



Understanding Our Early Reading Standard

The program trains teacher candidates to teach reading as prescribed by increasingly rigorous state standards.

WHY THIS STANDARD?

Teaching children how to read is “job one” for elementary and special education teachers because reading proficiency underpins all later learning. Unfortunately, some 30 percent of all children do not become capable readers. Using the knowledge gained from decades of research and articulated in increasingly rigorous state standards, effective reading instruction could cut this unacceptable rate of failure by two-thirds or even more.

WHAT IS THE FOCUS OF THE STANDARD?

Lectures, assignments, and textbooks of required reading courses are examined to determine whether the training that teachers receive is in line with the findings of the National Reading Panel, the most authoritative source on how children learn to read. Programs meeting the “strong design” indicator are exemplary in every aspect of training in reading instruction that we examine.

Standard applies to: Elementary programs.

Standard and Indicators

page 2

Rationale

3

The rationale summarizes research about this standard. The rationale also describes practices in the United States and other countries related to this standard, as well as support for this standard from school leaders, superintendents, and other education personnel.

Methodology

5

The methodology describes the process NCTQ uses to score institutions of higher education on this standard. It explains the data sources, analysis process, and how the standard and indicators are operationalized in scoring.

Research Inventory

11

The research inventory cites the relevant research studies on topics generally related to this standard. Not all studies in the inventory are directly relevant to the specific indicators of the standard, but rather they are related to the broader issues that the standard addresses. Each study is reviewed and categorized based on the strength of its methodology and whether it measures student outcomes. The strongest “green cell” studies are those that both have a strong design and measure student outcomes.

Standard and Indicators

Standard 2: Early Reading

The program trains teacher candidates to teach reading as prescribed by increasingly rigorous state student learning standards.

Standard applies to: Elementary and Special Education programs.

Indicators that the program meets the standard:

2.1 Coursework lectures and practice adequately cover the five essential components of effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension strategies.

AND

2.2 Textbooks used in reading courses support effective reading instruction.

Indicator that the program has strong design:

2.3 A program that satisfies indicators 2.1 and 2.2 will receive a designation of “strong design” if every relevant required course: (1) achieves the highest or second highest score on each of the five essential components of effective reading instruction, and (2) without exception, supports effective reading instruction with required textbooks that are rated “acceptable” in the textbook evaluation process.

Rationale

Standard 2: Early Reading

The program trains teacher candidates to teach reading as prescribed by increasingly rigorous state standards.

Standard applies to: Elementary and Special Education programs.

WHY THIS STANDARD?

Teaching children how to read is “job one” for elementary and special education teachers because reading proficiency underpins all later learning. Unfortunately, some 30 percent of all children do not become capable readers.¹ Using the knowledge gained from decades of research and articulated in increasingly rigorous state standards, effective reading instruction could cut this unacceptable rate of failure by two-thirds or even more.

WHAT IS THE FOCUS OF THE STANDARD?

Lectures, assignments, and textbooks of required reading courses are examined to determine whether the training that teachers receive is in line with the findings of the National Reading Panel, the most authoritative source on how children learn to read. Programs meeting the “strong design” indicator are exemplary in every aspect of training in reading instruction that we examine.

RATIONALE

Research base for this standard

A “strong research” study² that assessed teachers’ knowledge of the five components of effective reading instruction (phonemic awareness, phonics, fluency, vocabulary, and reading comprehension, as identified by the National Reading Panel) found no relationship between teachers’ level of knowledge and their level of education (e.g., master’s degrees or permanent certification).³ This study also found no relationship between teachers’ knowledge of these components and their students’ reading growth — with the notable exception of third-grade students. The authors suggest that these findings may be because programs did not train teachers in the use of appropriate strategies, or because their training did not align with their reading curricula or outcome measures.

