

Study of Teacher Preparation in Early Reading Instruction

Executive Summary

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EXECUTIVE SUMMARY

A component of the *No Child Left Behind Act* (NCLB) (PL 107-110) is its emphasis on the importance of systematic and explicit instruction in early reading using practices that are grounded in scientific research. The Reading First legislation (Title I, Part B, Subpart 1)¹ within NCLB is designed to support state and local education agencies so that they can in turn base their early reading instruction on scientific research and focus on five “essential components” of early reading instruction, as defined by the legislation and informed by the National Reading Panel²: (1) phonemic awareness; (2) phonics; (3) vocabulary development; (4) reading fluency, particularly oral reading skills; and (5) reading comprehension strategies.

The *Study of Teacher Preparation in Early Reading Instruction* responds to a Congressional mandate in the Reading First legislation for “a measurement of how well students preparing to enter the teaching profession are prepared to teach the essential components of reading instruction” (No Child Left Behind Act, 2001, Section 1205(c)(8))³. The study was commissioned by the National Center for Education Evaluation and Regional Assistance at the U.S. Department of Education’s Institute of Education Sciences. The study plan included a survey about teacher education programs and an assessment of pre-service teachers’ knowledge about the essential components of early reading instruction.

Primary Research Questions

Two primary research questions guided the *Study of Teacher Preparation in Early Reading Instruction*.

- Research Question 1: To what extent does the content of teacher education programs focus on the essential components of early reading instruction?
- Research Question 2: To what extent are graduating pre-service teachers knowledgeable about the essential components of early reading instruction?

Study Design

The study collected data from a sample of 2,237 pre-service teachers attending a nationally representative sample of 99 institutions that prepare teachers for initial certification using the *Pre-Service Teacher Preparation Program and Knowledge Survey*. The 99 institutions were sampled from all institutions of higher education located in the contiguous United States that

¹ See Title I, Part B, Subpart 1, Student Reading Skills Improvement Grants – Reading First, especially Section 1208(3). Downloadable from: <http://www.ed.gov/policy/elsec/leg/esea02/pg4.html>

² 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, DC: U.S. Government Printing Office. Downloadable from: <http://www.nationalreadingpanel.org/>

³ See Title I, Part B, Subpart 1, Student Reading Skills Improvement Grants – Reading First, especially Section 1205(c)(8). Downloadable from: <http://www.ed.gov/policy/elsec/leg/esea02/pg4.html>

graduate at least 50 individuals at the bachelor's, post-bachelor's certificate, or master's level from one or more of the following programs:

- General Education
- Elementary Education and Teaching
- Teacher Education, Multiple Levels
- Early Childhood Education and Teaching
- Reading Teacher Education
- Multi/Interdisciplinary Studies-Other

The 2,237 pre-service teachers were sampled from all students in the sampled institutions who would be eligible to graduate with an elementary teaching education certificate in spring or summer 2007. The pre-service teachers also needed to earn their degree and/or complete their teacher preparation program primarily on-site, not through courses taken mostly online.

The *Pre-Service Teacher Preparation Program and Knowledge Survey* consists of two parts, the Program Survey and the Knowledge Assessment. The Program Survey includes questions that gather background characteristics and items that elicit pre-service teachers' self-reports about the emphasis within their coursework and their exposure through field experiences to the essential components of early reading instruction. The Knowledge Assessment consists of multiple-choice questions about the essential components of reading instruction, especially as they are taught in kindergarten to grade 3 classrooms. The items address relevant research in the teaching and learning of each of the five essential components of early reading instruction.

The *Pre-Service Teacher Preparation Program and Knowledge Survey* was administered to participating pre-service teachers at the participating institutions in the spring and summer of 2007, which represented the end of the samples' teacher training programs. The final distribution of items is shown in Table ES-1.

Table ES-1. Distribution of items in operational Pre-Service Teacher Preparation Program and Knowledge Survey

Component	Total items
Program Survey	
Part 1: Background characteristic items	22
Part 2: Exposure/emphasis items	35
Preparedness items	13
<i>Total: Program Survey</i>	<i>70</i>
Knowledge Assessment	
Phonemic Awareness	12
Phonics	8
Fluency	12
Vocabulary	12
Comprehension	12
<i>Total: Knowledge Assessment</i>	<i>56</i>
Total items to be completed in 2 hours	126

SOURCE: *Study of Teacher Preparation in Early Reading Instruction, 2007*, U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.

