RtI and Literacy Intervention: Infrastructure and Intervention Selection

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About Me

- Assistant Professor of School Psychology- Niagara University
- Teach graduate courses in assessment, academic/behavioral intervention, consultation, counseling, and other domains
- Particular interests in Response to Intervention, including reading assessment and intervention
- RtI consultant and workshop provider

Goals for Today

- Overview of essential RtI components related to reading intervention
- Overview of keystone elements of successful RtI models in reading
- Clarification of critical concepts/elements
- Discussion of infrastructure
- Discussion of interventions and resources- goal to help practitioners identify intervention solutions
- Provide an opportunity to view intervention materials
- Questions

Why Early Reading Intervention?

- Our focus needs to be on early intervention, not just special education eligibility identification

- Most reading difficulties can be detected as early as pre-K, K, and 1st grade

- More students evidence some degree of difficulty learning to read than those who do not (see MacKenzie, 2000)

Reading Problems

- Students who evidence reading difficulty or delay continue to evidence those delays across the curriculum if not provided appropriate intervention

- Delays worsen with time

Quotes of Interest

- Students who are poor readers in 1st grade will likely be poor readers in 4th grade (Juel, 1988)

- Approximately 75% of students identified with reading problems in the third grade still demonstrate those problems in 9th grade. (Shaywitz, et al., 1993; Francis et al., 1996)

Acknowledgement: Kovaleski, 2007

Reading Difficulties are Persistent
(from University of Oregon; originally cited in Foorman et al., 1996)

Grade Identified as Dyslexic	Percent Brought to Grade Level
Grade 1 and 2	82%
Grade 3	46%
Grades 5-7	10-15%

Need for Reading Intervention

- Simply put: Students with reading difficulties need early intervention

- Regardless of age, students who evidence reading delays can improve with appropriate intervention

- General education intervention via RtI – WHEN IMPLMENTED PROPERLY- serves as our first line of defense (best defense is a good offense!)

The "Spirit" of the RtI Initiative in Reading

- To bring all students to proficiency
- To increase the quality of general education programming and general education outcomes
- To intervene early in an effort to ward off difficulties later
- To avoid the misclassification of students who have gaps in their knowledge as learning disabled
- To ensure that those students in special education truly require intensive academic supports

Leveling the Playing Field: What New York State Wants

- Schools must develop RtI procedures featuring:
- School-wide screening to detect areas of academic delay
- Use of that data to identify students who are in need of intervention
- The establishment of formal intervention programming for students who are in need of intervention
- Implementation of interventions that are research or evidence based
- A model of intervention implementation that increases with intensity
- A method of using student progress monitoring data to inform decisions about the type of interventions that should be provided
- Decision making policies and procedures

CR 100.2 (ii)

A school district's process to determine if a student responds to scientific, research-based instruction shall include the following minimum requirements:

- instruction matched to student need with increasingly intensive levels of targeted intervention and instruction for students who do not make satisfactory progress in their levels of performance and/or in their rate of learning to meet age or grade level standards;

- repeated assessments of student achievement which should include curriculum measures to determine if interventions are resulting in student progress toward age or grade level standards;

CR 100.2 (ii)

A school district's process to determine if a student responds to scientific, research-based instruction shall include the following minimum requirements:

- appropriate instruction delivered to all students in the general education class by qualified personnel;

- appropriate instruction in reading shall mean scientific research-based reading programs that include explicit and systematic instruction in phonemic awareness, phonics, vocabulary development, reading fluency (including oral reading skills) and reading comprehensive strategies;

- screenings applied to all students in the class to identify those students who are not making academic progress at expected rates;

CR 100.2 (ii)

A school district's process to determine if a student responds to scientific, research-based instruction shall include the following minimum requirements:

- the application of information about the student's response to intervention to make educational decisions about changes in goals, instruction and/or services and the decision to make a referral for special education programs and/or services; and

CR 100.2 (ii)

Written notification to the parents when the student requires an intervention beyond that provided to all students in the general education classroom that provides information about:

- the amount and nature of student performance data that will be collected and the general education services that will be provided pursuant to paragraph (2) of this subdivision;

- strategies for increasing the student's rate of learning; and

- the parents' right to request an evaluation for special education programs and/or services.

