Responsive Teaching and Response to Intervention: Considering the I in RTI

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Presentation for the New York State Reading Association Annual Conference, April 3, 2011, Saratoga, NY.

Response to Intervention

- We have always known that some individuals take longer than others to learn particular things:
  - Technological society demands broad literacy and numeracy.
    - It used to be OK to not read and write and/or do math well.
  - Children who do not learn easily and/or those who begin their schooling with limited literacy skills need more expert and intensive instruction – they are not necessarily learning disabled.
  - Children who are not meeting grade level expectations need instruction that meets them where they are -
    - not where we think they should be.

IDEIA Reauthorization

- The 2004 reauthorization of the Individuals with Disabilities Education Improvement Act (IDEIA) implicitly calls for:
  - Rethinking the causes of learning difficulty
  - Rethinking our responses to such difficulties
  - Rethinking what it means to be a disabled learner

- The process of LD determination has been controversial from the beginning
  - It has always focused on unexpectedly low achievement.
  - The new approach differs primarily in how expectations are set.
  - Age/grade level norms are the standard in RTI.

Definition: Responsiveness to Intervention (RTI)

- RTI is an approach to preventing learning difficulties and to determining whether students should be classified as learning disabled. It involves:
  - Identifying students who are not meeting or are at risk of not meeting grade level expectations in a particular academic area.
  - Providing intervention that is intensified in a tiered fashion.
  - Assessing students’ gains to determine whether they are progressing rapidly enough to meet grade level expectations.
  - Adjusting the qualities and intensity of instruction based on student performance.

How did RTI Emerge as a New Approach to LD Classification?

- Many studies indicated that interventions for young struggling readers helped many catch up with their peers. For example:
  - Brown, Denton, Kelly, Outhred, & McNaught, 1999
  - Gomez-Bellenger, Rogers, & Fullerton, 2003
  - O’Connor, 2000
  - Torgesen et al., 2001
  - Vellutino et al., 1996

Copies of the slides will be available on the Child Research and Study Center website: www.albany.edu/crsc

Take notes by slide number
How did RTI Emerge as a New Approach to LD Classification?

- Over two decades of research have undermined the use of the IQ-achievement discrepancy to define learning disabilities. Examples include studies showing that:
  - IQ-achievement discrepant poor readers were found to be no different than non-disrepanant poor readers on measures of reading-related cognitive abilities (Fletcher et al., 1994; Stanovich and Siegel, 1994).
  - Some average and good readers demonstrate a discrepancy between IQ and achievement.
  - The magnitude of the discrepancy between IQ and achievement did not predict response to intensive intervention (Vellutino, Scanlon, and Lyon, 2000).

Growth Curves for Mean Raw Scores on the WRMT-R Word Identification Subtest for Normal and Tutored Poor Readers

- Groups that demonstrated different levels of response to intervention did not differ in IQ. From: Vellutino, Scanlon, Sipay, Small, Pratt, Chen, & Denckla, 1996.

How did RTI Emerge as a New Approach to LD Classification?

- There were rising concerns about the numbers of children who were being identified as learning disabled.
  - In some schools 20% or more of the children were being identified as learning disabled.
  - Disproportionate numbers of culturally and linguistically diverse students were identified as learning disabled (Donovan & Cross, 2002).

Other problems with the IQ-Achievement discrepancy approach

- Did not consider pre-school and out of school experience and instruction
- Provided no direction for instruction
- Gave little or no consideration to the quality and/or characteristics of instruction
- Resulted in low expectations for achievement

Why do some children have difficulty learning to read?

- Two broad possibilities:
  - Basic cognitive difficulties related to reading
  - Limitations in instruction and/or experience
- Prior to the emergence of RTI, this distinction was not routinely made.

Instruction Matters!

