In fact, in the 1920s and 1930s, it was studied as phonic readiness, and the phonic readiness research came to essentially the same conclusions as the current phonemic awareness studies.

Phonic readiness and such specific aspects of it as detecting rhymes, hearing specific sounds in words, blending separate sounds to form words, segmenting the sounds in words, and so forth, were found to predict the ability to learn phonics and to learn to read (see Monroe, 1932, and Chall, Roswell, and Blumenthal, 1963). An extensive review of the phonemic awareness literature can be found in Linda Rath (1993).

Current research continues to find the importance of phonemic awareness in beginning and later reading. Juel (1988) found that first graders who had difficulty with phonemic awareness—such as blending sounds into words, segmenting words into sounds, and manipulating initial and final consonants—remained in the bottom fourth in their class in reading four years later.

Phonemic awareness has also been taught successfully and has been found to benefit reading on standardized tests (see Lundberg, Frost, and Peterson, 1988).

The strong effects of phonemic awareness on reading achievement prompted Stanovich to propose that lack of phonemic awareness may account for most problems in reading. Children low in phonemic awareness, he notes, have difficulty grasping the beginning concepts in word identification. Because of poor word identification, they read less, read less challenging texts, and fall further and further behind (Stanovich, 1986; see similar findings by Chall, Roswell, and Blumenthal, 1963).

Classroom Comparisons of Meaning versus Code-Emphasis Approaches (1983 to 1993)

The classroom comparisons from 1983–1993, as did the earlier comparisons of 1910–1965 and 1965–1983, found an advantage in achievement for children exposed to code-emphasis approaches. Thus Evans and Carr (1985) found that “traditional” teacher-directed instruction, using basal readers with phonics practice and applications in reading connected text had higher achievement than those taught by an individualized, language-experience approach. The teacher-directed phonics classrooms scored higher on year-end tests of reading achievement, including comprehension. Moreover, the language-experience classrooms did not achieve higher scores in oral language measures, although they engaged in more oral language activities.

A meta-analysis comparing basal reader approaches with more open approaches, such as language experience and whole language, found advantages by level of development. Children in kindergarten seemed to benefit more from whole language/language experience. For first graders, although whole language and language experience tended to produce similar effects as the basal

approaches, those programs that had stronger instruction in phonics tended to score higher (Stahl and Miller, 1989). Basing their theoretical explanation on Chall's *Stages of Reading Development* (1983b), Stahl and Miller noted that it was important in kindergarten to concentrate on the functions of written language while it was important in first grade to concentrate on the connection between letters and sounds in spoken words (see also Nicholson, 1992; Stanovich, 1987; Williams, 1985; Adams, 1990).

Studies of Reading Disabilities. Students "at risk" for reading failure have long been thought to be deficient in phonological processing. Dyslexic students are often unaware of and have specific difficulty in mapping written symbols onto speech. Thus, deficits of phonological processing do, indeed, seem to underlie many of the difficulties of poor readers, writers, and spellers (see Adams, 1990; Williams, 1979; and Stanovich, 1986). These findings are similar to those reported in the first two editions of *The Great Debate*, Chall, 1967 and 1983a.

Research Syntheses. Several research syntheses related to beginning reading were published from 1983 to 1993. The first of these was *Becoming a Nation of Readers* (Anderson, Hiebert, Scott, and Wilkinson, 1985). It was produced by the Commission on Reading—10 scholars and teachers with long experience and expertise in reading and related disciplines appointed by the National Academy of Education (NAE) and sponsored jointly by the NAE and the National Institute of Education. Its conclusion on meaning-emphasis versus code-emphasis was that classroom research showed, on average, that children who are taught phonics get off to a better start in learning to read than children who are not taught phonics (Anderson, Hiebert, Scott, and Wilkinson, 1985).

Miriam Balmuth (1982, 1992) in *Roots of Phonics*, presents a fascinating history of English phonics and of its effective uses over hundreds of years in reading, writing, and spelling instruction in different parts of the world. More recently, Dina Feitelson (1988) in her *Facts and Fads in Beginning Reading* presents a cross-national analysis of the uses of phonics in teaching beginning reading.

