RTI Infrastructure Decisions

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Webinar Sequence

1. (Last week) Big picture about RTI
2. Infrastructure of RTI in the school
3. Readiness and planning for RTI

Webinar Focus

- Emphasis is on elementary school settings
- Largely high-altitude overview of RTI and implementation, but illustrating research-based options
- Your questions are welcome

- For middle and high school RTI4Success.org ---
  - Implementation brief (2011)
  - Scheduling brief (2011)
  - "Frequently Asked Questions" brief (2011)
  - Essential components report (2011)
  - *RTI 101*: Middle School Implementation Training module (2011)

Today's Intended Outcomes

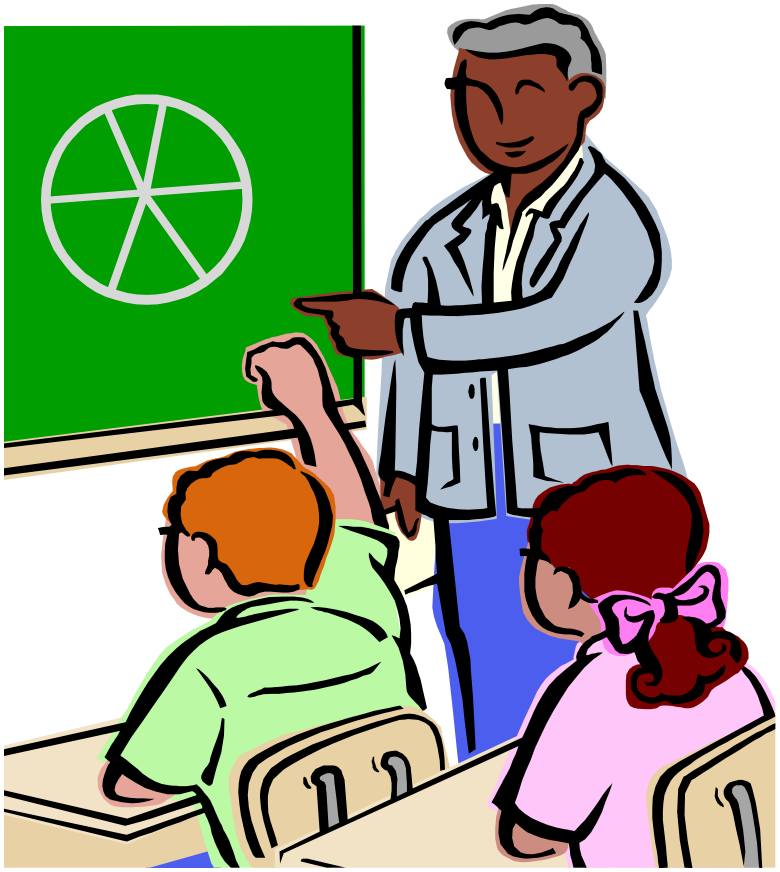
Participants will learn:

1. Review of rationale and components for RTI
2. Team functions and membership
3. Logistical decisions (e.g., tools & scores)

Part 1

REVIEW: RATIONALE AND COMPONENTS

What is RTI?



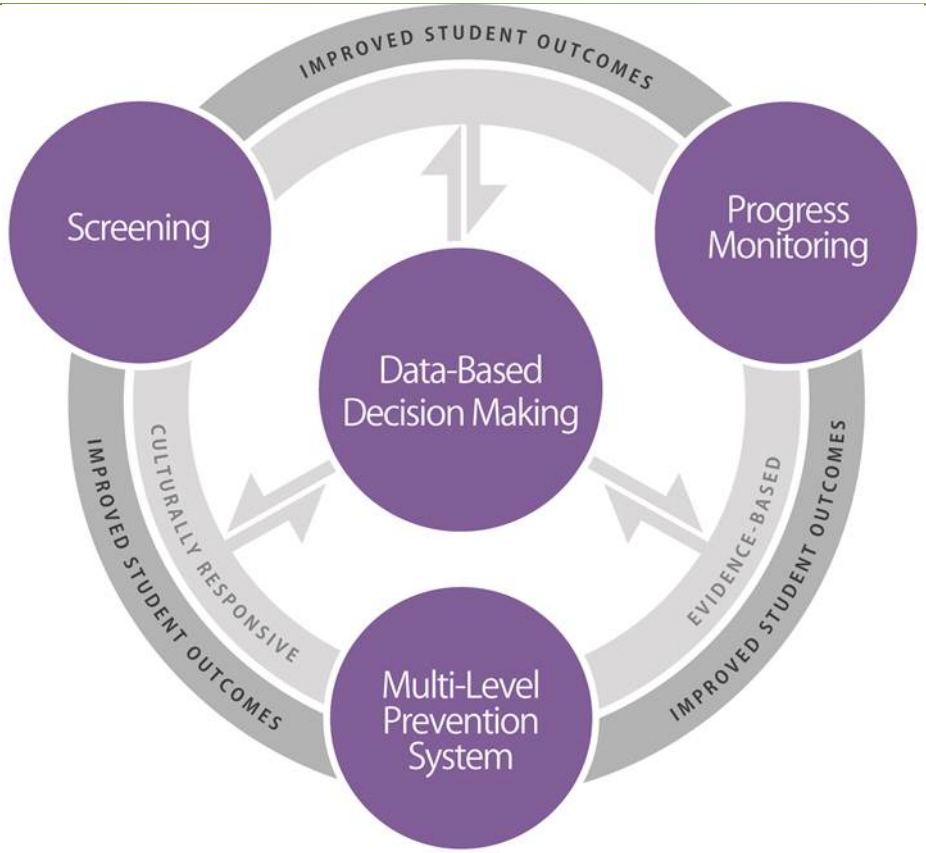
= Responsiveness to intervention

Organizational preventative framework for instructional and curricular decisions and practices based on students' responses