- Sanders and Rivers (1996) demonstrated that students whose initial performance levels are similar can have vastly different outcomes as a result of the series of teachers they have over multiple years.
Studies demonstrate that children’s learning is more dependent on what teachers do than on the programs they use. Examples include:
- Bond & Dykstra, 1967
- Duffy & Hoffman, 1999
- Nye, Konstantopoulos, & Hedges, 2004
- Scanlon, Gelzheiser, Vellutino, Schatschneider, & Sweeney, 2008
- Tivnan & Hemphill, 2005

There is little evidence that many of the "research-based," commercially-marketed intervention programs work to support the end goal of reading instruction – comprehension.
- See the Institute of Educations Sciences’ What Works Clearinghouse:

Models of Response to Intervention
Most RTI approaches recommend a "tiered" approach.
The number of tiers varies – but most models involve 3 tiers:
- **Tier 1** – instruction provided by classroom teacher – which, ideally, includes both whole class and differentiated small group instruction
- **Tier 2** – small group instruction provided by a specialist
- **Tier 3** – very small group or one-to-one instruction, provided by a specialist.

Only children who do not accelerate when provided with appropriately targeted and intensive intervention would/should be considered for special education placement. So….
- The most critical component of an RTI approach is….
### What is the Evidence for a Tiered RTI Approach?

- To date,
  - Several studies have demonstrated that one-to-one and small group interventions for at risk and struggling readers in the primary grades are effective in reducing the incidence of reading difficulties.
  - There are few studies that explicitly test the efficacy of a “staged” tiered model as compared to a model in which more intensive forms of intervention are implemented from the beginning.
  - There is very little research demonstrating the effectiveness of reading interventions for older struggling readers.

### Areas of concern in RTI implementation

- Common practices not supported by research
  - Frequent progress monitoring of isolated skills
  - Implementation of distinct programs at different tiers of instruction
    - Likely to confuse the children
  - Heavy emphasis on fidelity of implementation
    - May result in lack of teacher responsiveness and failure to match instruction to the students’ current abilities.

### What teachers do matters!

- Instructional decision making should be guided by:
  - Teacher knowledge and skills
  - Student knowledge and skills
  - Curriculum materials

### Potential of RTI:

- Represents new hope for struggling learners...

- Encourages early and, if need be, intensive intervention
- Eliminates the “wait to fail” effect of the IQ – Achievement discrepancy approach to learning disability designation
- Should reduce the number of children who are inappropriately identified as learning disabled

### Areas of concern in RTI implementation

- Common practices not supported by research
  - Heavy emphasis on isolated skills
    - May limit the amount of reading children do.
    - May confuse children about the purposes of reading
  - Heavy emphasis on fluency
    - May lead some children to be ‘word callers’ – inattentive to the meaning-making purpose of reading.

### Research on the impact of classroom instruction on outcomes for children who are at risk for early reading difficulties.

Scanlon, Gelzheiser, Vellutino, Schatschneider, & Sweeney, 2008

- Compared characteristics of kindergarten classroom teachers classified as more vs. less effective based on growth in literacy skills among their students who were at risk for reading difficulties at kindergarten entry.
- Compared the effectiveness of kindergarten classroom teachers before and after involvement in professional development based on the Interactive Strategies Approach (ISA).
Comparison of more vs. less effective classroom teachers at the kindergarten level – extreme groups design

Note: Effectiveness was determined by changes in the number of children who qualified as At-Risk based on the Phonological Awareness Literacy Screening (PALS) administered at the beginning and end of the school year.

Research on the impact of small group and one-to-one instruction for struggling literacy learners

Scanlon, Vellutino, Small, Fanuele & Sweeney (2005)
- Identified children who were at risk for reading difficulties at kindergarten entry.
- Randomly assigned children to small group intervention or to a control/comparison group in kindergarten.
- Kindergarten Intervention
  - 30 minute sessions, twice per week, mid-October through May
  - 3 children per group
  - Intervention supported the classroom language arts program

Components of Small Group Reading Lessons

- Read aloud / Shared Reading / Re-reading (depending on level of development)
  - Phonemic Analysis integrated with Alphabets as soon as possible
- Shared/Supported Reading of New Book
- High Frequency Words
- Modeled Writing / Shared Writing / Supported Writing

Percentage of At Risk Kindergarten Children who Qualified as Poor Readers at the Beginning of First Grade

Note: Some schools elected to provide their own version of intervention for children in the comparison group. School-based intervention was often much more intensive than ISA intervention (e.g., 5 days per week for one hour).
Research on the impact of small group and one-to-one instruction for struggling literacy learners

Scanlon, Vellutino, Small, Fanuele & Sweeney (2005)