Additional research⁴ indicates that over the past 60 years, scientists from many fields have worked to determine how people learn to read and why some people struggle. In 2000, the National Reading Panel released an exhaustive review

- 1 NAEP data from 2013 found that 32 percent of fourth grade students scored “below basic” on the reading assessment. National Center for Education Statistics (2013). *The Nation’s Report Card: A First Look: 2013 Mathematics and Reading* (NCES 2014-451). Institute of Education Sciences, U.S. Department of Education, Washington, D.C. Retrieved from <http://nces.ed.gov/nationsreportcard/subject/publications/main2013/pdf/2014451.pdf>
- 2 NCTQ has created “research inventories” that describe research conducted within the last decade or so that has general relevance to aspects of teacher preparation also addressed by one or more of its standards (with the exceptions of the Outcomes, Evidence of Effectiveness, and Rigor standards). These inventories categorize research along two dimensions: design methodology and use of student performance data. Research that satisfies our standards on both is designated as “strong research” and will be identified as such. That research is cited here if it is directly relevant to the standard; strong research is distinguished from other research that is not included in the inventory or is not designated as “strong” in the inventory. Refer to the [introduction](#) to the research inventories for more discussion of our approach to categorizing research. If a research inventory has been developed to describe research that generally relates to the same aspect of teacher prep as addressed by a standard, the inventory can be found in the back of this standard book.
- 3 Carlisle, J. F., Correnti, R., Phelps, G., & Zeng, J. (2009). Exploration of the contribution of teachers’ knowledge about reading to their students’ improvement in reading. *Reading and Writing: An Interdisciplinary Journal*, 22, 459-486.
- 4 “Additional research” is research that is not designated as “strong” because it is not as recent and/or does not meet the highest standards for design methodology and/or use of student performance data.

of this research, identifying five critical components of effective reading instruction (listed above). If teachers were to routinely integrate these findings into instruction, it is estimated that the current failure rate of 20 to 30 percent could be reduced to the range of 2 to 10 percent.⁵ A recent What Works Clearinghouse (WWC) practice guide based on a comprehensive review of 56 studies that meet the WWC's rigorous research standards further validates the importance of instruction tailored to these five components.⁶ Preservice preparation that addresses the five essential components of effective reading instruction ensures that novice teachers will enter the classroom ready to teach reading well.

Despite this research on the five critical components of reading instruction, preparation in reading instruction appears to be inadequate. A recent study of a sample of 2,237 preservice teachers attending a nationally representative sample of 99 institutions that prepare teachers for initial certification found that, on average, the teacher candidates failed to have adequate knowledge of the five essential components of early reading instruction, correctly answering only 57 percent of items on a "knowledge assessment."⁷ Some evidence suggests that teacher candidates exhibit a greater understanding of these concepts when their required coursework focuses on them explicitly⁸ and when they are taught by instructors with relevant professional training.⁹

Other support for this standard

If state licensing tests rigorously assessed teacher knowledge of reading instruction, the imperative of evaluating programs would be lessened. However, only 17 states have developed strong, stand-alone assessments entirely focused on the science of reading. For example, Massachusetts (the highest performing state in the country) has developed a rigorous assessment for elementary teachers focused solely on reading. Other states rely on either pedagogy tests or content tests that include items on reading instruction. Because reading instruction is addressed only in one small part of most of these tests, it is often not necessary to know the science of reading to pass.¹⁰

This standard gains additional support from expert panels and school district superintendents, who agree that early reading is critical for elementary teachers. Finally, the Common Core State Standards for early elementary grades are explicitly aligned with the findings of the National Reading Panel.

