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Prevention and Early Identification of Students with Reading Disabilities

Sharon Vaughn, Jeanne Wanzek,
Althea L. Woodruff, and Sylvia Linan-Thompson

The importance of ensuring that children acquire adequate literacy skills in the primary grades has been well-documented: students who do not learn to read in the first and second grades are likely to continue to struggle with reading (Juel, 1988; Morris, Shaw, & Perney, 1990) and are at higher risk for academic failure and school dropout than children who develop proficient reading skills in the first years of formal schooling. That we are falling short of all students reading at or above grade level is also well-documented: The National Assessment of Educational Progress, our national report card, indicates that more than two thirds of fourth and eighth graders in the United States cannot handle challenging texts at proficient levels (National Center for Education Statistics [NCES], 2003). Even more alarming, the percentage of students reading at these low levels has remained relatively stable over the past 10 years. More specifically, fully 37% of fourth graders nationally cannot read at a basic level—that is, they cannot read and understand a short paragraph of the type found in simple children's books (NCES, 2003). Reading failure is especially prevalent among children living in poverty. Seventy percent of students from low-income families in the fourth grade cannot read at this basic level (Lyon, 2001). In an effort to improve the reading achievement of students, the No Child Left Behind Act of 2001 (PL 107-110) has incorporated systems for the early identification and intervention of students at risk for reading difficulties.

Further evidence of the need for early identification of children at risk for reading failure comes from data on the progress of children who are identified—typically after 1–2 years of reading failure—as having a reading-related disability and are provided with special education services. According to a report published by the Office of Special Education and Rehabilitative Services (2001), approxi-

mately 60% of students are identified too late to derive full benefit from special education services. The long-term consequences of late identification cannot be underestimated. For example, only 2% of students receiving special or compensatory education for difficulties learning to read will complete a 4-year college program (Lyon, 2001).

A large percentage of elementary students with reading difficulties qualify for special education services based on a marked discrepancy between their expected performance level in reading and their actual reading levels. Thus, the issue of reading difficulties also serves as an early warning signal for risk that if not heeded may lead to further problems and referral and placement in special education.

Two of the most significant factors associated with improved outcomes for students at risk for reading problems are early identification through screening and early intervention. Screening measures that permit the early and relatively accurate identification of students at risk for reading failure are now available. In addition, a large body of research exists on the types of interventions that are most effective for students who encounter difficulty in mastering the basic components of reading. Thus, at least for monolingual English-speaking students and increasingly for bilingual students (Vaughn, Linan-Thompson, Mathes et al., 2006; Vaughn et al., 2006), there is a growing database of validated early intervention practices.

What is now needed are models of schoolwide programs that incorporate best practices in all the critical areas mentioned above—effective reading instruction for all students; early identification of students at risk for reading problems; effective interventions for students at risk; professional development; the efficient and effective deployment of school resources to sustain the program; and, integrated into each aspect of the program, the involvement of parents and families.

RESPONSE TO INTERVENTION: EARLY IDENTIFICATION OF LEARNING DISABILITIES

One of the issues in prevention and early identification of reading problems is the timing of referral for special education services. Under identification procedures in most states, students typically do not qualify for services within the category of learning disabilities (LD) until their academic failure is severe. This is due in large part to the use of the IQ-score-achievement discrepancy method for identifying students with LD. This method inherently requires that students fall behind to a significant degree in areas such as reading before they can be considered eligible for special services. Although this model has been questioned for years on many grounds, including whether it accurately discriminates poor readers from typical readers or between subgroups of low-performing readers (Fletcher, Coulter, Reschly, & Vaughn, 2004; Fletcher, Francis, Rourke, Shaywitz, & Shaywitz, 1992; Siegel, 1992; Stuebing et al., 2002; Vellutino, Scanlon, & Lyon, 2000), it remains the primary procedure for identifying students with LD in the majority of states.