CR 100.2 (ii)

A school district shall select and define the specific structure and components of the response to intervention program, including, but not limited to, the criteria for determining the levels of intervention to be provided to students, the types of interventions, the amount and nature of student performance data to be collected and the manner and frequency for progress monitoring.

A school district shall take appropriate steps to ensure that staff have the knowledge and skills necessary to implement a response to intervention program and that such program is implemented consistent with paragraph (2) of this subdivision.

CR 117.3 (d)

Diagnostic Screening

- Screening in literacy, math, motor and cognitive development
- Determination that explicit and valid instruction is being used
- Progress monitoring
- Instruction designed to assist students "with increasing levels of targeted intervention and instruction"

CR 200.2 (b) (7)

Each board of education or board of trustees shall adopt written policy that establishes administrative practices and procedures:

- for implementing schoolwide approaches, which may include a response to intervention process pursuant to section 100.2(ii) of this Title, and pre-referral interventions in order to remediate a student's performance prior to referral for special education;

Evaluation- 200.4 (j) (1); (j) (3); (j) (4)

- Must consider evidence that underachievement is not due to lack of appropriate instruction; data should provide evidence of adequate instruction; data should provide evidence of multiple assessments

- Student does not make "sufficient" response to intervention

- Districts cannot consider severe discrepancy in the domain of reading (reading LD eligibility) K-4 following 7/1/2012

Focus on Required Components
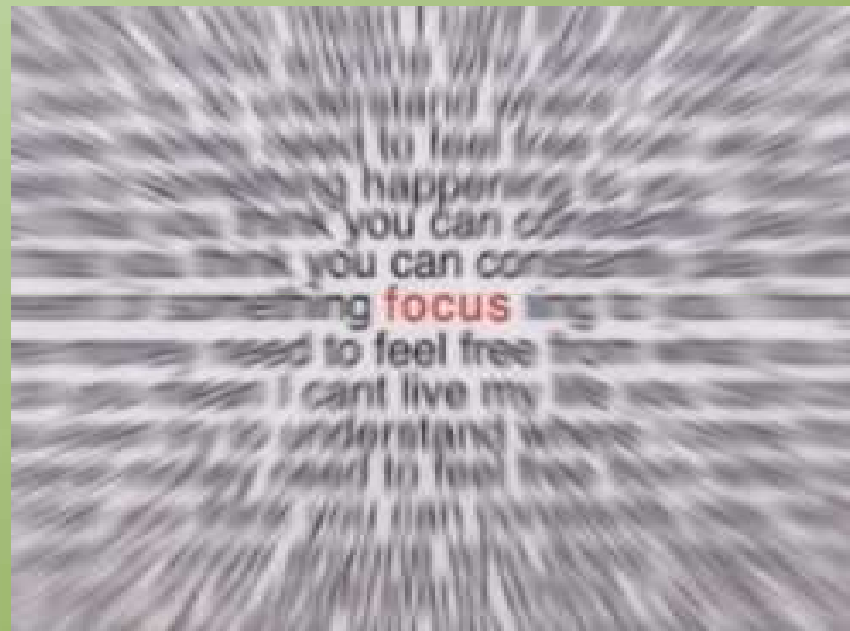
Focus on School Wide Screening and Progress Monitoring

- NYS specifically mentions <u>school wide screening and progress monitoring</u>

- Must carefully consider instruments that are used for screening and progress monitoring

- VERY FEW possess validity and reliability for mass screening and, moreover, progress monitoring

- Literature has identified <u>scientifically validated</u> CBM (either DIBELS or Aimseb) as the only valid/reliable tools for screening AND progress monitoring

- Use of informal measures (CRI; F&P; QRI-IV) offer wonderful instructional information, but lack validity/reliability for many kinds of educational decision making. Can be integrated into the screening process, but should not be used in isolation as part of this process.

Information/Tools for Screening/Progress Monitoring

- http://www.rti4success.org/chart/progressMonitoring/progressmonitoringtoolschart.htm

- Information related to the use of CBM and progress monitoring procedures within RtI:

- http://www.studentprogress.org/weblibrary.asp

Focus on Research or Evidence Based Intervention

- Frequently referred to as "scientifically based" intervention in NCLB and other initiatives

- That's just too vague!