Both the Balmuth and Feitelson syntheses concluded that for alphabetic languages, learning the relation between spoken and written words is an essential aspect of learning to read. Further, beginning reading achievement depends strongly on learning sound-symbol relations.

A more recent synthesis of the research on beginning reading is that by Marilyn Adams, who wrote that studies of the relative effectiveness of different approaches to teaching beginning reading collectively suggest, "with impressive consistency," that systematic instruction of letter-to-sound correspondences resulted in higher achievement in both word recognition and spelling—at least in the early grades, and particularly for slower and disadvantaged students (Adams, 1990; see also Chall, 1967 and 1983a).

Adams notes further that in spite of the differences found in the various studies, there seems to be something about instruction in phonics that has "general, substantive, and lasting value."

Calfee and Drum (1986) and Beck and Juel (1992) concluded from their syntheses that programs including early and systematic phonics had benefits over those that did not.

Beck and Juel (1992) further note the importance of decoding skill in the development of reading. They note that early attainment of decoding skills accurately predicts later skill in reading comprehension, and that there is "strong and persuasive evidence" that slow starters rarely become strong readers. Further, early proficiency in learning the code leads to early facility in reading, vocabulary growth, and knowing how texts are written.

Stanovich (1986) has placed decoding within broader, "Matthew Effects," in which the "rich get richer" (that is, the children who learn early to decode continue to improve in reading) and the "poor get poorer" (that is, children who do not learn to decode early become increasingly distanced from the "rich" in reading ability).

Whole Language. In the late 1970s, a new term appeared in the literature on reading—whole language. During 1982 to 1992, it became increasingly popular in the U.S., Canada, Australia, and New Zealand. Although there seems to be no general consensus on how it is best characterized, it seems to have a better fit with meaning-emphasis than with code-emphasis approaches. Overall, whole language focuses on language and meaning from the start, viewing decoding as a byproduct of reading for meaning. Generally, the position of whole language proponents has been that decoding does not need to be taught directly. Instead, it should be taught incidentally and only as needed.

Whole language also views learning to read as natural as learning to speak. There is an emphasis on literature although most meaning-emphasis programs also use literature. Another, more philosophical, aspect is the empowering of teachers to teach what they view as best.

RESEARCH ON WHOLE LANGUAGE

Diane Stephens (1991) collected 38 research studies on whole language and noted that "Whole language and research on whole language are both clearly in their beginning stages. The label was virtually unknown twenty years ago. Thirty-one of the thirty-eight studies cited here have been conducted since 1985; only one was published before 1980" (p. viii).

Her book on whole language research contains annotations of studies, including those in dissertation abstracts, and papers presented at national conferences. These 38 references make fascinating reading since they contain interesting descriptions and comments by those involved in the various projects. But one does not find the kind of data that have come to be expected in educational research—data that make it possible to conclude that one approach produces higher achievement than the other. Instead, one finds that more children in the first grade of a whole language class consider themselves good readers than do

children in a traditional class. In another study one learns that more children in whole language rather than in traditional classes report that reading is a meaning-making process. In still another study, whole language at-risk minority children in first and second grades performed as well or better than their traditional matches on a standardized achievement test.

It should be noted that the definition of whole language seems to vary from study to study. Indeed, some do not seem to be particularly "whole language-like." Instead, they resemble an empathic, humane approach to teaching reading that has been favored by reading teachers for nearly 100 years.

Another cause for concern is that most of the studies reviewed by Stephens were of kindergarten and first-grade children (26 out of the 38)—the two grades in which higher achievement in meaning-emphasis approaches have been found by others. But this higher achievement tends to be reversed in the second grade and higher. (See Stahl and Miller, 1989; Freebody and Byrne, 1988; Chall, 1967.)

