



What Education Schools **Aren't Teaching**
about Reading
and What Elementary Teachers **Aren't Learning**

May 2006

This study is available online from www.nctq.org.
Hard copies of the Executive Summary can be ordered from this website as well.

AUTHORS:

Kate Walsh, Deborah Glaser and Danielle Dunne Wilcox

OUR THANKS TO:

Research analysts: Rona Abad, Elizabeth McCorry and Emily Cohen
Database design and technical support: Jeff Hale
Graphic design: Colleen Hale
Consultation: Louisa Moats and G. Reid Lyon

NCTQ BOARD OF DIRECTORS:

Stacey Boyd, Chester E. Finn, Jr., Ira Fishman, Marti Garlett, Clara M. Lovett, Andrew J. Rotherham, Eric J. Smith, Danielle Wilcox, Kate Walsh, *President*

NCTQ ADVISORY BOARD:

Steven J. Adamowski, Roy E. Barnes, Alan D. Bersin, Lawrence S. Braden, Cheryl Ellis, Michael Feinberg, Ronald F. Ferguson, Eleanor Gaines, Michael Goldstein, Eric A. Hanushek, Frederick M. Hess, Paul T. Hill, E.D. Hirsch, Jan Hungate, Jason Kamras, Frank Keating, Paul Kimmelman, Martin J. Koldyke, Wendy Kopp, Hailly Korman, Deborah McGriff, William Moloney, Eva Moskowitz, Robert H. Pasternack, James A. Peyser, Michael Podgursky, Michelle Rhee, Felicity Messner Ross, Stefanie Sanford, Kim Smith, Lewis C. Solmon, Thomas Toch, Joseph Wilson

WITH PRINCIPAL FUNDING FROM:

The D&D Foundation

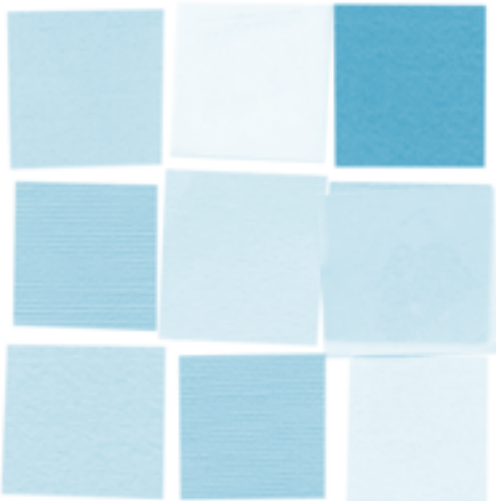
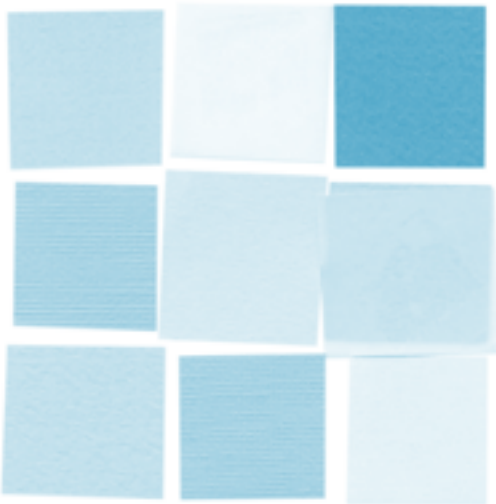


TABLE OF CONTENTS

1. Introduction	five
2. The Study Sample and Methodology	twelve
3. General Findings and Observations	twenty-two
4. What Is Being Read	thirty-three
5. Recommendations	forty-three
6. Conclusion	forty-eight

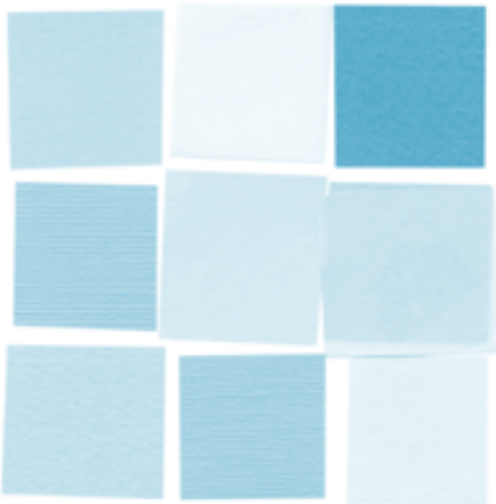
APPENDICES

A. Scoring Methodology	fifty
B. Examples of Syllabi	fifty-seven
C. Ratings for Required Texts	sixty-nine



ABSTRACT

The persistent reading struggles and failure of nearly 40 percent of all American children, little improved over time, has led to aggressive government-funded efforts in school districts to train veteran teachers in the science of reading. The accumulated scientific findings of nearly 60 years of research gained the nation's attention with the release of a number of significant reviews and compendia of the research beginning in 1990, but most notably the National Reading Panel report in 2000. The findings call for explicit, systematic teaching of phonemic awareness and phonics, guided oral reading to improve fluency, direct and indirect vocabulary building, and exposure to a variety of reading comprehension strategies. All this attention on veteran teachers begs the question: How are future teachers being prepared to teach reading? In this study, the National Council on Teacher Quality makes a unique effort to learn what aspiring teachers are taught about reading instruction. From a randomly selected, representative sample of 72 education schools, NCTQ reviewed 223 required reading courses, including evaluations of syllabi as well as 227 required reading texts. Schools were scored on how well their courses presented the core components of the science of reading. The findings are alarming. Only 15 percent of the education schools provide future teachers with minimal exposure to the science. Moreover, course syllabi reveal a tendency to dismiss the scientific research in reading, continuing to espouse approaches to reading that will not serve up to 40 percent of all children. Course texts were equally disappointing. Only four of the 227 texts were rated as "acceptable" for use as a general, comprehensive textbook. This distressing trend in teacher training demands attention from federal and state governments, professional organizations dedicated to improving and supporting education schools, textbook publishers, and education schools themselves. The report closes with recommendations to ameliorate this serious failure in adequately preparing teachers in the best practices of reading instruction.



1. INTRODUCTION

THE STORY OF THE MODERN SCIENCE OF READING

Anyone familiar with the “reading wars” will find some irony in how we arrived at our modern understanding of reading. It began as a consequence of World War II.

As disabled veterans arrived home after the war, the U.S. Government scrambled to help ease their transition, including those blinded in battle. A young, experimental psychologist, Alvin Liberman, was given the job of creating a reading machine for the blind. The idea was to create a machine that could vocalize print as a finger ran over Braille letters.

This effort to create a reading machine resulted in multiple disappointments. While the machine worked after a fashion, it proved too slow at articulating sounds to resemble actual speech. Listeners found it impossible to fuse the machine’s sounds together to make any sense out of them. Like many scientific breakthroughs, though one door closed, another opened. Liberman’s team of scientists had stumbled upon a new understanding of the reading process.

They had unwittingly identified the intricate relationship between the language that we read and the language that we speak—and discovered a primary cause of why it can be so hard to learn how to read. In the same way that the blind listeners could not make sense out of the sounds coming from the plodding reading machine, struggling readers have a hard time stringing together the different sounds that make up a word.

Before this new insight, early reading methods, even if they included phonics instruction, failed to appreciate the importance of speech sound processing as well as word recognition for fluent reading. The root causes of reading failure were just not well understood; there was no recognition that many young learners find it inordinately difficult to distinguish small segments of sounds. For example, a teacher might show a class the letter A, saying “This letter A makes the first sound in ‘apple’ and also the middle sound in ‘map.’” Children who lack “phonemic awareness” cannot make the connection between the two sounds, hearing that they are in fact identical. Their difficulty has nothing to do with an ability to recognize the letter A. Well over a third of all beginning readers have difficulty identifying, discriminating, and isolating sounds—foundational skills for fluent reading. A proficient reader, as anyone reading this study is, has a hard time trying to fathom this problem. The sounds seem so apparent.

Today’s effort is directed by a branch of the National Institutes of Health, the National Institute for Child Health and Development (NICHD), which views the nation’s reading problem as a significant public health crisis. According to the 2005 National Assessment of Educational Progress (NAEP), 38

percent of all fourth graders still read below a basic level, a figure that has improved only slightly in the last 25 years.¹ The NICHD study is dedicated to answering three basic questions:

1. How do children learn to read?
2. Why do some children have difficulty learning to read?
3. How can reading difficulties be prevented and ameliorated?

Since 1965, the NICHD Reading Research Network has grown to 44 research sites. With an annual budget of \$60 million, it has examined 48,000 children and adults—22,000 proficient and 26,000 struggling readers.² They have produced a body of reading research that has shed much-needed light on how people learn to read.

As a result of this research, we can appreciate that for some children learning to read appears and effortless. For these children, it does not really matter what reading curricula or teachers they encounter, they will learn how to read. For a significant number of other children, the path to literacy is far more difficult and by no means assured. In the case of these children, it matters very much what curriculum is used and who their first teachers are. By routinely applying the lessons learned from the scientific findings to the classroom, their reading failure is now considered largely avoidable. It is estimated that the current failure rate of 20 to 30 percent could be reduced to the range of 2 to 10 percent.³

To do so, elementary classrooms must incorporate certain research-based practices, including:

- Early identification of children at risk of reading failure;
- Daily training in linguistic and oral skills to build awareness of speech sounds or *phonemes*;
- Explicit instruction in letter sounds, syllables, and words accompanied by explicit instruction in spelling;
- Teaching phonics in the sequence that research has found leads to the least amount of confusion, rather than teaching it in a scattered fashion and only when children encounter difficulty;
- Practicing skills to the point of “automaticity” so that children do not have to think about sounding out a word when they need to focus on meaning;
- Concurrently with all of the above building comprehension skills and vocabulary knowledge through reading aloud, discussing, and writing about quality children’s literature and nonfiction topics;
- Frequent assessment and instructional adjustments to make sure children are progressing.

Regardless of social class, race or income, 40 percent of all kindergartners require this explicit, systematic approach in order to learn how to read.⁴

1 U.S. Department of Education, National Center for Education Statistics (NCES) (2005). *The nation's report card: Reading 2005*. NCES Number: 2006451 and NAEP web data tool: <http://nces.ed.gov/nationsreportcard/naepdata>.

2 Lyon, G. Reid (2004). *Report to NACHHD*. Washington, D.C.: U.S. Department of Health and Human Services, National Institutes of Health, National Institute for Child Health and Development.

3 Torgesen, J.K. (November 2005). *Preventing reading disabilities in young children: Requirements at the classroom and school level*. Presented at the Western North Carolina LD/ADD Symposium. <http://www.fcrr.org/science/pptpresentations.htm>.

4 Lyon, G. Reid. (April 28, 1998). “Overview of reading and literacy initiatives,” Statement to the Committee on Labor and Human Resources; <http://www.nichd.nih.gov/publications/pubs/jeffords.htm>.

MEANWHILE, IN AMERICA'S CLASSROOMS...

Long before World War II, a different battle was being fought in America's classrooms. On one side were such 19th- and 20th-century progressive educators as Horace Mann and John Dewey, who rejected the standard phonics-based approach to teaching reading. Mann described letters as "skeleton-shaped, bloodless, ghostly apparitions" and encouraged teaching children whole, meaningful words—"this lesson would be like an excursion to the fields of Elysium."⁵ Starting in the 1930s, a strong movement to emphasize reading for meaning over mechanistic drills emerged.⁶ This "look-say" method encouraged early readers to memorize a core group of frequently used words and then use context cues to identify new words, in the process relegating phonics to "the position of an ancillary tool."⁷ The method gained ascendancy with the widespread adoption of look-say readers, such as the *Dick and Jane* books.⁸

In 1955, Rudolph Flesch captured national attention with his book, *Why Johnny Can't Read*. Flesch argued that Johnny couldn't read because educators and publishers were withholding phonics instruction from him. Flesch's scathing condemnation of the whole-word method whipped up support among parent activists, some educators, and federal agencies, spurring a phonics revival. Schools adopted phonics-based programs, but these programs stressed letter-sound associations through rote memorization at the expense of building up comprehension strategies. Flesch succeeded in promoting phonics, but by oversimplifying reading, he turned it into a political and moral battle between "good" phonics and "bad" whole language. In doing so, he unnecessarily polarized educators around these two approaches.

Portending what was to come, reading expert Jeanne Chall cautioned against swinging the pendulum too far back to phonics. If schools overly emphasized phonics, wrote Chall in 1967, "the suggested cure will be a 'natural' approach—one that teaches whole words and emphasizes reading for meaning and appreciation at the very beginning."⁹

Indeed, in the late 1960s, two college professors, Frank Smith and Ken Goodman, launched the "whole language" movement. They argued that reading was a "natural process" that did not require formal drills. This concept took hold with progressive educators frustrated with dull phonics workbooks and spelling programs, interspersed too infrequently with good children's literature. By the mid-1980s, whole language had a dedicated following in education schools and among professional organizations, such as the International Reading Association and the National Council of Teachers of English.

THE TWO STORIES CONVERGE

By the 1980s, the scientific evidence was strong enough to debunk many of the assumptions underpinning whole language but also to challenge the ascendancy of phonics. Persuading school boards, educators, and textbook publishers to adopt the full set of scientific findings—many of whom had strong allegiances to either phonics or whole language,

5 Quoted in Adams, Marilyn J. (1990). *Beginning to read: thinking and learning about print*. Cambridge, MA: MIT Press, pp.22-23. These quotes are from an annual report that Mann delivered in 1841 to the Massachusetts Board of Education in his role as secretary of the board.

6 Adams, p. 23.

7 Adams, p. 23.

8 Adams, p. 37; Chall, Jeanne (1967). *Learning to read: The great debate*. New York: McGraw-Hill.

9 Chall, Jeanne (1967), p. 308.

but whole language in particular—would prove to be inordinately difficult. Strong academic efforts such as the Commission on Reading's *Becoming a Nation of Readers* (1985), Marilyn Jaeger Adams' *Beginning to Read* (1990), Jeanne Chall's *Learning to Read: The Great Debate*, and the National Research Council's *Prevention of Reading Difficulties in Young Children* (1998) seemed to only add fuel to the fire, their message largely dismissed by most educators.¹⁰ The political tide did appear to turn when test scores in school districts using whole language curricula plummeted. In 1997, California's whole language experiment ended abruptly after its reading scores fell to the lowest in the nation, only above Guam.

Hoping for a truce in the reading wars, the U.S. Congress convened the National Reading Panel, which brought together a panel of reading experts. In 2000, the panel released its review of evidence-based reading research.¹¹ The panel concluded that effective reading instruction includes explicit, systematic teaching of **phonemic awareness** and **phonics**, guided oral reading to improve **fluency**, direct and indirect **vocabulary** building, and exposure to a variety of **comprehension** strategies. The evidence for instruction strategies for phonemic awareness, phonics, and fluency was especially strong. Although less research about effective strategies for improving vocabulary and comprehension was available, the panel concluded that these two components were equally important to reading mastery. The panel also found that whole language instruction that ignores phonics and phonemic awareness was ineffective, especially for students with poor language skills and little exposure to print. Finally and importantly, the panel did note that explicit preparation in reading for "both new and established teachers" had been shown to produce higher student achievement.

The findings of the National Reading Panel were so conclusive and clear that they became the foundation for federal legislation. Under the Clinton administration, the NICHD research findings formed the basis of the National Reading Excellence Act of 1998, a small program that promoted research-based methods but contained no follow-up monitoring. Replacing it were the Reading First (RF) and Early Reading First (ERF) initiatives, heralded as the academic cornerstones of the No Child Left Behind Act of 2001, which greatly expanded President Clinton's earlier effort.

While some findings by the National Reading Panel were initially met with resistance, with many educators expressing skepticism over its methodology and findings, no subsequent work of serious scholarship has challenged its findings. Additional studies have continued to build the case for the science of reading.¹² With this accumulation of evidence, many education groups, states, and school districts have made dramatic changes in their positions and practices regarding reading instruction. Since 1995, the nation's second largest teachers union, the American Federation of Teachers, has consistently urged its 1.3 million members to embrace the science, in particular with a 1999 handbook for teachers entitled *Reading IS Rocket Science*.¹³ In 1998, the

10 Anderson, R.C., Hiebert, E.H., Scott, J.A., & Wilkinson, I.A.G. (1985). *Becoming a nation of readers: The report of the Commission on Reading*. Urbana, IL: University of Illinois. Adams, Marilyn J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge: MIT Press. National Research Council (1998). *Preventing reading difficulties in young children*. Snow, Catherine, Burns, M. Susan & Griffin, Peg, Editors; Committee on the Prevention of Reading Difficulties in Young Children. Washington, D.C.: US Government Printing Office.

11 National Institute of Child Health and Human Development (2000). *Report of the National Reading Panel, Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, D.C.: U.S. Government Printing Office.

12 For example: Rayner, K., Foorman, B., Perfetti, C., Pestsky, D. and Seidenberg, M. (November 2001). "How psychological science informs the teaching in reading" in *Psychological Science in the Public Interest*, Vol. 2, No. 2, pages 51-74.

13 Moats, Louisa C. (1999). *Reading is rocket science: What expert teachers should know and be able to do*. American Federation of Teachers: <http://www.aft.org/pubs-reports/downloads/teachers/rocketsci.pdf>

International Reading Association and the National Association for the Education of Young Children Learning issued a joint position statement that essentially acknowledged the weaknesses of a purely whole language approach that they had previously endorsed, instead calling for a balanced approach that would include the systematic teaching of phonemic awareness and phonics.¹⁴ A number of states, notably Florida, California and Texas, were quick to approve large-scale professional development programs that focused on the science of reading as well as adopting reading curricula that reflected the scientific findings.

OR DO THE TWO STORIES DIVERGE?

Given the consensus about reading research and the drive to promote this research, we wondered what aspiring elementary teachers are now learning about reading instruction during their preparation as undergraduates. The resistance to change by the teacher educator community has been palpable but not particularly well documented. In a 1992 position paper, the association that oversees education schools, the American Association of the Colleges of Teacher Education (AACTE) did not dispute the legitimacy of the science of reading, advising education schools “to prepare future teachers to know many approaches to literacy instruction, in other words, the ‘combination of methods’ recommended by the National Reading Panel.”¹⁵ But we do not know how closely education schools come to mirroring the AACTE’s still tepid position. In fact, very little is known about what teachers learn about reading instruction before they enter the classroom.

A 2000 study by Boston University’s David Steiner and Susan Rozen piqued our interest.¹⁶ Steiner and Rozen reviewed syllabi from courses in education foundations, reading, and general methods from 16 of the *U.S. News & World Report* top-rated education schools. They concluded that pre-service teachers were receiving only a “cursory knowledge of how to teach reading skills” identified by the National Reading Panel.¹⁷

We decided to broaden Steiner and Rozen’s study with a more representative sample. Our analysis provides a reasonable assessment of what elementary teacher candidates are learning—or failing to learn—about the teaching of reading. In reaching our conclusions, we understand that a course’s intended goals and topics as reflected by syllabi and texts may differ from what actually happens in the classroom. However, it is reasonable to assume that college professors give thought and consideration to their syllabi and course readings, which represent the intended structure of their courses and emphasize what they view as essential knowledge. Typically, the texts they assign capture the universe of knowledge that the professor thinks is important. Less is apt to be covered in class than what the texts contain, not more. Also, a syllabus is more like a restaurant menu: It doesn’t tell diners whether the food or service is any good, but at least they’ll know what’s cooking in the back and whether to prepare their taste buds for a curry or fried chicken.

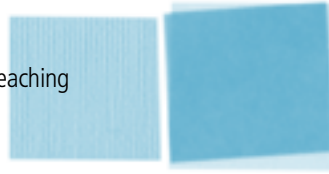
This study is the most comprehensive to date of what elementary teacher candidates are learning—or not learning—in their required reading courses.

14 Position paper by the International Reading Association and the National Association for the Education of Young Children (May 1998). *Learning to read and write: Developmentally appropriate practices for young children*. <http://www.naeyc.org/about/positions/psread2.asp>.

15 AACTE (Fall 2002) *Research-based literacy instruction: Implications for teacher education*, page 19. http://www.aacte.org/About_Us/literacy.pdf.

16 David Steiner & Susan Rozen (2004). “Preparing tomorrow’s teachers: An analysis of syllabi from a sample of America’s schools of education” in *A qualified teacher in every classroom? Appraising old answers and new ideas*, Hess, F., Rotherham, A. & Walsh, K., Editors. Boston, MA: Harvard Education Press.

17 *Ibid.*, p. 136.



WHAT ARE PHONEMES?

Phonemes are the sounds that make up spoken words. They are the smallest meaningful segments of sounds within spoken language. For example, the word *no* is made up of two phonemes: /n/ and /o/. We hear them as a single word because we blend the individual phonemes into a unit as we pronounce the word. Phonemes are represented in written language by *graphemes*. Graphemes may be single letters (a, t, k, e, or n) or clusters of letters that represent single sounds (th, sh, oo, ough, or ck). Think of phonemes not as the sounds that letters make but as the sounds of speech that can be represented by letters.

Phonemes are difficult to distinguish in normal speech because the individual sounds slide into one another as words are spoken. An adult who is asked to count the phonemes in a given word will probably rely on his or her knowledge of how many letters are used to spell the word (Ehri, 1984). But this is not a completely reliable indicator because some phonemes are represented by a combination or cluster of letters. For example, there are four phonemes in the word *salt* but only two in the word *though*. A more reliable way to identify phonemes within a word is to "stretch out" the word's pronunciation and count the number of changes in how the mouth, tongue, and lips work as they make the individual sounds.

Excerpt taken from *A Closer Look at the Five Essential Components of Effective Reading Instruction*, North Central Regional Educational Laboratory, pp. 4-5. <http://www.ncrel.org/rf/components.pdf>, Retrieved February 5, 2006.

WHAT IS WHOLE LANGUAGE?

Whole language is an approach to reading instruction. It emphasizes connecting children with meaningful text as the preferred path to developing fluent readers. It rests on two main assumptions. The first is that reading is a skill that comes naturally to children, catalyzed by exposing children to interesting, meaningful *authentic* literature. The second is the use of *context cueing*, which involves having children identify new words by discerning their meaning in the context of the text, as opposed to phonetic drills where children must decode the sounds of a new word to read it.

WHAT IS BALANCED LITERACY?

Balanced literacy is also an approach to reading instruction. Unlike whole language, it fuses the literature-based approach with some phonological instruction but only on an "as needed" basis. Instruction in phonemic awareness and phonics tends to be more incidental, a strategy for a teacher to employ when a student runs up against a problem. Like whole language, balanced literacy values using "authentic" text (children's literature) to learn how to read over text that has been written specifically for teaching reading.

