

Florida Reading First Guidance to LEA's: Sections B and C

Components of Effective Reading Programs

B-1. What are the essential components of reading instruction?

Scientifically based reading research has identified five essential components of effective reading instruction. Explicit and systematic instruction must be provided in these five areas:

1. Phonemic Awareness – The ability to hear, identify and manipulate the individual sounds –phonemes – in spoken words. Phonemic awareness is the understanding that the sounds of spoken language work together to make words.
2. Phonics – The understanding that there is a predictable relationship between phonemes – the sounds of spoken language – and graphemes – the letters and spellings that represent those sounds in written language. Readers use these relationships to recognize familiar words accurately and automatically and to decode unfamiliar words.
3. Vocabulary Development – Development of stored information about the meanings and pronunciation of words necessary for communication. There are four types of vocabulary:
 - Listening vocabulary – the words needed to understand what is heard
 - Speaking vocabulary – the words used when speaking
 - Reading vocabulary – the words needed to understand what is read
 - Writing vocabulary – the words used in writing
4. Reading fluency, including oral reading skills – Fluency is the ability to read text accurately and quickly. It provides a bridge between word recognition and comprehension. Fluent readers recognize words and comprehend at the same time.
5. Reading comprehension strategies – Strategies for understanding, remembering, and communicating with others about what has been read. Comprehension strategies are sets of steps that purposeful, active readers use to make sense of text.

B-2. What is scientifically based reading research?

Scientifically based reading research is research that applies rigorous, systematic and objective procedures to obtain valid knowledge relevant to reading development, reading instruction, and reading difficulties. This includes research that:

1. Employs systematic, empirical methods that draw on observation or experiment;
2. Involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;

3. Relies on measurements or observational methods that provide valid data across evaluators and observers and across multiple measurements and observations; and
4. Has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review.

B-3. What evidence is critical in evaluating scientifically based reading research?

When reviewing research findings to determine whether they meet the criteria for scientifically based reading research, local educational agencies and schools should consider the extent to which the research meets each of the criteria.

Questions for consideration about each of the following criterion include:

1. *Use of rigorous, systematic and empirical methods* – Does the work have a solid theoretical or research foundation? Was it carefully designed to avoid biased findings and unwarranted claims of effectiveness? Does the research clearly delineate how the research was conducted, by whom it was conducted, and on whom it was conducted?
2. *Adequacy of the data analyses to test the stated hypotheses and justify the general conclusions drawn* – Was the research designed to minimize alternative explanations for observed effects? Are the observed effects consistent with the overall conclusions and claims of effectiveness? Does the research present convincing documentation that the observed results were the result of the intervention? Does the research make clear what populations were studied (i.e., does it describe the participants' ages, as well as their demographic, cognitive, academic and behavioral characteristics) and does it describe to whom the findings can be generalized? Does the study provide a full description of the outcome measures?
3. *Reliance on measurements or observational methods that provided valid data across evaluators and observers and across multiple measurements and observations* – Are the data based on a single-investigator single-classroom study, or were similar data collected by multiple investigators in numerous locations? What procedures were in place to minimize researcher biases? Do observed results “hold up” over time? Are the study interventions described in sufficient detail to allow for replicability? Does the research explain how instructional fidelity was ensured and assessed?
4. *Acceptance by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review* – Has the research been carefully reviewed by unbiased individuals who were not part of the research study? Have the findings been subjected to external scrutiny and verification?

B-4. Must research related to instructional programs, methods and strategies meet all of the characteristics of scientifically based reading research?

Yes. The law specifically requires these characteristics. For additional guidance, one may wish to consult standard references on reading research, such as the National Academy of Sciences' National Research Council report *Preventing Reading Difficulties in Young Children* (1998). The National Research Council, when conducting a review of reading research, followed basic guidelines for scientific method. The NRC wrote:

Our review and summary of the literature are framed by some very basic principles of evidence evaluation. These principles derive from our commitment to the scientific method, which we view not as a strict set of rules but instead as a broad framework defined by some general guidelines. Some of the most important are that (1) science aims for knowledge that is publicly verifiable, (2) science seeks testable theories – not unquestioned edicts, and (3) science employs methods of systematic empiricism. Science renders knowledge public by such procedures as peer review and such mechanisms as systematic replication (p.34).

B-5. Are districts and schools that apply for Reading First funds responsible for ensuring that only programs based on scientifically based reading research are funded through Reading First?

Yes. In our state level application to the USDE for *Reading First* funding, Florida provided assurances and procedures to show how we intend to help districts and schools in identifying instructional materials, programs, strategies and approaches based on scientifically based reading research, and how we will ensure that professional development activities related to reading instruction are based on scientifically based reading research. Because of these assurances, we have established a state level application process, technical assistance processes, and strategies for professional preparation that will ensure that all programs, strategies and activities proposed and implemented in the state of Florida meet the criteria for scientifically based reading research outlined in Question B-2. It is the responsibility of districts to ensure that all eligible schools who are awarded *Reading First* funds follow the procedures and programs outlined in the proposal that you will submit to the state of Florida.

B-6. What references are available for more information about scientifically based reading research?

Information on obtaining these resources is provided below. Electronic links are available at <http://www.ed.gov/index.jsp>

- *Put Reading First: The Research Building Blocks for Teaching Children to Read, Kindergarten through Grade 3*- September 2001

This publication was developed by the Center for the Improvement of Early Reading Achievement (CIERA) and was funded by the National Institute for Literacy through the Educational Research and Development Center Program. To order this publication, call 1-877-4-ED-PUBS. Downloads can be obtained at <http://www.nifl.gov>.