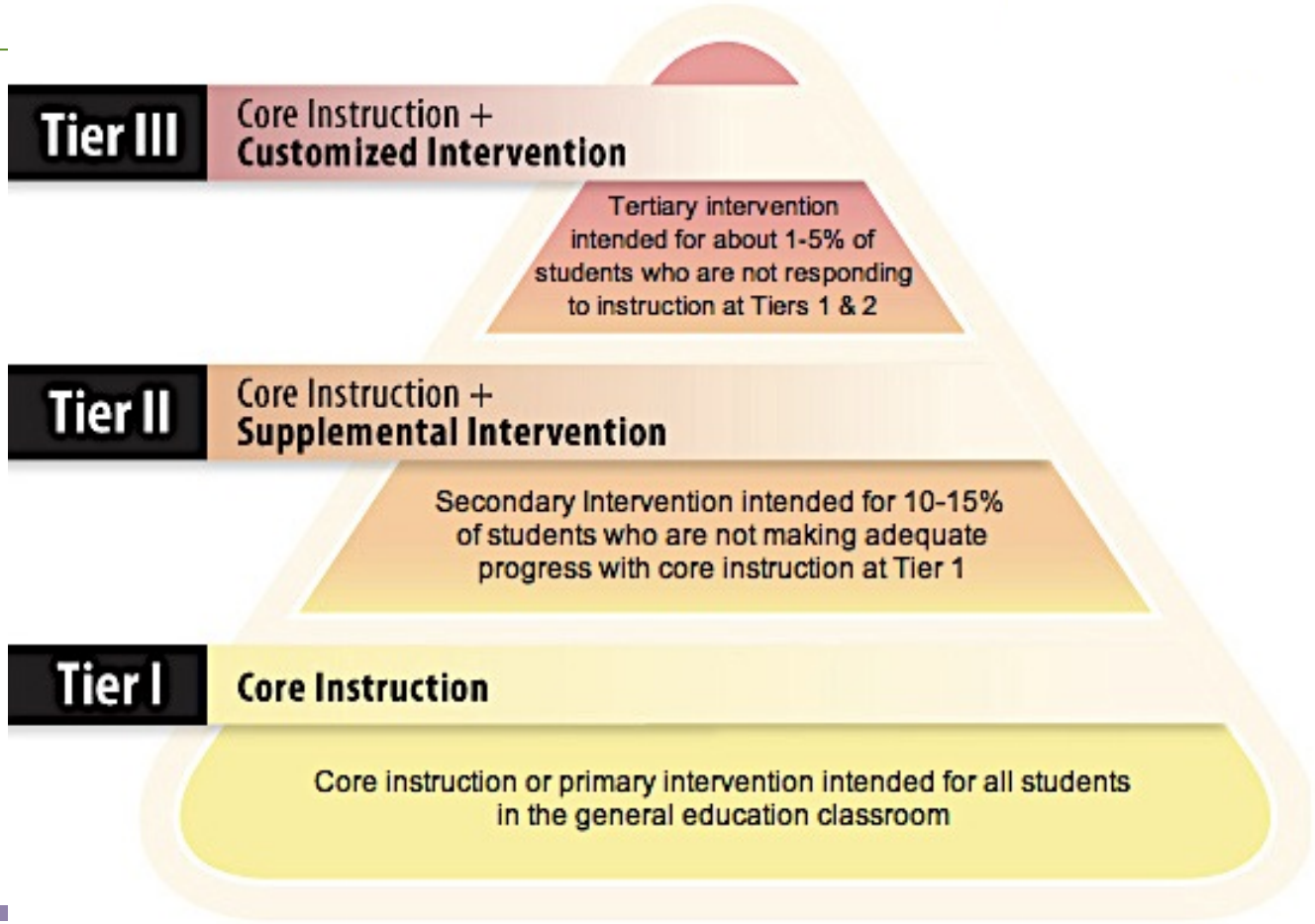
RTI Components

- Screening
- Tiers of instruction
- Progress monitoring
- Decision-making rules

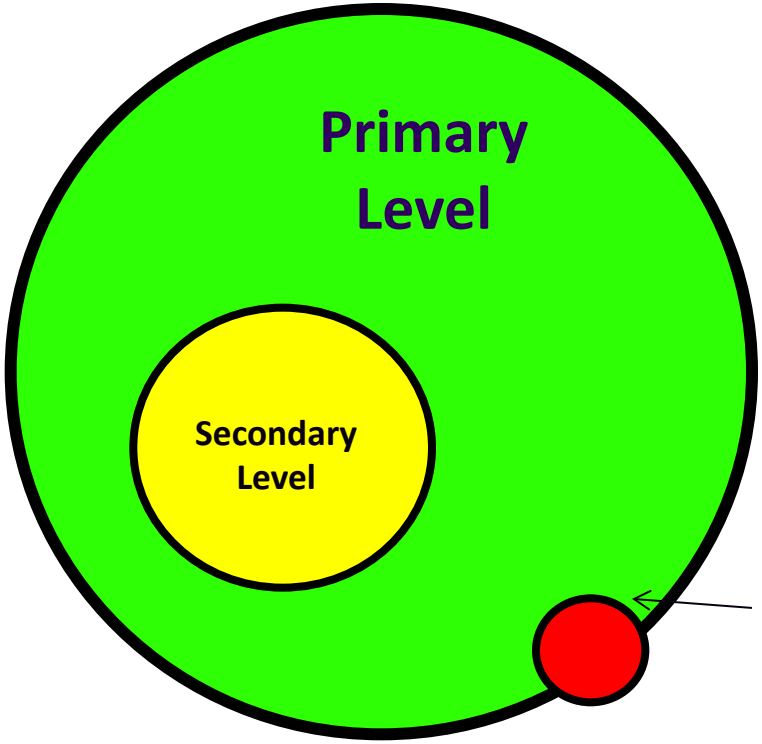
Essential Components of RTI



New York's Three Tier Framework



Another Perspective



Ehren, Ehren & Proly (in preparation)

Thinking about teams and logistics

CHANGE IS ALWAYS IN A CONTEXT!