- Children identified as at risk in kindergarten who remained at risk at the beginning of first grade were randomly assigned to one of two types of daily one-to-one intervention or to a control group.
  - Text Emphasis (TE) – half of each lesson devoted to supported reading of appropriately challenging text.
  - Phonological Skills Emphasis (PSE) – half of each lesson devoted to developing phonological skills.
  - Comparison (Comp) – School provided instruction

The two first grade intervention programs differed in terms of the amount of time that was devoted to the components of the daily lesson

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<tr>
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<th>Phonological Skills Emphasis</th>
<th>Text Emphasis</th>
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<tr>
<td>Reading and re-reading</td>
<td>5 minutes</td>
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<tr>
<td>Phonological skills</td>
<td>15 minutes</td>
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<td>High Frequency Words</td>
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<td>Writing</td>
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Beginning of First Grade - The 6 Groups Were Equal and Substantially Below Grade-Level Expectations on Measures of Reading Skill

Basic Skills Cluster of the Woodcock
Reading Mastery Test - Revised
September Grade 1

End of first grade results for children who remained at risk in first grade and who were randomly assigned to one of three intervention conditions.

(TE = Text Emphasis, PSE = Phonological Skills Emphasis, Comp = School-based intervention only)

Percent scoring BELOW the 15th percentile at the end of first grade
Percent scoring ABOVE the 50th percentile at the end of first grade

Note: The children who had intervention as kindergartners and still qualified for intervention one intervention or to a control group

In general the Scanlon et al. (2005) study demonstrated:

- Small group intervention in kindergarten can:
  - Substantially reduce the number of children who qualify for intervention in subsequent grades.
  - Substantially reduce the number of children who demonstrate severe reading difficulties in subsequent grades.
- One-to-one intervention in first grade can:
  - Substantially reduce the number of children who demonstrate severe reading difficulties.
  - Substantially increase the number of children who achieve at or above grade level expectations.

- Intervention teachers in the Scanlon et al. studies did not use packaged/published programs –
  - They taught with the purpose of supporting and enhancing the children’s learning relative to their classroom program.
  - Instruction was determined by
    - An overarching set of goals for early literacy development.
    - The characteristics of the classroom language arts program.
    - The children’s status relative to the goals and program.
  - The major purpose of professional development for both classroom and intervention teachers in the Scanlon et al. studies was to enhance teacher knowledge of literacy development so teachers could effectively
    - Identify what children were ready to learn, and
    - Teach them what they were ready to learn.
Extending the ISA to older struggling readers

Gelzheiser, Scanlon, Hallgren Flynn, & Vellutino & colleagues (in press & in progress)

- Ongoing research with 4th and 7th graders with reading goals on their IEPs:
  - Identify student profile
    - Word learning emphasis — students who have difficulty reading the words but who actively engage in meaning construction when reading appropriately challenging text.
    - Comprehension emphasis — students who read the words fluently but who do not comprehend the things they can ‘read’
  - Dual emphasis — Students who have difficulty reading the words and understanding what they read

Gelzheiser et al. (in press/progress)

- Provide 50 sessions of one-to-one intervention:
  - Mini lessons based on student profile
  - Reading materials — Trade books related to the students' social studies curriculum
  - Begin with controlled vocabulary texts to build topic-related knowledge and vocabulary
  - Culminating books (on same topic) at or near grade placement.
  - Majority of lesson devoted to collaborative reading and discussion of texts.

Gelzheiser et al. – emerging findings:

- Most students demonstrate substantial growth in reading comprehension during the intervention period.
- Those who showed the most growth tended to spend the most time:
  - Reading
  - Reading texts that provided an appropriate level of challenge

Children in an RTI process need instruction tailored to their needs.

To teach optimally teachers need to...

- Have insights into how complicated the reading process is.
- Be prepared to analyze and respond to the confusions of the children who struggle.
- Recognize that their instruction is a potential source of confusion for the child.

Reading is a complicated process

Sam walked slowly on the way to school. She was worried about today's math test.

While walking, she wondered how she could more effectively help her students understand place value.
In order to comprehend text, the reader must:

- Be able to identify most of the words effortlessly (automaticity)
- Have the necessary vocabulary and general language skills
- Have the necessary background knowledge
- Have the intention of making sense of what is read and actively engage in the meaning of the text.