A total of 2,237 pre-service teachers attending 99 teacher preparation programs took the *Pre-Service Teacher Preparation Program and Knowledge Survey*. The teacher preparation programs were in 24 states and included both public and private institutions; all had programs that trained teachers to teach in kindergarten to grade six classrooms.

The final sample of 2,237 pre-service teachers included 71.7 percent who were 25 years old or younger. Of the sampled pre-service teachers, 72.2 percent were working toward an undergraduate degree, 63.1 percent had an elementary education major or concentration, and 92.7 percent had no prior teaching certification. Ninety percent of the pre-service teachers in this sample reported that they planned to teach in fall 2007.

Data Analysis and Constructs

In discussing the results from both the Program Survey and the Knowledge Assessment, this report refers to variables related to the five essential components of early reading instruction (phonemic awareness, phonics, fluency, vocabulary, and comprehension) as follows:

- All components: information gathered from items on all five essential components of early reading instruction and analyzed as a single factor
- Alphabetics: information from items on phonemic awareness and phonics
- Fluency: information from oral reading fluency items
- Meaning: information from vocabulary and comprehension items

The study team measured variables related to the emphasis of pre-service teacher programs on the essential components through coursework and the exposure to these components through field experiences using a four-point metric ranging from *none* (0) to *considerable* (3). The

overall focus of pre-service teacher programs on the essential components was represented by the average of reports of emphasis in coursework and exposure through field experiences such as practica and student teaching.

The combination of the five essential components into the three-factor model used in this report is consistent with the *Report of the National Reading Panel* (NICHD, 2000). As conceptualized in the NRP Report and operationalized for this study, alphabets encompasses phonemic awareness and phonics, which include concepts such as predictors of reading acquisition, phoneme manipulation skills, and letter-sound correspondence. Fluency refers to concepts such as oral fluency, repeated reading, and automaticity of word recognition. Meaning encompasses vocabulary and comprehension; items address concepts such as effective instruction of comprehension skill and strategy, types of vocabulary knowledge found to be essential to reading acquisition, and approaches to vocabulary development.

Study Findings

Research Question 1

The first research question concerns content related to early reading instruction presented in pre-service teacher education programs, specifically, pre-service teachers' perceptions of the extent to which their pre-service teacher programs emphasized the essential components of early reading instruction through coursework and provided opportunities through field experiences such as school-based practica or student teaching that would expose them to such instruction either through observation or actual practice teaching.