Analyzing Change vs. Stability

RTI Components
(Technology)
- Current practices
- Change agent

Perceived Role
(Theory of Action)
* Personal beliefs
* Institutional beliefs

School Culture
(Social System)
- Team relationships
- Team chemistry

William Reid (1987)

Challenges in tiered delivery systems

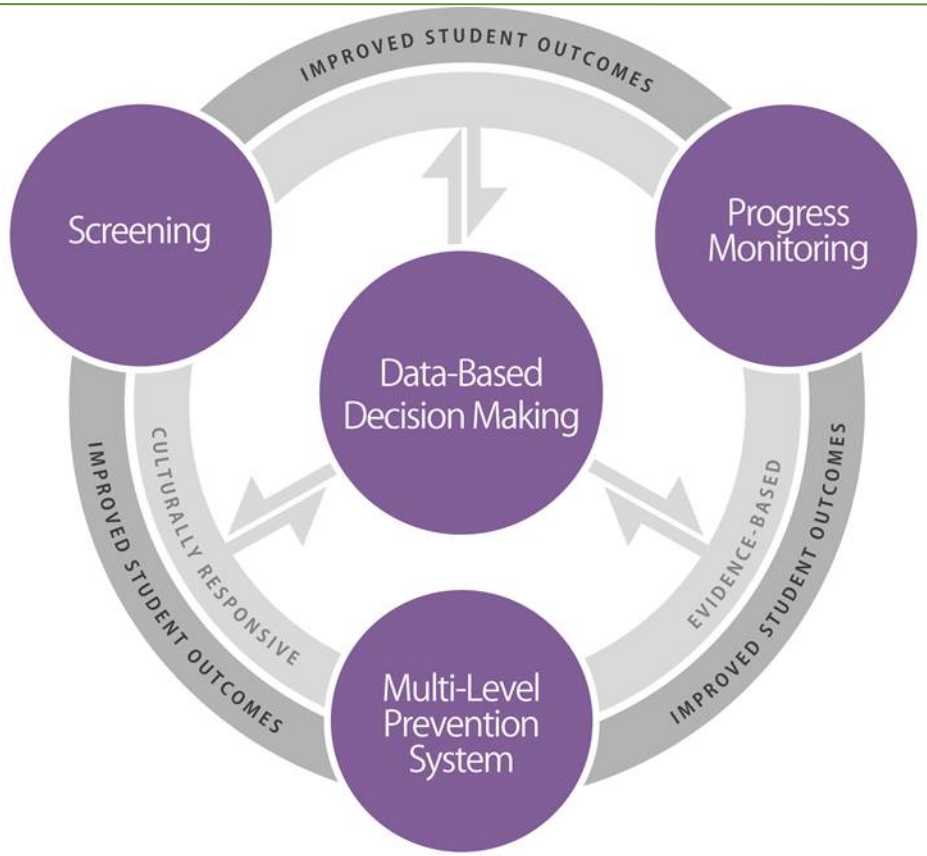
- Establishing solid core instruction in language arts and mathematics (Tier 1; primary preventative level)
- Differentiation between secondary and intensive intervention supports (Secondary and tertiary levels)
- Consistency of data based decision-making (Screening and progress monitoring data & cut points)
- Relationship between intensive intervention and special education; Variability of serving students with disabilities

What is Implementation fidelity?

- Fidelity of implementation refers to how closely the prescribed procedures of a process are followed.
- Fidelity of implementation checks serve the purpose of identifying areas of strength on which schools can build and areas of deficiency that need to be remedied.

(Mellard & Johnson, 2007)

Essential Components of RTI



(Partial) Indicators of Fidelity

- 80-85% of students pass tests
- Improved results over time
- High percentage of students on trajectory

(Reschly & Gresham, 2006)

Why do you suppose that these indicators are insufficient?

5 Aspects of Fidelity

1. Adherence
2. Exposure
3. Quality of delivery
4. Participant responsiveness
5. Program differentiation

(Dane & Schneider, 1998)

Practices to Ensure Fidelity of Implementation

1. Link interventions to improved outcomes
2. Definitively describe operations, techniques, and components
3. Clearly define responsibilities of specific persons
4. Create a data system for measuring operations, techniques, and components
5. Create accountability measures for non-compliance

(Johnson, Mellard, Fuchs, McKnight, 2006)

Part 2

TEAM FUNCTIONS AND MEMBERSHIP

Core Teams

- Planning
  - District level
  - School level
- Implementation
  - District level
  - School level
- Special teams
  - Content level
  - Grade level
  - Data teams

District Level Core Team

Represent

- Administrators
- Related service personnel
- School psychologists
- General education teachers
- Special education teachers
- ESL/bilingual teachers and
- Parents

Decisions

- School, grade, subject area needs (current status)
- Interventions for tiers
- Screening and progress monitoring procedures
- Screening & progress monitoring tools
- Professional development
- Parent notification