A more lengthy explanation of the two approaches is found in Louisa C. Moats' *Whole Language Lives On* (Washington, D.C.: The Thomas B. Fordham Foundation, 2000).

THE BASIC COMPONENTS OF GOOD READING INSTRUCTION

PHONEMIC AWARENESS (PA): The understanding that spoken language is composed of tiny segments of speech called *phonemes*. English has 41 phonemes. For example, the word *tea* consists of two phonemes: /t/ and /_/. The National Reading Panel found strong evidence that teaching students to focus on and manipulate phonemes in spoken syllables and words through phonemic awareness training “*significantly improves their reading more than instruction that lacks any attention to phonemic awareness.*”

PHONICS: Another critical component of good reading instruction is the use of *systematic* phonics instruction as opposed to *incidental* phonics instruction. Phonics instruction, often confused with phonemic awareness, teaches reading by making explicit the letter-sound correspondences in reading and writing. Research evidence points to the necessity of teaching phonics sequentially rather than merely highlighting phonics elements as they appear in a text. This finding disproves a popular theory of the “whole language” or “balanced reading” approach, which tends to discount the explicit teaching of phonics skills as tedious or uninspiring for children and instead addresses phonics elements in response to students’ reading errors. Also notable was the panel’s finding that explicit phonics instruction contributes to successful reading for children of all socioeconomic backgrounds. Also, when combined with synthetic phonetic instruction (in which students learn to turn letters into sounds—phonemes—and create recognizable words), students with learning disabilities and low achievers experience significantly higher rates of reading success.

GUIDED ORAL FLUENCY: Reading fluency is the ability to read aloud accurately and rapidly enough that the reader can process and comprehend what has been read. If reading is laborious and slow, it is difficult for a student to remember what has been read and to connect the text in a meaningful way with other prior knowledge. The National Reading Panel found evidence that “guided repeated oral reading” was an effective means to developing reading fluency and overall reading achievement. There was no conclusive research to support independent silent reading, popularly promoted through programs like “Drop Everything and Read.” Lacking the necessary findings, the panel could not recommend this as an alternative to guided repeated oral reading.

VOCABULARY: Vocabulary plays an important role in reading. As readers decode new words, they more readily understand the word if it is in their oral vocabulary. Therefore, the more extensive a reader’s vocabulary, either oral or print, the easier it will be to comprehend the text. The panel found that indirect and direct vocabulary instruction broadened vocabulary and improved overall reading.

READING COMPREHENSION: Finally, reading comprehension was enhanced by teaching students a “variety of techniques and systematic strategies” to assist recall of information, self-evaluation of comprehension abilities, and summarization. Of the 16 reading comprehension strategies examined by the panel, the following seven appear to “*be most promising*”: comprehension monitoring, cooperative learning, graphic and semantic organizers including story maps, question answering, question generation, and summarization (pp. 4-42). The panel found that teachers need to be aware of various comprehension strategies and sophisticated in their discernment of when and how to teach them.

Summarized from National Institute of Child Health and Human Development (2000). *Report of the National Reading Panel. Teaching children to read: an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups* (NIH Publication No. 00-4754). Washington, D.C.: U.S. Government Printing Office.

2. THE STUDY SAMPLE AND METHODOLOGY

SELECTION OF THE EDUCATION SCHOOLS

Our sampling strategy was established on the basis of three major criteria.

1. The sample would include a minimum of 70 institutions that house education schools. A sample of this size represents about 5 percent of all institutions offering elementary teacher certification in the United States and provided us with confidence that we would capture the full range of practices by a broad cross section of education schools.
2. The sample would include institutions that differed on important characteristics, including size, location, structure, and population. This allowed us to determine if certain types of education schools are more inclined to teach the science of reading.
3. The sample would be representative of all education schools and not biased toward those who are inclined to share information. We used random selection to determine the institutions, not selecting institutions on the basis of who would respond to our requests for syllabi. Course syllabi are readily available online and through other means.

Using the admissions classifications from the 2004 *U.S. News & World Report* higher education survey, we randomly selected a sample that mirrored the admissions selectivity of the 1,271 higher education institutions housing elementary education programs. The sample contained five subgroups stratified along admissions data: most selective, more selective, selective, less selective, and least selective. The final sample of 72 institutions, all randomly selected and representing schools of all types, constitutes 5.6 percent of those institutions offering elementary teacher certification in the United States.¹⁸

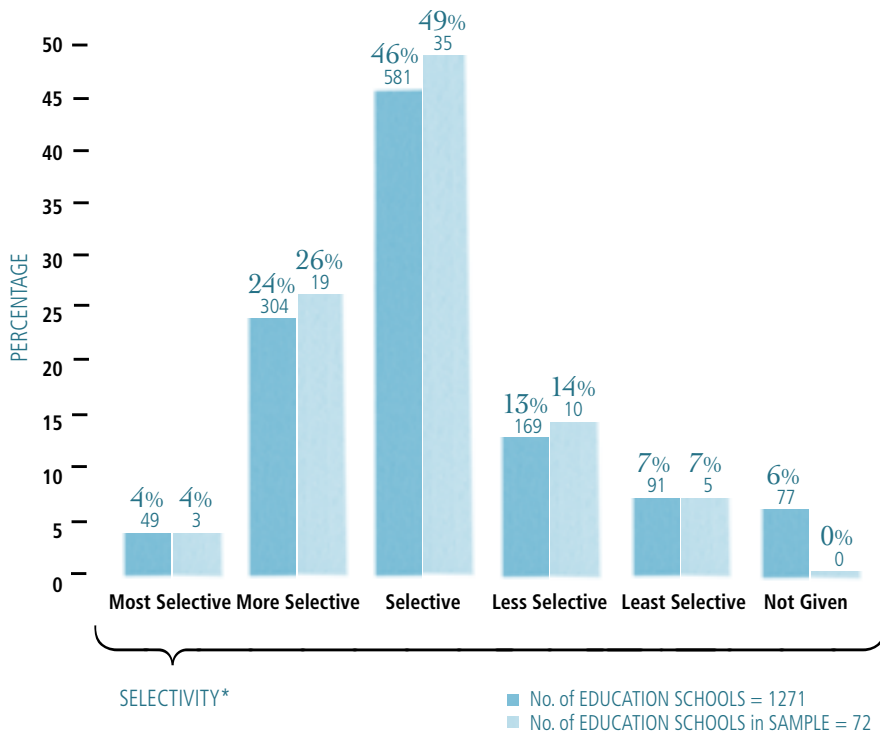
PREVIOUS RESEARCH

There are only a few previous studies involving the collection of syllabi from schools of education. The study by David Steiner and Susan Rozen that looked at only 16 education schools was comprehensive in the sense that it included *all* of the courses required of teacher candidates at each of the institutions studied. They were able to capture a complete picture of what knowledge was considered essential, but it was never intended to be representative of all education schools.¹⁹ Gettysburg College professor Dan Butin set out to refute Steiner's claims about bias in education foundations courses by collecting 89 syllabi from 85 institutions, comprising

¹⁸ *U.S. News and World Report 2004 Premium Online Edition of America's Best Colleges*. The list merges two lists from the catalogue: those institutions that offer elementary education degrees and those that offer teacher certification programs.

¹⁹ Steiner, David and Rozen, Susan (2004).

THE ADMISSIONS SELECTIVITY OF THE SAMPLE COMPARED TO ALL INSTITUTIONS

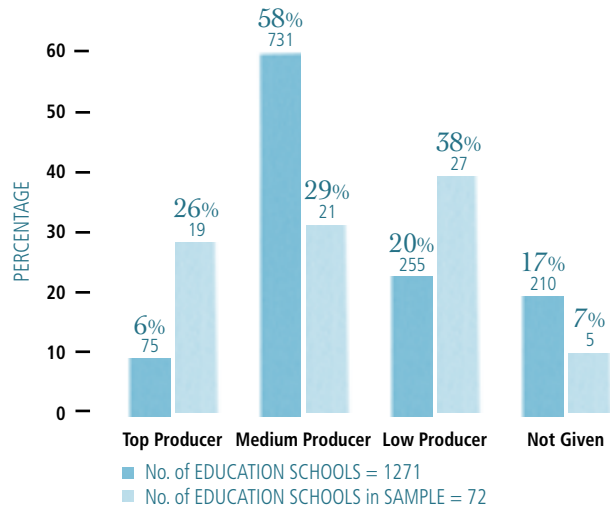


*U.S. News and World Report. 2004. McGrath, A. (Ed.) *U.S. News and World Report Ultimate College Directory, 2004 Edition*. Naperville, IL: Sourcebooks Inc.

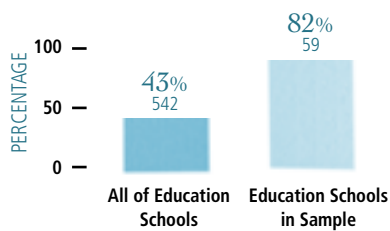


THE REPRESENTATIVE NATURE OF THE SAMPLE

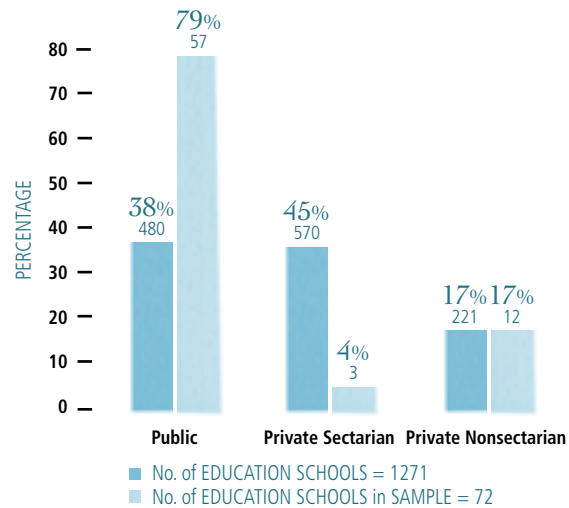
ANNUAL NUMBER OF TEACHERS PRODUCED*



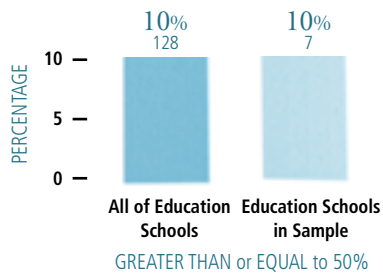
SCHOOLS ACCREDITED BY NCATE



INSTITUTIONAL TYPE



MINORITY ENROLLMENT**



* Data derived from National Center for Education Statistics, *Integrated postsecondary education data systems (IPEDS) completions survey, 2003-2004 Academic year*. The assignments of top, medium, and low producers were computed by applying the pareto principal where 80 percent of the outcomes.

** The College Board (2004). *The College Board College Handbook, 2004*. Princeton, NJ: College Board Publications.

** The Thomson Corporation and Peterson's. *Four Year Colleges, 2004*. Lawrenceville, NJ: Thomson/Peterson's.

what Butin termed a “convenience sample” that was not generalizable.²⁰ Unlike Steiner, Butin did not attempt to collect all of the relevant syllabi from each institution, only what could be readily found on websites.

One additional 1995 study by Peter Smagorinsky and Melissa E. Whiting examined the content of English methods courses aspiring teachers took as undergraduates. That effort included a sample of 81 institutions.²¹ The institutions in this study were all willing participants, having responded to a request from the researchers to supply their syllabi.

GEOGRAPHY

In addition, we sought a sample that represented all regions in the country. Thirty-five states are represented in the sample.

SELECTION OF COURSES

After selecting the institutions that would comprise our sample, we identified which courses at the institutions to include in the study. They had to meet three criteria:

1. Any course that could conceivably teach **early reading instruction**. These included courses entitled “early reading,” “language arts,” “reading assessment,” “corrective reading,” “reading across content areas,” or courses that referenced reading methodologies or practicum. Though we initially collected syllabi from children’s literature courses on the off chance they included early reading instruction, we later eliminated them from analysis.
2. Any reading course required of a teacher aspiring to teach **kindergarten through fifth grade**. Depending on the institution or state, this parameter might involve analyzing courses leading either to early childhood or elementary certification.
3. Only **required** reading courses. We did not analyze elective coursework as the purpose of the study was to determine the content in reading instruction that an institution deemed essential.

This screening process yielded a sample size of 223 courses.

OBTAINING THE SYLLABI AND PURCHASING TEXTS

From November 2004 through September 2005, we gathered syllabi for the 223 courses. We had three rules regarding the syllabi:

1. To protect the integrity of the random sample, we did not ask professors directly to give us their syllabi. We relied primarily on Internet searches as well as hiring students to collect them for us.²²

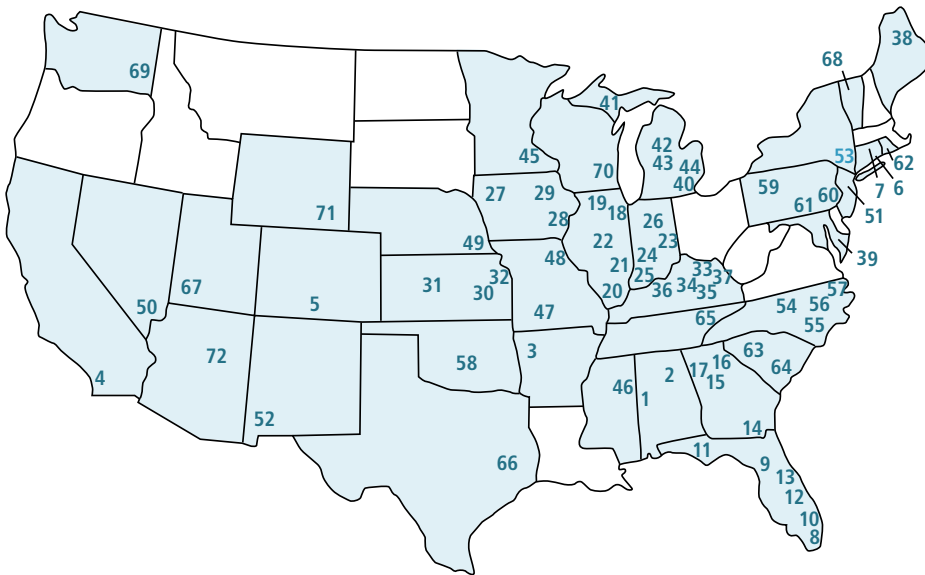
20 Butin, Dan W. (July 2004). “The foundations of preparing teachers: Are education schools really ‘intellectually barren: and ideological?’” *Teachers College Record* (www.tcrecord.org).

21 Smagorinsky, Peter and Whiting, Melissa (1995). *How English teachers get taught: Methods of teaching the methods class*. National Council of Teachers of English (www.ncte.org).

22 Copyright laws make accommodations for the use of copyrighted material for purposes of criticism. The law accommodates the situation involving a person seeking a copy of something in order to criticize it, assuming that permission will be denied. There are no legal restrictions on what that person does with a physical copy of an item even though the *contents* are protected under copyright law. Analysis of content does not pose a violation of copyright laws.



LOCATION OF INSTITUTIONS IN STUDY SAMPLE



Map numbers correlate with list of institutions on page twenty-four.

2. We excluded syllabi dated earlier than 2003 unless we verified with the institution that the syllabus was still in use.
3. We randomly selected a single syllabus to represent a course with multiple sections.

After collecting the syllabi, we purchased every text or reading that was required for the course, including different editions of the same title. In all, we purchased well over 227 texts.

RATING THE COURSES

We analyzed each course to assess the degree to which the five components of good reading instruction were taught (phonemic awareness, phonics, fluency, vocabulary, and comprehension).²⁵

Each course was rated on three factors:

1. The quality of the required **texts** for teaching the basic components of good reading instruction.
2. The course objective and **lecture** time devoted to teaching the five components.
3. Any kind of **assignment** that was given to students in which they would demonstrate their knowledge of reading instruction: writing assignments; tests, quizzes, or exams; and demonstrations or practice of a particular skill.

The scoring was quite basic. To pass, a course needed only to provide a cursory treatment of the science of reading. **Provided that the required readings were of good quality, it was possible for a course to pass even if it only devoted five of its 30 lectures to the five components.** See Appendix B for examples of the range of syllabi.

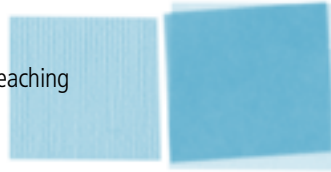
RATING THE SYLLABI

Each of the syllabi was reviewed and separately rated by two reviewers in a blind review process. The raters, trained and prepared by the project's reading experts, achieved a 95 percent reliability rating, with one of the study's three expert consultants in literacy breaking any ties. If a syllabus lacked sufficient detail to allow the researchers to make a reasonable judgment, the syllabus was rated as "unclear."

The reviewers looked for evidence that each of the five components of good reading instruction was the topic of 1) part of a lecture, 2) all of a single lecture, or 3) multiple lectures. Two lectures on a single component were sufficient to receive the maximum score. The reviewers also analyzed whether students in the class were expected to demonstrate their knowledge of good reading instruction by different kinds of assessments and assignments.

When considering the lectures, the reviewers did not speculate about the quality of instruction and if topics were taught appropriately. For example, a course that simply listed "phonics" as a lecture topic would receive

²⁵ As the framework for both the analysis of the syllabi and the reading texts, we used four syllabi that literacy expert Louisa Moats designed for Maryland. The syllabi serve as a guide to the four reading courses required of elementary teachers in that state. See <http://www.marylandpublicschools.org/NR/rdonlyres/2C7FFCC4-3F21-4B62-9406-11B06CDF2DB/7875/ReadingCourseRevisionGuidelines1.pdf>

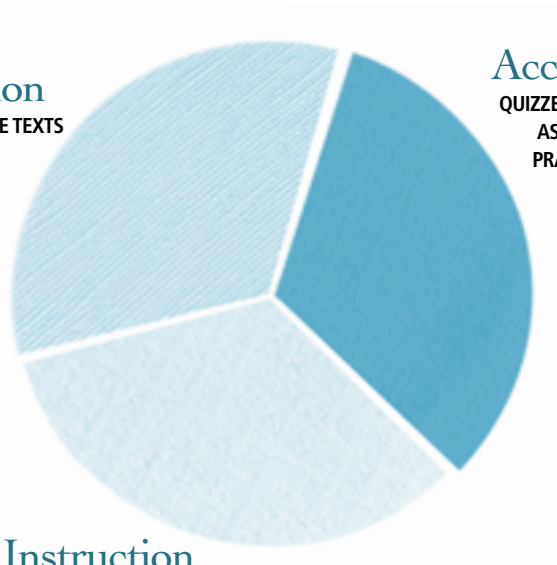


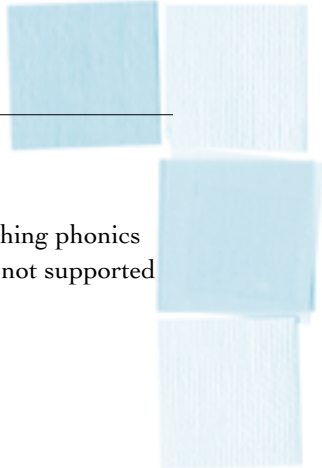
WEIGHING THE CONTENT OF A COURSE

Instruction
THE QUALITY OF THE TEXTS

Accountability
QUIZZES, TESTS, AND EXAMS;
ASSIGNMENTS AND
PRACTICE TEACHING

Instruction
THE TIME DEVOTED TO LECTURES





full credit even though the professor could easily have lectured on the advisability of teaching phonics only when children were having difficulty sounding out a word, an instructional practice not supported by the research.

The sampling and methodology are described in more detail in Appendix A.

RATING THE TEXTS

The evaluation of the texts was a separate process from the analysis of the syllabi, conducted by three literacy experts hired as consultants for this project.

How the Texts Were Rated

Rating	Explanation of the Rating
Acceptable core textbook	The text accurately and thoroughly covers all five components of good reading instruction.
Acceptable supplemental	The text accurately and completely covers one or more, but not all, of the five components of good reading instruction and is suitable as a supplemental reading for a course.
Not acceptable core textbook	The text was intended to be a comprehensive source on good reading instruction but was inaccurate and/or incomplete.
Not acceptable supplementary	The text was intended to cover some aspect of reading instruction but did not cover even one component of good reading instruction in an accurate and complete manner.
Not relevant	The text was not intended to teach teachers how to teach reading.

LOOKING AT THE WHOLE INSTITUTION

Most education schools required aspiring teachers to take more than one reading course. One of the major challenges of the study was to consider the complete package of reading courses offered at an institution, not passing or failing single courses. For example, a course might cover two of the five components of good reading instruction, while another course covers the remaining three. It is quite possible that an elementary education program might use the content of two, three, or four courses to deliver the full spectrum of good reading instruction. For that reason, the scoring methodology did not pass or fail a single course at an institution but combined all of the scores from all of the required reading courses at the same institution and took the highest score earned for each of the five components.

In spite of this accommodation, all of the institutions that passed had at least one course that proved to be comprehensive, teaching all five components of good reading instruction in that single course.

DISCUSSION

Because a study of this scope and depth has not been tried before, at least in the field of teacher preparation, we had few markers to guide us through the design and data collection process. Nevertheless, we were pleased to have met our initial goals regarding the sample size and the representation of a wide variety of institutions. We succeeded in capturing an example of every required course at each of the selected institutions, making it possible to accurately analyze the full program at each institution. Throughout, we adhered to an overarching principle of fairness, which some of the reviewers of our methodology felt at times was *too* generous—granting institutions too much benefit of the doubt. Nevertheless, given some of the inherent limitations of analyzing courses that we ourselves were unable to audit, we routinely erred on the side of caution, rating syllabi for the merest reference to the science, rating the most recent editions of books even when earlier editions were listed on the syllabus, and establishing many layers of redundancy in our review process to reduce errors.

Syllabi Retrieval

While we experienced little difficulty retrieving the syllabi for 80 percent of the institutions identified in our sample (those institutions classified as selective, more selective, and most selective), syllabi from the remaining 20 percent (institutions classified as “less” and “least” selective) proved more elusive. Many of these institutions had only basic websites, containing little information about the education school and rarely providing either the course requirements or syllabi that were needed. These institutions often did not have daily or even weekly student newspapers in which we could place advertisements for students to collect the necessary syllabi. Fliers posted on campus proved likewise to be an unproductive method. Given the problems that we encountered with this 20 percent, we expanded the list of initial randomly selected institutions, identifying additional schools in the “less” and “least” selective categories. However, we never eliminated institutions because they actively declined to participate, a problem which has tainted many studies dependent upon response rate. As it turned out, there was no difference in findings between the group of institutions which had easy access to syllabi and those that proved more difficult.

