Implementing a Response to Intervention Model

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Outcomes

- Understanding a bit of background
- Identify the components that make up the 3-Tier RTI Model
- Describe why progress monitoring is an essential feature of RTI
- Define curriculum-based measurement (CBM) and how it relates to RTI
- Discuss roles paraprofessionals may fill
Some background…

- As research about effective reading instruction accumulated in the 1990s, the possibility that some of the students identified as having Learning Disabilities might actually suffer from inadequate teaching became greater.

- CEC, DLD
What is Response to Intervention?

- Some see RTI as an effort to promote the use of evidence-based instruction
- Some see it as a way to make general, remedial, and special education work together in a more integrated way
- Still others see RTI as a means of identifying students who need special education services

- CEC, DLD
A team may determine that a child has a specific learning disability if: the child does not achieve commensurate with his or her age and ability levels in one or more of the areas listed in paragraph (a)(2) of this section, when provided with learning experiences appropriate for the child’s age and ability levels; and the team finds that a child has a severe discrepancy between achievement and intellectual ability in one or more of the following areas (IDEA, 1997).
IQ/Achievement Discrepancy is neither necessary nor sufficient for identifying individuals with SLD (specific learning disabilities). IQ tests do not need to be given in most evaluations of children with SLD. There should be alternate ways to identify individuals with SLD in addition to achievement testing, history, and observations of the child.
The need for A NEW ERA…

- The President’s Commission on Excellence in Special Education report, *A New Era: Revitalizing Special Education for Children and Their Families* (PCESE, 2002)
The President’s Commission proposed doing away with the “wait to fail” model of determining special education eligibility, embracing instead a model of prevention and early identification; the need to focus on results and accountability in special education, and the importance of treating students with disabilities first and foremost as a part of the general education system.
What’s the problem?

- Central to the argument for this RTI model is the concern that the current “refer-test-place” approach to providing services to students with disabilities has resulted in inappropriate referrals to special education, particularly for students referred for high incidence disabilities, and especially for students from culturally and linguistically diverse backgrounds.
What’s the problem?

- The current approach relies heavily on costly, time-consuming testing that has questionable technical adequacy, is often culturally biased, and is not instructionally relevant or helpful to teachers (Marston et al., 2003).
Where are we now?

- IDEA (2004)
  - In determining whether a child has a specific learning disability, a local educational agency may use a process that determines if the child responds to scientific research based intervention as a part of the evaluation procedures
IDEA - changes

- States cannot require districts to use IQ tests to identify students as LD
- States are encouraged to implement Response to Intervention models as a component of LD identification
- Students cannot be identified for special education without documentation that low achievement is not due to lack of appropriate instruction
- Prevent disabilities whenever possible (use part B funds for early intervention)
RTI can **contribute** to an evaluation

- “A local educational agency may use a process that determines if the child process that determines if the child responds to scientific, research-based intervention as a **part** of the evaluation procedures described in paragraphs (2) and (3).”

- A comprehensive evaluation must occur to determine why a student hasn’t responded…”
NRCLD - Components of RTI

- Students receive high quality instruction in their general education setting
- General education instruction is research-based
- General education instructors and staff assume an active role in students' assessment in that curriculum
- School staff conduct universal screening of academics and behavior
- Continuous progress monitoring of student performance occurs
- Continuous progress monitoring pinpoints students' specific difficulties
- School staff implement specific, research-based interventions to address the student's difficulties

www.nrcld.org
NRCLD - Components of RTI

- School staff use progress-monitoring data to determine interventions' effectiveness and to make any modifications as needed
- Systematic assessment is completed of the fidelity or integrity with which instruction and interventions are implemented
- The RTI model is well described in written documents (so that the procedures and criteria used in schools can be compared to the documents)
- Sites can be designated as using a "standardized" treatment protocol or an individualized, problem-solving model
NRCLD - Variations on RTI

- The concept of multiple tiers of increasingly intense student interventions
- Implementation of a differentiated curriculum
- Instruction delivered by staff other than the classroom teacher
- Varied duration, frequency, and time of interventions
- Use a problem solving model or standardized treatment protocol
Research Results

- More children demonstrated proficient skill levels on state accountability tests (Heartland, 2004; Sorenson et al., 2005).

- Fewer children were retained in a grade (Kovaleski et al., 1995).

- Improved reading skills among children identified as at-risk (Marston et al., 2003; Tilly 2003).