District & Building Level Planning
Start discussions about --

A. Perceived Need

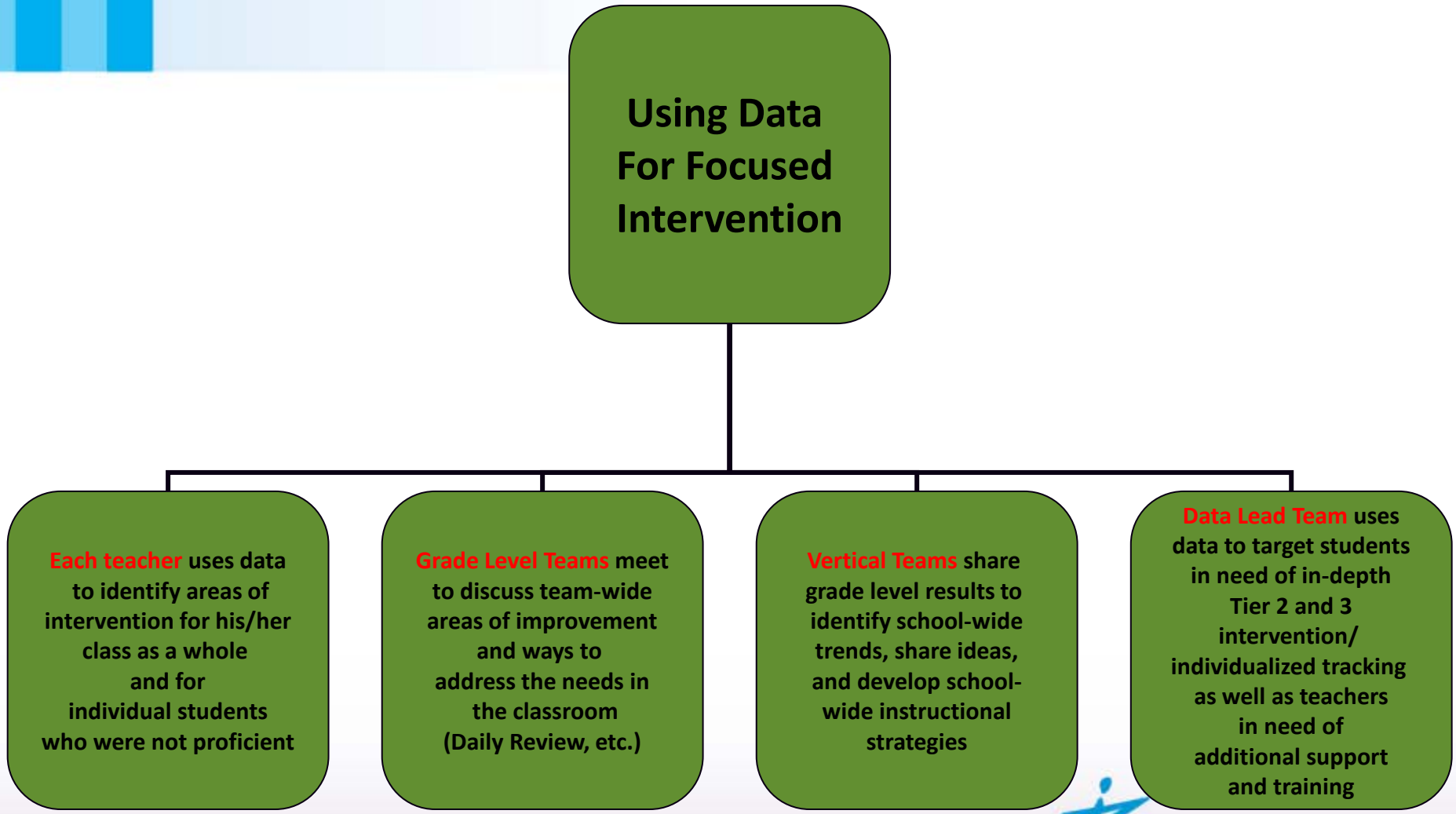
B. Perceived Benefits

C. Collective Self-efficacy

D. Skill Proficiency

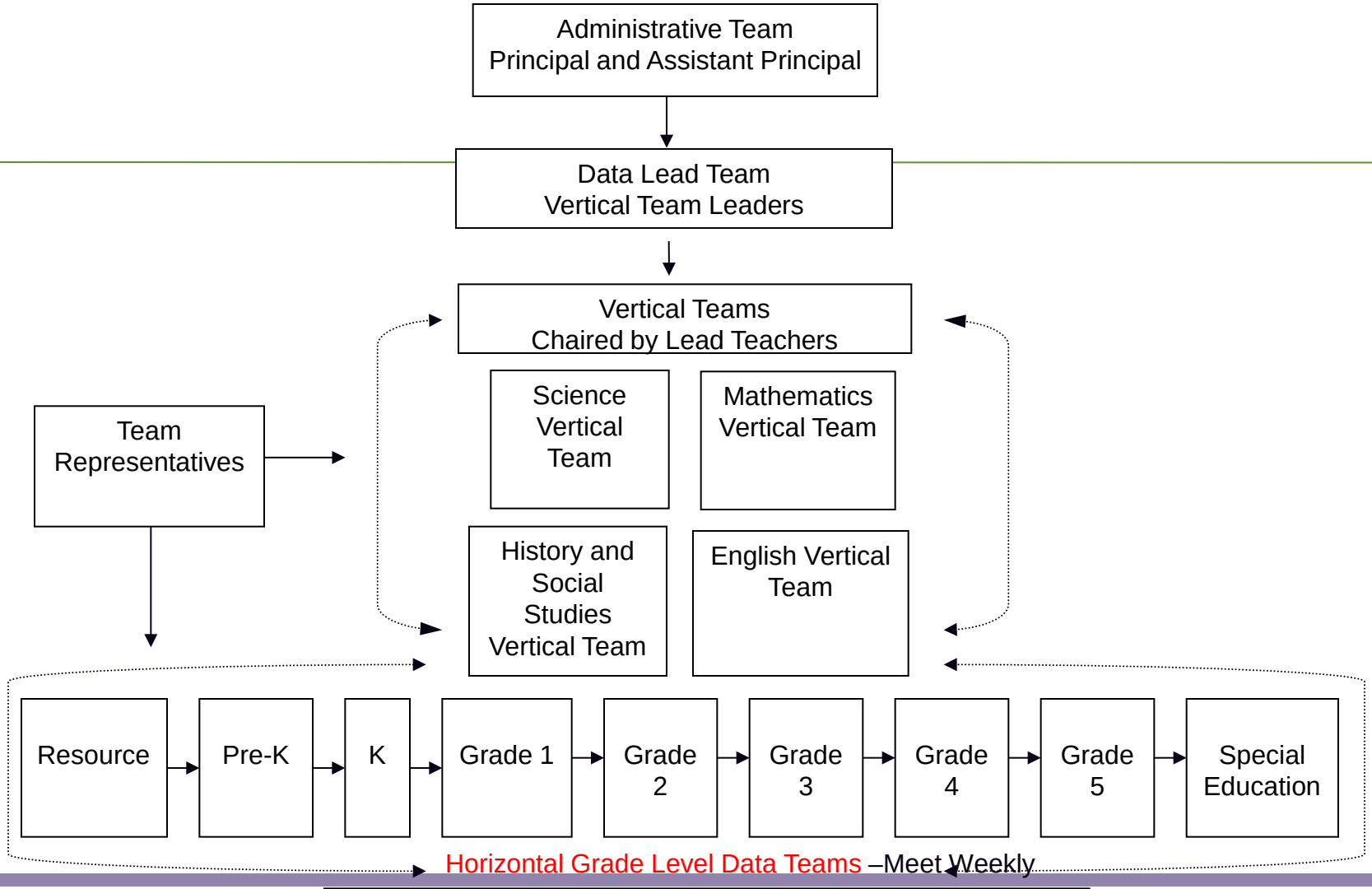
- Extent to which the RTI is relevant to local needs?
- Extent to which RTI will achieve desired benefits at the local level?
- Extent to which providers *feel* they are able to do what is expected?
- Possession of the *skills* necessary for RTI implementation?

FULL INTERVENTION BEGINS



RTI ACTION NETWORK
Helping All Students Succeed

DATA DRIVEN ORGANIZATIONAL MODEL



The Data Lead Team will be responsible for data collection, organization, intervention strategies, implementation and evaluation on a school wide level.

What will it take to achieve high quality implementation?

1. Broad participation
2. Substantial agreement
3. Systemic leadership
4. Observable change

Prestine & Bowen, 1993

1. All School Participation

At least a large portion of the faculty and staff engaged in some essential activities

- Planning
- Implementing
- In RTI, e.g., analyzing student indicators of responsiveness
  - Academic learners
  - Behavioral learners
  - Cognitive learners
  - Dispositional learners

2. Getting Substantial Agreement

Means that a school is well on the road when *everyone* comes to understand that the *whole school* must change (including para, administrative, instructional staff, unions/organization, parents, related services staff)

- What changes we'll make
- Strategic timelines: When the changes will get made
- Planning ways to implement them
- Around RTI, e.g., continuity of tiered curricular choices and delivery schedules

Opposing Views on Garnering Buy-In

One view --

Deeply steep educators in the philosophy and the core principles of the approach at the onset

McLaughlin & Mitra, 2002

An alternative view --

Understanding and motivation will be built as implementation leads to positive changes in the school

Connell, 2002

3. Systemic Leadership

The goal is that each person must lead in his or her own way, within his or her expertise.

- Engaging the stakeholders
  - Administrators
  - Faculty
  - Students
  - Community members
- Engagement is planned and meaningful
- Answering the questions of who is best to decide and by when?

RTI Leadership Roles

- The team captain: Start the ball rolling
  - Vision
  - Values
  - Goal
- Focusing efforts: Keeping RTI at or near the top of the agenda
  - Specific, clear targets
  - Emphasize the rigor of implementation
  - Use the student responsiveness data
- Sustaining momentum: Keeping the ball rolling
  - Celebrate the successes
  - Understand the ebb and flow
  - Use the student responsiveness data

Leadership Role

Building administrators

- Your emphasis is on the *change process knowledge*
- Identify your staff and consultants to provide the *technical knowledge*