- When you look at what they want, you will see that they are looking for intervention research that demonstrates the program works

Research Based

- **Research Based**: There is a body of research demonstrating that a component of the intervention has been found to be critical in the instruction of a particular skill. For ex., a program includes instruction in phonemic awareness...and research has proven that phonemic awareness is a critical component of reading and reading instruction

- Research Based has also become too vague- folks are using it to describe the previously cited genre of research, as well as the next genre of research

Evidence Based

- **Evidence Based**: A program or approach has been EVALUATED to determine its' efficacy. For ex., PATR has been found to significantly increase the phonemic awareness of students in first grade; Direct Instruction in reading has been found one of the most effective remedial intervention approaches.

- There is research that indicates that the program/approach improves student performance

- Which would you prefer- research or evidence based intervention?

Ellis' Levels of Research: A Helpful Tool

- System for classifying types of research
- <u>Level I Research</u>: Basic or pure research on learning or behavior
- Seeks to establish a construct/theory using empirical means
- Example: Phonemic awareness is linked to reading success
- Actual application of theory/research is limited

Ellis, 2005

Ellis' Levels of Research

- <u>Level II Research</u>: Research that seeks to determine the efficacy of particular approaches, founded in Level 1 research, in the classroom setting
- An intervention approach or program is evaluated in a naturalistic setting such as a classroom
- Research conducted seeks to document efficacy in <u>applied settings</u>
- Limited in generalizability: Studies are limited to small scale implementations in select venues
- <u>Example</u>: XYZ reading program was found to improve the reading ability of 1st grade students. Research was conducted in 3 1st grade classrooms in a suburban school district (or an urban school district…)

Ellis, 2005

Ellis' Levels of Research

- <u>Level III Research</u>: Program evaluation research on large-scale implementations of a program or approach

- Program has demonstrated efficacy across a wide variety of school based settings across time. Scale of research is large

- <u>Example</u>: XYZ reading program has been found to increase reading fluency. Research was conducted in 45 school districts in 15 states

- The phrase "scaling up" research refers to the need to transform program evaluations from Level II to Level III research

Ellis, 2005

How Much Evidence is Enough?

- The more the better- evidence bases are growing due to increased awareness

- Should strive to use interventions that meet Level III standards when possible, at minimum, Level II standards (most intervention research falls here); Level I should be a "last resort"

- Be sure to consider what was being evaluated- instructional approach or program itself?

An Example: Reading Mastery

Instructional Approach: <u>D</u>irect <u>I</u>nstruction	30+ years of applied research in classroom / district settings (work of Englemann); large scale implementation of approaches- intervention format frequently differs (approach is being studied- not formal program)	Most literature falls at Level II; approach evaluated at Level III (several studies)
Instructional Program: Reading Mastery (based on principles of <u>D</u>irect <u>I</u>nstruction)	90+ studies evaluating the formal program, Reading Mastery, as well as its' predecessor, DISTAR (Englemann, 2008)	Level III basis established (quantity/quality of studies; positive outcomes of intervention established)

Note: The same type of analysis can be completed for interventions that are not a stand alone program, ex., phoneme segmentation activities

Use Caution

RESEARCH BASED!

BUY ME!

- Program publishers and others in the reading community, including those involved in designing policy, use the term "research based" indiscriminately

- As a result, interventions used within RtI models may vary from those found to be "important" in acquiring reading skill to those that have actually been found to improve reading skill

- Best practices dictate that interventions with some degree of demonstrated efficacy be used

- Incumbent upon those designing intervention policy and programming to maintain awareness of evidence based practices

Focus on Formal Intervention Programming

- Reading intervention via RtI is intended to be <u>intensive!</u> <u>Many misconceptions regarding the intensity and structure abound</u>
- Though specific guidelines regarding intensity are not provided by NYS, they are indicated in the scholarly literature and best practice approaches are known
- Consideration of referral procedures is key
- Consideration of materials and structure of intervention provision is essential
- Consideration of intervention duration (daily, weekly, and cumulative) is necessary
- Staffing considerations
- Training considerations

Referral Procedures

- As noted in Part 100, and dictated by best practices, screenings of reading ability should serve as the impetus for intervention referral

- Data from screenings must be used to identify students who are at-risk

- Models in which screening data is not used systematically to spark referral (teacher referral only; parent referral only) are incongruent with NY state mandates and best practices