- 5 Torgesen, J. K. (2005, November). Preventing reading disabilities in young children: Requirements at the classroom and school level. Presented at the Western North Carolina LD/ADD Symposium, Asheville, NC.
- 6 Foorman et al. (2016) identifies strong evidence for instruction that develops phonological awareness, phonemic awareness, the alphabetic principle, and phonics; moderate evidence for having students read "connected text" (multiple related sentences) to develop fluency and comprehension; and minimal evidence for instruction that teaches academic language in order to develop inferential language, narrative language, and vocabulary knowledge. Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., ... Wissel, S. (2016). Foundational skills to support reading for understanding in kindergarten through 3rd grade (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: <http://whatworks.ed.gov>
- 7 Salinger, T., et al. (2010, September). Study of teacher preparation in early reading instruction. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved February 7, 2013, from <http://ies.ed.gov/ncee/pubs/20104036/pdf/20104036.pdf>
- 8 Clark et al. (2015) found that teacher candidates who completed coursework that offered explicit instruction in the five critical components of reading instruction outperformed a comparison group on an assessment of literacy content and pedagogical knowledge. However, study authors judged course content based solely on course descriptions and relied on a small sample size (87 teacher candidates). Clark, S. K., Helfrich, S. R., & Hatch, L. (2015). Examining preservice teacher content and pedagogical content knowledge needed to teach reading in elementary school. *Journal of Research in Reading*, doi: 10.1111/1467-9817.12057.
- 9 Binks-Cantrel et al. (2012) found that teacher candidates taught by instructors who completed professional development on phonological and phonemic awareness, among other basic language constructs, outperformed others taught by instructors who did not receive the same professional development opportunity. Binks-Cantrell, E., Washburn, E. K., Malatesha Joshi, R., & Hougen, M. (2012). Peter effect in the preparation of reading teachers. *Scientific Studies of Reading*, 16(6), 526-536.
- 10 For problems with existing reading tests, see Stotsky, S. (2006). Why American students do not learn to read very well: The unintended consequences of Title II and teacher testing. *Third Education Group Review*, 2(2) 1-37; Rigden, D. W. (2006). Report on licensure alignment with the essential components of effective reading instruction. Washington, DC: Reading First Teacher Education Network; <http://www.tegr.org/Review/Articles/vol2/v2n2.pdf>

Methodology

How NCTQ scores the Early Reading Standard

Standards and Indicators

DATA USED TO SCORE THIS STANDARD

Evaluation of elementary and special education programs on Standard 2: Early Reading uses the following sources of data:

- Syllabi for all required courses that address literacy instruction
- Required textbooks in all required literacy coursework

WHO ANALYZES THE DATA

One [reading subject-specialist](#) evaluates syllabi using a detailed scoring protocol from which this scoring methodology is abstracted. Ten percent of syllabi are randomly selected for a second evaluation to assess scoring variances.

SCOPE OF ANALYSIS

Analysis of **undergraduate** and **graduate** teacher preparation programs on early reading is based on an examination of syllabi and required textbooks in coursework that is relevant because it addresses the essential components of early literacy instruction in whole or in part. (A discussion of the use of syllabi and textbooks for analysis of course content is provided [here](#).) Unlike the evaluation process for some other content standards, no distinction is drawn between undergraduate and graduate programs.

Syllabi are evaluated for their instruction on each of five *components* essential for early reading identified by the National Reading Panel (2000): phonemic awareness, phonics, fluency, vocabulary, and reading comprehension.¹¹ Analysts score syllabi based on coverage in lectures and elements of accountability (assessments, writing assignments, or actual teaching practice) dedicated to each of the components.¹² The scores in each of these areas are proportional to the coverage. For example, an essential component receives minimal credit for lecture coverage if it is a part of a single lecture and full lecture credit if it is the focus of two lectures.¹³

All required textbooks are also reviewed by [reading experts](#) to evaluate their treatment of strategies for struggling readers. Ratings of reviewed reading textbooks are provided [here](#).¹⁴

We have refined our methodology from earlier evaluations of instruction on reading to more accurately and appropriately address texts that are well aligned with scientifically-based reading instruction, but are summaries of the research, not detailed enough to support course lectures and assignments. Such texts are generally resource or reference guides, which while useful, generally serve to provide an introduction to key topics; Put Reading First is probably the best known and most widely

11 Textbook reviewers evaluate texts for comprehensive, accurate, research-based coverage of each of the five components of effective reading instruction looking for: 1) accurate information and examples, 2) discussion of assessment of students' acquisition of the components, and instruction on each using proven teaching methods.

