Struggling Readers: From Identification to Intervention

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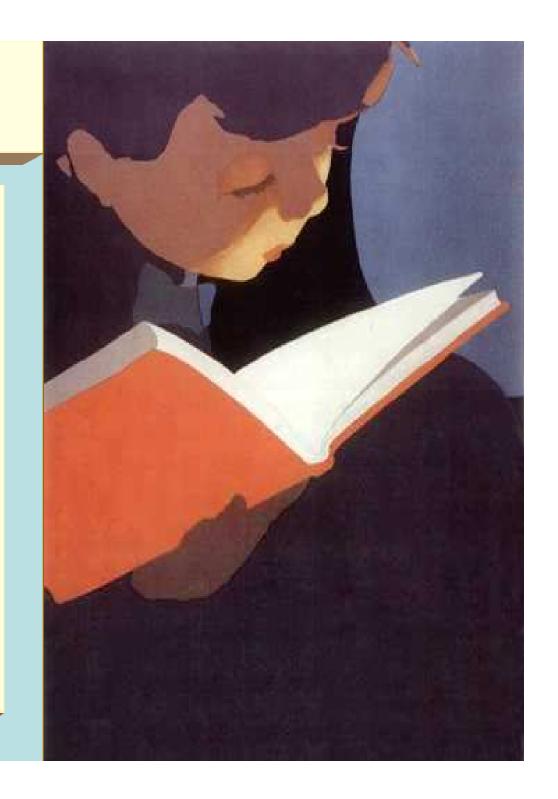University of Houston

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Types of RD

There is good evidence for 3 domains of difficulties in reading that co-occur and occur in isolation:

- Word recognition
- Fluency
- Comprehension

We have effective instructional strategies in each domain

Word Level Reading Difficulties

Most common and best understood form of LD (<u>Dyslexia</u>)

- A common problem: Largest single group of students in special education

- Almost 2/5 of all children identified for special education

- Many served in Title I programs have word level difficulties

IDA DEFINITION OF DYSLEXIA

Dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge.

Adopted by the Board of Directors: November 12, 2002

Achievement Markers and Processing Correlates

- Word Recognition (Real Words, Pseudowords) and Spelling

- Phonological Processing: Phonological Awareness, Rapid naming, Verbal Short- Term Memory

Intervention: Word Recognition

- Teach phonics in the context of an approach that includes comprehension and fluency components

- Prevent word recognition problems because remediation is difficult

- Even older students and adults can be taught word recognition if the approach is sufficiently intense

Word Reading: Multiple Meta-Analyses

- Lipsey and Wilson (1993) .34 for educational interventions
- Swanson (1999) .57 for word reading in LD
- NRP: .98 K-2; .49 G2-6 for word reading in poor readers
- Similar effects in multiple studies of children identified with word reading problems
- Effects stronger if programs more comprehensive, begin earlier, last longer, in smaller groups with more intensity, and focus on reading; smaller for fluency and comprehension, esp. if remedial

Stuebing, K.S., Barth, A.E., Cirino, P., Fletcher, J., & Francis, D.J. (2007). The National Reading Panel Report: Effects of explicit instruction are practically significant. *Journal of Educational Psychology, 100*, 123-134.

- Examined the reassessments of the National Reading Panel (NRP) report (NICHD, 2000) by Camilli et al. (2003; 2006) and Hammill and Swanson (2006)
- Both disagreed with the NRP as to the magnitude of the effect of systematic phonics instruction.
- Multi-level regression analyses show that their findings do not contradict the NRP findings of effect sizes in the small to moderate range favoring systematic phonics.
- In contrast to Hammill and Swanson, bivariate effect size displays show that small effect sizes are meaningful and could result in a significant improvement for many students depending on the base rate of struggling readers.