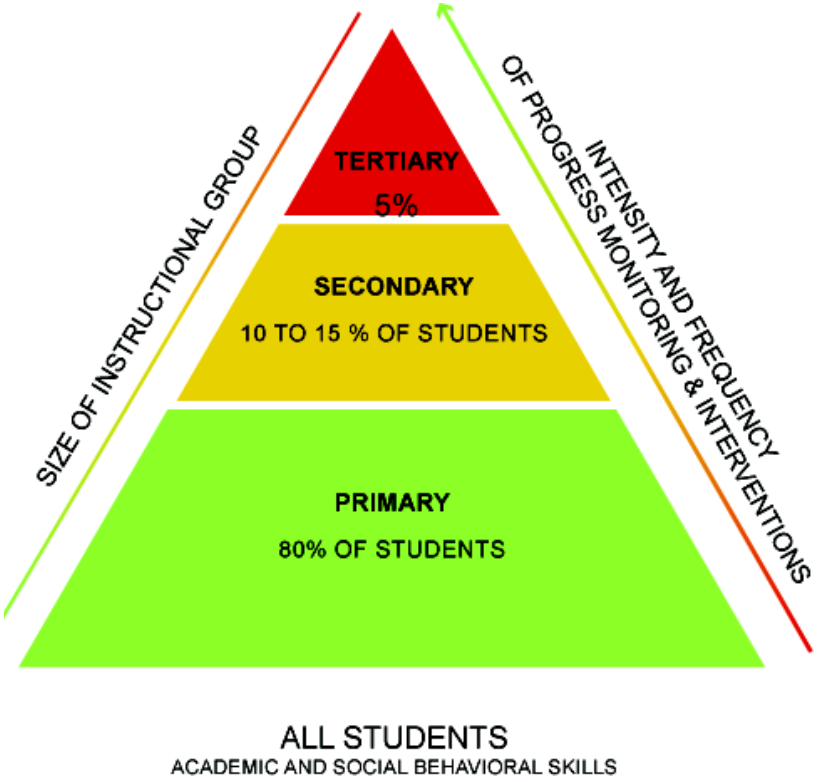
4. Observable & Sustained Change

Means visible changes in the structures

- Organization of teams among staff
- Providing teams with collaboration time
- Around RTI e.g., universal screening, objective rules for judging responsiveness

Litmus Test for Progress

- Examine your student data
- How would you fill in your triangle?



Your Next Steps

- Which will be your first focus?
- Which poses the greatest challenge?
- What resources would be most helpful in meeting that challenge?

Part 3

LOGISTIC DECISIONS: SCHEDULING, TOOLS, CUT SCORES, AND INTERVENTIONS

Getting Started: Work on the schedule

Middle schools reported that they -

- Established a planning team with relevant staff members
- Set a regular meeting time for the RTI planning team
  - Reviewed class data profiles
  - Reviewed student data profiles
  - Determined which students needed intervention classes

RTI Meetings

When schools repurposed existing meeting times, they were able to do the following:

- Evaluate previous meeting time usage and outcomes
- Communicate purpose, goals, and anticipated outcomes for the meeting time
- Establish a clear agenda that included intended goals and outcomes
- Evaluate the progress and efficiency of the meetings

Conclusions

Scheduling changes for RTI included

- Establishing planning meeting times
- Adjusting class schedules for the entire school
- Monitoring students' progress through data and making scheduling changes
- Adjusting the schedule as necessary
- Accommodating the needs of students and staff

Screening Tools
(RTI4Success/org/screeningtools)

Tools	Area	Classification Accuracy	General-izability	Reliability	Validity	Disaggregated Reliability, Validity, and Classification Data for Diverse Populations	Efficiency				COMPARE / RESET
							Administration	Administration & Scoring Time	Scoring Key	Benchmarks / Norms	
A+ LearningLink: Progress in Math	Math	◐	Moderate Low	◐	◐	—	Group	35 - 40 Minutes	Computer Scored	Yes	☐
Acuity	* Mathematics	◐	Moderate High	◐	●	—	Group	50 Minutes	Yes	Yes	☐
Classworks Universal Screener	* Math	◐	Moderate High	●	○	—	Group	30 Minutes	Computer Scored	Yes	☐
Discovery Education Predictive Assessment	Math	●	Moderate High	●	◐	◐	Group	40 Minutes	Yes	Yes	☐
easyCBM	* Mathematics	●	Moderate High	◐	●	●	Individual Group	30 Minutes	Computer Scored	Yes	☐
Group Assessment and Diagnostic Evaluation	* Group Math Assessment and Diagnostic Evaluation (G-MADE)	◐	Moderate Low	●	◐	—	Individual Group	46-95 Minutes	Yes	Yes	☐

Progress Monitoring Tool Reviews

Progress Monitoring Mastery Measures

View the Progress Monitoring General Outcome Measures Tools Chart

Subject: Select Subject Grade: Select Grade Filter Reset

Tools	Area	Skill Sequence	Sensitive to Student Improvement	Reliability	Validity	Pass/Fail Decision	Disaggregated Reliability and Validity Data	COMPARE / RESET
Accelerated Math	Math	●	●	●	●	●	●	☐
Eduss	RTI Program Screening & Progress Monitoring	○	○	○	—	○	—	☐
MathFacts in a Flash	Math	●	●	●	●	●	●	☐
Study Island	* Math	○	○	—	—	—	—	☐
Study Island	* Reading	○	○	—	—	—	—	☐

Legend: ● Convincing evidence ◐ Partially convincing evidence ○ Unconvincing evidence — Data unavailable or inadequate

Reviews

1. Aimsweb
2. CBM-Reading
3. Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
4. Easy CBM
5. Edcheckup Standard Reading Passages
6. Istation Indicators of Progress
7. Mclass Math
8. Monitoring Basic Skills Progress
9. mClass Math
10. Orchard Software
11. Scholastic Rdg/Math Inventory
12. STAR
13. STEEP
14. Vanderbilt RTI Monitor
15. Yearly Progress Pro

Progress Monitoring

- This tools chart reflects the results of the fourth annual review of progress monitoring tools by the Center's Technical Review Committee (TRC).
- ***The Center defines progress monitoring*** as repeated measurement of academic performance to inform instruction of individual students in general and special education in grades K-8. It is conducted at least monthly to (a) estimate rates of improvement, (b) identify students who are not demonstrating adequate progress and/or (c) compare the efficacy of different forms of instruction to design more effective, individualized instruction.

Tier 1: Confirming Risk Status With PM

At the end of 5-8 weeks, student risk status is confirmed or disconfirmed.