12 Assessments are generally tests and quizzes. Writing assignments include essays, journal entries, and reports. Practice assignments include teaching a sample lesson to the college class or to a K-12 class. Assignments must be graded to count for this standard.

13 Each component can earn a maximum of nine points for a course (apportioned equally across its coverage in required texts, lectures, and accountability elements).

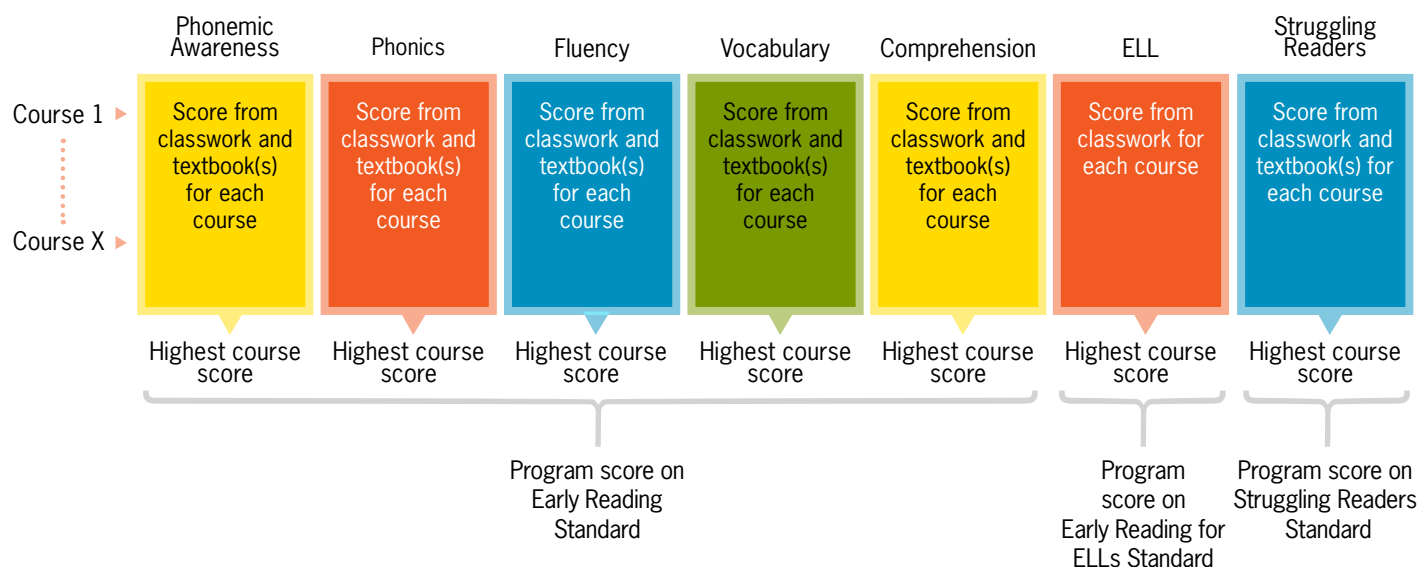
14 Note that in previous evaluations of reading coursework in earlier field studies, we obtained and evaluated collections of articles compiled by instructors and provided to teacher candidates in lieu of textbooks; we no longer do so because of the belief (expressed in Indicator 2.2) that textbooks can and should best support effective reading instruction.

used example of texts in this category. The methodology for the *Teacher Prep Review* rates these texts as “acceptable,” but does not award credit for all components (as generally would be awarded for an “acceptable core” text) or for one or more individual components (as generally would be awarded for an “acceptable supplemental” text).