- Increased time on task, task comprehension, and task completion (Kovaleski, Glickling, & Morrow, 1999).
A real example...
RTI Framework

- Assessment and intervention occur within increasingly intensive “tiers,” designed to establish whether a student’s academic difficulties can be attributed to insufficient learning opportunities or to an underlying disability (Fuchs & Fuchs, 2006; McCook, J.E., 2006; Torgesen, J.K., 2007).
RTI Framework

- A tiered process for service delivery that increases the intensity of services when a student fails to respond to an intervention
Tiers of Intervention – Similar to…

- Concepts of primary, secondary and tertiary prevention applicable across many human service areas, such as: Medicine, education, public health.
Primary Prevention - Tier 1

- Keeping problems from developing. In RTI, high-quality, research-based core instruction is provided to all students. Good instruction should reduce the incidence of academic “problems.”
Secondary Prevention – Tier 2

- Early detection of problems – correct or keep from getting worse. In RTI, if students are not adequately responding to the core instruction, they may be provided with extra support.
Tertiary Prevention – Tier 3

- Efforts to treat problems aggressively and constrain the negative effects. In RTI, if core and supplemental instruction haven’t worked; stronger, more specialized and intensive interventions must be used.
Measuring performance and progress...

- In each tier, student progress and performance is monitored to determine if the student is making expected progress or if more intensive instruction is needed.
Making decisions…

- For students not making progress, teams review the data and make recommendations to change the current instruction. These decisions are made based on continuous progress monitoring.
3-Tiered Model of Instruction

**Tier 3** - Approximately 5% will need additional high intensity, longer duration, & more individually designed instruction

**Tier 2** - Approximately 15% will need additional, supplemental **targeted** small group instruction

**Tier 1** - Core is for **all** students, is proactive, and prevention oriented
Typical Tier 1 -

- **Program:** Core curriculum
- **Time:** 90 minutes/day
- **Assessment:** 3 times a year
Implementing Increasingly Intensive, Individualized Interventions

- When generally effective Tier 1 instruction does not result in adequate student progress, a significant instructional change, or Tier 2 intervention, is implemented.

- This enables educators to determine whether an at-risk student will respond to more intensive instruction provided within general education or whether consideration of special education is warranted.
Tier 2

- Tier 2 interventions include an increase in amount of instructional time, a smaller group size, and/or an increase in teacher-led explicitness.

- Tier 2 may be provided by the classroom teacher, but is more likely to be provided by a specialist trained to deliver explicit, differentiated instruction.
Tier 2

- **Program:** Supplemental service
- **Time:** Minimum 30 minutes/day, 2-3 times/week in small groups, plus Tier I intensity on core instruction
- **Assessment:** progress monitoring twice/month on target skills (at least)
Tier 3 Interventions

- **Program:** Intensive Intervention
- **Time:** Two 30-minute sessions daily, plus core curriculum
- **Assessment:** progress monitoring at least weekly on target skill

- *may require specialized teacher or outside interventions*
- *changes made in length or intensity of intervention or staff*
Tier 3 Interventions

- Intensive, individual intervention specifically targeted to a student's needs (students who did not respond to Tier I or II)
- 1 to 1; no more than 1 to 3
Efficacy -

- The intervention does what it purports to accomplish

- The intervention was designed to address the problem area and has been determined to be a valid and reliable intervention
Fidelity -

- Staff applies the intervention in the manner in which it was intended

- Implemented as planned based on how it was researched and validated
  - Time
  - Materials
  - Procedures
To assess fidelity -

- An outside observer directly observes specific, operationally defined teacher and student behaviors based on a task analysis of the instructional program.

- Fidelity observations should include immediate feedback and follow-up coaching or mentoring activities for teachers.
Collaboration

- Collaboration of general and special educators could occur in a number of ways...
  - Consultation to identify best practices that will benefit a wide range of learners,
  - Co-teaching,
  - Flexible grouping arrangements in which general and special educators work together to meet the diverse needs of students in general education classrooms
  - How might paraprofessionals be involved?
Universal Screening

□ General educators are responsible for screening students to identify those at risk of failing to meet grade level expectations, which allows schools to quickly identify problems and intervene early, which increases the likelihood that academic difficulties will be remediated (Juel, 1988; Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996).
Universal Screening

- Key feature in an RTI model - we don’t wait for students to be referred
- Instead, the data tell us who is not on track for being proficient - this serves the screening purpose - much the same as height/weight charts serve as screening measure
- We use a measurement system that is reliable, valid, simple, quick, inexpensive, easily understood, can be given frequently, and is sensitive to growth
CBM: An Index of Academic Health

From Markell, et al., 2007
Screening DATA - What does it mean?

Number of Words Read Correctly per Minute

Students
Universal screening provides...

1. "Benchmark" data for classrooms, grade levels, schools and districts
2. Information about the effectiveness of the curriculum for most students
3. Information about the effectiveness of the curriculum for various subgroups

Most students (75-80%) should be successful. If they are not successful, you should look at the curriculum.
Student is above the 90th %ile and is well above average.