Student Accountability

While we feel confident that the methodology accurately captured the content of a course, we learned less about what teacher candidates had to know in order to pass the course. Measuring the specifics and the degree to which teacher candidates had to demonstrate their knowledge of the science of reading would have required access to tests and exams. For example, it is possible that final exams might reveal that a professor had higher expectations about students' learning of the core components of reading instruction than one would have guessed from the syllabi and texts. More often than not, we were reasonably certain that the texts defined the larger universe of knowledge about reading and that most professors expected students to know only some subset of that knowledge to do well on an exam or test.

Other Sources of Data

We also did not pursue a common methodology used in education research: student interviews or surveys. Interviewing students can be a good source of qualitative data, providing another way to learn more about the quality of a course and student attitudes about what they are learning. For the purposes of this study,

we could find no compelling reason to pursue this strategy. First, interview data has its shortcomings in that it only reveals a student's perception of a course, not what it is in actuality. These perceptions are largely dependent on a student's commitment to the subject, commitment which we could not measure. Second, these students presumably knew little of the science of reading and would not be able to reflect on what they did not learn. Put another way, they could not know what they were missing. The one piece of evidence we would have liked to see but could not was the final exam for each course. Gaining access to copies of exams would have meant that professors would be able to choose to participate in the study—or not. We were unwilling to make the trade-off of an unbiased, representative sample for a study that only had voluntary participation.

Scoring Rubric

Arriving at a fair system for rating the quality of an institution's reading instruction proved to be the most challenging part of the project. Many reading scholars argue that some literacy-related skills or issues—including oral language, assessment, and remediation—received too little emphasis in the National Reading Panel report and the later federal Reading First legislation. While recognizing the legitimacy of these concerns, we decided that the panel's recommendation that teachers be well versed in the five basic components of good reading instruction (phonemic awareness, systematic phonics, fluency, vocabulary expansion, and reading comprehension) would serve as a sufficient basis for this study. We resolved that the five components of reading instruction are necessary parts of a teacher's toolkit—even if not sufficient to fill the entire kit.

Texts

We identified two areas in which we might be misled about a text and its role in a course. First, we realized it was possible that a professor might assign a reading to serve as an example of different viewpoints—for example, as an illustration of the history of the reading wars. However, we felt it unlikely that a professor would ask students to purchase a costly textbook only for that purpose. For that reason, we gave more emphasis to the contents of a textbook than to the articles found in a course's reading packet. We also determined that it was unlikely a professor who wished to show both sides of the reading wars would have presented only one side of the debate. If all of the readings presented only one perspective, we felt it was reasonable to assume that it was the perspective that the professor wished to impart to his or her students.

A second potential pitfall of the text analysis was the possibility that professors were relying on lectures almost exclusively to deliver content, seldom referring to the material contained in the texts. For example, perhaps the education school required the professor to use certain assigned texts. We tried to anticipate that outcome by making it possible for a course to pass even if the texts were rated inadequate. Even if the texts were not rated highly, a course could still pass if there was evidence that the professor dedicated about one third of the lectures to the science of reading. Further, in many cases, we were aware when a professor did not rely much on a text by looking at the daily reading assignments. We also felt reasonably certain that it was just as often the case that a professor would choose to ignore texts of good quality as he or she would choose to ignore texts that did not support the science. There did not appear to be any bias that made one scenario more likely than the other.

3. GENERAL FINDINGS AND OBSERVATIONS

THIS SECTION DETAILS OUR MAJOR FINDINGS. THE SUBSEQUENT SECTION DESCRIBES WHAT WE LEARNED SPECIFICALLY ABOUT THE TEXTS THAT ASPIRING TEACHERS ARE REQUIRED TO READ FOR THE COURSES.

FINDING No. 1:

MOST EDUCATION SCHOOLS ARE NOT TEACHING THE SCIENCE OF READING.

To compute an institutional score, we assessed how much exposure the reading courses at an institution gave to teacher candidates in each of the five components of good reading instruction during the school year 2004-2005. Education schools that provided exposure to all five components received a score of 100 percent, with schools that taught only one out five components receiving a score of 20 percent. Schools that taught none of the five components received a zero. A group of eight schools failed but their total score could not be computed because some parts of their syllabi were unclear (see Appendix A).

Almost all of the 72 institutions in our sample earned a “failing” grade, even though a passing grade was possible if a professor devoted less than 20 percent of the lectures to the science of reading. Institutions could receive a passing score if course materials merely referenced each of the five components of good reading instruction—without our knowing for certain that the science was taught correctly or adequately.

Even after we set the bar for passing so low, only 11 out of 72 institutions (15 percent) were found to teach all the components of the science of reading. They are ranked by score:

1. Florida State University
2. University of Oklahoma
3. Texas A&M University
4. Rhode Island College—*but only courses designed for early childhood certification (grades K-2) and not elementary certification (grades 1-5)*
5. Clarion University of Pennsylvania
6. Loyola University of Chicago
7. University of Kentucky
8. Emporia State University, Kansas
9. Bethune Cookman College, Florida

10. Culver Stockton University, Missouri

11. University of North Carolina at Greensboro

Eight other institutions (11 percent) came close to meeting the basic standard, teaching at least four of the five components of good reading instruction. However, given the importance of integrating all five reading components, the absence of even one component suggests a lack of program coherence and genuine integration of the science.

A full third of the institutions make no reference to the science in any of their reading courses, even though many of these institutions require up to four reading courses.

To compute an institutional score, we assessed how much exposure the reading courses at an institution gave to teacher candidates in each of the five components of good reading instruction. Education schools that provided exposure to all five components received a score of 100 percent, with schools that taught only one out five components receiving a score of 20 percent. Schools that taught none of the five components received a zero. A group of eight schools failed but their total score could not be computed because some parts of their syllabi were insufficiently clear (see Appendix A.)

FINDING No. 2:

EVEN COURSES CLAIMING TO PROVIDE A "BALANCED" APPROACH IGNORE THE SCIENCE OF READING.

The notion of "balanced literacy," which many institutions claim to promote, was developed in the 1990s. This approach was an effort to retain the best practices of the whole language method (presumably preserving the important role of good literature) while injecting greater emphasis on decoding (phonemic awareness, phonics, and fluency). However, our analysis of courses revealed that this balance is rarely achieved.

We searched our sample for courses that might be described as teaching balanced literacy. Courses classified as "balanced" met the following criteria:

1. Syllabi which explicitly state that a balanced approach would be taken.
2. Syllabi which state that a "variety of approaches" would be taught but that no particular approach would be endorsed.
3. Syllabi which state that current, research-validated methods would be taught, but that no single approach would be endorsed.
4. Syllabi which state that there is "no right way."

We identified 93 courses in our sample of 223 courses that fit these criteria. Of these, only eight courses (9 percent) devoted lecture time to teaching the science of reading as an approach that aspiring teachers might need to know.

For example, despite claims presented by a large Midwestern university course that students "will read about, discuss and synthesize the best research-based instructional practices and strategies for creating a balanced,



EVIDENCE OF READING SCIENCE IN EDUCATION SCHOOLS?

THE NUMBERS LOCATED AFTER THE INSTITUTIONS INDICATE THEIR LOCATION ON THE MAP FOUND ON PAGE SIXTEEN.

100%

Passed, adequately treated all five of the components

Bethune Cookman College 13
 Clarion University of Pennsylvania 59
 Culver Stockton University 48
 Emporia State University 30
 Florida State University 11
 Loyola University of Chicago 18
 Rhode Island College* 62
 Texas A&M University 66
 University of Kentucky 34
 University of North Carolina, Greensboro 54
 University of Oklahoma 58

80%

Failed to treat adequately 1 of the 5 components

Buena Vista University 27
 College of Charleston 64
 Northern Illinois University 19
 Peru State College 49
 Southern Utah University 67
 University of Alabama 1
 University of Miami 8
 University of Wyoming 71

60%

Failed to treat adequately 2 of the 5 components

Bowie State University 39
 Kennesaw State University 15
 Mississippi State University 46
 Northern Michigan University 41
 Temple University 60

40%

Failed to treat adequately 3 of the 5 components

Ball State University 23
 Nyack College 53
 Oakland University 44
 Piedmont College 16
 Rochester College 40
 University of Florida 9
 University of Wisconsin, Milwaukee 70
 Washington State University 69

20%

Failed to treat adequately 4 of the 5 components

Eastern Kentucky University 35
 Indiana State University 24
 Morehead State University 37
 Northern Kentucky University 33
 Purdue University 26
 University of Central Florida 12
 University of Connecticut 7
 University of Kansas 32
 University of Northern Iowa 29

0%

Failed to treat adequately any of the 5 components

Adams State College 5
 Arkansas Tech University 3
 Bellarmine University 36
 Connecticut College 6
 Cornerstone University 43
 Drury University 47
 Eastern Illinois University 21
 Elizabeth City State University 57
 Fayetteville State University 55

Ferris State University 42
 Illinois State University 22
 Lander University 63
 Middlebury College 68
 San Diego State University 4
 Seton Hall University 51
 Shippensburg University 61
 Southern Illinois University, Carbondale 20
 University of Iowa 28
 University of Maine, Presque Isle 38
 University of Minnesota, Twin Cities 45
 University of Southern Indiana 25
 Valdosta State University 14

Also failed

The following schools failed but there were missing data in some components so that a point total could not be computed

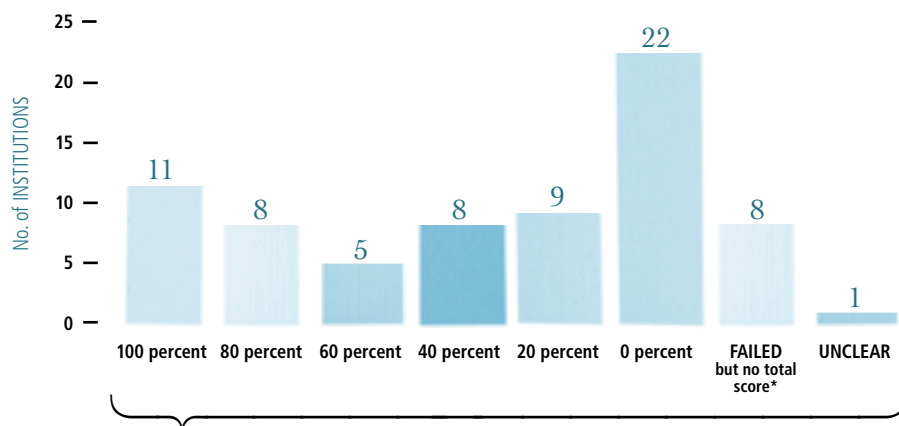
East Tennessee State University 65
 Ft. Hays State University 31
 Northern Arizona University 72
 Nova Southeastern University 10
 University of Nevada, Las Vegas 50
 University of North Carolina 56
 University of West Georgia 17
 Western New Mexico University 52

Unclear

Samford University 2

*At Rhode Island College, only early childhood teachers must take a course in the science of reading. None of the required coursework for elementary teacher certification (grades 1-5) teaches the science of reading.

HOW MUCH OF THE READING SCIENCE ARE EDUCATION SCHOOLS TEACHING?



EVIDENCE of SCIENCE
TOTAL No. of INSTITUTIONS in SAMPLE = 72

*These schools failed but a total score could not be computed.

literature-based literacy program for all children,” the professor devotes only one lecture to phonics and comprehension and none to phonemic awareness, fluency, or vocabulary instruction. In another example, an historically black college in the South gives a blueprint for learning in which it states “there are numerous structures which help the pre-service teacher to provide a balanced approach to learning to read...” Yet, the only component of the science of reading covered in this class is vocabulary; the remaining four are ignored.

These findings paint a discouraging picture. Almost all of the professors who say their intention is to provide a “balanced” approach never acknowledge that there is a science of reading.

FINDING No. 3:

CERTAIN INSTITUTIONAL CHARACTERISTICS SUCH AS NATIONAL ACCREDITATION DO NOT INCREASE THE LIKELIHOOD THAT SOME EDUCATION SCHOOLS ARE MORE LIKELY THAN OTHERS TO TEACH THE SCIENCE OF READING.

From the outset, it was our intention to compare institutions with differing profiles to see if certain institutional or program characteristics would make it more likely that the science of reading is taught. For example, are public institutions with their close ties to state education departments more likely to embrace the science? Are schools seeking national accreditation more likely?

The makeup of our study sample was sufficiently diverse that we could examine the following characteristics:

- Accreditation status of the education school by NCATE
- Number of teachers the institution graduates each year
- The admissions selectivity of the institution
- Public versus private institutions
- Percentage of minorities enrolled in the institution

Because so few institutions passed, it seemed unlikely that this disaggregated analysis would yield much information. Nevertheless, we still ran basic correlation tests to determine if institutional characteristics influence the quality of its education school's reading instruction.

National accreditation does not guarantee high quality reading instruction.

It seemed reasonable to expect that education schools accredited by NCATE would do better than schools that have not earned NCATE accreditation. Of the roughly 1,200 education schools in the country, approximately 650 are accredited by this national organization. These education schools have chosen to go through an exhaustive process to receive accreditation, indicative of a seriousness of purpose.

We compared the 13 non-NCATE accredited schools with 13 schools from within our sample that were generally similar in the number of teachers produced, selectivity of the institution, and residing in states with similar reading standards. This matched comparison yielded no significant differences.²⁴

²⁴ An independent sample t-test compared the 13 nonaccredited institutions with a similar group of accredited institutions and found no significant difference between nonaccredited (M = 3.46; SD = 2.09) and accredited (M = 3.46; SD = 2.09) and on the average score of each component $t(25) = -.969, p > .05$.

Other characteristics

On any of the remaining measures, none of our tests for correlation yielded any significant findings. The number of teachers an institution produced each year,²⁵ the level of an institution's selectivity,²⁶ its public/private status,²⁷ and its level of minority enrollment²⁸ make it no more or less likely that an institution will teach the science of reading.

FINDING No. 4:

PHONICS IS TAUGHT MORE FREQUENTLY THAN ANY OTHER COMPONENT OF READING INSTRUCTION, SUGGESTING THAT IDEOLOGICAL RESISTANCE TO THE "PHONICS CAMP" DOES NOT FULLY EXPLAIN WHY THE SCIENCE IS BEING IGNORED.

We also analyzed courses to determine which individual components of good reading instruction (phonemic awareness, phonics, fluency, vocabulary, and comprehension) were taught with the most regularity. Our findings were somewhat surprising, suggesting that some college professors may not be teaching the science of reading because they are ideologically opposed to the science, but because they may be reluctant to teach what they themselves do not know.

As evidence of that possibility, we found that the two "newest" components of good reading instruction—phonemic awareness and fluency—were broached in the fewest classes, just one in 20. In contrast, phonics, long the linchpin of reading, was taught much more frequently—in one out of seven classes—and slightly more often than comprehension, arguably the hallmark component for the whole language approach (see chart, page twenty-eight). However, it was clear from our review of both the texts and the more detailed lecture notes that phonics is often being taught the same way it was 20 and 30 years ago, despite the significant advances in the knowledge of phonics in the intervening years.

Nevertheless, phonics is still not taught in six out of seven courses. Ideological opposition to the science, not discomfort to new material, remains the preeminent explanation for why reading professors are not teaching the science of reading.

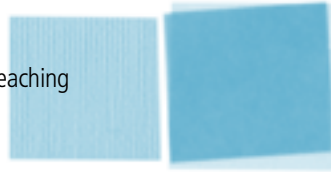
If the science is not being taught, what is?

If only 14 percent of education schools require courses that teach the basic components of good reading instruction, it begs the question what is being taught instead. To conduct a more comprehensive analysis than was practical for all the courses in our sample, we analyzed a smaller sample of 113 classes whose only purpose was to teach early reading—courses where you would certainly have expected to find evidence of

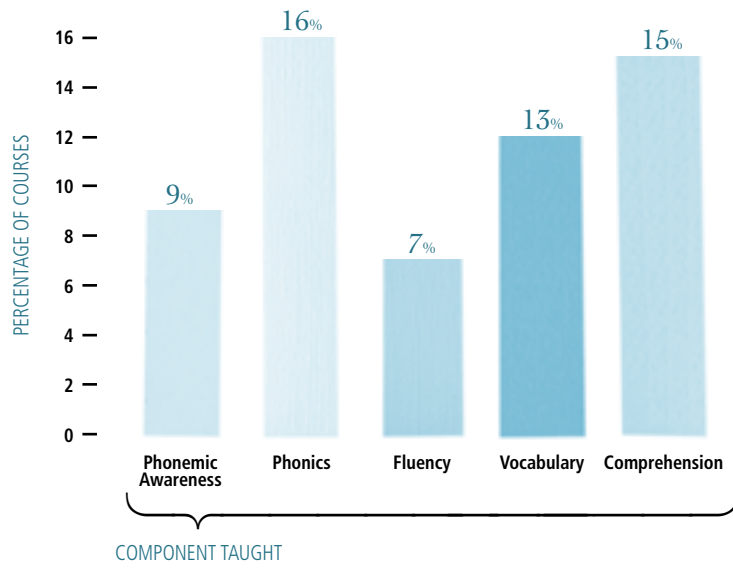
25 A one analysis of variance (ANOVA) tested for significant differences among the high, medium, and low producers of teachers on the average score for each component, finding no significant differences: $F(2, 64) = 3.04, p > .05$.

26 Using ANOVA, we grouped the five levels of institutional selectivity into three categories (most/more selective; selective; and less/least selective) to achieve enough institutions in each category and found no significant differences on the average score for each component: $F(2, 69) = .694, p > .05$.²⁷ Using an independent samples t-test, we compared the average score on each component for public versus private institutions. There was no significant difference between public ($M = 3.71, SD = 2.76$) and private on the average score of each component, $t(70) = -.674, p > .05$.

28 An independent samples t-test compared the average score on each component for low versus high minority enrollment, finding no significant difference between low ($M = 3.66, SD = 2.87$) and high ($M = 3.31, SD = 3.31$) on the average score of each component, $t(70) = .300, p > .05$.



WHAT SINGLE COMPONENT OF GOOD READING INSTRUCTION IS TAUGHT MOST FREQUENTLY?



sound reading instruction. We eliminated courses bearing titles like “Language Arts,” “Reading across the Content Area,” “Reading Assessment,” or “Remedial Reading.” We found a number of recurring themes, some of them troubling:

1. There is a general disdain for any truths science has to offer, fed by running skepticism.
2. There is a distrust of scholarly contributions to reading knowledge that come from other fields, particularly cognitive psychology and linguistics.
3. The coursework is undemanding, far too often juvenile in tone, content, and expectation.

These concerns are best illustrated with quotes from the syllabi and texts. We took great care not to single out an exceptionally egregious quote, but to select quotes that were representative of an entire syllabus or text.

FINDING No. 5:

MUCH OF CURRENT READING INSTRUCTION IS INCOMPATIBLE WITH SCIENCE.

The process of becoming a reader is described as a natural, organic process, despite the fact there is no evidence to support such a view.²⁹ Many courses indicate that exposing children to literature that speaks to their own experience will spark a natural development of reading skill; the right motivation is sufficient to build skill.

Children acquire the ability to read and write as a result of life experiences.

- Excerpt from required text reading. Lesley Morrow (2005) *Literacy Development in the Early Years: Helping Children Read and Write*.

New views of emerging literacy see children as an [sic] active participant in the interactive process of becoming readers and writers.... Literacy is “holistic” in nature and includes a child-centered environment that encourages active learning and quality children’s literature.

- A professor’s statement of belief for a course in a large public university in the South.

Teachers have confidence that children who have continuous, meaningful, and sensitively guided experiences with print will eventually become accomplished readers and writers.

- Excerpt from required text reading. Michael O’Donnell and Margo Wood (2004) *Becoming a Reader: A Developmental Approach to Reading Instruction*.

[You will] effectively utilize a diverse body of young children’s literature to promote literacy development....

- One of the course objectives for a course at a public Midwestern university.

²⁹ Unlike language, reading is not a skill that comes to human beings naturally. Because learning to *speak* develops naturally for most children, educators often make the false assumption that learning to read—a related language skill—will also develop naturally. Spoken languages have evolved over many, many thousands of years, whereas written language was only invented a few thousand years ago—moving from a pictographic system to our current alphabetic system. It has only been within the last few generations that societies with written language have sought to make literacy universal; some societies have still never created a written language. Our brains are hardwired to absorb oral language, however, reading remains a complex task that is most often learned through explicit instruction.

Try to ascertain meaning as efficiently as possible using minimal time and energy...literacy develops naturally in all children in our literate society.

—Excerpt from required text reading. Essay by Yetta Goodman (1987) *The Emergence of Literacy*.

Identify and implement children's literature in the teaching of phonics.

—An assignment for an early reading course (not children's literature) at a large southern public university.

These aspirations are totally unsupported by scientific evidence.

Direct instruction by a teacher is portrayed as outmoded—or worse, harmful to students. Aspiring teachers learn that good teachers create an environment of “collaborative processes,” where children discover the tools of reading themselves. This notion of child-centered discovery is reinforced by a pervasive ambiguity about the teacher's role. The teacher is commonly described as supporter, helper, encourager, facilitator, and collaborator without clear direction about how to actually teach children how to read. This fails to appreciate that direct instruction is one of the necessary features of daily instruction. Aspiring teachers are never asked to demonstrate their ability to teach this type of instruction.

The facilitator (teacher) will encourage the development of a learning climate that will enable the students to share the responsibility for the learning process and to learn from each other. When there is a basic trust in the capacity of the students to think and learn for themselves, they will develop their own experience from books, materials and community resources.

— A course objective for a university in the South with a high minority enrollment.

Knowledge is constructed by individual learners through social interaction; learning occurs within a collaborative community.

— A statement of belief from a professor at a mid-sized Midwestern public institution.

...Supportive classrooms allow children to design their own route to further knowledge about print; the role of the teacher is supportive assistant.

— Excerpt from a required text reading. Jeanne M. Machado (2003) *Early Childhood Experiences in Language Arts*.

FINDING No. 6:

TEACHER EDUCATORS PORTRAY THE SCIENCE OF READING INSTRUCTION AS AN APPROACH THAT IS NO MORE VALID THAN OTHERS.

How someone will teach reading is repeatedly cast as a personal decision to be decided by the aspiring teacher. All methods are presented as being equally valid and how one teaches reading is merely a decision of what works best for the individual teacher. These assertions contradict widespread, compelling evidence to the contrary.