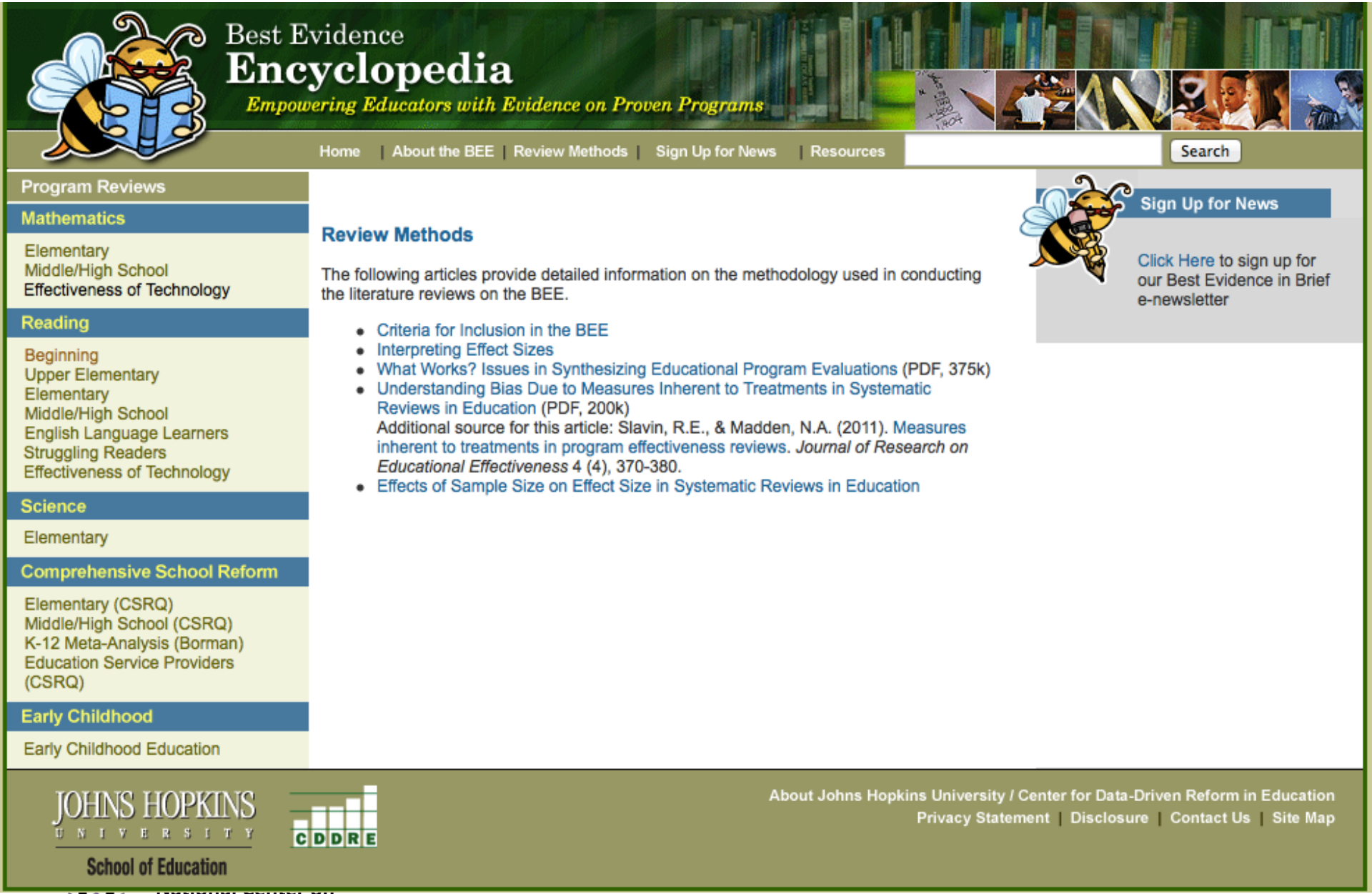
Grade	Inadequate Reading Slope	Inadequate Math Computation Slope	Inadequate Math Concepts and Applications Slope
Kindergarten	< 1 (LSF)	< 0.20	< 0.20
Grade 1	< 1.8 (WIF)	< 0.25	< 0.30
Grade 2	< 1 (PRF)	< 0.20	< 0.30
Grade 3	< 0.75 (PRF)	< 0.20	< 0.50
Grade 4	< 0.25 (Maze)	< 0.50	< 0.50
Grade 5	< 0.25 (Maze)	< 0.50	< 0.50
Grade 6	< 0.25 (Maze)	< 0.50	< 0.50

Note: These figures may change pending additional RTI research.

Secondary Prevention: Response in Math

Grade	Computation		Concepts and Applications	
	< Slope	< End level	< Slope	< End level
Grade 1	< 0.50	< 20 digits	< 0.40	< 20 points
Grade 2	< 0.40	< 20 digits	< 0.40	< 20 points
Grade 3	< 0.40	< 20 digits	< 0.70	< 20 points
Grade 4	< 0.70	< 20 digits	< 0.70	< 20 points
Grade 5	< 0.70	< 20 digits	< 0.70	< 20 points
Grade 6	< 0.70	< 20 digits	< 0.70	< 20 points

Note: These figures may change pending additional RTI research.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Comprehensive School Reform
Elementary (CSRQ)
Middle/High School (CSRQ)
K-12 Meta-Analysis (Borman)
Education Service Providers (CSRQ)
Early Childhood
Early Childhood Education
Review Methods
The following articles provide detailed information on the methodology used in conducting the literature reviews on the BEE.
Criteria for Inclusion in the BEE
Interpreting Effect Sizes
What Works? Issues in Synthesizing Educational Program Evaluations (PDF, 375k)
Understanding Bias Due to Measures Inherent to Treatments in Systematic Reviews in Education (PDF, 200k)
Additional source for this article: Slavin, R.E., & Madden, N.A. (2011). Measures inherent to treatments in program effectiveness reviews. Journal of Research on Educational Effectiveness 4 (4), 370-380.
Effects of Sample Size on Effect Size in Systematic Reviews in Education
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BEE: Reading reviews

