RESEARCH BASE

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Language Essentials for Teachers of Reading and Spelling
(*LETRS*) Research Base

Introduction

In-depth, continuing professional development for teachers that helps them learn and apply scientific, research-supported methods is critical to improving reading outcomes and preventing reading difficulties in students across all grades (Foorman & Moats, 2004; Gersten, Chard, & Baker, 2000). Snow, Burns & Griffin (1998), in one widely cited research review, also argue that in-service professional development should strengthen teaching skills, increase teacher knowledge of the reading process, and facilitate the integration of new research findings into the practices of the classroom teacher. Unfortunately, research has shown that teachers typically do not receive adequate preparation at the preservice level (Bos, Mather, Dickson, Podhajski, & Chard, 2001; Hill, 2000; McCutchen & Berninger, 1999; McCutchen et al., 2002; Moats, 1994; Moats & Lyon, 1996; Foorman et al., 2003). The predominant model of in-service professional development for teachers continues to be the "one shot" single-day workshop, even though there is considerable evidence that such experiences foster little lasting change in teacher practice and generally fail to deliver effective research-based strategies to classrooms (Gersten, Morvant, & Brengelman, 1995; Miller, Lord, & Dorney, 1994). Merely providing teachers with access to innovative instructional strategies through in-service training is evidently insufficient for altering and sustaining changes in existing patterns of teaching. One of the leading teachers' organizations in the United States has petitioned for reform of teacher education, to replace superficial, incoherent, and irrelevant learning experiences with in-depth study of the structure of language, the nature of reading development, and the methods of research-validated instruction (American Federation of Teachers [AFT], 1999). Such an education might enable teachers to successfully differentiate instruction for "at risk" learners—a critical activity that can prevent many children from falling behind.

Language Essentials for Teachers of Reading and Spelling® (*LETRS*) provides extensive professional development in the curriculum outlined by the AFT and embodied in other consensus papers on reading research and teacher education. *LETRS* modules embody the concepts, applications, and teaching skills that are called for in *Teaching Reading Is Rocket Science* (AFT, 1999), the Learning First Alliance's *Every Child Reading: A Professional Development Guide* (2000), and the Reading First Leadership Academy's *Blueprint for Professional Development* (Moats, 2002).

Overview of *LETRS*

Several widely-disseminated summaries of reading research report a strong consensus on how children learn to read, why many children fail to learn adequately, and what components and methods in reading instruction are likely to be effective (Learning First Alliance, 1998; National Institute of Child Health and Human Development [NICHD], 2000; Snow et al., 1998). Other recent summaries by acknowledged leaders in the field confirm and elaborate those findings (Fletcher & Lyon, 1998; Pressley, 1998; Rayner et al., 2001; Stanovich, 2000; Wolf, 2001). Although the consensus on beginning reading

intervention is more extensive than the research consensus on treatment of older poor readers beyond the fourth-grade level, research findings do indicate that almost all poor readers demonstrate predictable characteristics. These characteristics include: deficits in processing the phonological features of language and associating them with symbols; difficulty establishing fluent and automatic recognition of printed words that, in turn, contributes to dysfluent reading; diminished vocabulary; failure to develop higher-level comprehension strategies; difficulty with spelling and written expression; and a general diminution of skill with "literate" language that stems directly from lack of exposure and practice with reading itself (Shankweiler et al., 1999). The ability to process language structure at the levels of phonology, orthography, morphology, semantic networks, syntax, and discourse explains much of the variance in reading success and failure (Shankweiler et al., 1995; Shankweiler et al., 1996).

The accumulated evidence from two decades of educational and medical research supported by the National Institutes of Health (NIH) and the U.S. Department of Education shows that most reading problems are preventable (Lyon, 1998; McCardle and Chhabra, 2004; Torgesen et al., 2001). When appropriate instruction is delivered in kindergarten and first grade, and when intensive help is provided for poor readers by third grade, the number of students who read below average can be reduced to about 5 percent (Denton & Vaughn, 2003; Mathes, Torgesen, & Allor, 2001). Systematic, direct teaching of phonological skill, phonics, vocabulary, reading fluency, and comprehension, along with ample exposure to content-rich text, has produced gains in older poor readers as well as younger ones (NICHD, 2000; Torgesen et al., 2001; Torgesen, Wagner, Rashotte, Alexander, & Conway, 1997). Effective teaching requires knowledge of all levels of language, their interrelationships in reading development, and the validated practices that convey language skills to children.