While all teachers operate under various constraints, you will ultimately develop your own theories about how best to teach reading and writing.

— A goal for a course at a large western state university.

There is no one best way to assess and teach reading/writing instruction.

— A professor's statement of belief at a rural public college in the West.

Articulate your own philosophy of literacy and how people become literate.

— An assignment at a Midwestern public university.

While all teachers operate under various instructional constraints, you will ultimately develop your own theories about how best to teach reading and writing.

— A course objective from a large western public university.

[The student will] identify his/her own conceptual framework for reading and explain how it is reflected in the instructional practices he/she favors.

— An expected course outcome at a southern sectarian college.

[Teachers will] begin to shape and articulate their own theory and practice about the teaching/learning of all the language arts, and specifically reading and writing at the elementary school level.

— Course goal from a small eastern private college.

Students will explore a variety of philosophies related to early literacy learning and will be able to articulate and defend their own philosophy.

— Course goal for a course at a large university in Florida.

FINDING No. 7:

MANY COURSES REFLECT LOW EXPECTATIONS, WITH LITTLE EVIDENCE OF COLLEGE-LEVEL WORK.

Research papers that encourage or require aspiring teachers to present anyone else's perspective other than their own are a rarity. In a field that now has such a strong research basis, we were dismayed to find so few courses that require aspiring teachers to demonstrate their understanding of the scholarship and development of the field. We could find little evidence that aspiring teachers are expected to be able to look for and read research, separate the good from the bad, organize, synthesize, and criticize. In a randomly selected sub-sample of 75 syllabi, only eight courses (11 percent) required any sort of research paper.

Most writing assignments generally call for the students' own feelings and observations. The most common assignment is a "literacy memoir" which asks students to reflect on how they learned to read as a young child:

Construct an extended literacy autobiography in which you describe who you are as a literate person in the various contexts of your life and how you developed into that person. End the autobiography with your personal theory of literacy learning and teaching.

—An assignment at a large western state university.

Students in this course begin by exploring their own literacy development as a base for understanding how children become literate.

—An assignment at a mid-sized public college in New England.

This assignment allows students to explore their literacy backgrounds and/or experiences in order to reflect on how we were taught to read and write. Students will reflect on some significant literacy memory, write about that memory, taking the written reflection through the process writing sequence to publication.

—An assignment at a large Midwestern state university.

Teacher candidates will write a three-page essay reflecting on their literacy development.

—Essay required of students at a private, sectarian urban college.

Very little practical application of knowledge is evident. Students rarely have to demonstrate their knowledge through lesson plans that apply the tools of reading instruction in a classroom setting.

Entertainment is valued over rigor. Many of the professors place more emphasis on keeping their courses fun over learning. This approach results in activities where students rely on their own devices to teach literacy rather than on learning how to use well-tested, scientifically sound approaches.

Design and present a large poster which encourages/motivates children to read books. The poster should relate to a specific children's author or theme.

—An assignment for an early reading course (not children's literature) at a public institution in the East with high minority enrollment.

Aside from exams, the only requirements in a course at a public institution in the South asked students to do the following:

1. *Penpal with individual child for a total of five correspondences.* 2. *Bookmaking with an individual child.* 3. *Literacy Center for a small group of children.*

After reading the book, design an original cover for it. Construct reading comprehension questions. Make a commercial that convinces others to buy and read the book. Make a diorama of the book.

—An assignment at a public institution in the mid-Atlantic with a high minority enrollment.

Interview a parent with a child in grades K-8 regarding his/her beliefs about how children become literate and the most effective ways of supporting children's literacy development.

—An assignment at a public university in the West.

Each person will choose a book from the book choice list to discuss and share as part of a small group. Read that book and be prepared to discuss it during the class times allotted for book discussion. As a group, plan a way to share what you learned about literacy learning and teaching from that book. Some book sharing ideas include poster/murals, puppet shows or plays, reader's theater, role play, traditional book review, diorama or other 3-D method, or some other mode of expression.

—An assignment for an early reading course (not children's literature) at a large public university in the West.

4. WHAT IS BEING READ

OTHER THAN OBSERVING ALL OF THE LECTURES FOR EACH COURSE IN THE SAMPLE, THE REQUIRED TEXTS PROVIDE THE BEST INDICATION OF WHAT PROFESSORS ARE TEACHING AND WHAT ASPIRING ELEMENTARY TEACHERS ARE LEARNING. THESE TEXTS REFLECT WHAT PROFESSORS BELIEVE IS MOST IMPORTANT TO KNOW ABOUT READING INSTRUCTION. WHILE THE INTENTION OF THE COURSE SYLLABUS IS TO PROVIDE AN OUTLINE OF THE COURSE, THE TEXTS PROVIDE ESSENTIAL DETAIL. GENERALLY SPEAKING, THEY PROVIDE EVEN MORE DETAIL THAN WHAT STUDENTS ARE EXPECTED TO ULTIMATELY KNOW. RECOGNIZING THE CONSTRAINTS OF SYLLABI, WE FELT IT WAS CRITICAL TO REVIEW EACH OF THE REQUIRED READINGS FOR THE 223 COURSES IN OUR SAMPLE.

The results of our analysis of these texts were disheartening. The vast majority of what prospective teachers are required to read does not provide an accurate, complete, or sufficiently deep overview of good reading instruction. Despite the scientific advancements, it would appear that teachers leave preparation programs no more knowledgeable than previous generations of teachers.

RESULTS

FINDING NO. 8:

THE QUALITY OF ALMOST ALL THE READING TEXTS IS POOR. THEIR CONTENT INCLUDES LITTLE TO NO HARD SCIENCE AND IN FAR TOO MANY CASES THE CONTENT IS INACCURATE AND MISLEADING.

Courses required an average of 1.8 texts. Of the 227 books in the sample, literacy experts identified only four that would be acceptable as general textbooks for a reading course. These four acceptable texts were used in only eleven of 223 courses.

Over the past several years, new editions of many of the texts have been released, intended to accommodate some of the scientific findings. Nevertheless, these findings are oversimplified and often undermined by conflicting information. Despite the enormous advances in the field, recently written textbooks still commonly include references from the 1970s and earlier. The texts do not sufficiently explain practical applications that can help aspiring teachers to connect what they read with how to teach.

The Acceptable General Textbooks for a Reading Course

Author	Text	Year	Times Used
Thomas Gunning	<i>Creating Literacy Instruction for All Students</i>	2004	7
National Reading Panel	<i>Report of the National Reading Panel: Teaching Children to Read</i>	2000	1
Michael Graves et al.	<i>Teaching Reading in the 21st Century</i>	2004	2
William Honig, L. Diamond, L.Gutlon and J. Mahler	<i>Teaching Reading Sourcebook</i>	2000	1

Another 50 texts were considered suitable for teaching one or more components of the science of reading. For example, the book *Self-Paced Phonics: A Text for Education* by G. Thomas Baer was rated as suitable for teaching phonics instruction. *Teaching through Text, Reading and Writing in the Content Areas* by Michael McKenna and Richard Robinson was rated acceptable for teaching two components: vocabulary and comprehension. J. David Cooper and Nancy D. Kiger's *Helping Children Construct Meaning* was found acceptable for phonemic awareness, phonics, and comprehension.

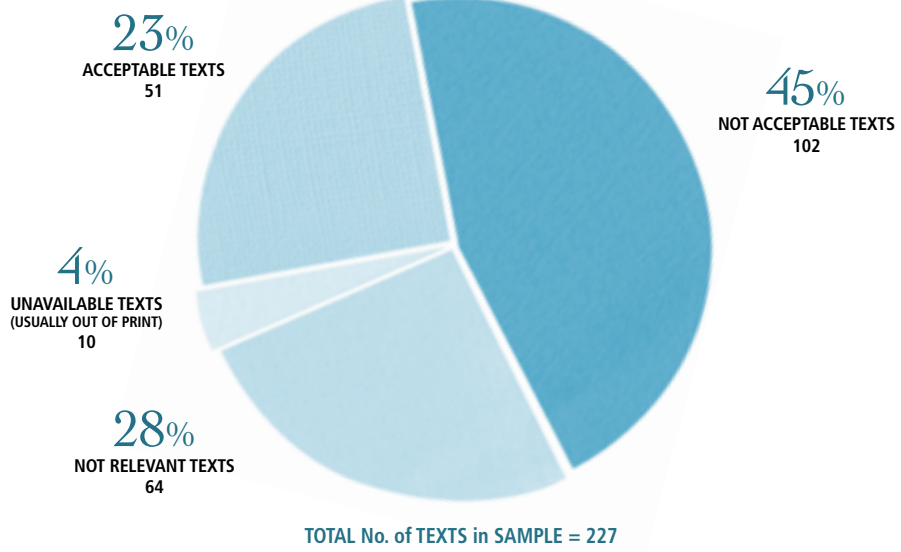
Most of the remaining books (102) were rated as unacceptable for either omitting the science entirely or conveying it inadequately or inaccurately. In fact, many of these books were openly derisive of the science of reading.

Some additional texts were classified as "not relevant" because they were not designed for teaching any aspect of reading instruction. A "not relevant" rating is not meant to connote inferior quality. Though these texts were irrelevant to teaching *reading*, they may have dealt quite appropriately with ancillary topics such as language arts, study skills, and understanding test scores.

The Top Most Frequently Read Texts

Text	Author	Rating	Times Used
<i>Literacy for the 21st Century</i>	Tompkins	Not acceptable	29
<i>Words Their Way</i>	Bear, Invernizzi, Johnston, and Templeton	Acceptable for teaching phonics and vocabulary	16
<i>Reading and Learning to Read</i>	Gove, Vacca and Vacca	Not acceptable	13
<i>Language Arts: Content and Teaching Strategies</i>	Tompkins	Not acceptable	10
<i>Guided Reading: Good First Teaching for All Children</i>	Fountas and Pinnell	Not acceptable	7
<i>Creating Literacy Instruction for All Students</i>	Gunning	Acceptable core textbook	6

THE RATINGS FOR TEXTS



<i>Flynt-Cooter Reading Inventory for the Classroom</i>	Flynt and Cooter	Not acceptable	6
<i>Literacy Development in the Early Years</i>	Morrow	Not acceptable	6
<i>Literacy's Beginnings: Supporting Young Readers and Writers</i>	McGee and Richgels	Not acceptable	6
<i>Phonics They Use: Words for Reading and Writing</i>	Cunningham	Not acceptable	6
<i>50 Literacy Strategies: Step by Step</i>	Tompkins	Acceptable for teaching phonics, fluency, and comprehension	5
<i>Self-Paced Phonics: A Text for Education</i>	Baer, T.	Acceptable for teaching phonics	5

FINDING NO. 9:

THERE IS NO AGREEMENT IN THE FIELD FOR WHAT CONSTITUTES "SEMINAL" TEXTS.

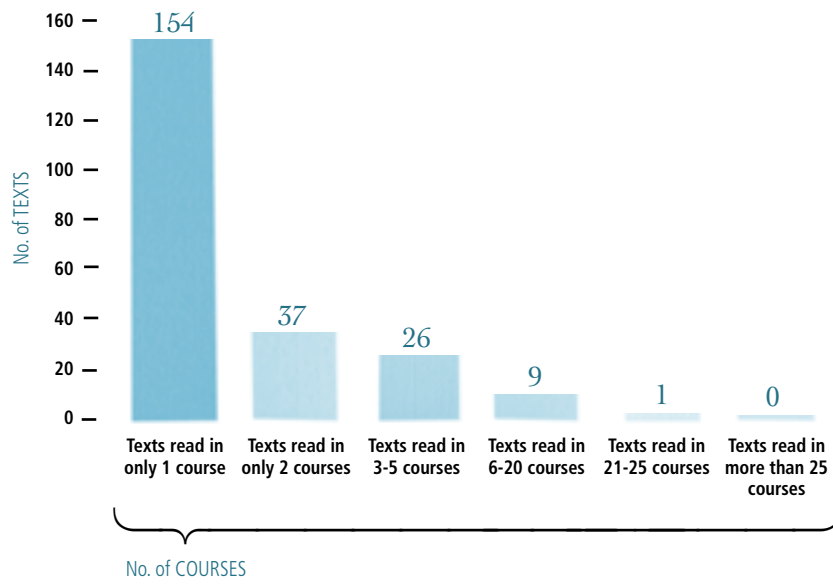
No single text, no matter what its approach to reading instruction, was assigned in more than a handful of courses. Teacher educators clearly have not reached any sort of consensus about a single scholar or text that serves as essential reading in the field. In truth, the field is a free-for-all.

Other fields generally agree upon a few scholars or texts that every student of the field should read in introductory courses. For example, sociology students all read Max Weber, medical students refer to *Gray's Anatomy*, and economics majors read John Maynard Keynes and Adam Smith. No such author or core text exists in the reading instruction in schools of education.

The field of reading does not lack scholars or texts that could serve as the seminal readings for an introductory course. For example, **Betty Hart** and **Todd Risley's** short, accessible, and groundbreaking work *Meaningful Differences*, which compares the language development of young children raised in poverty with their more affluent peers, should be essential reading in any course dealing with early literacy skills. Only one school, the University of Wyoming, required the book. Other essential, generally accessible books were absent. Not a single course required any of the works by **Jeanne Chall**, perhaps the best-known scholar in the field, who has written an excellent series of short, accessible books that she edited and which were intended for teachers.⁵⁰ The University of Florida was the only school that required works by **Louisa Moats** to be read, despite her focus on creating books targeted to teachers, not just to other scholars. **William Nagy**, an expert on vocabulary, was never read. **Keith Stanovich**, perhaps too scholarly for an introductory course on reading, but indisputably one of the field's most respected academics, was never read. Despite the fact that **Marilyn Adams'** work has been refashioned for undergraduate level reading, it too

50 From *reading research to practice* (1998) Jeanne Chall, Editor, Brookline, MA: Brookline Books. http://www.reading.org/resources/issues/reports/professional_standards.html, retrieved March 21, 2006.

A CHAOTIC FIELD: EVERY CLASS READS SOMETHING DIFFERENT



was found in only one reading packet at Indiana State University. **Isabel Beck**, although quite accessible and teacher-friendly like Louisa Moats, was not read. For a complete list of authors and the number of courses in which they were included as required reading, see Appendix C.

Only a tiny fraction of authors was read in more than a single class. The only author read with any regularity was Gail Tompkins, whose five books were widely used in 47 classes.

Only one of the 12 most widely read books (read in at least five classes), *Creating Literacy Instruction for All Students*, was rated as a suitable comprehensive textbook. Three of the 12 were suitable for some components of good reading instruction. Given that the average number of books required was only slightly more than one text for each of the 223 courses, most professors are not requiring enough supplementary books to indicate comprehensive coverage of all topics. In other words, courses would have to include *at least* two books to offer any assurance that all five components of reading were being taught.

The Most Frequently Read Authors

Author and affiliation	No. of courses author is required
Gail E. Tompkins, <i>Professor of Education, California State University, Fresno</i>	47
Robert B. Cooter, Jr., <i>Professor of Education, University of Memphis</i>	17
Marcia Invernizzi, <i>Professor of Education, University of Virginia</i>	17
JoAnne Vacca, <i>Emerita Professor of Education, Kent State University</i>	16
Richard Vacca, <i>Professor of Education, Kent State University</i>	16
Donald Bear, <i>Professor of Education, University of Nevada, Reno</i>	16
Shane Templeton, <i>Professor of Education, University of Nevada, Reno</i>	16
Francine Johnston, <i>Professor of Education, University of North Carolina, Greensboro</i>	16
Patricia M. Cunningham, <i>Professor of Education, Wake Forest University</i>	14
Mary Gove, <i>Retired teacher, Cleveland Public Schools</i>	14

Reviews for the Most Frequently Read Texts

Many of the authors have attempted to update the content from the original editions of their texts to reflect the newer scientific findings in reading. However, in spite of these attempts, the revisions generally do little more than skim the surface, typically appending existing paragraphs to provide a few perfunctory examples of good reading instruction while leaving older, outdated information still untouched. In a careful review of the most frequently used texts, we identified many common and troubling mistakes and misrepresentations of the reading process.

1. The Science Is Misrepresented

We discovered a common practice of authors redefining standard definitions of terms used in the science of reading to accommodate their own ideological frameworks about reading. These unique (and wrong) definitions will no doubt end up confusing teachers who enter the classroom and come face to face with the realities of how best to teach struggling readers. For example:

- Many texts correctly note the importance of *explicit* and *systematic* teaching, but then redefine what such teaching entails. Texts tell future teachers that it is possible to provide explicit instruction in phonics while still acting as a coach, not instructor. For example, “Explicit phonics instruction is best delivered in the coaching style.”⁵¹ *Systematic*, defined by science as phonics instruction within which “all of the major letter-sound correspondences are taught and are covered in a clearly defined sequence,”⁵² is redefined as a “balance between instruction geared toward helping children develop conventional literacy concepts and activities in which children are allowed and encouraged to explore literacy on their own terms.”⁵³
- Authors show poor understanding of the most basic concepts. In this example, a frequently read author shows her misunderstanding of a grapheme, stating that it is synonymous with a letter.⁵⁴ In fact, graphemes can be single letters (a, t, k, e, or n) but they are also clusters of letters that represent single sounds (th, sh, oo, ough, or ck). She also wrongly asserts that “[t]here is not a one-to-one correspondence between graphemes and sounds.”⁵⁵
- Authors show little understanding of the neurological basis for reading. For example, a text tells future teachers that the brain processes *phonemes* and *phonics* in the same way, using one language system, even though studies of the brain have shown that each is received by two separate processing systems in the brain.⁵⁶ Why do teachers need to know how the brain works? Knowledge of this processing system would inform and direct the teacher to isolate these separate skills and make better instructional decisions.
- Impromptu teaching is continually endorsed as exemplar and as the most desirable way to teach critical word analysis or phonics skills. Future teachers are told to teach the structure of written language *only when the need arises*, leaving a lot of decision-making up to new teachers who have been given no skills to assess such need.⁵⁷

Each of these examples misleads the future teacher by misrepresenting scientific research while *appearing* to acknowledge the research.

51 *Literacy Beginnings: Supporting Young Readers and Writers* (2000 & 2004) by Lea M. McGee & Donald J. Richgels. Page 273, 2004 edition.

52 Ehri, L.C., (2004). Teaching phonemic awareness and phonics. In (McCardle, P. & Chhabra, V., eds.) *The Voice of Evidence in Reading Research*. Baltimore: Paul H. Brookes Publishing Co. Page 167.

53 *Literacy Beginnings* (2004). Page 185.

54 *Literacy for the 21st Century* (2003). Page 143.

55 *Ibid.* Page 150.

56 *Language Arts: Content and Teaching Strategies* (2002) by Gail E. Tompkins. Page 10.

57 *Literacy Development in the Early Years: Helping Children Learn to Read and Write* (2005) by Lesley Mandel Morrow. Page 146.

2. Authors Hold onto Practices That Have Been Disproved

Over the past 50 years, the field of education has largely resided in a world separate from science, allowing many learning theories to grow and thrive. Many of these theories have held great appeal to educators, spreading easily because they *sounded* good. Position statements released by prominent professional organizations helped to sustain and indeed promulgate these theories, lending them considerable credibility. Even though the field has now sufficiently matured to rely on a research base over what some might think sounds right, many of the texts reviewed for this study continue to espouse romantic—but wrong—ideas about how children best learn to read. For example:

- Future teachers learn to teach children to read words by considering the context to guess any unfamiliar words.³⁸ While context does play a role in word recognition, it does not play the primary role hypothesized in the 1970s. Poor readers rely too heavily on text when they do not have adequate decoding skills and only one in 10 words can be predicted accurately from guessing on the basis of content. Encouraging children to guess words means they are not able to focus on comprehending text.³⁹
- Future teachers learn that students do not need to know how to read every word: “A selection can be read and understood without reading every word.”⁴⁰
- Despite a definitive finding in the 2000 National Reading Panel Report to the contrary, having children engage in sustained silent reading during class time is endorsed as a method for improving reading fluency.⁴¹
- Future teachers learn that children who have a hard time grasping essential components will be able to find some other (albeit mysterious) road to reading success. “A child who is weak in auditory discrimination is not likely to master phonics and is best taught to his or her strength rather than to a weakness.”⁴²
- Future teachers learn that it is not a problem if they want to skip the more difficult work involved in learning how to read. For example, students don’t need to be taught the less transparent vowel sounds formally and that the children will “form their own generalizations about vowel sounds.”⁴³
- Systematic teaching is not so necessary after all. “Letting children experiment early...may eliminate the need for isolated phonics later.”⁴⁴ Teaching young students to become *experimenters* with literacy is a more desirable method than explicit phonics instruction.⁴⁵

38 Gove, M., Vacca, J. and Vacca, R., *Reading and Learning to Read*; Cunningham, P. (2005) *Phonics They Use* (2005); Morrow, Lesley M. (2005) *Literacy Development in the Early Years: Helping Children Learn to Read and Write*.

39 Adams, M.J., Treiman, R. & Pressley, M. (1998). Reading, writing, and literacy. In (Sigel & Renninger, eds) *Handbook of Child Psychology, Fifth Edition, Vol. 4: Child Psychology in Practice*. New York: Wiley.

40 *Reading and Learning to Read*, (2005). Page 200.

41 *Ibid.* Page 232.

42 *Literacy Development in the Early Years: Helping Children Learn to Read and Write* (2005). Page 146.

43 *Reading and Learning to Read*, (2005). Page 180.

44 *Literacy Beginnings: Supporting Young Readers and Writers* (2004). Page 138.

45 *Ibid.* Pages 83-107.

- Future teachers learn that “[i]t is preferable that teachers plan their phonics programs themselves” using trade books as a basis to guide the planning,⁴⁶ leaving the staggering responsibility of choosing phonics components, planning lessons, and assessing outcomes to teachers who are not only new and inexperienced but who have never even been exposed to the principles of good reading instruction.

All of these instructions to future teachers continue to ignore the well-documented need to attend to the development of basic underlying skills in *all* children, to ensure that all children can demonstrate such skills with speed and without effort, and, simply, that most of the time devoted to language arts in kindergarten and the first grade must be spent on word analysis skills.⁴⁷

3. Future Teachers Do Not Learn How To Assess Children’s Reading Difficulties

One of the most critical jobs of a teacher in the early grades is to identify and assess students who are having trouble and will be at risk for reading failure. For most of these children, reading failure can be avoided, provided they receive the right sort of intense instruction, early enough, to bring them up to speed. Fortunately, valid and reliable assessment procedures are available that can predict students’ future reading achievement and identify students who are on track and those who are at risk. Yet few of the reading texts we reviewed ever recommend these assessments. We repeatedly found texts recommending assessments which are simply inadequate and which are neither valid nor reliable. For example, overwhelmingly, texts continue to promote a type of assessment called the “three-cueing system” as a dependable process for assessing and teaching reading even though this assessment has not stood up to scientific scrutiny.