Referral Procedures

- Models must feature policy and procedures for school wide reading screening and referral for intervention, including protocol for reading referral outside of screening

- Consideration of additional sources of information should occur following initial identification via screening (e.g., teacher data, other assessment results, parent input, student history)

If your model looks like this in isolation…

Teacher Referral
- Teacher referral commences the reading RtI process
- Teacher collects data regarding performance and need

Problem Solving Team
- Teacher referral considered by problem solving team
- Problem solving team develops appropriate intervention (or standard protocols assigned) and teacher/other professionals implement

Decision Making/Movement Through Tiers
- Student receives intervention- progress is monitored
- Student response is considered across tiers; relevant decisions are made regarding continued need

You should consider something more like this…

School Wide Reading Screening

- Data from school wide screening considered by data team or instructional consultation team
- Students identified as not meeting proficiency are identified

Data Team or ICT Decision Making

- Data team or instructional consultation team considers other forms of student data
- Data team or instructional consultation team assigns appropriate intervention (if PSM alone) or students enter standard protocol intervention

Decision Making/Movement Through Tiers

- Student progress monitored by data team or instructional consultation team
- Decisions regarding student movement through tiers are made

Structure of Intervention: Scheduling

- Development of a school wide schedule that allows for intensive intervention across tiers, as well as in enrichment- **critical**

- 120 minute daily literacy block typically recommended (allows for enhanced general education instruction and time for intervention services without removing students from other content)

- 30 to 50 minutes daily allotted for supplemental intervention (variable time reflective of differences in time necessary for various interventions/programs- contingent upon need)

RtI and Enrichment Block Schedule Elementary Example: Baldwin Schools, Maryland

Baldwin Master Schedule 2007-8										
	8:45 AM – 10:00 AM	10:05 AM – 10:45 AM	10:50 AM – 11:30 AM	11:35 AM – 12:15 PM	12:20 PM – 1:00 PM	1:05 PM – 1:50 PM	1:55 PM – 2:40 PM	2:45 PM – 3:30 PM		
Kindergarten	HR/DEAR	LA 1	LA 2	L/BR	LA 3	LA 4	MSG	MSG	Encore	HR
Grade 1	HR/DEAR	LA 1	LA 2	LA 3	R/L	M/SS/SC 1	M/SS/SC 2	Encore	M/SS/SC 3	HR
Grade 2	HR/DEAR	M/SS/SC 1	M/SS/SC 2	M/SS/SC 3	L/R	Encore	LA 1	LA 2	LA 3	HR
Grade 3	HR/DEAR	LA 1	LA 2	Encore	LA 3	L/R	M/SS/SC 1	M/SS/SC 2	M/SS/SC 3	HR
Grade 4	HR/DEAR	M/SS/SC 1	Encore	M/SS/SC 2	M/SS/SC 3	R/L	LA 1	LA 2	LA 3	HR
Encore	TBA		4th	3rd	Lunch/Duty	2nd	Plan	1st	K	HR

Rettig & Canady, 2009

Block Schedule Example: Middle School

UM Intermediate

		8:40 AM – 10:00 AM						10:05 AM – 11:00 AM							
3A-E	HR	Math 75		SS/SC 60		R	L	LA 75		I/E		Encore			
3F-I	HR	Math 75		SS/SC 60		L	R	LA 75		Encore		I/E			
4A-E	HR	LA 75	M 15	I/E	Encore		L	R	Math 60		SS/SC 60				
4F-I	HR	LA 75	M 15	Encore	I/E	SS/SC 30	L	R	Math 60		SS/SC 30				
5A-E	HR	I/E	Encore	LA 75		L	R	Math 75		SS/SC 60					
5F-J	HR	Encore	I/E	Math 60		L	R	M 15	SS/SC 60		LA 75				
Encore		5F-J	5A-E	4F-I	4A-E	Lunch/Plan/TBA 90		3F-I	3A-E						
I/E		5A-E	5F-J	4A-E	4F-I	Lunch/Plan/TBA 90		3A-E	3F-I						

Rettig & Canady, 2009

Focus on Middle School Time Allocation

Time			
375	3	4	5
HR	15	15	15
LA/R	75	75	75
Math	75	75	75
SS/SC	60	60	60
Encore	45	45	45
L/R	60	60	60
Tier Ti	45	45	45
Total	**375**	**375**	**375**