Possible origins of reading difficulty:

Reading difficulties identified in the early primary grades are most often related to difficulties with phonological skills:

- Phonological awareness
- Facility with the alphabetic code
- Limitations in either of these areas make it difficult for the child to build his sight vocabulary.

Later reading difficulties are often associated with:

- Limited sight vocabulary which may be due to:
  - Unresolved difficulties with phonological skills
  - Limited experience with reading (“Matthew Effects”)
  - Limited engagement in meaning-making while reading
- Which makes it difficult to identify words that are not fully decodable

Instruction and intervention need to address all of the factors that influence reading comprehension.

Assessments commonly used for identifying children who are at risk for reading difficulties are apt to miss children who first demonstrate reading difficulties in the middle elementary grades and beyond.
The Interactive Strategies Approach (ISA)  
Basic Premises and Foundations: (Scanlon, Anderson & Sweeney, 2010)

- Instruction should be goal oriented – not activity oriented.
- Instruction should be responsive to what the children know and are able to do.
- Engagement leads to learning
  - What are the children thinking about?
  - Are all of the children engaged?
- Set high expectations for all students
- Interface support services with the classroom program.
- Plan for success

Instructional Goals of the Interactive Strategies Approach

- Motivation to Read and Write
- Alphabets
  - Purposes and Conventions of Print
  - Phonological/phonemic Awareness
  - Letter Names
  - Letter-Sounds
  - Decoding and Encoding Skills (word reading and word writing)
- Word Learning
  - Strategic Approach to Word Learning
  - High Frequency Sight Vocabulary
- Vocabulary and Oral Language skills
- Comprehension and General Knowledge

ISA at all “tiers”

- The same instructional goals guide instruction across the tiers
- Teachers teaching the same children are encouraged to collaborate and coordinate their instruction:
  - Terminology
  - Keywords
  - Strategies (word identification and comprehension)
- Reading materials/topics
- Share data (checklists of skills & strategies)

The Intersection of the Goals of Instruction and the Components of Language Arts Instruction

Teachers used checklists to track development and to guide instructional decision making for various aspects of literacy.
Tiers should differ primarily in:

- The degree to which instruction is tailored to the needs of individual children.
- The amount of time children are engaged in supported reading.
- The opportunities that children have to respond and receive guidance.
- The detail of record keeping relative to individual children.

A Sampling of the ISA Professional Development Content

Motivation to Read and Write

Instructional Goal: The child will develop the belief that reading and writing are enjoyable and informative activities which are not beyond his/her capabilities.

Ways to Promote Motivation to Read and Write

- Read and react to books (enjoy them).
- Treat reading and writing as a privilege (not as work).
  - “We get to…” rather than “We have to…”
- Keep the learning challenge at a moderate level.
- Convey that learning takes practice and that, with engagement, all children can learn.

Phonological Awareness

Instructional Goal:
The child will have a conceptual grasp of the fact that words are made up of somewhat separable sound segments. Further, the child will be able to say individual sounds in simple words spoken by the teacher and blend separate sounds to form whole words.

General Instructional Principles Related to Phoneme Awareness

- The ability to notice and manipulate the component sounds in words develops gradually
  - Syllables
  - Onsets & rimes
  - Individual phonemes
    - Beginning sounds
    - Ending sounds
    - Middle sounds
- Stretchable sounds are easier to analyze than stop consonants
- Sorting and blending are easier than segmenting
Learning About Letter Names

Instructional Goal: Children will be able to quickly and accurately name all of the letters of the alphabet – both their upper and lower case versions.

Important Points Related to Letter Naming (Identification)

Being fast and accurate on letter identification insures that the child can devote her cognitive resources to the higher-level aspects of reading and writing activities.

For children who know few if any letters:
- Early instruction needs to involve both whole alphabet activities and explicit instruction on individual letters.
- Instructional materials should consist of unembellished font.

For children who know very little about the alphabet, the font used in instructional materials is important.

Providing a ready reference can help to reduce confusions.
Learning About Letter Sounds

Instructional Goal: Children will be able to associate the most common sounds of the individual letters with their printed representations.

How Does Knowledge of Letter Sounds Develop?