Many of the reviewed texts present many practical and well-grounded strategies to promote literacy and build a love of reading. Far too often, however, they advocate the perilous game of waiting until students *appear* ready to begin reading before teaching the relevant, necessary, and critical reading skills. This risky approach reveals a deep misunderstanding or ignorance of recent research, research that has clearly identified which skills predict future success. Most importantly perhaps, these texts do little to help future teachers reduce the large numbers of children each year who could have learned how to read—given the right intervention early enough in their lives—but do not.

What Makes Some Books Acceptable?

Three of the most frequently read texts were rated as acceptable and provide good models for the content that should be found in all texts that teach reading.

Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction (2000, 2004) by Donald R. Bear, Marcia Invernizzi, Shane Templeton, and Francine Johnston. This is a supplemental text that provides in-depth exploration of written language from a scientifically informed foundation. It explains to teachers *how* students develop the orthographic abilities that enable them to read and spell. Additionally then, to strengthen the implementation of this knowledge, the text provides instructional activities, develop-

⁴⁶ *Literacy for the 21st Century* (2003). Page 158.

⁴⁷ Foorman, B.R. and Schatschneider, C. (2003). Measuring teaching practice during reading/language arts instruction and its relation to student achievement. In S.Vaughn (Ed.), *Reading in the Classroom: Systems for Observing Teaching and Learning*. Baltimore: Paul Brookes Publishing.

mentally designed word lists, and skills sequences so that teachers do not need to invent any of the teaching resources or processes. The most current edition provides teachers with word lists grouped by phonic and morpheme elements to support the systematic and explicit nature of the instructional process.

Self-Paced Phonics (2003) by G. Thomas Baer. This text was prepared to provide in-depth exploration and knowledge of the written language system. Readers learn correctly defined terms and build an understanding of how the sounds of English map onto graphemes to strengthen their teaching of phonics. Well-grounded tips and teaching methodology are included.

Creating Literacy: Instruction For All Students (2005) by Thomas G. Gunning. The content is organized around the five components isolated by the National Reading Panel: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The text explains what scientifically based research is and its importance to practitioners in the field of reading. The author includes the four-part processor system validated by fMRI (functional magnetic resonance imaging) and other brain-scanning research: orthographic, phonological, meaning, and context as a basis for assessment and teaching young children how to read. Systematic, explicit instruction is defined according to the definitions used by researchers. Phoneme awareness is appropriately addressed and given deep attention including the articulation features of speech sounds. Scientific studies are regularly referenced with brief abstracts provided to give the reader additional information to support the claims made. The author consistently addresses the needs of struggling readers.



5. RECOMMENDATIONS

GIVEN THE STRENGTH OF THE SCIENTIFIC RESEARCH FOR READING INSTRUCTION, THERE IS GENUINE CAUSE FOR CONCERN THAT ONLY ONE IN SEVEN EDUCATION SCHOOLS APPEAR TO BE TEACHING ELEMENTARY TEACHER CANDIDATES THE SCIENCE OF READING. PERHAPS IN 20 YEARS, WITH SOME PERSPECTIVE, WE WILL NOT BE SURPRISED TO FIND THAT IT TOOK SEVERAL DECADES FOR THE SCIENCE OF READING TO BE ABSORBED INTO MAINSTREAM THINKING AND PRACTICE. BUT THAT KIND OF LONG-TERM, DETACHED PERSPECTIVE WILL MEAN THAT ANOTHER GENERATION WILL HAVE BEEN DEPRIVED OF THE BENEFITS OF THE SCIENCE.

Fortunately, there are practical remedies, none of which is excessively complicated or costly. The response falls to no single group but includes states, membership organizations such as NCATE and AACTE, the federal government, textbook publishers, and education schools themselves.

STATES

STATES NEED TO DEVELOP BOTH STRONG READING STANDARDS AND LICENSING TESTS BASED ON THOSE STANDARDS. IF NEW TEACHERS WERE REQUIRED TO PASS A STAND-ALONE TEST IN READING INSTRUCTION AS A CONDITION OF LICENSURE, SCHOOL DISTRICTS COULD HIRE NEW TEACHERS WHO ALREADY POSSESS THE FUNDAMENTAL KNOWLEDGE OF GOOD READING INSTRUCTION. EDUCATION SCHOOLS THAT FACE STRONG INTERNAL RESISTANCE FOR TEACHING THE SCIENCE OF READING INSTRUCTION MAY BE ABLE TO OVERCOME SUCH CHALLENGES IF THEIR TEACHER CANDIDATES MUST PASS A TEST OF READING SCIENCE BEFORE THEY CAN RECEIVE A TEACHING LICENSE.

About 20 percent of all states still have no requirement ensuring that new teachers know the science of reading instruction, whether in a licensing test, reading standard or undergraduate coursework. Most states take two approaches to delineating their expectations for teacher preparation to education schools: 1) stating what coursework they must require; and 2) articulating a set of “teaching standards” but not telling education schools how to achieve those standards.

Both of these approaches get it only partly right. Coursework requirements alone, absent a set of standards and test, lets the education schools decide what should be taught. Standards, absent a test, provide no assurance that the education schools are teaching to the standards. A stand-alone test is the only practical way to ensure that the state’s expectations are met.

Only a handful of states currently require a stand-alone test that assesses a teacher’s knowledge of the reading science.⁴⁸ In particular, the tests in Massachusetts and Virginia stand out for their focus on the science of reading. Oddly, Tennessee requires a reading test, but has not set a score needed to pass the test, meaning that all teachers pass regardless of performance. Most states, if they test for reading instruction at all,

⁴⁸ California-Reading Instruction Competence Assessment (RICA); Idaho-Comprehensive Literacy Course; Massachusetts-Foundations of Reading; Virginia-Virginia Reading Assessment; Indiana-Praxis II Reading Specialist 0300; and Tennessee-Praxis II, Reading across the Curriculum 0201.

incorporate reading into tests of broad pedagogical knowledge. They do not include enough questions pertaining to the science to verify that teachers know the science. Further, some commercially available tests do not interpret the scientific findings accurately.

Maryland and Florida stand out as an example of two states that insist that their education schools incorporate the science of reading, but neither state requires a stand-alone test to make sure that schools live up to the expectations of the state. Both these states require teacher candidates to complete a minimum of 12 credit hours in reading instruction that focus on the science of reading. Still, both states had education schools in our sample that failed. In Florida, two institutions passed in our study, but four did not. The single Maryland institution (Bowie State) did not pass.

Allowing education schools to continue to reject the reading science despite their many reading coursework requirements in reading (up to four courses for many programs) would appear to be encouraging poor use of both taxpayer and tuition dollars that routinely feed into institutions. More importantly, it is a disservice to students in need of skilled teachers.

MEMBERSHIP ORGANIZATIONS

EDUCATION SCHOOLS THAT DO NOT TEACH THE SCIENCE OF READING SHOULD NOT BE ELIGIBLE FOR ACCREDITATION.

Accrediting agencies, including the National Council for Accreditation of Teacher Education (NCATE), the Teacher Education Accreditation Council (TEAC), and various regional accrediting bodies should serve as messengers for reform. To its credit, NCATE has signaled some willingness to take on the role of messenger through its key role in the *Reading First Teacher Education Network*, an effort funded by the U.S. Department of Education to retool a group of education schools preparing teachers for high minority schools.

However laudable these sorts of initiatives, accrediting agencies need to place as much emphasis on the quality of reading instruction as they currently place on other program practices when considering accreditation. This study clearly demonstrates that institutions accredited by NCATE are no more likely to teach the science of reading than institutions not accredited by NCATE. Perhaps that finding is not so surprising given that NCATE defers instead to other professional associations to vouch for the content that a program delivers. On reading, it looks to the Association for Childhood Education International (ACEI) for elementary education programs (the field in which most elementary classroom teachers are certified) and the International Reading Association (IRA) for reading specialty programs. Yet ACEI's standard related to English Language Arts makes no mention of the need for teachers to deliver explicit, sequential, and systematic instruction in reading, instead emphasizing a balanced reading program: "Candidates teach children to read with a balanced instructional program that includes an emphasis on use of letter/sound relationships (phonics), context (semantic and syntactic), and text that has meaning for students."⁴⁹ With this study's finding that only 9 percent of reading courses calling themselves "balanced literacy" courses actually are in fact "balanced," these continued calls for balanced programs are met deservedly with skepticism.

⁴⁹ NCATE (2002) *Professional Standards for the Accreditation of Schools, Colleges, and Departments of Education, The Standard of Excellence in Teacher Preparation for the 2002 edition*. Washington, D.C.: NCATE, p. 1.

The International Reading Association, in its *Standards for Reading Professionals*, has shown more responsiveness to the science than ACEI. The IRA expects reading professionals to “demonstrate knowledge of the basic components of reading (phonemic awareness, word identification and phonics, vocabulary and background knowledge, fluency, comprehension strategies and motivation) and how they are integrated in fluent reading.”⁵⁰ However, despite the considerable progress the IRA has made towards embracing the science after having been a champion for whole language, it still does not encourage the explicit, systematic instruction that is so central to reading.

AACTE NEEDS TO BE AN ACTIVE CHAMPION FOR THE SCIENCE OF READING, PROVIDING PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR TEACHER EDUCATORS TO RETOOL THEIR SKILLS.

The American Association of Colleges of Teacher Education (AACTE) is the association that speaks on behalf of most of the education schools in the country. Not surprisingly, given the findings of this study, its acceptance of reading science can best be characterized as tepid and qualified. It no longer rejects the science wholesale, which is an indication of some progress. In a 2002 brief that lays out the views of the AACTE on reading, the AACTE asserts that it is not only possible but appropriate to fold the scientific findings into current practices, asserting that somehow these two quite divergent approaches are mutually compatible.⁵¹ Support for this congenial but errant approach is derived from a host of reading studies cited in the brief, all of which bear the common distinction of not having met the standards needed for inclusion in the National Reading Panel review of reading research.

AACTE can and should shift from its somewhat passive role in which it does little to dissuade its members from turning their backs on the science to role of educator and champion for adopting the science of reading.

THE FEDERAL GOVERNMENT

- ELEMENTARY TEACHERS SHOULD BE REQUIRED TO PASS A TEST IN READING TO ACHIEVE “HIGHLY QUALIFIED TEACHER” STATUS.

Given some states' leisurely responses to reform of their own approaches to reading, the next reauthorization of No Child Left Behind (anticipated in 2007-08) should require states to include a test of reading knowledge among the tests that are now required of all new elementary teachers. Currently under No Child Left Behind, new elementary teachers must take a test of broad subject matter knowledge that does not include a test of reading instruction, despite the fact that no knowledge or skill is more important in an elementary teacher than expertise in reading. States' reliance on the current commercially available tests to fulfill this function is insufficient. There is no evidence to support the relationship of the widely used commercial tests with classroom effectiveness. Moreover, there are so few questions on these elementary tests assessing teacher knowledge of the science of reading that they are generally of little value.

⁵⁰ <http://www.ncate.org/ProgramStandards/ACEI/ACEIstandards.doc>

⁵¹ International Reading Association, *Standards for Reading Professionals—Revised 2005*, Washington, D.C.: International Reading Association, 2004. http://www.reading.org/resources/issues/reports/professional_standards.html, retrieved March 21, 2006.

- EDUCATION SCHOOLS SHOULD BE ELIGIBLE TO RECEIVE TITLE II PROFESSIONAL DEVELOPMENT FUNDS TO IMPROVE FACULTY EXPERTISE IN READING.

The federal government currently allocates roughly \$3 billion per year through Title II to provide teachers with professional development to meet the goals of No Child Left Behind. Federal funds could be wisely directed to allow teacher educators to update their knowledge and skills in reading.

TEXTBOOK PUBLISHERS

PUBLISHERS NEED TO IDENTIFY LEGITIMATE EXPERTS IN THE FIELD TO DEVELOP AND AUTHOR BETTER READING TEXTBOOKS.

Reading courses are dependent upon the ready availability of good texts that provide accurate and comprehensive material. Publishers need to identify good authors and content experts in the field who are sufficiently knowledgeable of the science to develop comprehensive textbooks.

Many of the texts that we reviewed have some things right. All professionals in education will agree that sensitivity to young children's needs, their developmental process, motivational factors in the environment, and relationships with teachers and print are critical. But missing from this humane position is validation of scientifically proven practice and verified methods that will teach greater numbers of students to read. Fully representing the science of reading is perhaps the most humane position for educators to take. New textbooks are desperately needed that embody the well-proven principles of literacy development, explain why some children have difficulty, and lay out the instructional practices that science has found most effective.

EDUCATION SCHOOLS

EDUCATION SCHOOLS NEED TO BUILD FACULTY EXPERTISE IN READING.

Education schools need to acknowledge that they may not have the expertise available to deliver coursework that provides a strong grounding in the science of reading. They may need to both hire new faculty members and provide current teacher educators with professional development that retools teacher educators across the nation.

Instead of holding education schools responsible for altering instruction, school districts and policymakers have focused their resources on training teachers in reading via professional development. The federal Reading First program is targeted exclusively at professional development and classroom assistance. Yet college is where future teachers establish an identity connected to the professional requirements of their vocation—an identity that should include a deep knowledge from a scientific base of research that will continually inform their instruction. Teacher educators are responsible for forming this identity.

As opportunities arise for hiring new faculty in reading-related fields, education schools need to make



reading expertise a priority. Candidates with clearly demonstrated knowledge of the science of reading should be given hiring priority. Only by bringing on new faculty members who are well versed in sound reading instruction and by providing substantive professional development to current faculty members can institutions hope to improve reading instruction for future teachers.

Outside regulatory efforts should prompt institutions to make some of these changes. However, a sense of integrity and commitment to sound instruction, as well as the well-being and ultimate success of all children, should likewise inspire these improvements. If education schools want to be respected for the same professionalism and rigor as medicine and law, they need to adopt the same rigorous research-based standards, something that *is* possible in the field of reading. The research exists. At this point, it is simply a matter of schools adopting this research and accepting a canon of knowledge.

6. CONCLUSION

THIS STUDY DID UNEARTH SOME, THOUGH NOT MANY, GOOD MODELS OF READING COURSEWORK. BECAUSE OF THE EFFORTS OF THESE PARTICULAR INSTITUTIONS AND OTHERS LIKE THEM, THERE WILL BE NEW TEACHERS WHO WILL TAKE CHARGE OF THEIR CLASSROOMS FIRM IN THEIR BASIC KNOWLEDGE OF READING INSTRUCTION. THESE TEACHERS WILL GRADUATE FROM PUBLIC AND PRIVATE INSTITUTIONS, RELIGIOUS AND NONRELIGIOUS, LARGE AND SMALL, MOST TO LEAST SELECTIVE. NO DOUBT, THESE INSTITUTIONS HAVE HAD TO OVERCOME THE SAME OBSTACLES THAT STILL PREVENT OTHER INSTITUTIONS FROM EMBRACING THE SCIENCE OF READING. WHILE THE QUALITY OF THEIR READING COURSEWORK AND THE PROFESSORS' DEDICATION TO THE SCIENCE OF READING SURELY VARIES, THESE INSTITUTIONS ARE ALL NOTABLE FOR THE COMMON TOPICS THEY DISCUSS, THE TEXTS THAT THEY REFERENCE, AND THE ASSIGNMENTS ASKED OF STUDENTS. THEIR SYLLABI ARE UNAMBIGUOUS, ORGANIZED BY FOUNDATION CONCEPTS WITH CONSISTENT REFERENCES TO THE MOST PIVOTAL RESEARCH. THEY REQUIRE STUDENTS TO LEARN HOW ORTHOGRAPHY REPRESENTS LANGUAGE AND TO LEARN THE FOUNDATIONS OF THE DISCIPLINE OF EXPLICIT TEACHING.

Not just the 11 institutions featured in this study offer models for change. The state of Maryland has recently developed four excellent syllabi for its institutions, intended as guidance when designing the state's required reading courses.⁵² In addition, leaders in the field such as Louise Spear-Swerling at Southern Connecticut State, Susan Brady at the University of Rhode Island, and Bruce Rosow at Simmons College also provide excellent models of what future teachers should know about reading. Overall progress is best characterized as slow. As we double checked our work in early 2006, we did come across a few institutions in our sample which had made some progress since we had rated their 2004-2005 syllabi. For example, Temple University in Philadelphia had revamped its literacy program in the subsequent year, and now offers a reading course that covers all five components of reading.

A recent book on what schools of education should be teaching about reading appears to shift the burden for teachers' preparation in reading largely to school districts, under the auspices of professional development.⁵³ While it is true that effective reading instruction requires real expertise that certainly cannot be acquired entirely in a pre-service teacher preparation program, it rightfully begins there. Professional development may provide a good setting for teachers to hone their skills and keep abreast of the research, but it is the obligation of schools of education to provide foundational knowledge of this research. New teachers should enter the classroom understanding the five components of scientifically based reading instruction and know when and how to deploy each one of them. Teachers who have that knowledge are simply more effective teachers.⁵⁴

⁵² <http://www.marylandpublicschools.org/NR/rdonlyres/2C7FFCC4-5F21-4B62-9406-11B06CDF2DB/7875/ReadingCourseRevisionGuidelines1.pdf>

⁵³ National Academy of Education (2005) *Knowledge to support the teaching of reading*. Catherine Snow, Peg Griffin, & M. Susan Burns, editors. San Francisco: Jossey-Bass, pp. 5-7.

⁵⁴ Moats, Louisa (2004) "Science, language, and imagination in the professional development of reading teachers" in *The voice of evidence in reading research*, Peggy McCardle & Vinita Chhabra, Editors. Baltimore: Brooks Publishing. Louise Spear-Swerling & Robert J. Sternberg (2001) "What science offers teachers of reading" in *Learning disabilities research & practice* 16 (1), 51-57.

While more research is always in order to improve our understanding of reading (particularly reading comprehension), the issue of what to include in an effective reading instruction course is settled. The question that must now be addressed is: How can we ensure that education programs are effectively teaching future teachers the basic components of reading instruction? Future teachers need the knowledge and skills to understand sound reading strategies for themselves and to be able to transmit these to their students. With the scientific discoveries that began at the end of Second World War, we now have the good fortune of holding the keys to the locks. It is time to put those keys in the locks and start turning them.

APPENDICES

APPENDIX A: SAMPLING AND SCORING

ALL COURSES RECEIVED A THREE-PART SCORE RELATING TO: 1) THE QUALITY OF THE REQUIRED TEXTS AS THEY PERTAINED TO THE SCIENCE OF READING (15 POINTS); 2) THE NUMBER OF LECTURE TOPICS DEVOTED TO EACH OF THE FIVE COMPONENTS OF GOOD READING INSTRUCTION (15 POINTS); AND, 3) EVIDENCE THAT STUDENTS WERE HELD ACCOUNTABLE FOR THEIR KNOWLEDGE OF READING SCIENCE (15 POINTS). A PERFECT SCORE WAS 45.

SCORING METHODS

1. Texts

COURSES EARNED 0 TO 15 POINTS FOR THE QUALITY OF THEIR REQUIRED TEXTS.

A course earned a score of 15 by including a single comprehensive textbook in the science of reading. A course could also earn a score of 15 by combining several good texts. In fact, most texts were not intended to be comprehensive textbooks, but dealt with one particular component, such as phonics. To accommodate the many texts that dealt with only a portion of the reading science, each text had to be classified as to its intended purpose:

- **Acceptable Core Textbook:** The text accurately and thoroughly covered all *five* components of the science of teaching reading. Score: 15
- **Not Acceptable Core Textbook:** While the text was *intended* to be a comprehensive source on reading instruction, it was neither accurate nor complete. Score: 0
- **Acceptable Supplemental:** The text was not *intended* to be a comprehensive textbook but was intended to cover one, two, three or four of the five components of good reading instruction. It did so accurately and completely. Importantly, texts that were found inaccurate in any one area were discounted completely. It was not sufficient for a text to be only “partly” good, risking exposing future teachers to misleading information. Score: 3 points for each of the relevant component(s) up to 12 points maximum for covering four components.
- **Not Acceptable Supplemental:** While the text was intended to cover one or more components of reading instruction, it was neither accurate nor complete. Score: 0.
- **Not Relevant:** Reading instruction was not the intended topic of the text. Score: 0.

Illustration: Accumulating Points through Text Quality

	Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension	Total
Text A	0	0	0	0	3	3
Text B	3	3	3	3	3	15
Total	3	3	3	3	3	15

In the illustration above, Text A was found to be acceptable for its discussion of the component, comprehension. Text B was found acceptable for all five components. The scores were not added up; always, the top score earned for any single component was the maximum score. For example, both texts earned the maximum score of 3 for comprehension. The total score for comprehension was 3, not 6. The course above earned the maximum score possible for texts: 15.

Reading Packets

Reading packets are sometimes used in courses, in addition to or instead of a textbook. These packets are compilations of any variety of journal articles, chapters from different books and research papers. We only analyzed reading packets for courses that otherwise would not have passed, in the chance that the reading packet might contain high quality readings, changing a course's score from failing to passing.

As was our rule for any text listed on a syllabus, reading packets were only rated if the professor assigned the students to read the individual readings.

Multiple Editions of a Text Title

If different editions of the same books were assigned, we purchased each edition and rated each separately.

Accounting for Partial Reading of a Text

When only part of a text was read, we adjusted the overall text rating accordingly. For example, if a professor assigned only a portion of a text that had been rated acceptable by our literacy experts, but the reading assignment omitted those portions of the text pertaining to the topic, the text rating was adjusted downward for that course, but *just* for that course. For example, the book *Literacy for All* may have earned a top score of 15. However if the professor assigned only pages 50 through 100 to be read, skipping all but the chapter on phonics. For that course, and that course only, the score for *Literacy for All* would be reduced to a score of 3.

2. Lecture Topics

THE SCORES RANGED FROM 0 TO 15. EACH SYLLABUS WAS ANALYZED FOR THE FREQUENCY THAT A PARTICULAR COMPONENT WAS TAUGHT, WITH A MAXIMUM SCORE OF 3 FOR EACH INDIVIDUAL COMPONENT.