Rettig & Canady, 2009

Structure of Intervention: Problem Solving V. Standard Protocol

- Two major approaches to determining what kind of reading intervention should be provided to students (systems level decision)

- <u>Problem solving</u> involves brainstorming and designing a specific intervention for a particular student based on their particular needs (i.e., the team decides that Johnny will engage in repeated readings 5x weekly for 15 minutes to remediate his fluency difficulties)

- Decisions regarding intervention type are made on a case by case basis- ICT team makes recommendations for each individual child based on strengths/needs (see work of Rosenfield and Gravois (1999; 2008) for more information on problem solving and IC Teams)

Standard Protocol

- <u>Standard protocol</u> intervention approaches involve using a set protocol/series of interventions for all students with certain types of presenting difficulties (i.e., all students with reading fluency difficulties will engage in Great Leaps 5x weekly for 15 minutes)

Standard Protocol

- Typically involves a PROGRAM that is EVIDENCE BASED
- Can use interventions that are not part of a program, but use of evidence based programs is most common
- The program may vary in intensity
- All students with a particular deficit utilize the program (i.e., all students with fluency and PA difficulties use X program) for a prescribed amount of time
- Can be conducted by teachers in the classroom (least practical and contingent on the program), push in support, and pull out support
- More intensive standard protocols require pull-out support
- Occur during supplemental instruction time

Fuchs, Mocks, Morgan & Young, 2003

Problem Solving Only	IC Team meets to develop intervention at each tier for each student (case by case basis)	Team decides that reading intervention for student x will consist of interventionist designed activities such as: -instruction in sound/symbol awareness -sound blending activities -phoneme segmentation activities -phoneme deletion activities
Standard Protocol of Stand Alone Interventions (Interventions not part of a program)	IC Team/administration develops uniform protocols of stand alone interventions for various types of difficulties	All students evidencing phonemic awareness and phonics difficulties will engage in sound blending/phoneme segmentation/deletion activities; all students evidencing fluency difficulties will engage in repeated readings/choral reading/paired reading...
Standard Protocol Using Shorter Duration Intervention Programs	IC Team/administration develops uniform protocols of program oriented interventions for various types of difficulties. A combination of shorter (15 minutes) intervention programs are used to meet student needs	Phonemic awareness difficulties will be addressed by activities from "Road to the Code" or PATR; Fluency difficulties will be addressed by using PALS, and so on..
Standard Protocol Using Intensive Intervention Programs	IC Team/administration develops standard protocol of intensive program based interventions at Tiers 2 and 3	Reading Mastery will be used with all Tier 3 students Wilson Reading will be used with all Tier 2 students, and so on...

Kilanowski-Press, 2010

Recommendation: Standard Protocol

- Several strengths:
- Greater outcome research available regarding interventions- greater likelihood of efficacy
- Interventions more intensive and explicit by design
- Designed for students with significant intervention needs
- More structured protocol for providing intervention- less variability in how intervention is provided (leads to increased fidelity)
- Consistent expectations for teacher and student- explicit instruction/frequent practice/frequent feedback

Intervention Duration

- Recommendations regarding amount of time daily in tiered intervention:

- <u>Tier 1</u>: Traditionally assigned classroom instructional time <u>plus</u> additional time for targeted intervention activities via differentiated instruction

- <u>Tier 2</u>: <u>Minimum</u> recommendation is 3x weekly for 30 minutes (duration is contingent upon materials/program selected- my recommendation 5x weekly)

- <u>Tier 3</u>: Daily intervention is typically recommended for 30 minutes minimum (duration contingent upon program selected- my recommendation 45 minutes)

See work of Fuchs, Kovaleski – other sources available upon request

Intervention Duration

- How much <u>total time</u> (weeks/months) is spent in each tier?
- This answer is contingent upon a number of factors, including:
- Quality of interventions- evidence based or research based
- Nature of interventions- intensive or not as intensive
- Intervention fidelity
- How much time has already passed- research indicates that most interventions require at least 8 weeks to improve student skill (e.g., see www.iriscenter.vanderbilt.edu)
- Amount of progress monitoring data- do you have enough data to make a decision? Need at least 6 to 8 data points to make a determination regarding progress (Hosp & Hosp, 2006; www.iriscenter.vanderbilt.edu)
- Nature of student response to intervention (Are they making progress? Flat lining? Variable?)