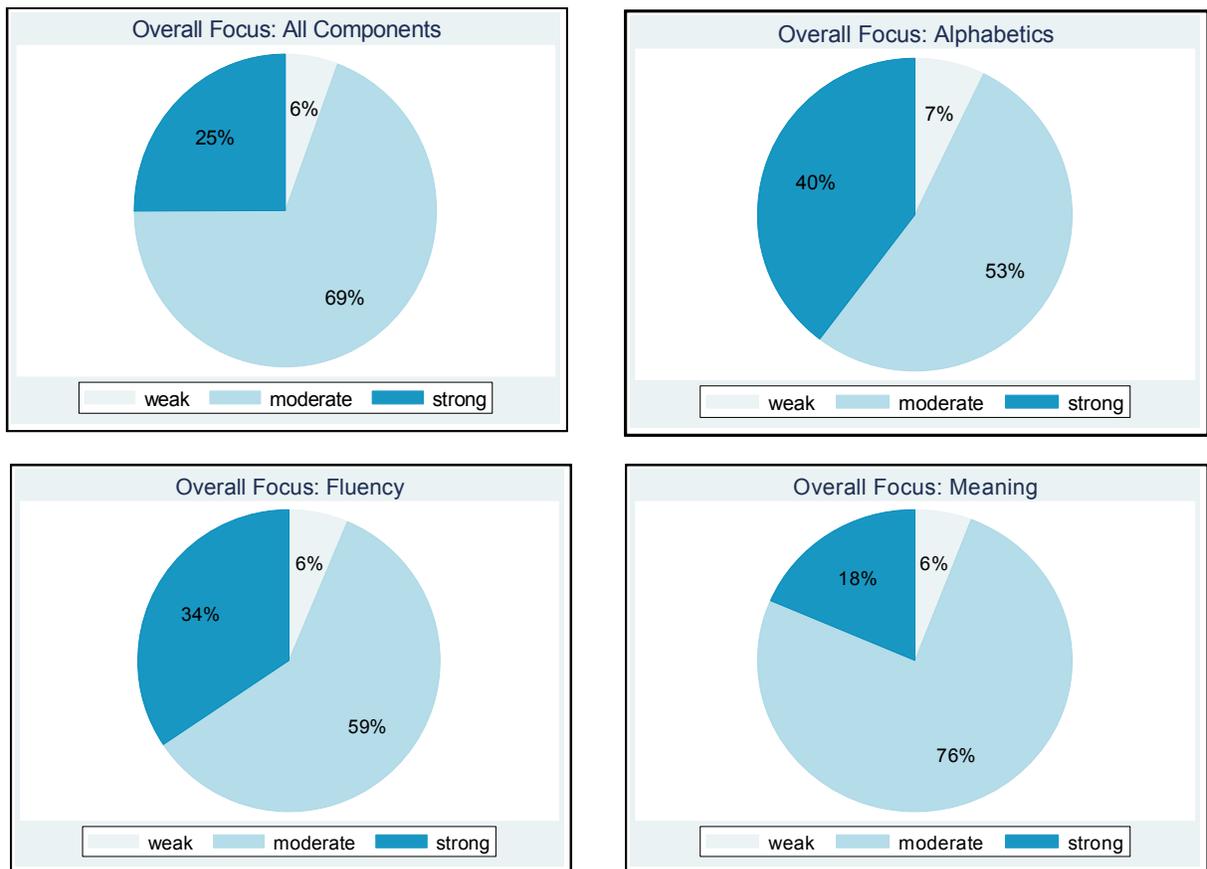
Data collected with the Program Survey provide national estimates⁴ of pre-service teachers' perceptions of the focus of their training programs on the essential components of early reading instruction.

- On average, pre-service teachers rated the overall focus (based on coursework and field experience data combined) of their training programs as being above “little” but below “moderate,” or 1.76 on a zero-to-three scale. On average, pre-service teachers also rated coursework emphasis (1.66) and field experience exposure (1.86) as being above “little” but below “moderate” on a zero-to-three scale.
- Sixty-nine percent of pre-service teachers reported a moderate overall programmatic focus (rating greater than 1, but less than or equal to 2 on a zero-to-three scale) on the essential components of early reading instruction, 25 percent reported a strong focus (rating greater than 2 on the scale), and 6 percent reported a weak focus (rating less than or equal to 1 on the scale). See Figure ES-1.

⁴ The national estimates provided in the report were derived using data from pre-service teachers at the 99 institutions that agreed to participate in the study.

- Pre-service teachers were twice as likely to report a strong focus on the essential components in their field experience than in their coursework (40 percent versus 21 percent across all components) ($p < .001$). See Figures ES-2 and ES-3.
- Pre-service teachers were twice as likely to report a strong overall programmatic focus on alphabetic (40 percent) and fluency (34 percent) than on meaning (18 percent). See Figure ES-1. This was also the case for coursework emphasis (33 percent for alphabetic, 29 percent for fluency, and 14 percent for meaning). See Figure ES-2.