- 0 = No lectures were dedicated to a certain component.
- 1 = Part of one lecture was dedicated to a certain component.
- 2 = One whole lecture was dedicated to a certain component.

3 = Two or more lectures were dedicated to a certain component.

15 = Total possible score: Two or more lectures were dedicated to all *five* components.

Illustration: Accumulating Points through Lecture Time

	Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension	Total
Number of Lectures	0	1	0	—	2	—
Points	0	2	0	1	3	6

In the above illustration, the course earned only 6 points because the professor did not devote sufficient lecture time to any of the components except for comprehension. A stronger course, one that dedicated at least two or more lectures to each component of literacy development, would have received a 3 in each of the five categories, earning it a maximum total score of 15.

Synonyms Used for Rating Syllabi

When rating the syllabi for the lecture topics, we needed to adjust our analysis to accommodate the possibility that professors would not always use uniform terminology to describe the five components of reading. Synonyms for each of the five components were considered and accepted. For example, we credited a course for phonemic awareness when we also saw the terms *phonological awareness* or *phoneme awareness*. Similarly, we considered *structural analysis*, *letter-sound correspondence*, *sound-symbol correspondence*, *word analysis*, *alphabetic principle*, *alphabetic code*, *morphology*, *concepts of print* all to be synonymous with phonics. *Reading rate* and *developing fluent readers* counted as fluency just as *sight words* and *word meaning* counted as vocabulary. If we saw *prior knowledge* and *reading for meaning*, we recognized those as comprehension.

3. Student Accountability

THE SCORES RANGED FROM 0 TO 15.

The total lecture score was derived by adding the points earned for each component. Courses did not earn points for accountability if neither the texts nor the lectures discussed any of the five components.

We considered three ways that a professor could hold students accountable for the knowledge they acquired by reading the texts or in lectures: a) homework assignments; b) quizzes, tests, and exams; and c) practice teaching.

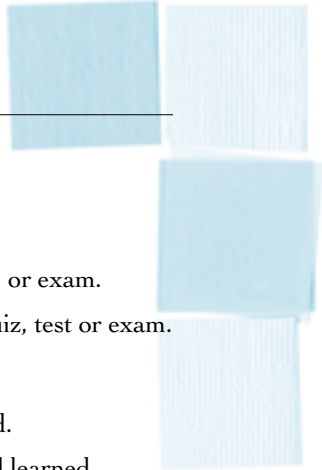
A. Assignments (scores ranged from 0 to 3)

0 = No graded assignments were assigned on a component of reading.

1 = Part of a graded assignment dealt with a component of reading.

2 = A graded assignment dealt in its entirety with a component of reading.

3 = More than one graded assignment dealt with a component of reading.



B. Quizzes, tests, exams (score of only 0 or 3 possible)

0 = Students were not required to demonstrate knowledge of a component in any quiz, test, or exam.

3 = Students were required to demonstrate knowledge of a component in order to pass a quiz, test or exam.

C. Practice (scores ranged from 0 to 3):

0 = Students did not have to do any practice teaching to demonstrate what they had learned.

1 = Students had to devote part of a practice teaching session to demonstrate what they had learned.

2 = Students had to devote one practice teaching session to demonstrate what they had learned.

3 = Students had to devote two or more practice teaching sessions to demonstrate what they had learned.

Illustration: Accumulating Points through Student Accountability

Course	Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension	Total
Homework assignments	0	0	1	2	3	—
Quizzes, tests, exams	0	3	0	3	3	—
Practice Teaching	0	0	2	0	3	—
Total Score	0	3	2	3	3	11

We structured the rubric so that professors did not have to hold students accountable using *all* three methods available to them (assignments, tests and quizzes, and practice). One method was sufficient. For example, the above course shows that the course got the highest score possible for phonics by requiring students to demonstrate their knowledge on quizzes and tests. It did not matter that the professor did not assign any writing on the components or practice teaching demonstrations. As another example, comprehension scored a 3 on all accountability measures but the score stayed at 3, not 9. Always, the top score only was considered.

RATING AN INDIVIDUAL COMPONENT: THE RANGE OF POINTS

Instruction: Texts 0,3	Instruction: Lectures 0,1,2,3	Instruction Total 0-6	Needs Further Resolution*	Confirmed Instruction Score –	Accountability Score 0,1,2,3	Score for a Single Area 0-9	Result for a single component
if 0	and u	then 0	—	0	not eligible	then 0	Failed
if 0	and 0	Then 0	—	—	not eligible	then 0	Failed
if 0	and 1	Then 1	—	—	not eligible	then 0	Failed
if 0	and 2	Then 2	—	—	not eligible	then 2	Failed
if 0	and 3	then 0/3	Yes	if 3	and u	then u	Unclear
				if 3	and 1	then 4	Failed
				if 3	and 3	then 5	Passed
				if 3	and 3	then 6	Passed
if 3	and u	then 3/u	Yes	if 3	and u	then u	Unclear
			if u	and u	then u	Unclear	
			if u	and 1	then u	Unclear	
			if u	and 2	then u	Unclear	
			if u	and 3	then u	Unclear	
if 3	and 0	then 3/0	Yes	if 3	and 3	then 6	Passed
			if 3	and 1	then 4	Failed	
			if 3	and 2	then 5	Passed	
			if 3	and u	then u	Unclear	
if 3	and 1	Then 4	—	if 4	and 0	then 4	Failed
			if 4	and 1	then 5	Passed	
			if 4	and 2	then 6	Passed	
			if 4	and 3	then 7	Passed	
			if 4	and U	then u	Unclear	
if 3	and 2	Then 5	—	if 5	and 0	then 5	Passed
			if 5	and 1	then 6	Passed	
			if 5	and 2	then 7	Passed	
			if 5	and 3	then 8	Passed	
			if 5	and U	then 5	Passed	
if 3	and 3	Then 6	—	if 6	and 0	then 6	Passed
			if 6	and 1	then 7	Passed	
			if 6	and 2	then 8	Passed	
			if 6	and 3	then 9	Passed	
			if 6	and u	then 6	Passed	

**Ambiguous scores would prompt additional analysis, including a more in-depth look at the texts and consultation with outside experts to resolve, if possible, the ambiguity.*

RATING THE WHOLE COURSE: THE RANGE OF POINTS

Instruction	Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension
Text 1	0 or 3	0 or 3	0 or 3	0 or 3	0 or 3
Text 2	0 or 3	0 or 3	0 or 3	0 or 3	0 or 3
Text 3	0 or 3	0 or 3	0 or 3	0 or 3	0 or 3
Total Text Score	Highest score of any text	Highest score of any text	Highest score of any text	Highest score of any text	Highest score of any text
Lectures	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3
Total Instruction	Text score plus lecture score	Text score plus lecture score	Text score plus lecture score	Text score plus lecture score	Text score plus lecture score
Range of Scores Possible for Instruction	0-6	0-6	0-6	0-6	0-6
Score Needed to Proceed (otherwise course fails in that component)	3	3	3	3	3
Accountability	Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension
Assignments	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3
Quizzes, Tests, Exams	U,0,3	U,0,3	U,0,3	U,0,3	U,0,3
Practice Teaching	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3	U,0,1,2,3
	Highest score of three	Highest score of three	Highest score of three	Highest score of three	Highest score of three
Total Score	U,0-9	U,0-9	U,0-9	U,0-9	U,0-9
Minimum Score Needed to Pass	5	5	5	5	5



RATING THE INSTITUTION: THE RANGE OF POINTS

ALL Required Reading Courses at an Institution	Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension
Course A	U, 0-9	U, 0-9	U, 0-9	U, 0-9	U, 0-9
Course B	U, 0-9	U, 0-9	U, 0-9	U, 0-9	U, 0-9
Course C	U, 0-9	U, 0-9	U, 0-9	U, 0-9	U, 0-9
Institutional Score	Top score from three	Top score from three	Top score from three	Top score from three	Top score from three
Scores Needed to Pass	5-9	5-9	5-9	5-9	5-9

ILLUSTRATION: TWO INSTITUTIONS, SAME POINT TOTAL, TWO DIFFERENT OUTCOMES

	Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension	Total	Result
Institution A (top scores from all courses)	8	8	0	5	6	27	Failed
Institution B (top scores from all courses)	5	5	6	5	6	27	Passed

Even though both of the institutions illustrated above earned a point total of 27, to pass each had to earn a score of at least 5 points in each individual component. Institution A may have excelled in some areas, but never taught fluency. On the other hand, Institution B provided the more comprehensive approach, teaching all five components.

APPENDIX B: SAMPLE OF SYLLABI

HIGHLY RATED SYLLABUS

Texas A&M University

Department of Teaching, Learning and Culture

Bachelor of Science in Interdisciplinary Studies with Certification in EC-Grade 4 Generalist

Course Title: RDNG 301: Reading Acquisition in Early Childhood Education

READING COURSE

TE_{EX}ES Examination Competencies — English Language Arts/Reading (40% of examination)

- Oral Language
 - Phonology and Phonemic Awareness
 - Alphabetic Principle
 - Literacy Development and Practice
 - Word Analysis and Decoding
 - Reading Fluency
 - Reading Comprehension
- } all five components

Note: The TE_{EX}ES Examination is based upon SBEC Standards and the Texas Essential Knowledge and Skills (TEKS)

A. CATALOG DESCRIPTION

Focuses on competencies considered essential for effective Early Childhood reading instruction; studies recent research and instructional trends; reviews materials, procedures and strategies deemed to be essential for effective teaching and reading.

B. CATALOG DESCRIPTION

- a. Dr. Barbara Erwin, Clinical Professor
- b. Assistant Department Head for Undergraduate Programs
- c. Office: 308 Harrington Phone: 845-8 189
- d. E-mail: b e ea Office Hours: by appointment

C. PRE-REQUISITES: JUNIOR CLASSIFICATION; CO-REQUISITE RDNG 312

D. COURSE GOAL

To prepare early childhood teacher candidates to facilitate development and use effective reading strategies for children in grades EC-4. The future teachers will be familiar with the Texas Essential Knowledge and Skills (TEKS) and will be able to apply this understanding to the instruction of children in the areas of **word analysis**, literacy development and **comprehension**.

E. COURSE OBJECTIVES:

Students will be able to:

skills based

- Examine strategies for teaching, listening and speaking and choose the most effective strategies for teaching children from diverse groups.
- Demonstrate an understanding of **phonological and phonemic awareness** and utilize a variety of approaches in helping beginning readers.
- Articulate their understanding of **the alphabetic principle** and translate this understand into instruction with beginning reading.
- Examine the various literacy processes that support beginning reading and writing and demonstrate a variety of effective practices that support these processes.
- Demonstrate and understanding of **word identification strategies** and be able to implement effective instructional strategies with beginning readers and writers.
- Describe the **relationship between fluency and comprehension**. *good!*
- Recognize the importance of **reading comprehension** and be able to teach young children strategies that will improve their understanding of what they read.

F. COURSE TOPICS

Course Topics Based upon TExEX Examination Competencies for Language Arts/Reading

Topic	TExES Competencies	Resources
Topic 1 Oral Language	Oral Language: Teachers of young children understand the importance of oral language, know the developmental processes of oral language, and provide a variety of instructional opportunities for young children to develop listening and speaking skills.	Heilman, Blair & Rupley, Chapter 3
Topic 2 Phonological and Phonemic Awareness	Phonology and Phonemic Awareness: Teachers of young children understand the components of phonological and phonemic awareness and utilize a variety of approaches	Heilman, Blair & Rupley, Chapter 4 <i>Put Reading First</i> , pp1-10

to help young children develop this awareness and its relationship to written language.

Topic 3
Alphabetic Principle

Alphabetic Principle: Teachers of young children understand the importance of the alphabetic principle to teach English, know the elements of the alphabetic principle, and provide instruction that helps children understand that printed words consists of graphic representations that relate to the sounds of spoken language in conventional and intentional ways.

Heilman, Blair & Rupley,
Chapter 4

Topic 4
Literacy Development
and Practice

Literacy Development and Practice: teachers of young children understand that literacy develops over time and progresses from emergent to proficient stages. Teachers use a variety of contexts to support the development of young children's literacy.

Heilman, Blair & Rupley,
Chapter 4

Topic 5
Word Analysis and Decoding

Word Analysis and Decoding: Teachers understand the importance of **word analysis and decoding to** reading and provide many opportunities for children to improve their work analysis and decoding abilities.

Heilman, Blair & Rupley,
Chapter 5
Put Reading First, pp 11-19

Topic 6
Reading Fluency

Reading Fluency: **Teachers understand the importance of fluency to reading comprehension** and provide many opportunities for children to improve their reading fluency.

Heilman, Blair & Rupley,
Chapter 8
Heilman, Blair & Rupley,
Chapter 9
Put Reading First, pp 21-31

Topic 7
Reading Comprehension

Reading Comprehension: Teaches understand the importance of reading for understanding, know the **components of comprehension**, and teach young children strategies for improving comprehension.

Heilman, Blair & Rupley,
Chapter 6
Heilman, Blair & Rupley,
Chapter 7
Put Reading First, pp 33-45
& 47-57

includes vocabulary

Other topics addressed in the course:

- Teacher effectiveness in reading
- Organization and management of reading programs
- Literature-based reading programs
- Content-area reading



G. REQUIREMENTS

This is a three-hour course (3-0) taught from **8:00** to 10:30 a.m. on Thursday (no formal breaks will be taken during class time). Content delivery incorporates both lecture and collaborative group activities.

H. ATTENDANCE

The university views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignment, Instructors are expected to give adequate notice of the dates on which major tests will be given and assignments will be due. The student is responsible for providing satisfactory evidence to the instructor to substantiate the reason for absence.

Attendance and class participation are extremely important for this class. Each class day will begin with a short daily quiz (usually 5 questions) over the reading materials you are assigned for that week (see exact dates and reading assignments below). You must be in class to take the quizzes and there **witl** be no make-up of these daily quizzes given. **Because these are daily grades, you must be in class to get the grade.**

The grades on these quizzes will make up a significant part of the total grade for the course. Other assignments may be made up according to the T M U University &ales and Regulations' Attendance Policy that states that students must notify a professor as soon as possible after the last date of the absence, but no later than the end of the 2nd working day after the absence.

I. PARTICIPATION AND PROFESSIONALISM

All students in this class are expected to demonstrate the ethical and professional values associated with Early Childhood Level Education. It is critical that student adopt and exhibit a professional demeanor at each point in their teacher preparation. Evidence of professional dedication will be expected through all work **during** classes and practicum, seminar, internship and clinical experiences the EC-4 program.

Questions that assist in determining participation and professionalism:

- Were all materials handed in on time and prepared with clarity, precision and attention to detail?
- Have all encounters been of a positive name with an attitude espousing an interest in learning.
- Has attendance in class and lo field based assignments been punctual and consistent?
- Have opportunities for professional discussions been punctual and consistent?
- Does there appear to be a genuine concern for the welfare of classroom students?
- Are requirements handled with a strong sense of responsibility?
- Have team/group members been able to count on each other?
- Has professional behavior been exhibited as typified through deportment, dress, hygiene, and appearance?

Texas A&M Code of Honor

“Aggies do not lie, cheat, or steal, nor do they tolerate those who do.”

The Aggie Code of Honor is an effort to unify the aims of all Texas A&M men and women toward a high code of ethics and personal dignity. For most, living this ode will be no problem, as it asks nothing of person that is beyond reason. It only calls for honesty and integrity, characteristics that Aggies have always exemplified. The Aggie Code of Honor functions as a symbol to all Aggies promoting understanding and loyalty to truth, and confidence in each other.

Honor Council Rules and Procedures can be found at <http://www.tamu.edu/aggiehonor/>

J. CLASS ASSIGNMENTS

- 1. Textbook Reading Assignments/Daily Quizzes (110 points).** Textbook reading assignments are very important. Not all of the important information for this course can be presented during class. You are expected to read assignments before you come to class (see dates below). At the beginning of each class, a five-question daily quiz over the reading assignments will be administered. You must be in class to take the quizzes. **NO MAKE-UP QUIZZES WILL BE GIVEN.** No daily quizzes will be given on September 2, October 7, and November 25.

Daily Quiz and Assignment

Dates	Chapters Assessed
September 2	Heilman, Blair & Rupley Chapter 1, “Principles of Reading Instruction” (no daily quiz)
September 9	Heilman, Blair & Rupley Chapter 2, “Teacher Effectiveness in a Balanced Reading Program” (daily quiz)
September 16	Heilman, Blair & Rupley Chapter 3, “Language the Key to Literacy” (daily quiz)
September 23	Heilman, Blair & Rupley Chapter 4, “Emergent Literacy”, and USDE, <i>Put Reading First: The Research Building Blocks for Teaching Children to Read</i> (daily quiz) SBRR
September 30	Heilman, Blair & Rupley Chapter 5, “Word Identification” (daily quiz) Literacy Paper Due
October 7	Class workday. No class this day
October 14	Logan, Rupley & Erickson, Phonics, Research, and Instruction (phonics exam)
October 21	Heilman, Blair & Rupley Chapter 6, “Meaning Vocabulary” (daily quiz)
October 28 and November 4	Heilman, Blair & Rupley Chapter 7, “Comprehension” (daily quiz each class period)

phonics test —————



November 4	Literacy Focus Unit Due
November 11	Heilman, Blair & Rupley Chapter 8, "Instructional Approaches to Literacy" (daily quiz)
November 18	Heilman, Blair & Rupley Chapter 9, "Literature-Based Reading Programs" (daily quiz)
November 25	Thanksgiving
December 2	Heilman, Blair & Rupley Chapter 10 "Content-Area Reading" (daily quiz)
December 7 (Tuesday)	Heilman, Blair & Rupley Chapter 12, Classroom Management and organization" (daily quiz)
Final Exam Week	Final Examination

7 weeks on
phonics

2. **Program Text for Phonics (40 points).** During the first seven weeks of the semester, you will be asked to work throughout the program text on phonics (Logan, J.W., Rupley, W.H. & Erickson, L.G. (1995) Phonics research and instruction. Dubuque, IA: Kendall/Hunt). On **Thursday, October 14**, instead of a daily quiz, there will be a multiple-choice test over the information on that book.

3. **Literacy Paper about You (100 points).** Each student will write a 4-5 page paper (typed, double-spaced, using 12-point font) telling of your individual journey with literacy. This paper is designed to be both self-reflective and informative of the style of literacy that benefited or hindered your learning as a child. Your journey should include poignant stories of your literacy life at home, in school, particular adults or teachers that impacted your learning, books or learning activities that you remember, and salient moments, events, or activities in school or at home that helped or hindered your acquisition of literacy.

x

- | | |
|-------------------------------------|-----------|
| a. Detail of literacy journey | 50 points |
| b. Personal Stories of this journey | 40 points |
| c. Format, grammar, and spelling | 10 points |

4. **Literature Focus Unit (200 points).** Each student will pick one stage of reading that he/she is interested in teaching and develop an integrated literature focus unit for one week. Develop a unit that you will be able to use in your own classroom. Correct format, spelling, and grammar will be part of the final grade. This activity is due on November 4. See supporting materials for more information on developing this unit.

x

5. **Final Examination (150 points).** There will be a comprehensive final examination in this course. The exam will be administered during final exam week, and will be composed of 150 multiple-choice questions. Because approximately 50% of the questions will be ones that appear on the daily quizzes, it is important that you attend class regularly.

Accountability
for all

K. GRADING

Daily Quizzes	11 quizzes x 10 points each	110 points
Phonics test		40 points
Literacy Paper		100 points
Literature Focus Unit		200 points
Final Exam		<u>150 points</u>
		600 points

Final Grades:

A = 540-600 points B = 480-539 points C = 420-479 points D = 360-419 points F = below 360 points

Bonus: Five points will be given as a bonus for students submitting a course evaluation online at pica.tamu.edu

L. RESOURCE MATERIALS

Required Texts:

The following materials are required:

not acceptable core (not bad- just not specific enough - lacks depth)

Heilman, A.W., Blair, T.R., and Rupley, W.H. (2002). *Principles and practices of teaching reading (10th ed)*. Upper Saddle River, NJ: Merrill, an imprint of Prentice Hall.

out of print — Logan, J.W., Rupley, W.H., & Erickson, L.G. (1995). *Phonics research and instruction*. Dubuque, IA: Kendall/Hunt.

good — National Institute for Literacy. (2001). *Put reading first: The research building blocks for teaching children to read*. Washington, DC: U.S. Department of Education. (This text will be provided by the professor.)

Supplemental Resource Material:

The following materials are potential textbooks, student readings, and instructor resources from which readings can be chosen each week.

good — American Federation of Teachers. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do*. Washington, DC: American Federation of Teachers – AFL CIO (Item No. 372)

good — Early Childhood-Head Start Task Force. (2002). *Teaching our youngest: A guide for preschool teachers and child-care and family providers*. Washington, DC: U.S. Department of Education and U.S. Department of Health and Human Services.

good — National Institute for Literacy. (2003). *A child becomes a reader- birth through preschool*. Washington, DC: U.S. Department of Education and U.S. Department of Wealth and Human Services.

good — Texas Reading Initiative. (2002). *Beginning reading instruction: Components and features of a research-based reading program*. Austin, TX: Texas Education Agency. (Original Publication Number GEO1105 05).