Intervention Duration

- Commonly accepted durations:
- Tier 1: 6-8 weeks if using Fuchs model (starting at Tier 1)
- Tier 2: 10-14 week minimum or more (contingent upon materials- more time is better if using good materials)
- Tier 3: 10-20 weeks (contingent upon materials used)
- No hard and fast rule
- Some variability reported in scholarly literature
- <u>More time is better</u> if materials are good
- Need to consider program recommendations regarding duration- if you are using a program that requires 18 weeks of implementation, then…
- Need to consider student response

Student Response to Intervention/Intervention Duration

- Faculty responsible for analyzing student data (data team) must become skilled in determining response USING DATA. In general:
- If student appears to be making progress, continue intervention
- If student does not appear to be making progress change the intervention (this rule applies to interventions that are 1) not part of a formal program or 2) are part of a program of shorter duration)
- If student does not appear to be making progress and has been receiving intensive intervention via a program following program specs (recommended duration), move to next tier

For More Information on Determining Response to Intervention Using PM Data

- www.studentprogress.org

- www.iris.peabody.vanderbilt.edu

- Book: "ABC's of CBM"(Hosp & Hosp, 2006)

Staffing

- <u>Tier 1</u>: General educator
- <u>Tier 2</u>: Educator knowledgeable in working with students who have reading delays (note: some programs (e.g., PALS) allow for the use of peers or paraprofessionals)
- <u>Tier 3</u>: Educator knowledgeable in working with students who have reading delays
- Use of the term interventionist may encompass reading/literacy specialists or special educators

Training Considerations

- All faculty and staff should be trained on the RtI model that was developed by your building/district, as well as related procedures

- Individuals participating on problem-solving teams should be knowledgeable in doing so. This is not "child study". There are formal models of problem solving and instructional consultation teaming that should be explored (e.g. Rosenfield and Gravois)

- Faculty responsible for implementing intervention programs must receive training in that program

- Faculty responsible for analyzing student data and making related decisions must receive training to help them do so- progress monitoring and decision making should not be taken lightly

Intervention Selection

- Selecting interventions is one of the most critical decisions to be made across grade levels

- Not all reading interventions are the same, and not all reading interventions are evidence based

- Several key considerations in selecting interventions

Intervention Selection

- Do school intervention offerings target all key aspects of reading skill?

- Do intervention offerings increase in intensity?

- Do school intervention offerings have an evidence base? Do they have a history of "working"?

- Are there interventions available for students across grade levels?

- Must remember: Intervention should be explicit and intensive- creativity and variability is not favored in intervention design

Targeting Skills

- Skills that should be targeted in core and supplemental instruction (Big 5 Ideas in Reading):
- Alphabetic principle (sound-symbol awareness)
- Phonemic awareness/phonological awareness
- Fluency
- Vocabulary
- Comprehension

National Reading Panel, 2000

For More Information…

- http://reading.uoregon.edu/big_ideas/
- Features a discussion of each of the Big 5 Ideas, as well as information for educators regarding the application of those skills in the classroom

Subcomponents (not exhaustive)

- Alphabetic Principle/Phonological Awareness/Phonics (K and 1):
- Letter recognition
- Encoding/decoding
- Onset/rhyme
- Phoneme matching
- Morpheme structures
- Rhyme/alliteration

- Grades 2 and 3:
- All of the aforementioned, plus:
- Phoneme isolation
- Phoneme blending
- Syllable patterns
- Grades 3 and 4:
- Morpheme Correspondence
- Syllable patterns
- Note: Students who are significantly delayed may require instruction at K through 3 level)

Subcomponents

- <u>Fluency K-1:</u>
- Fluency in alphabetic principle and letter/sound correspondence
- Fluency/accuracy in reading words
- Reading with appropriate intonation/expression

- <u>Fluency 2-3:</u>
- Letter-sound correspondence
- Fluency in reading words
- Fluency in reading larger segments of connected text
- Reading with appropriate intonation/expression
- <u>Fluency 4-5:</u>
- Words and word parts
- Phrases and connected text
- Any of the aforementioned if mastery not attained