In accordance with Indicators 2.1 and 2.2, scores from syllabus and textbook reviews are combined into a course score for each of the five components;¹⁵ the highest course score for each component — in any course — is used for the program component score.

Overall program scores are proportional to the number of program component scores adequately addressed in the program.¹⁶

Evaluating reading coursework for the Early Reading, Early Reading for English Language Learners, and Struggling Readers Standards¹⁷



Common misconceptions about how analysts evaluate the Early Reading Standard:

- *Any required reading or literacy course is relevant to this standard.* Every required course that addresses reading or literacy is screened by the analysts to determine relevance for this standard. Required courses that do not specifically address the five essential components — for example, courses that focus exclusively on the history and genres of children’s literature, while valuable, are irrelevant for the purposes of this standard and are not reviewed.
- *Course objectives or standards mapping are interchangeable with specific lectures, written assignments, assessments, or practice teaching.* Many syllabi laudably include objectives and goals for a course; however, the scoring protocol for this standard requires reviewers to look for specific instructional plans (lectures, writing assignments, assessments, practice teaching) that implement those objectives. In other words, an objective with no supporting texts, lectures, assignments or practice teaching is not sufficient.

15 A course could receive an “unclear” score if the combination of information relating to lectures, assignments, and teaching practice does not permit evaluation.

16 “Adequately addresses” means at least one course earned at least five of the possible nine points for the component. A program that adequately addresses all five of the essential early reading components meets the standard.

17 To earn a passing score on the Early Reading for English Language Learners Standard or the Struggling Readers Standard, a program must earn at least a C (“partly meets the standard”) on the Early Reading Standard.

HOW A PROGRAM EARNS STRONG DESIGN

Evaluation of a program for strong design entails a check that it achieves a score of 8-9 on all five components of effective reading instruction and all required textbooks are rated “acceptable.” Programs that earn strong design are those which have comprehensive and efficient instruction in the five essential components, with all required courses and textbooks supporting that effort.

AN ALTERNATE SCORING PROCESS IF DATA ARE NOT PROVIDED

Because elementary preparation is critical to ensuring that elementary and special education teacher candidates are competent to enter the classroom, NCTQ developed a means of evaluating elementary and special education programs on this standard using imputation for a few cases where we could not obtain all syllabi.¹⁸

This imputation process relies on the following sources of data:

- Syllabi for one or more of the required courses that address literacy instruction
- Required textbooks in all required literacy coursework from those syllabi
- Listings in IHE bookstores of required primary textbooks in required early reading courses for which syllabi were not available

The fundamental difference between the two scoring approaches is that the course scores produced by imputation for courses in which no syllabi are available rely on the textbook evaluations only. These imputed course scores are used as outlined above in determining the overall program scores.



Scores produced by are reported as Pass (3.5 on a 0-4 scale) or Not Pass (1 on a 0-4 scale).

Any program that could not be evaluated by either the standard scoring process or the above process was not ranked.

18 We estimate that in 70 percent of programs, imputation produces the same program scores as evaluation with complete data.

Examples of what satisfies or does not satisfy the standard's indicator

Coverage of five components of effective reading instruction (Indicator 2.1)

