

## **JUDGMENTS IN IDENTIFYING AND TEACHING CHILDREN WITH LANGUAGE-BASED READING DIFFICULTIES**

### **Authors**

Barbara W. Wise, University of Colorado  
Lynn Snyder, University of Colorado

### **EXECUTIVE SUMMARY**

#### **Introduction**

Expert clinicians continually evaluate student behavior and performance, using the art of good teaching to adapt programs to make them as effective as possible, for as many children as possible, in ways that are consistent with good research. In this paper we discuss how clinicians and researchers can collaborate to evaluate treatments, to improve their effectiveness, and to scale them up so that more children learn with appropriate, effective, and powerful methods suited to their needs.

Much well controlled research identifies constitutional core deficits underlying reading disabilities and identifies reliable tests that discriminate between children with and without the deficits. Research has also identified aspects of theoretically valid programs that help children with these difficulties more than other programs do. All this research leads to practical recommendations about screening, teaching, and evaluating the progress of these children. We focus on the recognition of and the clinical interventions for two types of reading disabilities. One is usually based on underlying core deficits in phonological (or speech-sound based) processing, leading to primary difficulties in word reading. The second is a less common deficit: poor language comprehension. Children with this deficit struggle with formulating main ideas, summaries, and inferences whether they read or listen to stories. These difficulties appear

despite normal phonological processing skills. Of course, individual children with language-based reading problems have different combinations of deficits and strengths that affect their clinical profiles and the design of individualized optimal instructional programs. Other causes of reading difficulties also occur, but they are not the subject of this paper.

## **Findings**

We chose the topic of reading disabilities because of reading's critical importance in education and because of the prevalence of these problems in children referred for special education. Research findings reviewed in this and other white papers in the Initiative suggest how to screen, identify, teach, and evaluate children with reading disabilities. Our main focus, however, is on how the expert clinician uses and goes beyond this research and beyond the scores derived from standardized tests, constructing and evaluating the most appropriate educational programs that are consistent with research findings for children with language-based reading difficulties. We consider the information that clinicians need to interpret student performance to make these adaptations.

### **Research on Identifying and Instructing Students with Speech-Sound Based Reading Disabilities**

Reading-level match studies confirm that older children with specific reading disability (SRD) perform worse in phonological awareness and phonological decoding than do younger normal readers. Phonological awareness in kindergarten is the strongest predictor of reading throughout elementary school (Adams, 1990). Intervention studies show that training in phonological awareness and decoding, when integrated into and applied during reading accurately in context, leads to gains beyond phonological skills to gains in reading itself.

Research indicates that interventions for children at risk for specific reading disability should improve phonological awareness, decoding, and fluency. Research has not identified one “best” method to accomplish these goals. However, studies do suggest certain components that should be included: phoneme awareness training in order to use the alphabetic principle and learning programs that balance foundation skills with accurate reading for meaning in context.

Although well-structured phonological training should help children make gains in phonological processes and accurate word reading, researchers are reporting a lack of transfer of differential gains one and two years after treatment ends. Nevertheless, clinicians who work one-on-one, who are able to individualize, and who can keep students as long as they need to ensure independent use of self-correction and comprehension strategies have some students who maintain gains after treatment.

Continued slow reading rates hamper comprehension and enjoyment. Whereas phonological deficits are amenable to remediation, children with “double deficits” in phonological awareness and naming speed seem the most resistant to treatment. These findings have focused researchers’ attention on naming speed, with a resulting increase in the number of studies on serial rapid naming. Researchers are devising computer programs that they hope will help improve reading rates by working on fluency and on elaborating vocabulary.

Given these findings, we see that expert teachers and clinicians must assess foundation level skills, ensure automaticity with speeded practice, and provide numerous opportunities for children to apply the skills in context at instructional levels. They do this while teaching and supporting comprehension in individualized programs and encouraging independent reading and writing away from the clinical setting to ensure transfer.

## **Research on Identifying and Instructing Children with Specific Comprehension Problems**

A growing body of research has identified children with reading disabilities whose decoding skills are normal but whose comprehension is weak. Their disabilities are not related to phonological deficits. Children with specific comprehension problems have not been studied closely in the United States, but researchers in the United Kingdom have focused on children who have normal decoding skills but deficient reading comprehension. When children with specific comprehension problems listened to short stories, they were as accurate in their recall for details as were their peers with good comprehension. However, the same children lagged behind their peers in being able to explain the gist of the stories. Over time, this body of research has characterized the language and processing strengths and weaknesses of these children.

Children with poor comprehension were found to be less accurate than skilled readers at answering questions about text they had read — both explicit and implicit information — and were poor at using context to facilitate reading comprehension even when the relevant knowledge was available to them. Increasing evidence points to deficits in lexical and semantic processing skills. Clinicians expert in this area watch the comprehension of children who present with low Verbal IQs in contrast to their Performance IQs and check the weaknesses in their lexical abilities, particularly with abstract words. The expert clinician is also sensitive to those children whose story and text recall, summarization, and discussion suggest difficulty in constructing the gist of what they have read.

Promising but limited findings indicate that focused intervention that uses strategies to address skills related to semantic memory seems to improve reading comprehension performance

for children with specific comprehension deficits. Researchers studied the effects of three approaches: one encouraged children to develop inferential skills; one helped children answer comprehension questions about stories they had read; and one helped children decode words in text. After two months of training, the children given inference training improved significantly in reading comprehension compared with the other two groups who showed no significant improvement in comprehension.