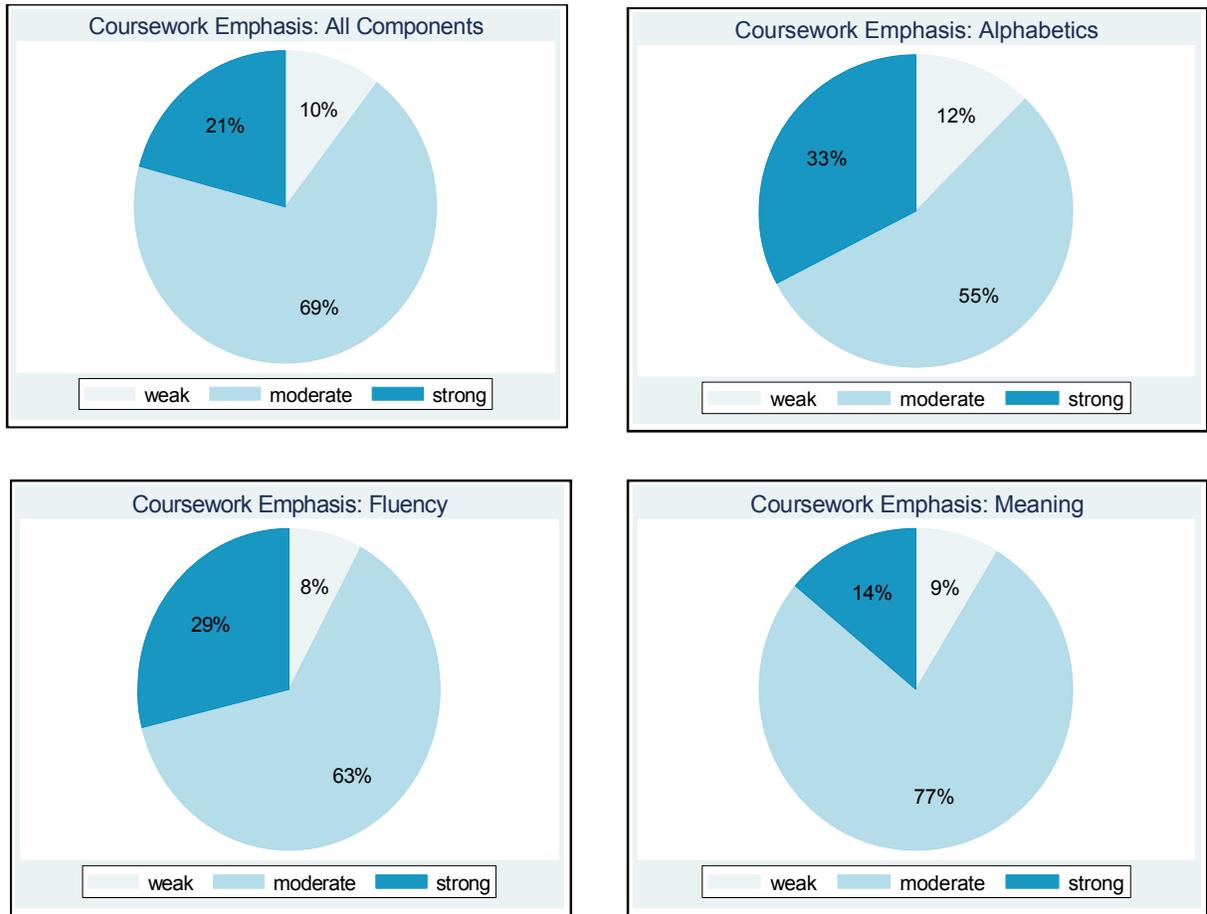
Figure ES-1. Percentage of pre-service teachers reporting weak, moderate, or strong overall program focus on the essential components of early reading instruction, by essential component



NOTE: Estimates of overall focus were based on coursework and field experience data combined. Pre-service teachers reporting a “weak” focus are those with an estimated value less than or equal to 1, pre-service teachers reporting a “moderate” focus include those with an estimated value greater than 1 but less than or equal to 2, and pre-service teachers reporting a “strong” focus are those with an estimated value greater than 2 on the 4-point scale of the Program Survey items. N of teachers = 2,187; N of institutions = 99; and N of states = 24.