Only ten of the 38 were comparative studies, that is, comparing the results of matched whole language and traditional classes. The remaining 28 were case studies.

PHONICS AND ADULT LITERACY

A longtime educational concern, also a recent one, is the question of how best to teach adults with limited reading ability. Do the findings from the research on children hold for adults?

In a study of phonic knowledge and skills of adult illiterates, Read and Ruyter (1985) found that those adults who did not progress beyond a fourth-grade reading level lacked phonemic knowledge—how to segment or blend parts of words (see also Chall, *Stages of Reading Development*, 1983b, and Chall, 1992).

Thus it would appear that adult beginners, as most other beginners, have instructional needs in phonics and decoding.

The Research Evidence on Meaning versus Code-Emphasis Approaches, 1983–1993

Overall, research of the past decade supports the earlier research and theory. The evidence of the last 10 years from the classroom, clinic, and laboratory points to greater achievement when a beginning code-emphasis is used as it did in the two preceding periods—1910–1967 and 1967–1983. Furthermore, research findings from both the earlier and later periods are supported by a growing body of theory from cognitive psychology, linguistics, psycholinguistics, human development, learning disabilities, and study of the reading process. Indeed, the evidence for a beginning code-emphasis as compared to a beginning meaning-emphasis is stronger in each of the successive periods I studied.

DIRECT VERSUS INCIDENTAL PHONICS

The 1983 update, in addition, provided some evidence, also, for the greater benefit of systematic, explicit teaching of phonics as compared to implicit, indirect phonics (Chall, 1983a). Becker and Gersten (1981) found that Distar-trained (a direct approach) children retained their superiority in word recognition and comprehension up to sixth grade. They found also that the children who were exposed to direct instruction had lower dropout rates and fewer incarcerations (Gersten and Keating, 1987). Stahl, Osborn, and Pearson (1992), however, found recently that while direct phonics was more effective than less direct phonics, the essential factor in decoding and early reading acquisition was the teacher's provision of opportunities to read decodable words.

Similar findings were reported by Juel and Roper-Schneider (1985). They found that students who were given a direct phonics program had significantly greater achievement in both decoding and comprehension when the material they read contained high percentages of words containing patterns they were taught to decode.

Further evidence for the greater effectiveness of systematic, direct phonics versus incidental, informal phonics comes from a recent study of Reading Recovery. Two equivalent groups followed the regular Reading Recovery program with the exception of word analysis. One group was taught the usual Reading Recovery word analysis—an informal approach to the letter-sound correspondences; the other received systematic phonics instruction. The findings were that those who received the systematic phonics instruction did significantly better than those who were exposed to the incidental Reading Recovery approach to word analysis (Iverson & Tunmer, 1993).

CHILDREN "AT RISK"

Researchers of the past decade have been especially interested in optimal instructional programs for children at risk. Generally, the 1983–1993 research has found—as it did in the two earlier periods—that children "at risk" do better with a code-emphasis (Chall, 1967 and 1983a).

Adams (1990) confirms this, noting that while children with a rich literacy background may be able to figure out letter-sound relationships and learn to comprehend simple or even complex stories, children without such a background need more systematic approaches. Indeed, as I concluded in *The Great Debate* (1967) based on the 1910–1967 research, even those who have strong literacy backgrounds benefit from systematic phonics instruction. But the advantages are even greater for those without strong literacy experience provided by the home (see also Stahl, 1992).

THEORETICAL EVIDENCE

The 1983–1993 period has gained considerably in theoretical knowledge on beginning reading (see Perfetti, 1985; Williams, 1985). 9

More recently, Liberman and Liberman (1990) presented a comprehensive overview of whole-language versus code-emphasis approaches—together with research and theoretical bases for each, and their implications for reading instruction.

Their theoretical and empirical evidence contradicts the whole language position that learning to read and write are as natural and as effortless as learning to perceive and produce speech. They present contradictory evidence also on the whole language view that the relationship between spoken and written language need not be taught since the written language is transparent to a child who can speak.