POORLY RATED SYLLABUS

Literacy 1 — Teaching Reading in the Elementary School EDUC 334, FALL 2005

Professor: Barbara Davies, 222 Clermont Hall

I: Text

Literacy for the 21st Century: A Balanced Approach, Gail E. Tompkins Upper Saddle River, NJ: Prentice Hall

'unacceptable' text

II: Course Description

Examines the development of literacy during the early years. Includes the study of **language development**, environmental influences, methods that enrich or delay emerging literacy for early childhood programs.

good

New views of emerging literacy see children as an active participant in the interactive process of becoming readers and writers. This construction begins early in children's lives and continues as they enter kindergarten and primary grades. Literacy is "holistic" in nature and includes a child-centered environment that encourages active learning and quality children's literature.

no mention of skills acquisition

III: Objectives

1. The student will apply an understanding of effective teaching practices for literacy learning to the development of a word study lesson plan to be taught in the context of **a guided reading of a select piece of quality children's literature.**
2. To provide an understanding of a balanced and integrated literacy framework for instruction and its importance
3. **To explore children's books and ways children's literature can support literacy development.**
4. To provide an understanding of **major approaches** to teaching reading.
5. Develop and compose a personal philosophy of writing instruction.

embedded phonics?

whole language

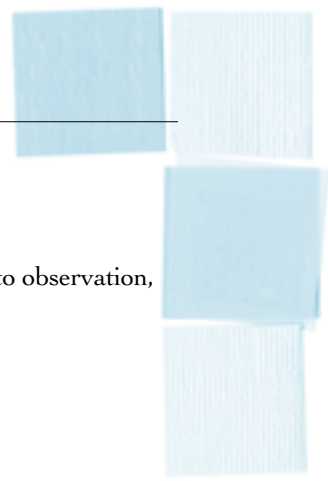
does not include science as approach

IV: Course Requirements

1. Literacy Memoir (10 pts)
2. Lesson Plan: Select one quality children's literature book and design a guided reading lesson which covers all 5 steps of the reading process. (30 pts)
3. Journal: The student will keep a reflective journal of responses to reading assignments and or class discussions. (15 pts)
4. **Two tests** based on course lectures and readings. (20 pts)
5. Field Experiences (25 pts)

none develop teacher skills

*no science in lectures & readings
- no credit for tests*



V. Field Experience

Each student will participate in a classroom experience for a total of 15 hours. In addition to observation, these three assignments will be completed:

NO skills development

1. Pen pal with individual child for a total of five correspondences.
2. Bookmaking with an individual child
3. Literacy Center for a small group of children

Course Schedule

- Lesson one, August 29: Introduction and overview of course
 Who I am poems
 Who am I reader?
 What is balanced reading? → no phonics awareness
no phonics
no fluency
no vocab

- Lesson two, September 28: Beginning Literacy: **Whole language** approach in Early Childhood Education

- Lesson three, September 15: Approaches to Reading Instruction: red flag
 - a. Language Experience
 - b. Individualized/literature-based red flag
 - c. **Whole language**/Themed based
 - d. Specialized beginning reading approaches (Success, Alphatime, Montessori) success for all?POSSIBLE science but 1/4 lecture!

- Lesson four, September 29: Language Acquisition

- Lesson five, October 6: Reading Strategies
 Working with parents
Independent Silent Reading/DEAR doesn't improve fluency

- Lesson six, October 17: **Guided reading**
 Bookmaking in reading embedded phonics?

- Lesson seven, October 27: Teachers share how they teach "Balanced Reading"

- Midterm**, November 7

- Lesson eight, November 10: Construction Meaning
Comprehension Strategies ✓ comprehension ✓
3 pts

- Lesson nine, November 17: **Running Records**
Miscue Analysis } not a valid assessment

- Lesson ten, November 24: Literature centers

Lesson eleven, December 1: Program Organization and Management

Lesson twelve, December 8: Assessment and Evaluation

Final Exam, December 15

UNCLEAR SYLLABUS

Reading Instruction in the Elementary School – ELE 334

Professor: Paul Kerry, Spring 2005

TEXTS???

Course Description:

ELE 334 emphasizes the creation of a language-rich reading environment, which meets the needs of the wide range of learners in an inclusive, heterogeneously grouped elementary classroom.

The purpose of this course is to provide prospective teachers with several valuable learning experiences as they are researching, analyzing and applying the **diverse methodology** in the field of literary development.

which methodologies

Course Requirements:

1. Design three lesson plans. Use **lesson plan** format provided in class.
2. Four tests based on readings and lectures *unclear-no sample included in syllabus*
3. Complete all readings and regular class assignments and participate in class activities/discussions daily.
4. Portfolio/Case Study of a child's literacy development
5. Literacy activities with Children

Course Topics:

1. Knowledge and beliefs about reading
2. Balanced Literacy
3. Early Literacy
4. **Word Study** — *vague: could be phonics*
5. **Comprehension**
6. **Vocabulary**
7. Foundational Information
8. Instructional Practices
9. Analysis of language and literacy development in children

*no mention of fluency,
phonemic awareness*

how much?

*unclear,
/ what assessments?*

Field Experience:

Write a case study on a student in grades 1-3. This case study must include: a) **informal** inventory summary sheets; b) three lesson plans written for use with the tutee; c) your reactions to each session.

Evaluation:

Four tests — 40 pts

Case Study — 20 pts

Three lesson plans — 20 pts

Class Participation — 10 pts

Literacy Activities — 10 pts

APPENDIX C: RATINGS FOR THE REQUIRED TEXTS

Author	No. of Courses in which Author is Read	Title	No. of Courses in which Text is Read	Rating
Aaron, Jane E.	1	<i>The Little Brown Handbook</i>	1	Not relevant
Ali, Cynthia D.3	1	<i>Teach Your Children Values</i>	1	Not relevant
Allen, Janet	1	<i>There's Room For Me Here: Literacy Workshop In the Middle School</i>	1	Not relevant
Allington, Richard	3	<i>Classrooms that Work: They Can All Read and Write</i>	3	Not acceptable supplemental
Alvermann, Donna E.	2	<i>Content Area Literacy Instruction for the Elementary Grades</i>	2	Acceptable supplemental
Amspaugh-Corson, Linda B.	1	<i>Children's Literature: Discovery for a Lifetime</i>	1	Not relevant
Anderson, Daniel	1	<i>The Little Brown Handbook</i>	1	Not relevant
Andrews, Sharon Vincz	1	<i>Teach Your Children Values</i>	1	Not relevant
Angell, Roger	1	<i>The Elements of Style</i>	1	Not relevant
Atwell, Nancy	4	<i>Lessons that Change Writers In the Middle</i>	1 3	Not relevant Unavailable
Avery, Carol	1	<i>With a Light Touch: Learning about Reading, Writing, and Teaching with first grades</i>	1	Not acceptable supplemental
Bader, Lois A.	1	<i>Bader Reading and Language Inventory (Handbook)</i>	1	Acceptable supplemental
Baer, G.Thomas	5	<i>Self-Paced Phonics: A Text for Education</i>	5	Acceptable supplemental
Baldwin, R. Scott	1	<i>Content Area literacy: An Integrated Approach (8th ed.)</i>	1	Acceptable supplemental
Bamford, Rosemary A.	1	<i>Nonfiction in Focus</i>	1	Acceptable supplemental
Bean, Thomas	1	<i>Content Area literacy: An Integrated Approach (8th ed.)</i>	1	Acceptable supplemental
Bear, Donald R.	16	<i>Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction</i>	16	Acceptable supplemental
Beaty, Janice J.	1	<i>Early Literacy in Preschool and Kindergarten</i>	1	Not acceptable core
Beers, Kylene	3	<i>When Kids Can't Read: What Teachers Can Do Into Focus: Understanding and Creating Middle School Readers</i>	2 1	Not acceptable supplemental Not acceptable supplemental

Berk, Laura E.	1	<i>Scaffolding Children's Literature: Vygotsky and Early Childhood Education</i>	1	Not relevant
Blair, Timothy R.	3	<i>Principles and Practices of Teaching Reading, 9th Ed.</i> <i>Informal reading assessment and critical performance areas for elementary and middle school teachers</i>	2	Not acceptable core
			1	Unavailable
Blake, Mary	1	<i>Integrating the Language Arts</i>	1	Not acceptable supplemental
Blevins, Wiley	2	<i>Phonics from A to Z: A Practical Guide</i>	2	Acceptable supplemental
Bredenkamp, Sue	5	<i>Learning to Read and Write: Developmentally Appropriate Practices for Young Children</i>	5	Not acceptable supplemental
Brewer, Jo Ann	1	<i>The Informed Reading Teacher: Research-Based Practice</i>	1	Not acceptable core
Bromley, Karen D'Angelo	1	<i>Language Arts: Exploring Connections</i>	1	Not acceptable core
Burke, Catherine	2	<i>Creating Classrooms for Authors and Inquirers</i>	2	Not acceptable supplemental
Burns, Paul	5	<i>Teaching Reading in Today's Elementary Schools</i> <i>Informal Reading Inventory</i>	3	Not acceptable supplemental
			2	Not acceptable supplemental
Caldwell, JoAnne Schudt	6	<i>Reading Problems: Assessment and Teaching Strategies</i> <i>Reading Assessment: A Primer for Teachers and Tutors</i> <i>Qualitative Reading Inventory</i>	3	Not acceptable supplemental
			1	Not acceptable supplemental
			2	Acceptable supplemental
Calkins, Lucy	4	<i>The Art of Teaching Writing</i> <i>The Art of Teaching Reading</i>	2	Not relevant
			2	Not acceptable core
Cappellini, Mary	1	<i>Balancing Reading and Language Learning: A Resource for teaching English Language Learners</i>	1	Not acceptable core
Cardonick, Isabel	1	<i>Kid Writing: A Systematic Approach to Phonics, Journals, and Writers Workshop</i>	1	Not acceptable supplemental
Cecil, Nancy Lee	5	<i>Activities for Striking A Balance Early in Literacy</i> <i>Striking a Balance: Positive Practices for Early Literacy</i>	1	Not acceptable supplemental
			4	Acceptable supplemental
Chinn, Phillip C.	1	<i>Multicultural Education in a Pluralistic Society</i>	1	Not relevant
Christie, James	2	<i>Teaching Language and Literacy: Preschool Through the Elementary Grades</i>	2	Not acceptable supplemental
Clay, Marie M.	7	<i>An Observation Survey of Early Literacy Achievement</i> <i>Running Records for Classroom Teachers</i> <i>Sand</i>	3	Not acceptable supplemental
			1	Not acceptable supplemental
			3	Not relevant
Clements, Andrew	1	<i>Frindle</i>	1	Not acceptable core

Combs, Martha	1	<i>Developing Competent Readers and Writers in Primary Grades</i>	1	Not acceptable supplemental
Cooney, Bernard	1	<i>Understanding Reading Problems: Assessment and Instruction</i>	1	Not acceptable core
Cooper, J. David	3	<i>Literacy: Helping Children Construct Meaning</i>	1	Acceptable supplemental
		<i>Literacy Assessment: Helping Teachers Plan Instruction</i>	2	Not acceptable supplemental
Cooter, Robert B.	17	<i>The Essentials of Teaching Children to Read</i>	2	Acceptable supplemental
		<i>Strategies for Reading Assessment and Instruction</i>	3	Not acceptable supplemental
		<i>Flynt-Cooter Reading Inventory for the Classroom</i>	6	Not acceptable supplemental
		<i>Teaching Children to Read: Putting the Pieces Together</i>	4	Not acceptable core
		<i>Balanced Reading Strategies and Practices: Assessing and Assisting Readers with Special Needs</i>	2	Not acceptable supplemental
Copple, Carol	5	<i>Learning to Read and Write: Developmentally Appropriate Practices for Young Children</i>	5	Not acceptable supplemental
Cox, Carol	3	<i>Teaching Language Arts: A Student-and Response-Centered Classroom</i>	3	Not acceptable supplemental
Cramer, Ronald	1	<i>The Language Arts: A Balanced Approach to Teaching, Writing, Listening, Talking, and Thinking</i>	1	Not acceptable core
Crawford, Alan N.	2	<i>All Children Read: Teaching for Literacy in Today's Diverse Classrooms</i>	1	Acceptable supplemental
		<i>Understanding Reading Problems: Assessment and Instruction</i>	1	Not acceptable core
Crawley, Sharon J.	1	<i>Remediating Reading Difficulties (4th ed)</i>	1	Not acceptable core
Cullinan, Bernice E.	3	<i>Language Arts: Learning and Teaching</i>	2	Not acceptable core
		<i>Literature and the Child</i>	1	Not relevant
Cunningham, James	1	<i>Developing Readers and Writers in the Content Areas K-12</i>	1	Not acceptable supplemental
Cunningham, Patricia	12	<i>Teachers in Action: The K-5 Chapters from Reading and Writing in Elementary Classrooms</i>	2	Not relevant
		<i>Developing Readers and Writers in the Content Areas K-12</i>	1	Not acceptable supplemental
		<i>Phonics They Use: Words for Reading and Writing</i>	6	Not acceptable supplemental
		<i>Classrooms that Work: They Can All Read and Write</i>	3	Not acceptable supplemental
		<i>The Teacher's Guide to the Four Blocks</i>	1	Not acceptable core
Danielson, Charlotte	3	<i>Enhancing Professional Practice: A Framework for Teaching</i>	3	Not relevant
DeVries, Beverly	2	<i>Literacy Assessment and Intervention for the Elementary Classroom</i>	1	Acceptable supplemental

		<i>Integrating the Language Arts</i>	1	Not acceptable supplemental
Derewianka, Beverly	1	<i>Exploring How Texts Work</i>	1	Not relevant
Diamond, Linda	1	<i>Teaching Reading Sourcebook</i>	1	Acceptable Core
Donney, Joanne Hindley	1	<i>In the Company of Children</i>	1	Not acceptable supplemental
Dorn, Linda	2	<i>Apprenticeship in Literacy: Transitions Across Reading and Writing</i>	1	Acceptable supplemental
		<i>Scaffolding Young Writers: A Writer's Workshop Approach</i>	1	Not relevant
Dragan, Patt Dragan	1	<i>Literacy From Day One</i>	1	Not relevant
Drasgow, Erik	1	<i>No Child Left Behind: A Guide for Professionals</i>	1	Not relevant
Ekwall, Eldon	6	<i>Locating and Correcting Reading Difficulties</i>	4	Not acceptable supplemental
		<i>Ekwall/Shanker Reading Inventory</i>	2	Acceptable supplemental
Eldredge, J.Lloyd	1	<i>Phonics for Teachers: Self Instruction, Methods, and Activities</i>	1	Acceptable supplemental
Elish-Piper, Laurie	1	<i>Teaching Beginning Readers: Linking Assessment and Instruction</i>	1	Unavailable
Elsholz, C	1	<i>Writer's Express: A Handbook for Young Writers, Thinkers and Learners</i>	1	Not relevant
Enz, Billy	2	<i>Teaching Language and Literacy: Preschool Through the Elementary Grades</i>	2	Not acceptable supplemental
Erickson, Lawrence	1	<i>Phonics Research and Instruction</i>	1	Unavailable
Ertmer, Peggy A.	1	<i>Education on the Internet</i>	1	Not relevant
Falk-Ross, Francine C.	1	<i>Classroom Based Language and Literacy Intervention: A Programs and Case Studies Approach</i>	1	Not acceptable supplemental
Farris, Pamela J.	5	<i>Teaching, Bearing the Torch (2nd Ed.)</i>	1	Not relevant
		<i>Language Arts: Process, Product, and Assessment</i>	2	Not acceptable core
		<i>Elementary and Middle School Social Studies: An Interdisciplinary Approach</i>	1	Not relevant
		<i>Teaching Reading: A Balanced Approach for Today's Classrooms</i>	1	Not acceptable core
Feldgus, Eileen, G.	1	<i>Kid Writing: A Systematic Approach to Phonics, Journals, and Writers Workshops</i>	1	Not acceptable supplemental
Fisher, Bobbi	1	<i>Joyful Learning in Kindergarten</i>	1	Not relevant
Fisher, Douglas	1	<i>Improving Adolescent Literacy: Strategies at Work</i>	1	Acceptable supplemental
Fleener, Charlene	1	<i>Reading to Learn in the Content Areas</i>	1	Acceptable supplemental
Fletcher, R.	6	<i>A Writer's Notebook: Unlocking the Writer Within You</i>	1	Not relevant
Fletcher, Ralph	6	<i>Writing Workshop: The Essential Guide</i>	3	Not acceptable supplemental

		<i>Craft Lessons: Teaching Writing K-8</i>	1	Not acceptable supplemental
		<i>How Writers Work: Finding a Process that Works for You</i>	1	Not acceptable supplemental
Flippo, Rona F.	1	<i>Assessing Readers: Qualitative Diagnosis and Instruction</i>	1	Not acceptable supplemental
Flynt, E. Sutton	6	<i>Flynt-Cooter Reading Inventory for the Classroom</i>	6	Not acceptable supplemental
Fountas, Irene	9	<i>Guiding Readers and Writers Grades 5-6: Teaching Comprehension, Genre and Content Literacy</i>	1	Not acceptable core
		<i>Helping America Read: A Handbook for Volunteers</i>	1	Not acceptable supplemental
		<i>Guided Reading: Good First Teaching for All Children</i>	7	Not acceptable supplemental
Fowler, H. Ramsey	1	<i>The Little Brown Handbook</i>	1	Not relevant
Fox, Barbara	4	<i>Phonics for the Teacher of Reading</i>	2	Acceptable supplemental
		<i>Word Identification Strategies</i>	2	Acceptable supplemental
Fox, Mem	1	<i>Reading Magic: Why Reading Aloud to Our Children Will Change Their Lives Forever</i>	1	Not relevant
Freeman, David	1	<i>Teaching Reading in Multilingual Classrooms</i>	1	Unavailable
Freeman, Marcia	1	<i>Building a Writing Community: A Practical Guide</i>	1	Not acceptable supplemental
Freeman, Yvonne	1	<i>Teaching Reading in Multilingual Classrooms</i>	1	Unavailable
French, Cathy	1	<i>Apprenticeship in Literacy: Transitions Across Reading and Writing</i>	1	Acceptable supplemental
Freppon, Penny	1	<i>All children Read: Teaching for Literacy in Today's Diverse Classrooms</i>	1	Acceptable supplemental
Frey, Nancy	1	<i>Improving Adolescent Literacy: Strategies at Work</i>	1	Acceptable supplemental
Fuhler, Carol J.	1	<i>Teaching Reading: A Balanced Approach for Today's Classrooms</i>	1	Not acceptable core
Galda, Lee	4	<i>Language Arts: Learning and Teaching</i>	2	Not acceptable core
		<i>Literature and the Child</i>	1	Not relevant
		<i>Looking Through the Faraway End: Creating a Literature-Based Curriculum with Second Graders</i>	1	Not relevant
Gallagher, J.D.	1	<i>Classroom Assessment for Teachers</i>	1	Not relevant
Gentry, Richard	2	<i>Spel...is a four letter word</i>	1	Not acceptable supplemental
		<i>Teaching Kids to Spell</i>	1	Not acceptable core
Gillet, Jean Wallace	2	<i>Understanding Reading Problems: Assessment and Instruction</i>	1	Not acceptable core
		<i>Teaching Kids to Spell</i>	1	Not acceptable core

Gipe, Joan	1	<i>Multiple Paths to Literacy: Corrective Reading Techniques for Classroom Teachers</i>	1	Not acceptable supplemental
Gollnick, Donna M.	1	<i>Multicultural Education in a Pluralistic Society</i>	1	Not relevant
Kyle Gonzalez	1	<i>There's Room for Me Here: Literacy Workshop in the Middle School</i>	1	Not relevant
Goodman, Yetta M.	1	<i>Kidwatching: Documenting Children's Literacy Development</i>	1	Not acceptable supplemental
Goudvis, Anne	3	<i>Strategies that Work: Teaching Comprehension to Enhance Understanding</i>	3	Acceptable supplemental
Grant, S.G.	1	<i>Constructing a Powerful Approach to Teaching and Learning in Elementary</i>	1	Not relevant
Graves, Donald	2	<i>Writing: Teachers and Children at Work</i>	1	Unavailable
		<i>With a Light Touch: Learning about Reading, Writing, and Teaching with first grades</i>	1	Not acceptable supplemental
Graves, Michael	2	<i>Teaching Reading in the 21st Century</i>	2	Acceptable Core
Graves, Bonnie B.	2	<i>Teaching Reading in the 21st Century</i>	2	Acceptable Core
Gove, Mary	14	<i>Reading and Learning to Read</i>	13	Not acceptable core
Gunning, Thomas G.	9	<i>Assessing and Correcting Reading and Writing Difficulties</i>	3	Acceptable supplemental
		<i>Creating Literacy Instruction for All Students</i>	7	Acceptable Core
Gutlohn, Linda	1	<i>Teaching Reading Sourcebook</i>	1	Acceptable Core
Hacker, Diana	1	<i>The Bedford Handbook</i>	1	Not relevant
Hackney, C.	4	<i>Zaner-Blozer Handwriting Course</i>	4	Not relevant
Hall, Mary Anne	2	<i>Phonics, Phonemic Awareness, and Word Analysis for Teachers: An Interactive Tutorial</i>	2	Acceptable supplemental
Hall, Dorothy	1	<i>The Teacher's Guide to the Four Blocks</i>	1	Not acceptable core
Harp, Bill	1	<i>The Informed Reading Teacher: Research-Based Practice</i>	1	Not acceptable core
Harris, Larry	1	<i>Reading Difficulties: Instruction and Assessment</i>	1	Not acceptable supplemental
Harste, Jerome	2	<i>Creating Classrooms for Authors and Inquirers</i>	2	Not acceptable supplemental
Hart, Betty	1	<i>Meaningful Differences in the Everyday Experience of Young American Children</i>	1	Acceptable supplemental
Harvey, Stephanie	3	<i>Strategies that Work: Teaching Comprehension to Enhance Understanding</i>	3	Acceptable supplemental
Harwayne, Shelley	1	<i>Lifetime Guarantees: Toward Ambitious Literacy Teaching</i>	1	Not acceptable core
Heard, Georgia	1	<i>The Revision Toolbox: Teaching Techniques that Work</i>	1	Not acceptable core
Heilman, Arthur W.	5	<i>Phonics in Proper Perspective</i>	4	Acceptable supplemental
		<i>Principles and Practices of Teaching Reading, 9th Ed.</i>	2	Not acceptable core
Hennings, Dorothy Grant	2	<i>Communication in Action: Teaching Literature-Based Language Arts (7th ed)</i>	2	Not relevant