 satisfies the indicator	 does not satisfy the indicator
<p>The program's coursework lectures, graded writing assignments, and practice adequately cover phonemic awareness, phonics, fluency, vocabulary, and comprehension. (Assessments are also evaluated for the standard, but programs are not rated on this component of instruction.)</p> <p>The following examples are drawn from a composite of syllabi from different courses and programs:</p> <p>Phonemic awareness: Lectures:</p> <ul style="list-style-type: none"> ■ Meta-linguistic awareness ■ Phonological awareness ■ Phonemic awareness: definition/components ■ Phonemic awareness instruction ■ Phonemic awareness assessment <p>Assignments or Practice:</p> <ul style="list-style-type: none"> ■ Research Article Reviews: Candidates will read, summarize, evaluate and propose instructional applications of the information from selected peerreviewed research articles on the following topics: Literacy and Health; Phonemic Awareness. ■ Phonemic Awareness Activity: Candidates will design a phonemic awareness activity that explicitly teaches a phonemic awareness ■ Phonics/Phonemic Awareness Instruction: Candidates will use assessment data, the MLAF and other standards to develop and teach an explicit phonics/phonemic awareness lesson to a student. <p>Phonics: Lectures:</p> <ul style="list-style-type: none"> ■ Phonics <p>Practice:</p> <ul style="list-style-type: none"> ■ Lesson Plan, Presentation & Reflection: You will design one lesson plan using the Hunter model incorporating one of the following topics: onset and rime, word segmentation, syllabification, phoneme isolation, phoneme identity, phoneme categorization, phoneme deletion, phoneme addition or phoneme substitution or a pre-approved subject if your certification area is the Middle Childhood Generalist. This lesson plan will be presented to the class as if you were teaching it to a class of students of the grade level you hope to teach, and it must include differentiation. 	<p>The program's coursework covers only one or none of the components of effective reading instruction or the coverage of the component is inadequate.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ The concept of phonemic awareness, found in lectures, assignments, tests, or teaching practice may be countered by its context if it is clearly associated with printed material. ■ A phonics lecture may be associated with an assignment in which candidates are directed to write and teach an “embedded phonics lesson using authentic literature” a method of teaching phonics that is not SBRR.¹⁹ Given the context, the lecture would not receive phonics credit. ■ If the concept of “comprehension” appears in the context of non-SBRR instructional strategies, such as “shared reading” or “literature circles,” it would not be credited.

19 SBRR stands for “Scientifically Based Reading Research.”

Fluency:

Lectures:

- Developing Fluent Readers
- Fluency — Differentiate word recognition, word identification and fluency

Assessment:

- Students will be required to complete a final examination. The final exam will be in written essay format. Students will be asked to reflect on the major tenants of literacy development (phonemic awareness, phonics, **fluency**, vocabulary and comprehension) and describe how each of these influences the student's instructional practices in his or her designated certification area (PK-4; 4-8).

Practice:

- Using a basal reading series, students are required to develop, implement, assess and modify a comprehensive lesson plan incorporating the following literacy components: phonemic awareness, phonics, **fluency** and comprehension.
- Students are required to demonstrate an understanding of the following literacy components, using a variety of texts, by teaching the following mini-lessons (informally) during class in small-group settings:
 1. Phonemic awareness
 2. Phonics
 3. **Fluency**
 4. Vocabulary
 5. Comprehension

Vocabulary:

Lectures:

- Making Words My Own
- How Well Do I Know It?
- Dictionary Day. Multisyllabic Words

Writing Assessment:

- Students in this course will plan and organize effective reading instruction based on their growing knowledge and understanding of:
 - a. Phonemic awareness
 - b. Phonics
 - c. Fluency
 - d. **Vocabulary**
 - e. Text comprehension

■ Teaching Notebook

You will submit a teaching notebook twice during the semester:



Vocabulary, Fluency & Comprehension

Practice:

- Reading Component Project: Students will present a lesson plan to their peers in each of the component areas:
 - Lesson 1 — phonemic awareness
 - Lesson 2 — phonics
 - Lesson 3 — **vocabulary**
 - Lesson 4 — fluency
 - Lesson 5 — comprehension
- Vocabulary Teaching Practice