- Source: Casey 2007
3rd Grade, by Room Number

MPS box plot for grade level

- Source: Casey 2007
2nd Grade, Room 113

Median Words Read Correctly

- Fall
- Winter
- Spring

MPS classroom progress graph

- Source: Casey 2007
Frequent Progress Monitoring

- Students who meet screening benchmarks don’t need to be monitored frequently - they are progressing as we would expect.

- However, students not at benchmark, need their progress assessed frequently (weekly/biweekly) to determine if the interventions we use are moving the student closer to the proficiency goal.

- We need a tool to gauge progress.

More Later!
Curriculum-Based Measurement

- CBM is designed to be administered repeatedly, using alternate forms of equivalent difficulty (see Deno et al., 2001). Thus, CBM can be administered multiple times during the school year.

A benefit to collecting screening data multiple times during the year is that schools may “catch” students who were not initially identified as at risk, but as the year progresses, fail to make adequate growth and thus require more intensive intervention.
CBM - Sample Graph

1. Determine current level of performance
2. Set individual annual goal -- tied to state standards
3. Monitor individual progress towards goal
4. Evaluate and modify instruction on basis of rate of progress towards goal

Valid and reliable *indicators* of performance
An Example of CBM...
CBM Passage Reading Fluency (PRF) - Oral Reading

- For students in grades 1-8
- Student reads grade-appropriate passage for 1 minute from PRF Student copy
- Teacher marks errors of PRF Teacher copy
CBM Passage Reading Fluency (PRF)

- PRF Student copy

Raymond lived in Georgia. He was born there and had many friends. One day Dad had come home from work to say that they would have to move far away. Dad worked in a factory. The factory had closed and Dad needed a new job. Dad had found a new job and now they had to move.

Raymond was sad because he did not want to leave his school. He did not want to leave his friends.

"I am sorry, son," said Dad.

"It is OK," said Raymond with a smile. He did not want Dad to feel bad.

They packed up the car and moved to a new state. Their new house was old and scary. "I wonder whether there are any ghosts living in our house," said Raymond. The house was big and dark. The front of the house was covered by trees. Even the trees looked scary. The blowing breeze made them look alive.

Inside, the house was dark, so Dad fixed the lights and turned them on. Then they unpacked the car and Raymond went up to his new room. The walls were cracked. Dad would paint them. Raymond was afraid to open the closet. He would do it later.

Raymond went down to the kitchen. Mom was making dinner. She had fried chicken and potatoes cooking because these were Raymond's favorites.

After dinner Raymond felt sleepy, so he went to his room to go to sleep. "Good night!" he called down to Mom and Dad.

"Sweet dreams," they said back.

Raymond got into bed and turned out the light. He began to fall asleep. Then he heard a loud noise. It came from the closet. Raymond
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CBM Passage Reading Fluency (PRF)

- A skipped line is counted as 1 error
- Every word but 1 of the words is subtracted from the total number of words attempted

It was Saturday morning and Ellie wanted to go see a movie. She asked her father if he would take her downtown. "Sure," said Dad. "I have to go in to work anyway. It will be right on my way."

Ellie called her friends Beth, Katie, and Laura to see whether they could go. They said yes. They went to Ellie's house. There they all got into Dad's car. Then Dad drove to the movies.

There were two movies playing. One movie was about a boy and a dog. The ticket lady said it was funny. The other movie was about a mummy. It looked scary. The name of it was "The Mummy Walks Again!" There was a picture of the mummy on the wall. He looked creepy. The girls asked the ticket lady about the movie. She said she had heard people scream when they saw the mummy.
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CBM Passage Reading Fluency (PRF)

- 136 words attempted in 1 minute
- 14 of 15 words omitted in 4th line subtracted from 136
  \(136 - 14 = 122\)
- 1 omission error and 8 reading errors subtracted from 122
  \(122 - 9 = 113\)
- Reggie’s score = 113
Intervention efficacy and fidelity

If interventions are inappropriate or implemented improperly, the whole system fails.
Progress Monitoring…

- Tracking a student's performance during the intervention is important as it helps determine if the student is responding to the intervention

More on this later…
Special Education doesn't occur until all general education interventions have not achieved the desired effect.
Problem Analysis, 2nd grade example

- Curriculum is found to be a core program that is evidenced based

- The teacher was interviewed and also observed by a coach and it was determined that the curriculum was being implemented with fidelity
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<th>CWPM-fall</th>
<th>other assess</th>
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Problem Analysis, continued

- 10 students below benchmark of 32 cwpm/fall
- Teachers indicate that 7 of the 10 students did not have strong sound/symbol relationships
- 3 students read with 3 or fewer errors, but were word-by-word readers
- If 1 student read considerably well when tested one/one - what hypothesis would you make?
- What kind of instruction will they need?

- A. Casey (2007)
Plan Development

- What should we do about the problem?
- What do we know that will help with developing a plan?
- What other information might we need?

