

**U.S. Department of Education
Institute of Education Sciences
National Center for Education Evaluation**

**Study of Teacher Preparation in Early
Reading Instruction**

*Office of Management and Budget
Clearance Package Supporting Statement
and Data Collection Instruments: Part A*

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STUDY OF TEACHER PREPARATION IN EARLY READING INSTRUCTION	

SUPPORTING STATEMENT FOR PAPERWORK REDUCTION ACT SUBMISSION

INTRODUCTION

An important component of the *No Child Left Behind Act* (PL 107-110) legislation is its statement that all students, regardless of the schools they attend, should be taught by “highly qualified teachers.” Often, teachers certified in “early childhood education” or “elementary education”, are generalists who are knowledgeable about child development, pedagogical approaches for different content areas, and foundational content of several academic areas, including reading.

Recently, however, research has provided a far clearer picture of “what works” in beginning reading instruction. Both *Preventing Reading Difficulties in Young Children* (National Research Council, 1998) and the *Report of the National Reading Panel*¹ (National Reading Panel [NRP], 2000) provide detailed information about the instructional practices and activities in the primary grades that significantly reduce the number of students who experience difficulties in later years. These sources constitute the foundation for the Reading First Program (Title I, Part B, Subpart 1), a key component of the No Child Left Behind Act. The Reading First Program specifies five components of reading instruction that scientific research has linked to improved reading achievement: (1) phonemic awareness; (2) phonics; (3) vocabulary development; (4) reading fluency, particularly oral reading skills; and (5) reading comprehension strategies. Currently, there is no national systematic source of information regarding the extent to which new teachers are prepared to teach reading based on the principles outlined in the National Reading Panel report.

STUDY OVERVIEW

The Study of Teacher Preparation in Early Reading Instruction seeks to address two key questions. The first question is:

- **To what extent does the content of teacher education programs focus on the essential components of early reading instruction?**

The second question is:

- **To what extent are graduating pre-service teachers knowledgeable about the essential components of early reading instruction?**

The National Reading Panel, at the request of Congress, compiled findings from years of scientific research in reading.² These findings inform the Reading First program, which provides states, districts, and schools with funds to establish research-based reading programs for students in kindergarten through third grade and to provide professional development for teachers of kindergarten through grade three so that they have the skills they need to teach these programs.

This study will assess pre-service teacher’s exposure to and knowledge of the essential components of reading instruction by administering a pre-service teacher survey and an assessment instrument to a sample of approximately 3000 graduating pre-service

¹ The National Reading Panel was formed under the joint auspices of the National Institute of Child Health and Human Development and the U.S. Department of Education.

² <http://www.nationalreadingpanel.org/Publications/publications.htm>

teachers. The study aims to collect information from a nationally representative sample of 100 schools of education across the country.

The study will gather information to address the first research question by administering a pre-service teacher survey in spring 2007. The purposes of the survey will be to determine pre-service teachers' exposure to materials presented in the NRP, to gauge emphasis, and to determine pre-service teachers' perceptions of competence.

To address the second research question there will be an assessment of the knowledge of students in teacher preparation programs in spring 2007, before students graduate and disperse. The study will use an assessment of teacher knowledge that is aligned with the essential components of reading instruction. For this assessment, we propose to use an assessment derived from the *Survey of Teacher Knowledge of Reading Instruction in the Primary Grades*, an instrument developed by the American Institutes for Research under a contract to the National Center for Education Statistics and previously approved by OMB (OMB 1850-0803).

A. Justification:

A1. Circumstances Necessitating Data Collection

Section 1205 of the Reading First statute requires an independent evaluation of the Reading First program. Section 1205 (c)(8) specifically requires the U.S. Department of Education to measure "how well students preparing to enter the teaching profession are prepared to teach the essential components of reading instruction." Thus, in August 2005, the U.S. Department of Education, Institute of Education Sciences contracted with Optimal Solutions Group (Optimal) to conduct the Study of Teacher Preparation in Early Reading Instruction.

A2. Purposes and Uses of the Data

The study will collect information from a nationally representative sample of 100 schools of education and 3000 graduating pre-service teachers in order to address the two research questions. Answers to these questions will inform ED, Congress, and other stakeholders about the preparedness of those entering the teaching profession and the extent to which the content being covered in teacher preparation programs focuses on the essential components of early reading education.

Pre-Service Teacher Survey

A survey will be administered to pre-service teachers to address the first research question. The proposed survey has three purposes:

- Determining exposure: the extent to which the pre-service teachers have been exposed to the material presented in the NRP and to scientifically-based reading research on early literacy;
- Gauging emphasis: the approximate emphasis of this exposure; and
- Determining perceptions of preparedness: the extent to which pre-service teachers feel prepared to teach beginning reading by using research-based strategies as outlined in documents such as the NRP.

The survey consists of two parts. The first part of the survey gathers general demographic information about students and data about the students' degree programs. Data such as the following will be collected:

- SAT or ACT scores;
- Grade point averages;
- Prior degrees, certifications and/or teaching experience;
- Type of degree program currently being completed;
- Type of practica experiences;
- Number and types of reading-related courses taken.