Prevention: Tier 1

- Teach early literacy skills, esp. phonological awareness, in the context of an emphasis on oral development in preschool and kindergarten
- Any PA training should have letter component; usually 15' per day in small groups for those who struggle; fewer letters may be better than more letters

http://www.uth.tmc.edu/circle/

Prevention: Tier 1

- Strong classroom core reading program (see Simmons and Kame'enui Consumer's Guide to Evaluating Core Reading Program)

http://reading.uoregon.edu/appendices/con_guide_3.1.03.doc

- Peer Assisted Learning Strategies (PALS) is effective, inexpensive, and relatively easy to scale

Primary: Core Reading Instruction (Sharon Vaughn)

Focus	For all students
Program	Scientific-based reading instruction and curriculum emphasizing the five critical elements of beginning reading
Grouping	Flexible grouping
Time	90 minutes or more per day
Assessment	Screening assessment at beginning, middle, and end of the academic year
Interventionist	General education teacher
Setting	General education classroom

Secondary: Intervention (Sharon Vaughn)

Focus	For students identified as at-risk for reading difficulties, and who have not responded to Primary intervention efforts
Program	Specialized, research-based interventions
Grouping	Homogeneous small group or one-on-one instruction
Time	20-40 minutes per day in addition to 90 minutes of core reading instruction
Assessment	Progress monitoring twice a month on target skill(s) To ensure adequate progress and learning
Interventionist	Personnel determined by the school **(e.g.,classroom teacher, a specialized reading teacher, an external interventionist)**
Setting	Appropriate setting designated by the school

Tertiary: Intensive Intervention (Sharon Vaughn)

Focus	For students with marked difficulties in reading or reading disabilities and who have not responded adequately to Primary and Secondary efforts
Program	Sustained, intensive, scientifically based reading program(s)
Grouping	Homogeneous small group or one-on-one instruction
Time	45-minutes or longer sessions per day tailored to students' individual needs
Assessment	Progress monitoring twice a month on target skill to ensure adequate progress and learning
Interventionist	Personnel determined by the school **(e.g., a classroom teacher, a specialized reading teacher, an external interventionist)**
Setting	Appropriate setting designated by the school

A Sense of Urgency

"If (there is) a very at-risk child, …we adjust the schedule of the child. If he needs extra help, that next day he will have a reading specialist work with him. If that's not enough, then we have tutorials, and another teacher will work with him. We've built all of these safety nets to protect children who are at-risk. ***A child who is very at-risk will have a schedule that is very different from other students.****"*

…A school principal in Denton, Foorman, & Mathes (2003)

Why is Remediation of Word Recognition Difficult?

- Students who don't master word level skills early are delayed in their ability to access print
- Leads to lack of opportunity, which impacts experiences needed to develop automaticity
- Fluency problems emerge
- Reading is frustrating; leads to avoidance and compounding of the lack of engagement
- Motivation and interest never emerge
- Matthew effect: rich get richer and poor get poorer

Reading Fluency Difficulties

- Rate deficit in children who are accurate word readers- often after intervention
- Related to poor automaticity of word reading skills – an outgrowth of word recognition (inadequate development of sight word vocabulary)

Current Perspectives

Fluency is partly an *outcome* of word recognition

- "ability to read connected text rapidly, smoothly, effortlessly, and automatically with little conscious attention to decoding" (Meyer, 2002)
- "rate and accuracy in oral reading" (Shinn et al., 1992)
- "immediate result of word recognition proficiency" (NRP, 2000)

Current Perspectives

Fluency is also a matter of automaticity related to the ability to process increasingly large units of words

- In other countries, fluency and spelling are primary indicators of reading problems
- Key concept is automaticity- reading with little conscious attention to decoding

Cunningham & Stanovich, 1999)

%	Independent Reading Minutes Per Day	Words Read Per Year
98	65.0	4,358,000
90	21.1	1,823,000
80	14.2	1,146,000
70	9.6	622,000
60	6.5	432,000
50	4.6	282,000
40	3.3	200,000
30	1.3	106,000
20	0.7	21,000
10	0.1	8,000
2	0.0	0

Variation in Amount of Independent Reading

Achievement markers and processing correlates

- Simple norm referenced or criterion referenced assessments of fluency (words and/or text):

- Processing correlates: Rapid naming, speeded processing

www.studentprogress.org

Intervention: Fluency

- Improved word recognition
- Spelling instruction
- Repeated reading
- Practice with a wide range of text

Independent Reading

Independent reading is most beneficial when it is structured and purposeful, and there is a good reader-text match.