- *Report of the National Reading Panel: Teaching Children to Read* April 2000

The National Reading Panel Report outlines the most effective approaches to teaching children to read, the status of the research on reading, and reading instructional practices that are ready to be used by teachers in classrooms. Both the report and the congressional testimony are available on line and in hard copy. Call 1-800-228-8813 for more information, and reference publication number EX0114p.

- *Preventing Reading Difficulties in Young Children* December 1998

This landmark 1998 report of the National Research Council synthesizes the wealth of research on early reading development. It provides an integrated picture of how reading develops and how reading instruction should proceed. This book includes recommendations for practice and further research. Hardcover copies are available from the National Academy Press by calling 1-800-624-6242. Each book costs \$35.95 plus shipping and handling.

- *Starting Out Right: A Guide to Promoting Children's Reading Success* 1998

This guide, developed by the National Research Council, explains how children learn to read and how adults can help them. It provides ideas for the prevention of reading difficulties in early childhood and the primary grades. Copies are available from the National Academy Press by calling 1-800-624-6242. Each book costs \$14.95 plus shipping and handling.

- *How Should Reading Be Taught?* By Keith Rayner, Barbara Foorman, Charles Perfetti, David Pesetsky, and Mark Seidenberg. Published in the March 2002 issue of *Scientific American*.

This brief article provides an excellent overview of the basic research that supports the *Reading First* initiative. It is written in a way that is accessible to nontechnical personnel.

- *Catch Them Before They Fall* By Joseph Torgesen. Published in the Spring/Summer issue of *American Educator*, 1998.

This article provides a description of the essential elements and rationale of a school wide plan to prevent reading difficulties in young children.

- *Teaching Reading is Rocket Science* By Louisa Moats. Published by American Federation of Teachers, Washington, D.C. Call 202-393-5684 and ask for item number 372.

This brochure describes the essential knowledge and skill required to teach reading to children who experience difficulties learning to read. It also describes many of the basic research findings on which the *Reading First* initiative is based.

- *A Consumer's Guide to Evaluating a Core Reading Program Grades K-3: A Critical Elements Analysis*. College of Education, University of Oregon. Deborah C. Simmons, Ph.D. and Edward J. Kame'enui, Ph.D. This guide can be accessed at www.myflorida.com/jrf.

A critical review of reading programs requires objective and in-depth analysis. For these reasons, they offer the following recommendations and procedures for analyzing critical elements of programs. First, they address questions regarding the importance and process of a core program. Following, they specify the criteria for program evaluation organized by grade level and reading dimensions. Further, they offer guidelines regarding instructional time, differentiated instruction, and assessment.

Developing An Effective Reading First Program

C-1. What are the key elements of an effective reading program based on scientifically based reading research?

A high-quality reading program that is based on scientifically based research must include instructional content based on the five essential components of reading instruction (See Question B-1) integrated into a coherent instructional design. A coherent design includes explicit instructional strategies, coordinated instructional sequences, ample practice opportunities and aligned student materials. The design should also consider the allocation of time, ensuring a protected, uninterrupted block of time for reading instruction of at least 90 minutes per day. A high-quality reading program also includes assessment strategies for diagnosing student needs and measuring progress, as well as a professional development plan that ensures teachers have the skills and support necessary to effectively implement the program.

C-2. What practices and strategies for classroom instruction should be evident in implementing a high-quality reading program based on scientifically based reading research?

Certain elements should be visible in any *Reading First* classroom in the country, regardless of which specific program is in use. Standards and accountability are the foundation of the *Reading First* classroom. Expectations are clear, as are strategies for monitoring progress toward meeting them. The core reading program provides the basis for instruction, and connects meaningfully to supplemental materials. In-class grouping strategies are in use, including direct instruction to small groups of students at the same reading level. Student placement in groups is flexible, and different curricula may be in use to instruct these different groups. There is active student engagement in a variety of reading-based activities, which connect to the five essential components of reading and to overall, clearly articulated academic goals.

C-3. What practices and strategies for professional development should be evident in an effective reading program?

Professional development related to a high-quality, effective reading program should aim to increase student achievement by enabling and ensuring the implementation of the particular program(s). Research has shown that teachers who participate in well-designed professional development activities get better results from their students. Well-designed professional development aligns clearly with the instructional program, including its research base, as well as to state academic and performance standards. Adequate time must be available for teachers to learn new concepts and to practice what they have learned. Coaches, mentors, peers and outside experts provide feedback as new concepts are put into practice. Professional development must prepare all teachers to teach all of the essential components of reading instruction (See Question B-1), and know how they are related, the stages of reading development and the underlying structure of the English language. Teachers also must understand why some children fail to read well, and learn how to administer and interpret assessments of student progress.

C-4. What practices and strategies for assessment should be evident in an effective reading program?

A high quality, effective reading program must include rigorous assessments with proven validity and reliability. These assessments must measure progress in the five essential components of reading instruction (See Question B-1) and identify students who may be at risk for reading failure or who are already experiencing reading difficulty. A reading program must include screening assessments, diagnostic assessments, progress monitoring assessments, and outcome assessments. The administration of screening assessments determines which children are at-risk for reading difficulty and need additional support. Diagnostic assessments provide more in-depth information on students' skills and instructional needs that form the basis of the ideal instructional plan. Classroom-based progress monitoring assessments determine whether students are making adequate progress or need more support to achieve grade-level reading outcomes. Finally, outcome assessments tell teachers and school leaders whether the current reading program is "on target" to accomplish overall program goals.