- A. Casey (2007)
Plan Implementation

- We need at least 2 groups - tier 2 supports. Does a student who does not demonstrate a skill deficit need a strategic intervention?

- Need to set a goal for the group- how much improvement are you aiming for in what period of time?

- In the fall we’re working toward reaching winter benchmark

- A. Casey (2007)
Plan Continued

- Teaching team generates some ideas, and then selects one for each group that is matched to student needs
- Then the team must identify who is going to provide the interventions and when it will happen.
- This should not supplant the core instruction

- A. Casey (2007)
Instructional Plan

T: Sharon G
M-F 10:15-10:45
WCPM weekly on F
Review Date: 10-12-07
Intervention: RM Fast Cycle
Students:
Joan
Brandon H
Ava
Quentin
Jorge
Jackson
Maria E

T: Joyce
M-F 10:45 - 11:15
WCPM weekly on F.
Review Date: 10-12-07
Intervention: Read Naturally
Students:
John
Samantha
Maria S

- A. Casey (2007)
Plan Evaluation

- Did our plan work?
- Which students met the goal? What should we do to maintain that progress?
- Which students did not meet the goal?
  - Decide whether students need to continue longer in the intervention to show progress
  - Or whether to alter the intervention
  - Or to discontinue and try a different evidenced based practice
Intervention Integrity

- Interventions may not be successful for 3 general reasons:
  - (1) not a good match (fit) to student needs or
  - (2) it might be a good fit but not of sufficient strength (amount/dosage)
  - (3) the intervention design was not followed as it was designed (integrity)

- A. Casey (2007)
Resources

- National Center on Student Progress Monitoring (NCSPM) - www.studentprogress.org
- National Research Center on Learning Disabilities (NCRLD) - www.nrcld.org
- Research Institute on Progress Monitoring - www.progressmonitor.org
- IRIS Center - http://iris.peabody.vanderbilt.edu/
- Florida Center for Reading Research - http://www.fcrr.org/
- Vaughn Gross Center for Reading and Language Arts - http://www.texasreading.org/utcrla/
Resources

- Center on Instruction - http://www.centeroninstruction.org
- University of Oregon - http://www.reading.uoregon.edu/curricula
- Collaborative Problem Solving Project @ the Blumberg Center - www.indstate.edu/soe/blumberg/cpsp
- CEC’s Division for Learning Disabilities – TeachingLD.org
Resources

- Intervention Central – www.interventioncentral.org
- Center for Applied Special Technology - www.cast.org
- National Joint Committee on Learning Disabilities - http://education.gsu.edu/dcdd/information/nationaljcld/index.htm
- Learning Disabilities Summit - http://ldsummit.air.org/
- Oregon Reading First - oregonreadingfirst.uoregon.edu/curriculum_review.php
- www.promisingpractices.net
More Resources (as listed on NRCLD.com)

- Edcheckup - [http://www.edcheckup.com/](http://www.edcheckup.com/) - The site offers an assessment system for screening student performance and measuring student progress toward goals in reading. Generic passages, which are independent from any particular basal reading series, also may be used to evaluate the effectiveness of reading instruction through the graphing of student reading data. Browsers must pay to view materials.

- Evidence-Based Progress Monitoring and Improvement System - [http://www.aimsweb.com](http://www.aimsweb.com) - AIMSweb® is a formative assessment system that informs the teaching and learning process by providing continuous student performance data and reporting improvement to students, parents, teachers, and administrators to enable evidence-based evaluation and data-driven instruction. Browsers must pay to view materials from this site.

- EdProgress - [http://www.edprogress.com/index.htm](http://www.edprogress.com/index.htm) - EdProgress focuses on assessment, large-scale testing and accountability, and systemic reform. With research-proven training materials, measurement tools, reporting systems, and teacher training interventions, EdProgress helps teachers become more focused on teaching and learning for all students. Browsers must pay to view materials from this site.
More Resources (as listed on NRCLD.com)


- **Minnesota Reading Excellence Act** - [http://education.umn.edu/CI/MREA/CBM/cbmMOD. Html](http://education.umn.edu/CI/MREA/CBM/cbmMOD. Html) - This is a progress-monitoring module written by Stan Deno. The purpose of this module is to provide an introduction to procedures for monitoring student reading progress in the classroom based on curriculum-based measurement (CBM). It also introduces the steps required to implement a system for screening and monitoring students in the area of reading and presents a summary of research on the effectiveness of these procedures. Throughout this module, the focus is on students who are not making satisfactory progress and are at risk of failing to develop basic reading skills. Materials on this site are free.
More Resources (as listed on NRCLD.com)

- http://www.ideapartnership.org/
- http://www.lehigh.edu/collegeofeducation/cprp/rti.html
- http://cehd.umn.edu/ceed/ - Projects
- http://www.nrcld.org/
  - Responsiveness to intervention (RTI): How to Do It