Core Domains for Professional Development

LETRS provides in-depth professional development in the four core domains endorsed by the American Federation of Teachers in *Teaching Reading is Rocket Science* (1999). These core domains include: (1) an understanding of the psychology of reading development, including the stages of reading growth, the reasons why some children have difficulty learning to read, and the role of instruction in learning to read; (2) structure of the English language, including phonology, morphology, semantics and syntax, and the way that print represents speech; (3) the ability to practice or execute the components of research-based instruction to obtain good outcomes with children; and (4) ongoing assessment for grouping children and determining outcomes of instruction.

These core content domains are intended to complement and reinforce any program-specific professional development that the state, district, or school already provides. As teachers learn to implement a central, comprehensive reading program, *LETRS* helps teachers understand why they need to implement all components, what principles of instruction are most supported by research, and how to interpret screening and progress-monitoring data. The training gives teachers a basis for choosing, designing, and

implementing supplemental programs and approaches for students in need of intervention.

Alignment between LETRS and Reading First

The 12 *LETRS* modules are sequenced to build foundation knowledge in all areas that underlie effective instruction. In addition, instructional methods are taught for each of the essential components of reading instruction identified in the United States Department of Education's *Reading First* policies. The five main components of *Reading First* are phonemic awareness, phonics, fluency, vocabulary, and comprehension. *LETRS* includes all of these *Reading First* components, and also includes the areas of assessment, written expression, spelling, and oral language. The modules teach the developmental order of skill acquisition in each component and include many practice exercises for teachers to gain insight and learn instructional routines.

LETRS modules 1–3 teach the foundation concepts for understanding how students learn to read and write, the reasons why some children fail, the components of instruction best supported by research, the structure of language, and the nature of sub-word-level processes important for reading (phonology, orthography, morphology).

Modules 4–6 teach the nature of semantic organization and the instruction of vocabulary, the nature of syntax and the development of sentence-level writing skills, fluency, and the structure of discourse in various genres. These modules are also grounded in research literature on teaching reading comprehension and provide an introduction to various strategies for helping students understand what they read.

Modules 7–9 address how to teach beginning decoding, how to use assessment to guide instruction, and how to teach beginning spelling and writing.

The final three modules focus on syllabication, morphology, and advanced decoding for multisyllabic words; the link between writing and comprehension; and using assessment to guide instruction for students beyond grade 3.

Effective Delivery of Professional Development

Integrating innovative research-supported practices into the classroom requires that teachers understand the knowledge base for their discipline, work in supportive environments, learn the practices of teaching, and receive opportunities for practice with colleagues (Gersten, Vaughn, Deschler, & Schiller, 1997).

Alignment with LETRS

In school-based implementation of *LETRS*, teachers are prompted to read articles and apply what they learn to their classrooms. For example, to assess and strengthen their instructional techniques, teachers may be asked to bring diagnostic information on one or more children, to team up with another

colleague to plan and execute a lesson, to carefully document children's response to instruction, to give an elaborated rationale for a lesson plan, to videotape themselves during instruction, and/or to demonstrate for colleagues a technique they used with their students.

Summary

LETRS provides the professional development that is necessary to increase the quality of reading instruction in the classroom to improve student achievement outcomes. The 12-module professional development program is intended to (a) provide teachers with a conceptual basis for interpreting the assessment information they obtain in the classroom, (b) enable teachers to deliver a sound instructional program with confidence and conviction, (c) help teachers choose examples, give corrective feedback, and clearly explain concepts about language structure, and (d) increase teachers' understanding of how to choose instructional programs and approaches in accordance with the needs of individual students.

Ongoing Research with *LETRS*

LETRS is one of several professional development approaches being studied in Michigan's Teacher Quality grant, under the direction of Dr. Joanne Carlisle. *LETRS* will also be the basis for professional development in a study conducted by the American Institutes for Research in Washington, D.C. Finally, Sopris West Educational Services has received a grant from the Small Business Innovation Research (SBIR) program of the National Institute of Child Health & Human Development (NICHD) to study the effect of *LETRS* CD-ROM instruction on teacher growth and student achievement.

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