The second part of the survey will assess the exposure to and emphasis placed on the essential components of reading in pre-service teachers' coursework and field experiences. These items will elicit information about content that indicates whether the courses presented the scientific basis for early reading instruction.

Because data on exposure and emphasis will not necessarily indicate pre-service teachers' level of readiness to teach beginning reading, the remainder of the survey will ask questions about pre-service teachers' feelings of preparedness. Likert-type items will be used to assess this dimension.

Teacher Assessment

In addition to the survey, the Optimal/AIR team will administer a pre-service teacher assessment derived from the *Survey of Teacher Knowledge of Reading Instruction in the Primary Grades* instrument. The assessment is based upon the instructional processes framework that represents the complex interaction of four factors involved in the learning process: a student's *motivation* to learn; the *physiological readiness* of a student to perform an activity; the match between a student's current knowledge level and the *content level* of the instructional material; and the way in which the teacher presents the material to allow an *occasion for processing*. It is hypothesized that each of these components is necessary for students to engage in the content (i.e., Student Content Engagement [SCE]) taught and that learning can only occur when such engagement exists.

To create the *Survey of Teacher Knowledge of Reading Instruction in the Primary Grades*, the AIR team reviewed the SCE framework and related research, developed an initial teacher knowledge measurement model, thoroughly reviewed the literature, and conducted interviews with K-2 school teachers. The literature review synthesized relevant research from several fields within psychology (i.e., educational, industrial-organizational, clinical, and school) to establish best practices for the measurement of the constructs contained in the framework. The teacher interviews verified the SCE framework and provided useful information for item stems.

Combined, this information was used to produce a set of items that covered the four components of the framework. Different measurement strategies and item formats were used in developing the instrument so as to assess the constructs of interest in multiple ways.

Given that the above assessment was designed to cover a broad range of teachers' knowledge, including more than the essential components of reading discussed in the NRP and other documents, it was imperative for the purposes of this study that the assessment be modified to ensure that the items were focused on the essential components and to minimize burden on pre-service teachers in the study. To do this, a test specification table was developed for the assessment that is based on the essential components. Each chapter of the NRP was reviewed for information at the subcomponent level using this table to ensure that both the major points and the minor points of the NRP were listed in sufficient detail. Of the original set of 106 items deemed to address the five components of reading, the study team chose 56 to include in the assessment for this study.

A3. Use of Technology to Reduce Burden

Not Applicable

A4. Efforts to Identify Duplication

Section 1205 of the Reading First statute requires an independent evaluation of the Reading First program. The overall purpose of this evaluation is to assess the impacts of Reading First on student reading achievement. The statute mentions several specific analyses for the evaluation to cover in Section 1205 (c), including implementation as well as impact. There are two major ongoing Reading First evaluation studies; one examining the impact of the program and the other assessing program implementation. Although the Reading First Impact Study (OMB #1850-0797) will be able to report on the impact of the Reading First program on classroom instruction and the Reading First Implementation Evaluation (OMB# 1875-0232) will provide teacher self-report data that speaks to the preparedness of Reading First teachers nationally, neither study is able to address the issue of the preparation of new teachers. Furthermore, there are no nationally representative data available from other sources to address this issue.

A5. Burden on Small Business

Does not apply, all participants are Institutions of Higher Education.

A6. Consequences to Federal Program or Policy Activities if the Collection of Information is not Conducted or is Conducted Less Frequently

If data collection does not occur, there will be no systematic national information to respond to the legislative requirement cited earlier, thus leaving a gap in information as to the knowledge of those about to enter teaching and the extent to which teacher education curricula focus on the essential components of early reading education.

A7. Special Data Collection Circumstances

No such circumstances

A8. Form 5 CFR 1320.8(d) and Consultation Prior to OMB Submission

Throughout the course of this study, we will draw on the experience and expertise of a Technical Work Group (TWG) with expertise in teacher education, measurement and reading research. The first meeting of the TWG was held on January 19-20, 2006. The members of the TWG include:

- Joanne Carlisle, University of Michigan
- Donald Compton, Vanderbilt University
- Linnea Ehri, Graduate Center of the City University of New York
- Geoffrey Phelps, University of Michigan
- D. Ray Reutzel, Utah State University
- Joanna Williams, Columbia University

A9. Justification for Respondent Payments

The Optimal/AIR team proposes to provide payments to the 3000 pre-service teachers who complete both the pre-service teacher assessment and the pre-service teacher survey, which last approximately two hours combined. We recognize that the survey and assessment are particularly long, and that assessing teacher knowledge can be sensitive. Thus, we propose an incentive payment of \$100 per participant. This is consistent with the suggested “High Burden” incentive amount for teacher assessments in the NCEE memo “Guidelines for Incentives for NCEE Evaluation Studies.”