Three possibilities
- Derived from letter names
- Deduced from reading and writing experience
- Learned through explicit instruction

Perspective Taking with Vowels

Children who don’t yet know the conventional spellings for the short vowel sounds make predictable substitutions.
- They substitute the vowel whose name sounds most like the short vowel sound they are attempting to spell.
- Sound Spelling the word *log* –

Video 38 (Kindergarten, Small Group, Spring)

Important Points re: Letter-Sound Knowledge

- Being fluent with letter-sounds allows children to more easily figure out unfamiliar printed words.
- Children often rely on letter names to help them remember letter sounds.
  - Teachers are often confused by the children’s very logical errors.
  - HRH
- Many children need explicit instruction on letter sounds.
  - Keywords can help them remember letter sounds, especially if the keywords are the same across settings.
- Engagement in reading and writing helps to reinforce and extend children’s letter-sound knowledge.

The Alphabetic Principle and the Alphabetic Code

Instructional Goal: Children will understand that the letters in printed words represent the sounds in spoken words and will understand how to use the alphabetic code to read and spell words.

An understanding of the alphabetic principle develops gradually.
- Early in development, children learn to use
  - Beginning letter and beginning sound
  - Ending letter and ending sound
- Later in development, children learn to use
  - Digraphs, blends and other larger orthographic units
  - Vowels
  - Vowel teams
Practice in isolation can help to promote fluency and flexibility in context.

Word Learning

In order to comprehend written material, the reader needs to be able to read most of the words with relative ease.
- Effortless word identification allows the reader to devote most of her attention to constructing the meaning of the text.
- A reader’s sight vocabulary consists of the words that she can read effortlessly (at sight).

Word Learning

Most children who experience early and prolonged difficulty with reading have difficulty reading the words.

How many words can a proficient 8th grade reader read automatically?
- Estimates vary – but often run between 50,000 and 80,000 words.

Strategic Word Learning and the Development of Sight Vocabulary

Instructional Goal: The child will develop flexibility and independence in applying a variety of strategies to identify and learn unfamiliar words encountered in text.

Word Identification Strategies should meet three criteria...
- Allow students to accurately and independently identify an unfamiliar word.
- Encourage students to store fairly complete word information in memory.
- Motivate students to read.
  - Wide reading is critical to the development of sight vocabulary, meaning vocabulary, language, knowledge, ...

The word learning approach in ISA was developed to meet all three criteria:
- Code-based strategies are taught to encourage students to store fairly complete word information.
- Meaning-based strategies are taught to allow students to direct and confirm independent word identification.
- Focus attention on the meaning of text (which is critical to motivating students to read)
- Interactive strategy use is taught to allow students to accurately and independently identify unfamiliar words encountered in context.
**ISA Strategy List**

- Check the pictures.
- Think about the sounds in the word.
- Think of words that might make sense.
- Look for word families or other parts you know.
- Read past the puzzling word.
- Go back to the beginning of the sentence until you figure it out.
- Try different pronunciations for some of the letters, especially the vowel(s).
- Break the word into smaller parts.

The goal of teaching children word identification strategies is to help them develop a **Self Teaching Mechanism**.

This helps them to learn new words and more about words each time they read.

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**Note:** Several additional slides that were planned for the presentation. But time didn’t allow for them to be presented.

- Topics that should have been covered in greater detail include instruction to support:
  - The process of strategic word learning
  - Vocabulary and oral language development
  - Comprehension and knowledge development

  Slides for these topics have been deleted from this “handout”.

- Below are some of the summary slides that also should have been presented.

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**Instruction to Promote Reading for the Purpose of Meaning-Making**

- Children tend to learn what we teach them.
- We need to help them make the connections between skill and strategy instruction and the application of those skills and strategies.

  - We need to teach them so that they have
    - The expectation that what they read will make sense, and
    - The will to engage in the thinking needed so that text does make sense.

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**Priorities for Planning Instruction in an RTI context**

- Knowledgeable teachers
- Instruction that is
  - Responsive
  - Coherent
  - Collaborative
  - Comprehensive
- Informative (informal & formal) assessments
- Begin as early as potential difficulties are apparent
  - Kindergarten intervention
  - .......

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**What is the most critical component of an RTI Approach?**
Read more about it:


To learn more about ISA/RTI professional development opportunities, go to:

http://www.albany.edu/crsc/pdpilotproject.shtml

Thanks for Listening!