



Multi-Tiered Reading Instruction: Integrating Prevention and Remediation

Jack M. Fletcher, Ph.D.
University of Houston
Department of Psychology

Presentation, North Carolina IDA, March 7, 2008

Some Research Findings

- Many instructional approaches are effective for struggling readers
- Vary in size of instructional unit: classroom, small group, individual
- Preventative and remedial approaches comparable in terms of effect sizes in many reading domains
- Differences reflect degree of development at initiation

Some Research Findings

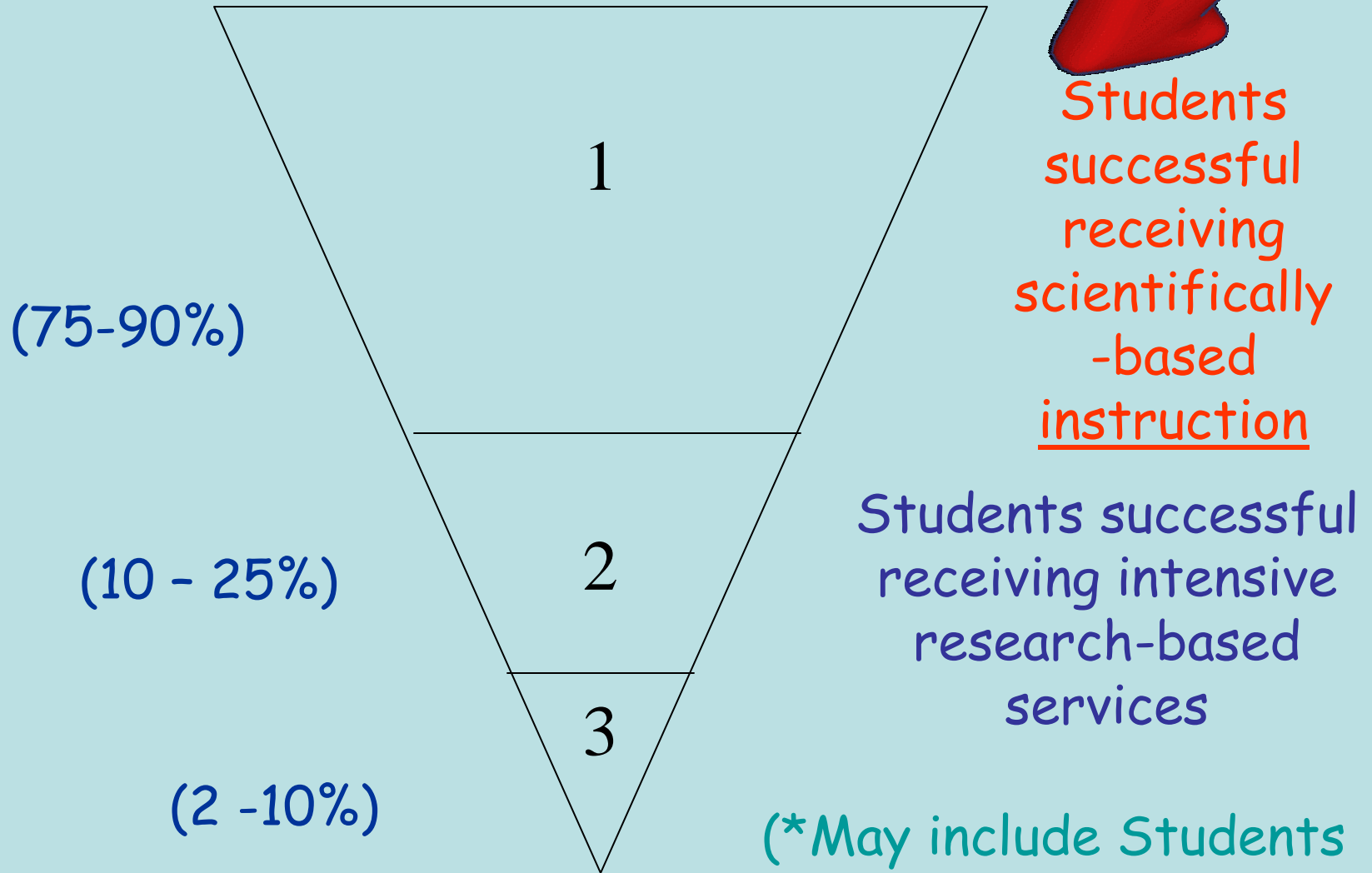
- Remedial interventions typically supplant other forms of instruction
- Students in remedial situations typically read less, not more, and instruction is often generic; instructional unit too large for many students
- Improvement is tied to engagement and opportunities to practice
- Most important components of intervention: increase instructional time, intensity, and differentiation

Some Questions?

- Why take young students who are struggling out of the classroom environment, especially in elementary school?
- Why not use additional instructional opportunities to supplement instruction?
- How can we know who is disabled in the absence of adequate opportunity to learn?
- Why not integrate classroom and remedial instruction, and use response to instruction to determine level of intensity and degree of differentiation?