- Match to ability and text characteristics
- Set explicit goals for activity
- Linked to other areas of the curriculum

Independent Reading

- Reader should be able to read text with 90% accuracy
- Ratio of known and unknown words should be below 1:20 to facilitate vocabulary acquisition
- Content of independent reading should relate to classroom content
- Follow-up activity and discussion based on independent reading
- Teacher and student share understanding of the purpose of the reading assignment

Reading Comprehension Difficulties

- Most children with word level disorders have comprehension problems
- Subset with intact word recognition and deficient comprehension estimated as high as 5-10%
- More apparent in older children

Important Research Findings

Disabilities related to comprehension are related to oral language.

"The comprehension deficit experienced by the poor comprehender is clearly not specific to reading, but rather represents a general language comprehension limitation." -Stothard & Hulme, 1996

Assessment Guidelines

- A single assessment is not adequate
- Make sure the child reads text: WJ and WIAT not adequately complex
- Allow silent reading
- Don't discount group- based assessments
- Ask the teacher and parent

Weaknesses in Poor Comprehenders

- Vocabulary and understanding of syntax
- When language controlled: nonlinguistic conceptual knowledge (inferencing, text integration, working memory, meta-cognitive skills)
- Parallel comprehension problems observed at the level of discourse

Interventions: Reading Comprehension

- Teach comprehension strategies explicitly
- Work on oral language development, esp. vocabulary
- Teach learning adjuncts in content: graphic organizers, summarization
- Provide organizational support (works for everyone)

Vocabulary Instruction

 K-12 classrooms must increase opportunities for students to develop sophisticated vocabulary knowledge.

- 5-10% of average class devoted to vocabulary instruction and mostly in elementary school; should occur throughout schooling

- Need 12-14 exposures to word and its meaning across multiple contexts

- Embed in content

Enhancing Reading Comprehension: Carnegie Report

1. Direct, explicit instruction in the strategies and processes that support proficient reading instruction

- summarizing, questioning, clarifying, predicting

- comprehension monitoring: awareness of how they understand while they read

- Teacher modeling, scaffolding, and apprenticing

http://www.all4ed.org/publications/ReadingNext/

index.html

Explicit Instruction

- Regardless of the approach, teachers make instruction explicit when they explain how and when to use strategies and model implementation; help students use them in multiple contexts in different content areas and genres; scaffold support
- Move away from passive reading as a strategy for reading comprehension

Teach children to…

- Make conscious predictions *before* reading

- Monitor comprehension and ask questions *during* reading- explain their process of understanding

- Summarize *after* reading

Teach them to predict, question, monitor, and summarize

Collaborative Strategic Reading-Vaughn & Klingner

- Present strategies using whole class modeling, role playing, think alouds (preview, comprehension monitoring, restudy most important idea, summarization, question asking)
- Apply strategies involving why, when, and how
- Form groups based on proficiency
- Transfer processes from teacher to students

Enhancing Reading Comprehension: Carnegie Report

2. Teach comprehension in content areas

- language arts teachers should use literature to teach comprehension explicitly

- content teachers (science, history) provide explicit instruction and practice in comprehension specific to the subject area: emphasize the reading and writing practices that are specific to the content area (read and write like historians, mathematicians, scientists)

- use tools like graphic organizers, outlines, structured reviews embedded in content

Enhancing Reading Comprehension: Carnegie Report

10. Comprehensive, coordinated literacy plan PS-12

- Interdisciplinary, interdepartmental, across-grade and coordinated with outside resources and the community

- Leadership and commitment from building and district leaders

- Professional development targeted to instruction

- Evaluate students and programs

Some General Remedial Principles

- Remedial interventions must increase intensity and differentiation, so the first step is to increase time on task and reduce the size of the instructional group
- Whenever possible, interventions should supplement, not supplant
- No intervention is effective if it does not involve the academic skill itself (must read, do math, and write)
- The longer intervention is delayed, the slower the response (on average) and the greater the need for intensity
- Intervention always begins in the general education classroom
- Effective interventions include a self- regulation component
- Progress must be assessed at all levels

Ineffective Intervention

- Doesn't focus on academic skills
- Defines academic proficiency narrowly
- Doesn't increase instructional time, intensity, or differentiation
- Doesn't continually monitor progress and adjust instruction or change program
- Teaches for the sake of learning rules, not to master principles
- Doesn't engage the child in reading instructional level material or practice in math and writing
- Waits for the child to fail; leaves the child behind

Children Must be Taught to Read!

"We are all born dyslexic- the difference among us is that some of us are easy to cure and others more difficult."

-Liberman, 1997

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