<p>Comprehension:</p> <p>Lectures:</p> <ul style="list-style-type: none"> ■ Chapter 2 – Teaching Comprehension ■ Intro – Comprehension Strategy Lesson ■ Graphic Organizers & Thinking Maps ■ Chapter 5 – Mediating Expository Text Structures and Common Access ■ Chapter 5 – Mediating Expository Text Structures and Common Access Features (cont). ■ Intro – Content Area Expository Text Structure Lesson <p>Writing Assignments:</p> <ul style="list-style-type: none"> ■ The student will complete 10 assignments directly related to the course content, i.e., reading guides, research article critiques, case studies. <p>Practice:</p> <ul style="list-style-type: none"> ■ Comprehension Strategy Lesson Presentations ■ The student will develop and present four content area literacy strategy lessons: comprehension strategy, vocabulary strategy, expository text structure strategy and visual literacy strategy. 	
--	--

Textbooks support effective reading instruction (Indicator 2.2)

 fully satisfies the indicator	 does not satisfy the indicator
<p>The program’s two required literacy courses require the following textbook:</p> <p>Courses 1 and 2: <i>Literacy Instruction for All Students</i> (Gunning, 8th ed.)</p> <p><i>Note: This textbook is categorized as an “acceptable core” textbook. Course 1 also requires Put Reading First: The Research Basis for Teaching Children to Read, Kindergarten Through Grade 3 (Armbruster and Osborn, 3rd ed.), but this is categorized as “acceptable overview” since it is a research summary and not a textbook focused on reading instruction.</i></p>	<p>The program’s two literacy courses require the following textbooks:</p> <p>Course 1: <i>Literacy for the 21st Century: A Balanced Approach</i> (Tompkins, 5th ed.)</p> <p><i>Note: This textbook does not support effective reading instruction on any of the five components.</i></p> <p>Course 2: <i>Strategies that Work: Teaching Comprehension for Understanding and Engagement</i> (Harvey and Goudvis, 2nd ed.)</p> <p><i>Note: This textbook supports effective reading instruction on comprehension only.</i></p>

Research Inventory

Researching Teacher Preparation: Studies investigating the preparation of teacher candidates in reading instruction of early readers

These studies address issues most relevant to Standard 2: Early Reading

Total number of studies	Studies with stronger design		Studies with weaker design	
	Measures student outcomes	Does not measure student outcomes	Measures student outcomes	Does not measure student outcomes
21	2	1	1	17
	Citations: 4,5	Citations: 13	Citations: 1	Citations: 2, 3, 6-12, 14-21

Note: Al Otaiba & Lake (2007), Bos et al. (2001), Duffy & Atkinson (2001), Lake et al. (2010), and Washburn et al. (2011) are cross-listed with RI 4: Struggling Readers; Hamman et al. (2006) is cross-listed with RI14: Student Teaching.

Citations for articles categorized in the table are listed below.

Databases: Education Research Complete and Education Resource Information Center (peer-reviewed listings of reports on research including United States populations). Several studies with strong design that were gathered from other sources are included.

Publication dates: Jan 2000 – August 2016

See [Research Inventories: Rationale and Methods](#) for more information on the development of this inventory of research.

1. Al Otaiba, S., & Lake, V. E. (2007). Preparing special educators to teach reading and use curriculum-based assessments. *Reading and Writing: An Interdisciplinary Journal*, 20(6), 591–617.
2. Barnyak, N., & Paquette, K. R. (2010). An investigation of elementary preservice teachers' reading instructional beliefs. *Reading Improvement*, 47(1), 7–17.
3. Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia*, 51(1), 97–120.
4. Carlisle, J. F., Correnti, R., Phelps, G., & Zeng, J. (2009). Exploration of the contribution of teachers' knowledge about reading to their students' improvement in reading. *Reading and Writing*, 22(4), 457–486.
5. Carreker, S. H., Swank, P. R., Tillman-Dowdy, L., Neuhaus, G. F., Monfils, M., Montemayor, M., & Johnson, P. (2005). Language enrichment teacher preparation and practice predicts third grade reading comprehension. *Reading Psychology*, 26(4/5), 401–432.
6. Duffy, A. M., & Atkinson, T. S. (2001). Learning to teach struggling (and non-struggling) elementary school readers: An analysis of preservice teachers' knowledge. *Reading Research and Instruction*, 41(1), 83–102.