Program Ratings				
Strong Evidence of Effectiveness				
Rating	**Program**	**Type**	**Description**	**Contact / Website**
	Peer-Assisted Learning Strategies (PALS)	IP	A technique in which children work in pairs, taking turns as teacher and learner, to learn a structured sequence of literacy skills, such as phonemic awareness, phonics, sound blending, passage reading, and story retelling.	E-mail: pals@venderbilt.edu Website: kc.vanderbilt.edu/pals
	Reading Reels	IP	A form of multimedia used within the Success for All program (see above), in which video content is embedded within teachers' lessons. Brief animation, puppet skits, and live-action segments, about five minutes daily in total, model beginning reading strategies for children and teachers.	E-mail: sfainfo@successforall.org Website: www.successforall.org
	Success for All	Curr + IP	Provides schools with a K-5 reading curriculum that focuses on phonemic awareness, phonics, comprehension, and vocabulary development, beginning with phonetically-controlled mini-books in grades K-1. Cooperative learning is extensively used at all grade levels. Tutoring is provided to struggling readers, and parent involvement is encouraged.	E-mail: sfainfo@successforall.org Website: www.successforall.org

RTI Center Instructional Programs

Subject: Select Subject Grade: Select Grade Filter Reset

Program	Study	Study Quality					Effect Size				COMPARE RESET
		Participants	Design	Fidelity of Implementation	Measures: Proximal	Measures: Distal	# of Outcome Measures	Mean based on adjusted posttests: Proximal (P) Distal (D)	Mean based on unadjusted posttests: Proximal (P) Distal (D)	Disaggregated Data Available	
Academy of MATH	* Torlakovic (2011)	●	●	○	◐	◐	4 Math	P = 0.59 [a] D = 0.29	P = 0.63 [a] D = 0.37	No	☐
Academy of READING	Fiedorowicz, & Trites (1987)	●	◐	○	◐	●	24 Reading	—	P = 0.19 [a] D = 0.36	No	☐
Academy of READING	* Torlakovic (2011)	●	◐	○	●	◐	8 Reading	P = 0.36 [a] D = 0.50 [a]	P = 0.55 [a] D = 0.33	Yes	☐
Access Code	McMurray, Brown, & Zimmermann (2010)	●	◐	●	●	●	5 Reading	P = 0.23 D = 0.29	P = 0.04 D = 0.04	No	☐
AWARD Reading	Block, & Mangieri (Tech. Rep.)	○	◐	○	●	—	5 Reading	—	—	No	☐
Corrective	Benner, Kinder,										

Additional Resources

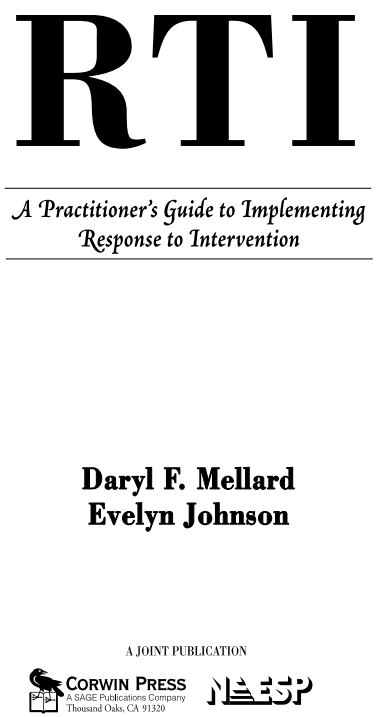
- National Center on Response to Intervention
  - www.RTI4Success.org
- National Network of Partnership Schools (NNPS)
  - www.csos.jhu.edu/p2000/
- National Center on Intensive Intervention
  - www.intensiveintervention.org

RTI in Secondary Settings: Scheduling Brief

For additional information and resources, please see our information brief on scheduling

Scheduling Frequently Asked Questions
http://www.rti4success.org/resourcetype/rti-scheduling-processes-middle-school

Preview



- What is RTI?
- Policy Context
- Screening
- Progress Monitoring
- Prevention levels
  - Tier 1
  - Tier 2
  - Tier 3
- Fidelity of Implementation
- Concluding Observations

Related Research

Johnson, E., Humphrey, M., Mellard, D., Woods, K., & Swanson, H.L. (2010). Cognitive processing deficits and students with specific learning disabilities: A meta-analysis of the literature. *Learning Disabilities Quarterly*, *33*(1), 3–18.

Mellard, D., Deshler, D., Frey, B. & Woods, K. (2012). School-wide student outcomes of response to intervention frameworks. *Learning Disabilities: A Contemporary Journal, 10*(2), 17-32.

Mellard, D., McKnight, M., & Jordan, J. (2010). RTI Tier Structures and Instructional Intensity. *Learning Disabilities Research & Practice*, *25*(4), 217–225.

Mellard, D., McKnight, M., & Woods, K. (2009). Response to intervention screening and progress monitoring practices in 41 local schools. *Learning Disabilities Research & Practice*, *24*(4), 186–195.

Mellard, D., Prewett, S., & Deshler, D. (2012). Strong leadership for RTI success. *Principal Leadership, 12*(8), 28-32.

Mellard, D., Stern, A., & Woods. K. (2011). RTI school-based practices and evidence-based models. *FOCUS on Exceptional Children, 43*, 1-15.

Prewett, S., Mellard, D., Deshler, D., Allen, J., Alexander, R., & Stern, A. (2012). Response to intervention in middle schools: Practices and outcomes. *Learning Disabilities Research & Practice, 27*(3), 136-147.

Webinar #3: November 18th

Topic: RTI implementation in your school

Thank You

On the web @ RTI4Success.org

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IDEAs that Work
U.S. Office of Special Education Programs

National Center on Response to Intervention

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