A10. Confidentiality

The Education Sciences Reform Act of 2002, Title I, Part E, Section 183 requires “All collection, maintenance, use, and wide dissemination of data by the Institute” to “conform with the requirements of section 552 of title 5, United States Code, the confidentiality standards of subsection (c) of this section, and sections 444 and 445 of the General Education Provision Act (20 U.S.C. 1232g, 1232h).” These citations refer to the Privacy Act, the Family Educational Rights and Privacy Act, and the Protection of Pupil Rights Amendment.

In addition for student information, “The Director shall ensure that all individually identifiable information about students, their academic achievements, their families, and information with respect to individual schools, shall remain confidential in accordance with section 552a of title 5, United States Code, the confidentiality standards of subsection (c) of this section, and sections 444 and 445 of the General Education Provision Act.

Subsection (c) of section 183 referenced above requires the Director of IES to “develop and enforce standards designed to protect the confidentiality of persons in the collection, reporting, and publication of data”.

Subsection (d) of section 183 prohibits disclosure of individually identifiable information as well as making any the publishing or communicating of individually identifiable information by employees or staff a felony.

Optimal and AIR will protect the confidentiality of all information collected for the study and will use it for research purposes only. No information that identifies any study participant will be released. Information from participating institutions and pre-service teachers will be presented at aggregate levels in reports. Information on pre-service teachers will be linked to their institution but not to any individually identifiable information. No individually identifiable information will be maintained by the study team. All members of the study team having access to the institution-level data have been certified by AIR's Institutional Review Board (IRB) as having received training in the importance of confidentiality and data security. All institution-level identifiable information will be kept in secured locations and identifiers will be destroyed as soon as they are no longer required.

A11. Questions of a Sensitive Nature

No questions of a sensitive nature will be included in the study.

A12. Estimates of the Hour Burden of Data Collection to Respondents

The Teacher Preparation Program Survey will collect demographic information, items that target the extent to which pre-service teachers have been exposed to the material in the NRP and to scientifically based research on early literacy, items that seek the approximate amount of dosage of pre-service teachers’ exposure to content, and items

that ask about pre-service teachers’ feelings of preparedness to teach beginning reading. The Knowledge Assessment will ask questions that assess the knowledge of students in teacher preparation programs of the essential components. IES staff have been instructed by the Office of the Director to exclude examinations from information collection clearance packages as well as the calculations of burden hour estimates.

To contact and recruit students for the survey and assessment, ED will collect student contact information (Name, Address, Phone Number, email, degree candidacy and program enrollment) from participating institutions. The degree candidacy and program enrollment information will be used to verify student eligibility. The contact information will be used to contact sampled students. We expect that the student contact information will be compiled from one of two sources, from internal records maintained by the appropriate college or department within an institution, or from the institution’s registrar.

Instrument	Number of Respondents	Number of Responses per Respondent	Ave. Burden (Hours Per Response)	Total Burden Hours	Total Burden Cost
Pre-service teacher survey	3000	1	1	3000	\$0
Student contact information	100	1	3	300	\$7500
Annual total	3100	--	--	3300	\$7500

A13. Estimates of Capital, Operating, and Start-Up Costs to Respondents and Record Keepers

Participants (institutions and pre-service teachers) will not be asked to incur any cost as it pertains to any aspect of the study. Their participation is entirely voluntary. There will be no capital, operating, or start-up cost to respondents.

A14. Estimates of Costs to Federal Government

The cost for the Teacher Preparation study, under the terms of ED’s contract with Optimal (ED04C00062/0001) is for \$4,999,642 for two years, or \$3,664,395 for the first year and \$1,335,247 for the second year.

A15. Changes in Burden

Not applicable, this request is for a new information collection.

A16. Tabulation, Analysis, and Publication Plans and Schedule

The focus of the analysis will be to address the two research questions, namely, to what extent teacher education programs focus on the essential components of early reading instruction and to what extent pre-service teachers are knowledgeable about those components. The analyses will be based on data collected from the student through the assessment and the survey. All analyses will treat the student as the unit of analysis.

The first step of the analyses will be descriptive. This is consistent with the goal of the project, which asks for national estimates. The analyses will report descriptive statistics correlating student knowledge with a variety of programmatic measures (e.g., exposure to, intensity of, and preparedness about essential components of early reading) in the form of cross-tabulations and frequencies.

In a second step, we propose carrying out model-based analyses (e.g., multiple regression, nested-design) that will examine the inter-relationship of various measures thought to impact teacher knowledge and program focus. These analyses will be based on a theoretical model of early reading instruction and knowledge acquisition. These analyses are important in that they will assist us in determining the extent to which the variation in teacher knowledge is related to individual student characteristics, program-level characteristics, or even institutional-level variables.

PROJECT TIMELINE

Deliverables	Due Date
Administer survey and assessment	Spring Semester 2007
Draft report	August 2007
Draft final report	September 2007
Final report	October 2007

A17. Reasons for Not Displaying the OMB Approval Expiration Date

All data collection instruments will include the OMB expiration date.

A18. Exceptions to Certification Statement

Not applicable. We have no exceptions to the Certification Statement.