7. Fielding-Barnsley, R., & Purdie, N. (2005). Teachers' attitude to and knowledge of metalinguistics in the process of learning to read. *Asia Pacific Journal of Teacher Education*, 33(1), 65–76.
8. Flint, A., Maloch, B., & Leland, C. (2010). Three years in the making: A cross-case analysis of three beginning teachers' literacy beliefs and practices. *Journal of Reading Education*, 35(2), 14–21.
9. Gallagher, T. L., Woloshyn, V. E., & Elliott, A. (2009). Exploring the salient experiences of pre-service teacher candidates who were former volunteer tutors. *Mentoring & Tutoring: Partnership in Learning*, 17(2), 129–146.
10. Hamman, D., Button, K., Olivarez, A. R., Lesley, M., Chan, Y., Griffith, R., & Woods, K. (2006). Relation between the reading instruction of cooperating and student teachers. *Literacy Teaching and Learning*, 10(2), 77–94.
11. Helfrich, S. R., & Bean, R. M. (2011). Beginning teachers reflect on their experiences being prepared to teach literacy. *Teacher Education and Practice*, 24(2), 201–222.
12. Helfrich, S. R., & Bean, R. M. (2011). What matters: Preparing teachers of reading. *Reading Horizons*, 50(4), 241–262.
13. Hoffman, J. V., Roller, C., Maloch, B., Sailors, M., Duffy, G., & Beretvas, S. (2005). Teachers' preparation to teach reading and their experiences and practices in the first three years of teaching. *Elementary School Journal*, 105(3), 267–287.
14. Joshi, R., Binks, E., Hougen, M., Dahlgren, M. E., Ocker-Dean, E., & Smith, D. L. (2009). Why elementary teachers might be inadequately prepared to teach reading. *Journal of Learning Disabilities*, 42(5), 392–402.
15. Lake, V. E., Al Otaiba, S., & Guidry, L. (2010). Developing social skills training and literacy instruction pedagogy through service learning: An integrated model of teacher preparation. *Journal of Early Childhood Teacher Education*, 31(4), 373–390.
16. Lesley, M. K., Hamman, D., Olivarez, A., Button, K., & Griffith, R. (2009). "I'm prepared for anything now": Student teacher and cooperating teacher interaction as a critical factor in determining the preparation of "quality" elementary reading teachers. *Teacher Educator*, 44(1), 40–55.
17. Maloch, B., Flint, A., Eldridge, D., Harmon, J., Loven, R., Fine, J. C., & ... Martinez, M. (2003). Understandings, beliefs, and reported decision making of first-year teachers from different reading teacher preparation programs. *Elementary School Journal*, 103(5), 431.
18. McCombes-Tolis, J., & Spear-Swerling, L. (2011). The preparation of preservice elementary educators in understanding and applying the terms, concepts, and practices associated with response to intervention in early reading contexts. *Journal of School Leadership*, 21(3), 360–389.
19. Salinger, T., Mueller, L., Song, M., Jin, Y., Zmach, C., Toplitz, M., Partridge, M., & Bickford, A. (2010). Study of teacher preparation in early reading instruction. NCEE 2010-4036. National Center For Education Evaluation and Regional Assistance.
20. Washburn, E. K., Joshi, R., & Cantrell, E. (2011). Are preservice teachers prepared to teach struggling readers?. *Annals of Dyslexia*, 61(1), 21–43.
21. Wold, L. S., Young, J. R., & Risko, V. J. (2011). Qualities of influential literacy teacher educators. *Literacy Research and Instruction*, 50(2), 156–172.



National Council on Teacher Quality

1120 G Street, NW, Suite 800

Washington, D.C. 20005

Tel: 202 393-0020 Fax: 202 393-0095

Web: www.nctq.org