On the other hand, they note that their theoretical and empirical evidence gives greater support to a code emphasis. Speech is managed “by a biological specialization” without explicit awareness of the sounds the alphabet represents. It is just this awareness that must be taught if the child is to grasp the alphabetic principle.

There is evidence that preliterate children do not, in fact, have much of this awareness; that the amount they do have predicts their reading^g achievement; that the awareness can be taught; and that the relative difficulty of learning it that some children have may be a reflection of a weakness in the phonological component of their natural capacity for language.

(Liberman and Liberman, 1990, p. 51)

Thus, Liberman and Liberman strongly confirm the first importance of the phonological aspects of language in reading and writing, in learning to read and write, and also in failure to learn to read—a view that is perhaps the oldest in the history of reading instruction, and in the study of reading failure.

Even stronger evidence for the primary importance of relating speech to writing comes from John de Francis (1989), a noted specialist in the Chinese language. In his book, *Visible Speech*, he shows that writing is based on a sound system and not on any other linguistic level. Even Chinese writing, he notes, is based largely on sound. Using writing systems of ancient and modern languages—such as Egyptian, Arabic, Japanese, Korean, Greek, and English—he stresses their basic identity as representatives of visible speech.

In a recent comprehensive review of factor analytic studies of verbal development, John Carroll (1993), reports the following regarding decoding and other language skills.

There is evidence . . . that a general skill of word recognition and decoding can be defined factorially independent of some other skills in the language ability domain, and further, that this word recognition skill can be broken down into detailed processes . . . a reading decoding accuracy factor, and . . . a reading decoding speed factor, all independent of more general verbal comprehension, spelling, and reading speed factors.

(Carroll, 1993, pp. 164–165)

Carroll (1990) also focused on the importance of adequate knowledge of phonics by teachers. Referring to an early large-scale study of reading achievement in the public schools of Newton, MA (Carroll and Austin, 1957), he noted several findings with implications for phonics instruction. First, reading achievement of third graders was "powerfully conditioned by the teaching effectiveness of their second-grade teacher." Also, the teacher's knowledge of phonics was an important factor in her ability to teach reading successfully. "For example, children in the third grade who had high scoring teachers (higher scores on a test of phonics) when they were in the first grade did significantly better than children who had low-scoring teachers in the first grade" (Carroll, 1990, p. 6).

He further noted that "the poor performance of some of the teachers may have been because of the kind of reading instruction the teachers themselves had had in their early school years—instruction that included little emphasis on phonics, or that did not help these teachers to develop good decoding skills" (p. 7).

Reading at Different Stages of Development

One of the issues in the meaning-emphasis/code-emphasis debate is whether or not reading goes through developmental changes from beginning to advanced stages. More specifically, does reading at the beginning require different knowledge and skills than it does later, as found by Buswell (1922)?

During the past decade, several studies have found that while a meaning-emphasis approach might be more beneficial for reading in kindergarten, a code-emphasis proved to be more effective later. (See, in this connection, Chall, 1967 and 1983a; Stahl and Miller, 1989; Freebody and Byrne, 1988.) Indeed, it was this developmental nature of reading that led to my finding an overall benefit of a code-emphasis even though some studies found that a meaning-emphasis produced better results in grade 1.

The past decade produced additional evidence on the developmental changes of reading. The validation data for the DAR, Diagnostic Assessments of Reading (Roswell and Chall, 1992), give further evidence for the developmental nature of the different components of reading. Thus, for students in grades 1 and 2, the correlations between word recognition and word meaning (presented orally) are generally low. In the early grades word recognition is the better predictor of other aspects of reading than word meaning. However, by the intermediate grades and higher word meaning becomes the better predictor of reading. Thus, the more potent factor in beginning reading achievement appears to be word recognition (and decoding), while in the intermediate grades and higher, the better predictors are word meaning and cognition.

The New Reading Debates

The reading debates of the past decade are quite similar to the earlier ones. As in the past, the current debates are concerned mainly with beginning reading. There