Note: No Program Titles are listed

Early Intervening Services & Response to Intervention (RtI) Decisions (3 Tiers of Services*)



(*May include Students with Disabilities (IEPs))

Tier 1: Enhanced core reading instruction

- Primary model: begins in the classroom with professional development, assessment, and better materials
- Goal is differentiated instruction and monitoring response to instruction through comprehensive content and classroom management
- Implemented by classroom teacher with a 90' core and multiple grouping format

Content: 1998 NRC Report 2000 NRP Report

- Consensus documents
- Instruction can prevent reading difficulties
- Emphasized integration of:
 - Explicit alphabetic instruction: *word recognition*
 - Reading for meaning: *comprehension*
 - Active engagement: *fluency*

In an integrated, comprehensive approach
to reading instruction

Reading Instruction Must be Integrated from KG- G12

- If a critical component is missing, students who at risk will not develop the component
- Success and failure in reading are opposite sides of the same coin- it's the same theory, not two theories, one for success and another for failure
- Instruction is the key

(see Simmons and Kame'enui Consumer's Guide to Evaluating Core Reading Program:

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

Tier 2: Supplemental Instruction

- Typically homogeneous small group pull out instruction, but can represent additional dose in the classroom by a person other than the classroom teacher
- Adds to instructional time (typically 20- 40') and supports classroom instruction
- Progress monitoring essential to gauge level of intensity and adjust instructional emphasis- if child is progressing, why put a time limit?
- Many approaches may work

Converging Evidence

- Small-group intervention is just as effective as 1:1 intervention (Elbaum et al., 2000)
- In reading, Tier 2 content is the same as for effective classroom intervention: explicit instruction in the alphabetic principle, reading for meaning and opportunities to learn- emphasis shifts, but you get what you teach

www.fcrr.org

Tier 3: Intense Intervention

- Can be delivered in general or special education; the place is not important
- Goal is to dramatically increase intensity and differentiation through more individualization
- Content may be significantly different from first 2 levels
- More individualization and more time required

Types of RD

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

- Word recognition
- Comprehension
- Fluency

We have effective instructional strategies in each domain



Word Level Reading Difficulties

Most common and best understood form of LD
(Dyslexia)

- 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



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

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
- Focus on 2-10 letter sounds in depth

Prevention: Tier 2

- 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

- Don't discount school reform and curriculum reform models in high risk schools
- Peer Assisted Learning Strategies (PALS) is effective, inexpensive, and relatively easy to scale

Prevention: Tier 2

- Provide supplemental instruction for those who struggle
- Common model is daily 30', small group lessons for 10 week period
- Many approaches work- should be comprehensive and integrated, paralleling the classroom program

www.fcrr.org

Remediation: Tier 3

- Focus intensively on one component, often word recognition in context of a comprehensive program
- Intensity is the key- 1 hour per day over shorter period of time may be more effective than 30' per day forever

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

In secondary schools, same principles apply- enhance general education instruction and supplement instruction before remediating in the context of screening and progress monitoring

Secondary Schools

Principles are the same, especially for behavior

- Screening and progress monitoring must be in place
- Team- based decision making

Literacy is a central focus

- Primary: Focus on comprehension and vocabulary instruction across content areas
- Secondary and Tertiary represent alternatives depending on the type and severity of reading difficulties

TCLD Middle School Study

- Typical Readers (pass TAKS), n=974:
 - 23% had difficulty in one or more domains
 - 8% Decode, 13% Comp, 11% Fluency
 - 37% Comprehension; 44% decode/fluency
- Struggling Readers, n=1032:
 - 75% difficulties in one or more domains
 - 81% decode/fluency; 19% comprehension
 - 6% Decode
 - 12% Fluency
 - 19% Comp
 - 32% Decode or Fluency, Comprehension
 - 31% Decode, Comprehension, Fluency

Its Not Just Comprehension

- Need to know who is “at- risk”
- What domain is the initial focus of intervention?
- How much progress is the student making?

Screening and Progress Monitoring

- Can history on state high stakes test be used as a screening tool? Its not just about passing...
- Further evaluate of those who don't achieve a critical level- passing may not be adequate
- Since rate of growth in reading is slower, do PM probes need to be done as frequently?
- Individual vs. group administrations

Reading rates (words per minute) by grade indicative of instructional needs in decoding, comprehension, and fluency for students who do not pass TAKS

Measure	D,F,C	F,C	C
G6 Passage	<67-91	92- 108	> 109
G7 Passage	<67-89	90-118	> 119
G8 Passage	<74-101	102-124	< 125

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

Fluency: Importance of Assessment

- Older students who have not developed fluency must be identified
- Simple norm referenced assessments of word reading and fluency:

<http://www.studentprogress.org/>

- These assessments take MINUTES

Cunningham & Stanovich, 1999)

Table 3

%	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

Intervention: Fluency

- Improved word recognition, especially at morphemic and multi-syllabic level
- Spelling instruction
- Repeated reading
- Practice

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

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

Collaborative Strategic Reading- Vaughn & Klingner

- Present strategies using whole class modeling, role playing, think alouds (preview, comprehension monitoring, reread 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

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](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

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

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

Some General Remedial Principles

- Effective interventions include a self- regulation component
- Progress must be assessed at all levels
- There is a wealth of evidence- based programs and strategies for students with LD and those poorly prepared for academic learning (Swanson et al., Handbook of LD, Guilford, 2003; Fletcher et al., Guilford, 2006)- we don't apply them in schools

Other Approaches

- Interventions based on visual perception, temporal processing, peripheral vision, and phonological awareness are not associated with significant improvement in reading skills
- Limited data on impact of comorbidity, esp. joint treatment

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

Believe in the Child! Support the Teacher! Reading is JOB ONE!

With appropriate instruction, nearly all students, including those from low-income backgrounds and those at risk for learning disabilities, can become competent readers.

Jack M. Fletcher, Ph.D
jackfletcher@uh.edu

University of Houston
Department of Psychology