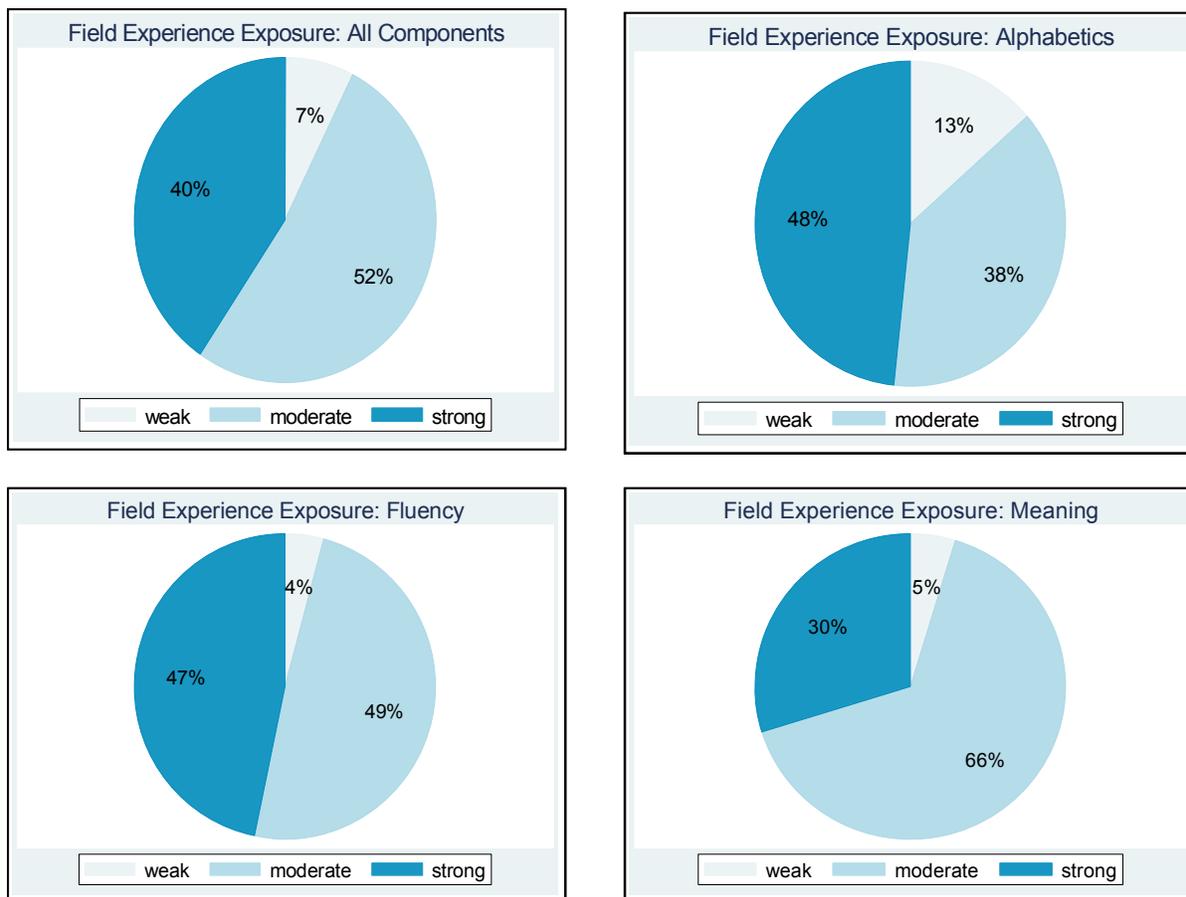
SOURCE: Study of Teacher Preparation in Early Reading Instruction, 2007, U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.

Figure ES-2. Percentage of pre-service teachers reporting weak, moderate, or strong coursework emphasis on the essential components of early reading instruction, by essential component



NOTE: Pre-service teachers reporting a “weak” focus are those with an estimated value less than or equal to 1, pre-service teachers reporting a “moderate” focus include those with an estimated value greater than 1 but less than or equal to 2, and pre-service teachers reporting a “strong” focus are those with an estimated value greater than 2 on the 4-point scale of the Program Survey items. N of teachers = 2,187; N of institutions = 99; and N of states = 24. SOURCE: *Study of Teacher Preparation in Early Reading Instruction, 2007*, U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.

Figure ES-3. Percentage of pre-service teachers reporting weak, moderate, or strong field experience exposure to the essential components of early reading instruction, by essential component



NOTE: Pre-service teachers reporting a “weak” focus are those with an estimated value less than or equal to 1, pre-service teachers reporting a “moderate” focus include those with an estimated value greater than 1 but less than or equal to 2, and pre-service teachers reporting a “strong” focus are those with an estimated value greater than 2 on the 4-point scale of the Program Survey items. N of teachers = 2,187; N of institutions = 99; and N of states = 24. SOURCE: *Study of Teacher Preparation in Early Reading Instruction, 2007*, U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.

Research Question 2

The second research question concerns the knowledge that pre-service teachers demonstrate in responding to multiple-choice knowledge items about the five essential components of early reading instruction. Analysis of data collected with the Knowledge Assessment answered this question. On average, pre-service teachers answered 57 percent of the Knowledge Assessment items correctly. Pre-service teachers were able to answer 53 percent of the alphabetics subscale questions correctly, 61 percent of the fluency subscale questions, and 58 percent of the meaning subscale.