Alternatives to the IQ-score-achievement discrepancy model have been proposed that focus on how a student responds to an initial intervention as a means for determining whether he or she needs special education (Fuchs & Fuchs, 1998; Gresham, 2002). A Response to Intervention (RTI) approach is based on monitoring students' progress, by means of curriculum-based measures, over the course of their participation in appropriate interventions. Students who make minimal or no gains can be provided a more intensive and specific intervention to determine their response over time. Students who fail to profit adequately from this more intensive intervention are those who may be considered by the school district and parents as having a learning disability. Essential to the effective implementation of an RTI model are 1) reliable and valid measures that are sensitive to intervention and can be administered multiple times, 2) validated intervention protocols for targeted outcomes such as reading decoding and comprehension (Vaughn, 2002), and 3) school-level models delineating a coordinated system of screening, intervention, and placement. The primary thrust for using identification models that incorporate RTI is to provide early intervention and/or prereferral services early to students who exhibit academic difficulties. The goal is to reduce inappropriate referral and identification and to establish a prevention model for students, thus eliminating the "wait-to-fail" model in place in many schools (Fletcher et al., 2004).

Research on Response to Intervention

Studies examining interventions for students with reading disabilities or difficulties reveal that even when the intervention group as a whole makes significant gains, some students do not respond as well to the intervention. These students may be considered *nonresponders* to the intervention. In recent years, it has become increasingly common for authors to report the number or percentage of nonresponders to the reported interventions. It is important to note that in almost all cases, students who are referred to as nonresponders are actually either low responders (meaning the slope for their response rate is not steep enough to accelerate their progress so that they would eventually be on-level readers) or their start point for the intervention was so low that even though they are responding they are not making sufficient progress to meet grade-level benchmarks.

To provide a review of the research that addresses RTI for young students with reading difficulties, we identified the corresponding literature in three stages. First, the 23 intervention studies included in the synthesis of literature by Al Otaiba and Fuchs (2002) encompassing the years 1966–2000 were obtained. Second, a three-step process was used to identify studies that took place from June 2000–August 2004, including 1) computer searches of PsycInfo and ERIC for the years 1999–2004, 2) hand searches of 10 major journals related to the topic for the years 2001–2004, and 3) examination of the reference section of a relevant

meta-analysis to identify additional studies not captured through the computer and hand searches (Nelson, Benner, & Gonzalez, 2003). Third, a search of Dissertation Abstracts for the years 1996–2003 was conducted.

The criteria for inclusion of a study corresponded to the criteria set by Al Otaiba and Fuchs (2002):

1. Dissertations or studies were published in peer-reviewed journals.
2. Participants ranged from preschool to third grade.
3. Participants included students at risk for reading difficulties (e.g., students with low ability, low phonological awareness, low income, language disorders, LD).
4. Interventions targeted early literacy and were conducted in English.
5. Study outcomes addressed reading outcomes.
6. Studies reported descriptions of students who were unresponsive to intervention. Studies reporting a percentage of nonresponders without providing descriptive information on these nonresponders separately from the participants as a whole were not included.

A total of 42 studies met criteria for inclusion in the synthesis. Twelve studies described nonresponders without statistical analyses. Twenty-five studies examined factors that predicted nonresponse to reading intervention. Five studies examined the characteristics of nonresponders after multiple interventions. Unique characteristics of nonresponders in one study were reported in two different publications, yielding a total of 43 publications or dissertations. It is beyond the scope of this chapter to review and analyze all of these studies; however, Wanzek (2005) provides a summary of all of the studies. A consistent definition of nonresponse to intervention has not been applied in the field. Thus, nonresponse to intervention was defined in a variety of ways in the studies we located, including lack of grade-level outcomes, empirically derived criteria on specific measures (e.g., students below the 30th percentile on a word reading measure), and no progress or slow progress in intervention compared with other students. Often, even the criteria to determine "grade level" or "slow progress" were not specified. It is clear that before RTI can be used effectively as an identification approach, agreement on what constitutes response and nonresponse to intervention is needed. One suggestion for defining nonresponse has been to use both the slope of progress and the performance level for students (Fuchs, Fuchs, McMaster, & Al Otaiba, 2003). Using this definition, a student who is below average in achievement level and who makes minimal progress in an intervention is identified as not responding to the intervention. In contrast, a student who begins at a low performance level in an intervention and does not meet criterion by the end of the intervention may still show evidence of responding to the intervention if he or she displays a sufficient slope of progress. If the student's slope of progress continues to demonstrate response, then the student is responding