Vaughn and her colleagues reported success with improving comprehension for students with learning disabilities, with large effect sizes for interventions that used self-questioning strategies. Small-group instruction and extensive practice at levels that ensure success were important in improving comprehension. Williams and her colleagues studied the effects of teaching students with severe learning disabilities to identify themes. Not only did the students experience significant gains, but also they maintained these gains over the long term. Another study of the effects of providing organizational cues and cueing strategies on reading comprehension found that children with specific comprehension deficits improved their reading comprehension markedly following the treatment.

### **Clinical Judgement in Recognizing Children with Reading Disabilities**

Ysseldyke and Algozzine have concluded, after a series of studies on the placement process, that the most important decision that gets made in the assignment of students to special education programs is the decision to *refer* by the classroom teachers. Experienced teachers use clinical judgement in this referral process. The referral is a signal that the teacher has reached the limits of his/her tolerance of individual differences, is no longer optimistic about his/her capacity to deal effectively with that particular student in the context of the larger group, no longer perceives that the student is teachable *by that teacher*, alone. But since not all children

who fail to thrive in school are referred for special education services, the referral is also a signal that the teacher has used clinical judgement in differentially evaluating students' classroom behaviors.

It is probable that modifications to a child's instructional program can begin immediately after he or she has been recognized by the teacher as having problems. However, the child should be referred for further testing by trained diagnosticians, to identify associated conditions that might indicate the need to refine and modify treatment recommendations. For example, most researchers have found that about 30% of children with reading disabilities also have deficits in attention that should be taken into account in developing an instructional program

### **Clinically Recognizing Children with Speech-Sound Based Reading Disabilities**

Children with severe phonological deficits who have very high vocabulary and other higher-level language skills use small-group instruction well because they often learn the material rapidly and enjoy acting as tutors or coaches in small-group activities. Most children with deficits in phonological awareness should benefit from extra work with concrete manipulatives and visualizations, mnemonic devices, extensive practice, and assistive technology. Children with severe reading disabilities who have poor orthographic memories require extensive practice.

Most programs have helped children with slow naming skills improve their decoding, but not achieve grade-level reading rates or comprehension. Current research suggests speeded practices, vocabulary elaboration, repeated readings, and computer-assisted speeded practice as possible ways to improve reading speed and comprehension. These children also should respond well to modified programs that include computerized text readers and note takers to help them succeed with reading, as well as alternatives to written tests.

## **Clinically Recognizing Children with Specific Poor Comprehension**

Student with specific comprehension deficits often have problems following directions. Their oral reading performance is appropriate for their age and grade level, but they struggle with retelling the stories they have read. They can often remember details in stories, but have a hard time constructing gist, so they do very poorly at summarizing or drawing inferences. Children with this difficulty are often identified at later grade levels than are children with phonological deficits, because many of the stories read at first and early second grade levels do not provide much opportunity for drawing inferences from implicit information. These children also have trouble with arithmetic word problems.

## **Screening for Reading Disabilities**

Many school-based literacy programs screen kindergartners and first graders for possible risk of failure in reading because most students who are identified as poor readers fail to catch up with their peers with normal reading skills by the end of third grade. In fact, some educators contend that we must identify children at risk for failure in reading early and begin intervention no later than kindergarten. The concern, therefore, is how to best identify at-risk students this early in their school experience. We provide a wealth of information about screening processes and their research underpinnings.

## **Implementing Clinical Judgements in Modifying Instruction to Meet Individual Needs**

Teachers need a strong knowledge base in language and in all aspects of reading to make the kinds of judgments and modifications we have been advocating. McCutchen (1997) found that the more a teacher knew about the structure of language, the better the progress that the students made in reading. Many others researchers support continuing education to help teachers

learn as much as they can about reading, language, individualization, and directed questioning to help children become actively engaged in all aspects of reading — in effect, to learn to become their own teachers. Schools of education can begin to offer and require more courses in language, reading, and individualizing instruction for all elementary school and special education teachers, and school districts can provide inservice training for teachers in the field to help support and enrich their knowledge in this area.

The most effective intervention programs sequence materials at appropriate individualized levels to ensure success, use directed questioning in a way that promotes thinking aloud about strategies, include extensive practice, and instruct groups of 6 or fewer students at a time. Studies that suggest that a one-to-three teacher-student ratio with highly qualified teachers can be as effective as one-on-one and that paired reading and peer-tutoring small groups are effective ways to manage small groups. Students with learning difficulties especially benefited from taking the role of the tutor in peer-tutoring situations. Easily individualizable computer programs and learning kits may help teachers provide the kind of sequenced instruction at levels guaranteed for success.

## **Conclusion**

The clear educational goal for teachers of children with learning disabilities is to design instruction for small groups of children who are working at instructional levels, with lots of appropriate practice and with directed questioning that helps children discover and use appropriate learning strategies. The best instruction supplements the prescriptions derived from formal assessments with clinical judgement of student's responsiveness to teaching and ongoing assessments of student progress and classroom performance. We need strong personnel preparation programs that focus on professional knowledge about, and appropriate strategies for,

fine-grained recognition of the variety of learning disabilities, and we need the implementation of specialized interventions that are targeted appropriately to specific learning problems. Such programs will give educators the skills and knowledge they need to address the learning problems of their students with learning disabilities.