Herrell, Adrienne L.	1	<i>Fifty Strategies for Teaching English Language Learners</i>	1	Not relevant
Herrman, Beth Ann	1	<i>The Volunteer Tutor's Toolbox</i>	1	Not acceptable supplemental
Hess, William George	1	<i>Readings in Diagnosis and Instruction in Literacy</i>	1	Acceptable supplemental
Hindley, Joanne	1	<i>In the Company of Children</i>	1	Not acceptable supplemental
Hoff, Erika	1	<i>Language Development</i>	1	Acceptable supplemental
Holmes, Janet	1	<i>An Introduction to Sociolinguistics</i>	1	Not relevant
Honig, Bill	1	<i>Teaching Reading Sourcebook</i>	1	Acceptable Core
House, Maupin	1	<i>Building a Writing Community: A Practical Guide</i>	1	Not acceptable supplemental
Hruskocy, Carol	1	<i>Education on the Internet</i>	1	Not relevant
Hubbard, Ruth	2	<i>Language Development: A Reader for Teachers</i>	2	Not relevant
Hull, Marion	2	<i>Phonics for the Teacher of Reading</i>	2	Acceptable supplemental
International Reading Association	2	<i>Evidence-Based Reading Instruction</i>	1	Not relevant
		<i>Standards for Reading Professionals</i>	1	Not relevant
Invernizzi, Marcia	16	<i>Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction</i>	16	Acceptable supplemental
Irvin, Judith L.	2	<i>Reading and The Middle School Student: Strategies to Enhance Literacy (2nd ed.)</i>	1	Not relevant
		<i>Starting Early With Study Skills</i>	1	Not relevant
Jacob, S.	1	<i>Classroom Management for Beginning Teachers</i>	1	Not relevant
Jacobs, James	2	<i>Children's Literature Briefly</i>	2	Not relevant
Jalongo, Mary Renck	4	<i>Early Childhood Language Arts</i>	4	Not acceptable supplemental
Jennings, Joyce Holt	3	<i>Reading Problems: Assessment and Teaching Strategies</i>	3	Not acceptable supplemental
Johns, Jerry	9	<i>Basic Reading Inventory</i>	3	Not acceptable supplemental
		<i>Teaching Beginning Readers: Linking Assessment and Instruction</i>	1	Unavailable
		<i>Improving Writing K-8 (2nd Edition)</i>	1	Not relevant
		<i>Improving Reading: Strategies and Resources</i>	2	Unavailable
		<i>Reading and Learning Strategies for Middle Grades through high School Students</i>	2	Not relevant
Johnston, Francine	16	<i>Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction</i>	16	Acceptable supplemental
Johnston, Peter H.	1	<i>Running Records: A Self-Tutoring Guide</i>	1	Not acceptable supplemental

Jones, Tammy	1	<i>Apprenticeship in Literacy: Transitions Across Reading and Writing</i>	1	Acceptable supplemental
Jordan, Micahel L.	1	<i>Fifty Strategies for Teaching English Language Learners</i>	1	Not relevant
Juelm Connie	2	<i>Teaching Reading in the 21st Century</i>	2	Acceptable Core
Kaufman, Douglas	2	<i>Conferences and Conversations: Listening to the Literate Classroom</i>	1	Not relevant
		<i>Organizing and Managing the Language Arts Workshop: A Matter of Motion</i>	1	Unavailable
Kellough, Richard D.	1	<i>Integrating Language Arts and Social Studies</i>	1	Not relevant
Kemper, Dave	1	<i>Writer's Express: A Handbook for Young Writers, Thinkers and Learners</i>	1	Not relevant
Kennedy, Dorothy M.	1	<i>Knock at a Star: A Child's Introduction to Poetry</i>	1	Not acceptable core
Kennedy, X. J.	1	<i>Knock at a Star: A Child's Introduction to Poetry</i>	1	Not acceptable core
Kiger, Nancy	2	<i>Literacy Assessment: Helping Teachers Plan Instruction</i>	2	Not acceptable supplemental
Kinzer, Charles	1	<i>Effective Reading Instruction</i>	1	Not acceptable supplemental
Kristo, Janice V.	1	<i>Nonfiction in Focus</i>	1	Acceptable supplemental
Kulesza, Dorothy L.	3	<i>Strategies for Struggling Readers: Step by Step</i>	3	Not acceptable supplemental
Ladenberg, D.N.	1	<i>Report of the National Reading Panel: Teaching Children to Read</i>	1	Acceptable Core
Lenski, Susan Davis	6	<i>Teaching Beginning Readers: Linking Assessment and Instruction</i>	1	Unavailable
		<i>Improving Writing K-8 (2nd Edition)</i>	1	Not relevant
		<i>Improving Reading: Strategies and Resources</i>	2	Unavailable
		<i>Reading and Learning Strategies for Middle Grades through High School Students</i>	2	Not relevant
Lerner, Janet W.	3	<i>Reading Problems: Assessment and Teaching Strategies</i>	3	Not acceptable supplemental
Leslie, Lauren	2	<i>Qualitative Reading Inventory</i>	2	Acceptable supplemental
Lester, Mark	1	<i>Grammar in the Classroom</i>	1	Not acceptable supplemental
Leu, D.	3	<i>Effective Reading Instruction</i>	1	Not acceptable supplemental
		<i>Phonics, Phonemic Awareness, and Word Analysis for Teachers: An Interactive Tutorial</i>	2	Acceptable supplemental
Logan, John W.	1	<i>Phonics Research and Instruction</i>	1	Unavailable
Lyman, Howard B.	1	<i>Test Scores and What They Mean</i>	1	Not relevant
Lynch-Brown, Carol	2	<i>Essentials of Children's Literature</i>	2	Not relevant
Machado, Jeanne M.	1	<i>Early Childhood Experiences in Language Arts</i>	1	Acceptable supplemental

Mahler, Jacalyn	1	<i>Teaching Reading Sourcebook</i>	1	Acceptable Core
Mallette, Marla	1	<i>Helping Children Learn to Read: Creating a Classroom Literacy Environment</i>	1	Not acceptable core
May, Frank B.	2	<i>Reading as Communication: An Interactive Approach</i>	2	Not acceptable core
McEwan, Elaine K.	1	<i>Teach them All to Read: Catching Kids Who Fall Through the Cracks</i>	1	Acceptable supplemental
McGee, Lea M.	6	<i>Literacy's Beginnings: Supporting Young Readers and Writers</i>	6	Not acceptable core
McKenna, Michael	3	<i>Teaching Through Text: Reading and Writing in the Content Areas</i>	1	Acceptable supplemental
		<i>Assessment for Reading Instruction</i>	2	Acceptable supplemental
Merritt, King	1	<i>Remediating Reading Difficulties (4th ed)</i>	1	Not acceptable core
Meyerson, Maria J.	3	<i>Strategies for Struggling Readers: Step by Step</i>	3	Not acceptable supplemental
Michigan Reading Association	1	<i>A View Inside</i>	1	Not acceptable supplemental
Miller, Debbie	1	<i>Reading With Meaning: Teaching Comprehension in the Primary Grades</i>	1	Not acceptable supplemental
Minchew, Sue	1	<i>Teaching Language Arts</i>	1	Unavailable
Moats, Louisa Cook	1	<i>Speech to Print: Language Essentials for Teachers</i>	1	Acceptable supplemental
Moe, Alden	4	<i>Analytical Reading Inventory</i>	4	Acceptable supplemental
Moline, Steve	1	<i>I See What You Mean: Children at Work with Visual Information</i>	1	Acceptable supplemental
Montero, M. Kristina	2	<i>Content Area Literacy Instruction for the Elementary Grades</i>	2	Acceptable supplemental
Moore, David	1	<i>Developing Readers and Writers in the Content Areas k-12</i>	1	Not acceptable supplemental
Moore, Sharon Arthur	1	<i>Developing Readers and Writers in the Content Areas k-12</i>	1	Not acceptable supplemental
Morgan, Raymond F.	1	<i>Reading to Learn in the Content Areas</i>	1	Acceptable supplemental
Morrow, Lesley Mandell	7	<i>Literacy Development in the Early Years</i>	6	Not acceptable core
		<i>Learning to Read: Lessons from Exemplary First-Grade Classrooms</i>	1	Not acceptable supplemental
Nathan, Ruth	1	<i>Writer's Express: A Handbook for Young Writers, Thinkers and Learners</i>	1	Not relevant
National Association for the Education of Young Children	5	<i>Learning to Read and Write: Developmentally Appropriate Practices for Young Children</i>	5	Not acceptable supplemental
National Council of Teachers of English	1	<i>IRA/NCTE Standards for the English Language Arts</i>	1	Not acceptable supplemental

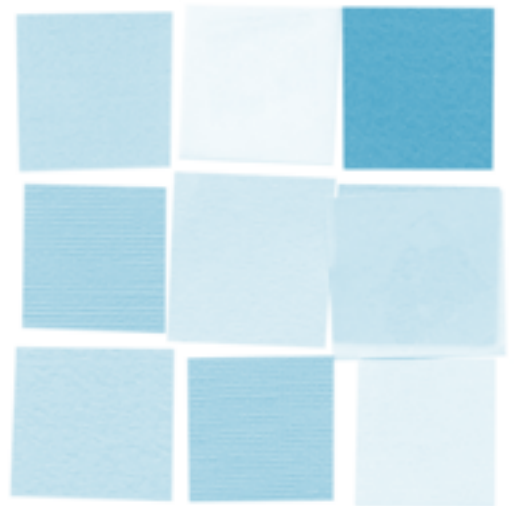
National Reading Panel	3	<i>Put Reading First: The Research Building Blocks for Teaching Children to Read</i>	3	Acceptable supplemental
Neuman, Susan B.	5	<i>Learning to Read and Write: Developmentally Appropriate Practices for Young Children</i>	5	Not acceptable supplemental
New Zealand Staff Ministry Of Education	2	<i>Dancing with Pen: The Learner as a Writer</i>	1	Not acceptable supplemental
		<i>Reading for Life: The Learner as a Reader</i>	1	Not relevant
Norton, Donna E.	3	<i>Through the Eyes of a Child</i>	1	Not relevant
		<i>Language Arts Activities for Children</i>	2	Not acceptable supplemental
Norton, Sandra E.	1	<i>Language Arts Activities for Children</i>	1	Not acceptable supplemental
O'Donnell, Michael P.	1	<i>Becoming a Reader</i>	1	Not acceptable core
Ogle, Donna	1	<i>All Children Read: Teaching for Literacy in Today's Diverse Classrooms</i>	1	Acceptable supplemental
Otto, Beverly White	1	<i>Language Development in Early Childhood</i>	1	Acceptable supplemental
Owocki, Gretchen	2	<i>Kidwatching: Documenting Children's Literacy Development</i>	1	Not acceptable supplemental
		<i>Comprehension: Strategic Instruction for K-5 Students</i>	1	Acceptable supplemental
Payne, C.D.	2	<i>Guided Reading: Making it Work</i>	2	Not acceptable supplemental
Pearson, David	1	<i>Reading Difficulties: Instruction and Assessment</i>	1	Not acceptable supplemental
Piazza, Carolyn	1	<i>Journeys: The Teaching of Writing in the Elementary Classrooms</i>	1	Not acceptable supplemental
Pinnell, Gay Su	9	<i>Guiding Readers and Writers Grades 5-6: Teaching Comprehension, Genre and Content Literacy</i>	1	Not acceptable core
		<i>Helping America Read: A Handbook for Volunteers</i>	1	Not acceptable supplemental
		<i>Guided Reading: Good First Teaching for All Children</i>	7	Not acceptable supplemental
Piper, Terry	1	<i>Language and Learning: The Home and School Years</i>	1	Not acceptable supplemental
Portalupi, Joann	4	<i>Writing Workshop: The Essential Guide</i>	3	Not acceptable supplemental
		<i>Craft Lessons: Teaching Writing K-8</i>	1	Not acceptable supplemental
Power, Brenda Miller	2	<i>Language Development: A Reader for Teachers</i>	2	Not relevant
Pratt, Linda	1	<i>Early Literacy in Preschool and Kindergarten</i>	1	Not acceptable core
Pressley, Michael	1	<i>Learning to Read: Lessons from Exemplary First-Grade Classrooms</i>	1	Not acceptable supplemental

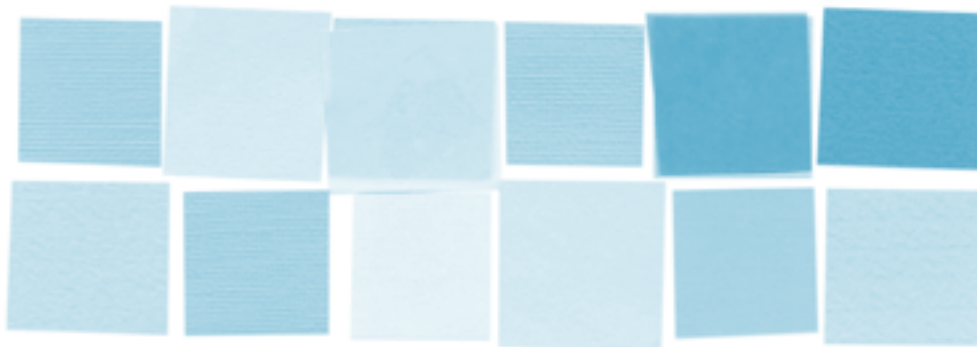
Rasinski, Timothy	1	<i>Teaching Comprehension and Exploring Multiple Literacies: Strategies from The Reading Teacher</i>	1	Acceptable supplemental
Rayburn, Shane	1	<i>Looking Through the Faraway End: Creating a Literature-Based Curriculum with Second Graders</i>	1	Not relevant
Readence, John E.	3	<i>Reading Strategies and Practices: A Compendium</i>	1	Acceptable supplemental
		<i>Content area literacy: An Integrated Approach (8th ed.)</i>	1	Acceptable supplemental
		<i>Helping Children Learn to Read: Creating a Classroom Literacy Environment</i>	1	Not acceptable core
Reiche, Joe	1	<i>Exemplary Practices for Beginning Communicators: Implications for ACC Baltimore</i>	1	Not relevant
Reutzell, D. Ray	11	<i>The Essentials of Teaching Children to Read</i>	2	Acceptable supplemental
		<i>Strategies for Reading Assessment and Instruction</i>	3	Not acceptable supplemental
		<i>Teaching Children to Read: Putting the Pieces Together</i>	4	Not acceptable core
		<i>Balanced Reading Strategies and Practices: Assessing and Assisting Readers with Special Needs</i>	2	Not acceptable supplemental
Richardson, Judy S.	1	<i>Reading to Learn in the Content Areas</i>	1	Acceptable supplemental
Richeck, Margaret Ann	3	<i>Reading Problems: Assessment and Teaching Strategies</i>	3	Not acceptable supplemental
Richgels, Donald	6	<i>Literacy's Beginnings: Supporting Young Readers and Writers</i>	6	Not acceptable core
Risley, Todd	1	<i>Meaningful Differences in the Everyday Experience of Young American Children</i>	1	Acceptable supplemental
Robb, Laura	2	<i>Teaching Reading in Social Studies, Science and Math</i>	1	Acceptable supplemental
		<i>Reading Strategies That Work</i>	1	Not acceptable supplemental
Robinson, Richard D.	1	<i>Teaching Through Text: Reading and Writing in the Content Areas</i>	1	Acceptable supplemental
Roe, Betty	3	<i>Secondary School Literacy Instruction: The Content Areas</i>	1	Unavailable
		<i>Informal Reading Inventory</i>	2	Not acceptable supplemental
Rose, Elaine D.	1	<i>Starting Early With Study Skills</i>	1	Not relevant
Routman, Regie	1	<i>Writing Essentials</i>	1	Not acceptable core
Rubin, Dorothy	1	<i>Diagnosis and Correction in Reading Instruction</i>	1	Unavailable
Ruddell, Robert	1	<i>Teaching Children to Read and Write: Becoming an Influential Teacher</i>	1	Not acceptable core
Rupley, William H.	3	<i>Phonics Research and Instruction</i>	1	Unavailable
		<i>Principles and Practices of Teaching Reading, 9th Ed.</i>	2	Not acceptable core

Samuels, Barbara G.	1	<i>Into Focus: Understanding and Creating Middle School Readers</i>	1	Not acceptable supplemental
Savage, John F.	1	<i>Sound it Out! Phonics in a Balanced Reading Program</i>	1	Acceptable supplemental
Schulman, Mary Browning	2	<i>Guided Reading: Making it Work</i>	2	Not acceptable supplemental
Schumm, Gerald	1	<i>The Reading Tutor's Handbook: A Commonsense Guide to Helping Students Read and Write</i>	1	Not relevant
Schumm, Jean Shay	1	<i>The Reading Tutor's Handbook: A Commonsense Guide to Helping Students Read and Write</i>	1	Not relevant
Searfoss, Lyndon W.	1	<i>Helping Children Learn to Read: Creating a Classroom Literacy Environment</i>	1	Not acceptable core
Sebranek, Patrick	1	<i>Writer's Express: A Handbook for Young Writers, Thinkers and Learners</i>	1	Not relevant
Shanker, James L.	6	<i>Locating and Correcting Reading Difficulties</i>	4	Not acceptable supplemental
		<i>Ekwall/Shanker Reading Inventory</i>	2	Acceptable supplemental
Short, Kathy Gnagey	2	<i>Creating Classrooms for Authors and Inquirers</i>	2	Not acceptable supplemental
Sigmon, Cheryl	1	<i>The Teacher's Guide to the Four Blocks</i>	1	Not acceptable core
Sivaroli, Nicholas J.	2	<i>Classroom Reading Inventory</i>	2	Not acceptable core
Soffos, Carla	1	<i>Scaffolding Young Writers: A Writer's Workshop Approach</i>	1	Not relevant
Stahl, Steven	2	<i>Assessment for Reading Instruction</i>	2	Acceptable supplemental
Stanzi, C.	1	<i>Looking Through the Faraway End: Creating a Literature-Based Curriculum with Second Graders</i>	1	Not relevant
Stieglitz, Ezra	2	<i>Stieglitz Informal Reading Inventory: Assessing Reading Behaviors From Emergent to Advanced Levels</i>	2	Not acceptable supplemental
Barbara D. Stoodt-Hill	1	<i>Children's Literature: Discovery for a Lifetime</i>	1	Not relevant
Strickland, Dorothy S.	3	<i>Language Arts: Learning and Teaching</i>	2	Not acceptable core
		<i>Teaching Phonics Today: A Primer for Educators</i>	1	Not acceptable supplemental
Strunk, William	1	<i>The Elements of Style</i>	1	Not relevant
Swofford, Jeanne	2	<i>Content Area Literacy Instruction for the Elementary Grades</i>	2	Acceptable supplemental
Taberski, Sharon	3	<i>On Solid Ground: Strategies for Teaching Reading K-5</i>	3	Not acceptable supplemental
Taylor, Barbara	1	<i>Reading Difficulties: Instruction and Assessment</i>	1	Not acceptable supplemental
Temple, Charles A.	2	<i>All Children Read: Teaching for Literacy in Today's Diverse Classrooms</i>	1	Acceptable supplemental
		<i>Understanding Reading Problems: Assessment and Instruction</i>	1	Not acceptable core

Templeton, Shane	16	<i>Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction</i>	16	Acceptable supplemental
Tiedt, Iris M.	1	<i>Multicultural Teaching: A Handbook of Activities, Information, and Resources</i>	1	Not relevant
Tiedt, Pamela L.	3	<i>Multicultural Teaching: A Handbook of Activities, Information, and Resources</i>	1	Not relevant
		<i>Language Arts Activities for the Classroom</i>	2	Not acceptable supplemental
Tierney, Robert	1	<i>Reading Strategies and Practices: A Compendium</i>	1	Acceptable supplemental
Tomlinson, Carl M.	2	<i>Essentials of Children's Literature</i>	2	Not relevant
Tompkins, Gail	47	<i>Language Arts: Patterns of Practice</i>	3	Unavailable
		<i>Language Arts: Content and Teaching Strategies</i>	10	Not acceptable core
		<i>50 Literacy Strategies: Step by Step</i>	5	Acceptable supplemental
		<i>Literacy for the 21st Century</i>	29	Not acceptable core
Trawick-Smith, Jeffrey	1	<i>Early Childhood Development; A Multicultural Perspective</i>	1	Not relevant
Tunnell, Michael	2	<i>Children's Literature Briefly</i>	2	Not relevant
Unrau, Norman J.	1	<i>Content Area Reading and Writing: Fostering Literacies in Middle and High School Cultures</i>	1	Acceptable supplemental
Vacca, JoAnne L.	16	<i>Reading and Learning to Read</i>	13	Not acceptable core
		<i>Content Area Reading: Literacy and Learning Across the Curriculum</i>	3	Not acceptable core
Vacca, Richard	16	<i>Reading and Learning to Read</i>	13	Not acceptable core
		<i>Content Area Reading: Literacy and Learning Across the Curriculum</i>	3	Not acceptable core
Van Sledright, Bruce	1	<i>Constructing a Powerful Approach to Teaching and Learning in Elementary</i>	1	Not relevant
Vulkelich, Carol	2	<i>Teaching Language and Literacy: Preschool Through the Elementary Grades</i>	2	Not acceptable supplemental
Walther, Maria P.	1	<i>Teaching Reading: A Balanced Approach for Today's Classrooms</i>	1	Not acceptable core
Weaver, Constance	1	<i>Teaching Grammar in Context</i>	1	Not acceptable supplemental
Wham, Mary Anne	2	<i>Reading and Learning Strategies for Middle Grades Through High School Students</i>	2	Not relevant
Wheelock, Warren H.	2	<i>Classroom Reading Inventory</i>	2	Not acceptable core
White, E. B.	1	<i>The Elements of Style</i>	1	Not relevant
Wilde, Sandra	1	<i>Miscue Analysis Made Easy: Building on Student Strengths</i>	1	Not acceptable supplemental
Wilson, Robert	2	<i>Phonics, Phonemic Awareness, and Word Analysis for Teachers: An Interactive Tutorial</i>	2	Acceptable supplemental
Winsler, Adam	1	<i>Scaffolding Children's Literature: Vygotsky and Early Childhood Education</i>	1	Not relevant

Wood, Margo	1	<i>Becoming a Reader</i>	1	Not acceptable core
Woods, Denise	1	<i>Education on the Internet</i>	1	Not relevant
Woods, Mary Lynn	4	<i>Analytical Reading Inventory</i>	4	Acceptable supplemental
Yell, Mitchell	1	<i>No Child Left Behind: A Guide for Professionals</i>	1	Not relevant
Yellin, David	1	<i>Integrating the Language Arts</i>	1	Not acceptable supplemental
Yule, George	1	<i>The Study of Language</i>	1	Acceptable supplemental
Zaner-Blozner Staff	3	<i>Self-Instruction in Handwriting</i>	3	Not relevant
Zaragoza, Nina	1	<i>Rethinking Language Arts: Passion and Practice</i>	1	Not relevant
Zarrillo, James	1	<i>Ready for RICA</i>	1	Acceptable supplemental





For additional copies or the full version of this study, contact:



National Council on Teacher Quality

1225 19th Street N.W., Suite 800

Washington, D.C. 20036

Tel 202 222-0561 Fax 202 222-0570 Web www.nctq.org

The National Council on Teacher Quality advocates for reforms in a broad range of teacher policies at the federal, state, and local levels in order to increase the number of effective teachers.



TRANSPARENCY

Our dedication to transparency. In support of our mission, we are committed to increasing public awareness about the three sets of institutions that have the greatest impact on teacher quality: state departments of education, teacher preparation programs, and teacher unions.

Subscribe to NCTQ's free monthly electronic newsletter, Teacher Quality Bulletin, to stay abreast of trends in federal, state, and local teacher policies and the events that help to shape them.