Subcomponents

- <u>Comprehension and Vocabulary</u> (1st)
- Word meaning
- Sentence meaning
- Sequencing of events
- Retelling
- Understanding difference between expository and narrative text

- <u>2-3:</u>
- All of the aforementioned, plus:
- Additional emphasis on word meaning/analysis
- Words in context
- More advanced understanding of connected text
- Self-monitoring for understanding
- <u>4-5:</u>
- Text analysis
- Narrative structure
- In depth exploration of expository text
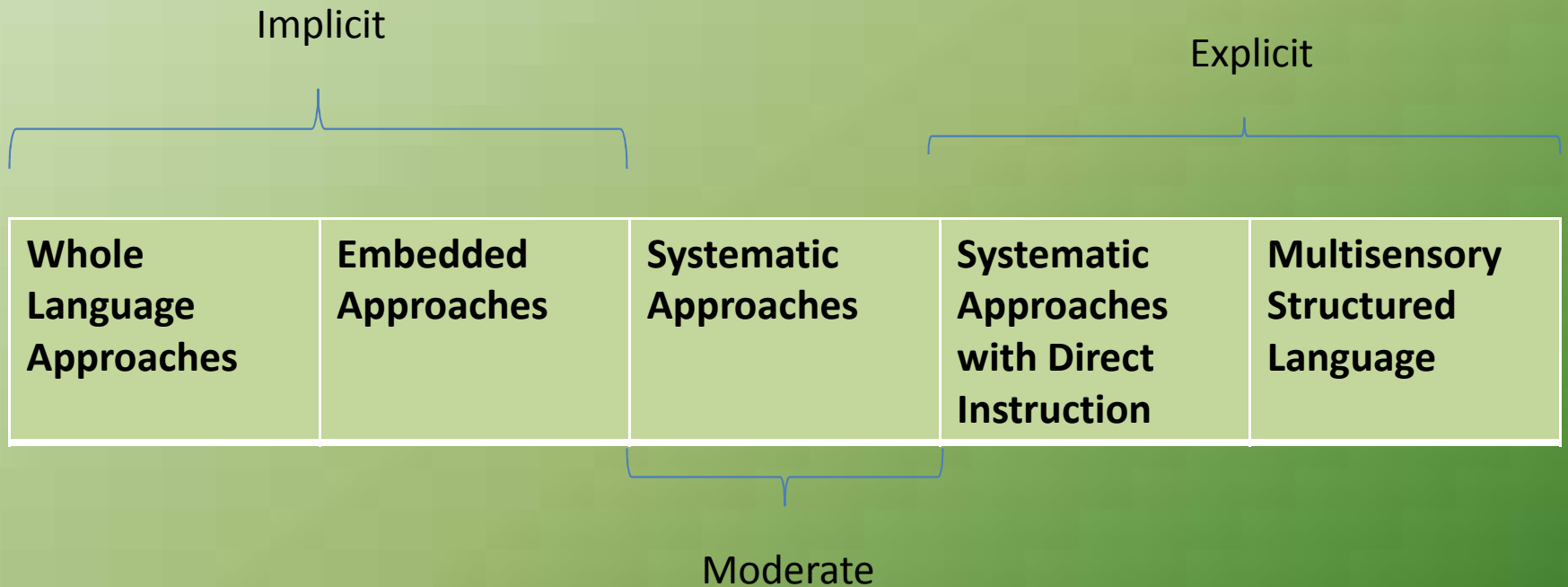- More self-monitoring for understanding
- Inferencing

Expectations by Grade Level

- See FCRR expectations by grade level (attached) for more exhaustive list of skills by grade level

- Compare those expectations to your district expectations and state expectations

- Use them to conceptualize intervention needs and programming

Intensive Reading Intervention

- Reading intervention must be explicit, systematic, and offer frequent opportunities for students to practice skill and receive feedback

- Not all reading instruction is explicit, and not all reading interventions are explicit enough

- Frequency and duration can also be considered as variations in intensity, however, materials <u>must</u> provide for intensive instruction

- Accommodations and modifications are not reading interventions- instruction must be impacted

Implicit vs. Explicit Instruction

Implicit

Explicit

Whole Language Approaches	Embedded Approaches	Systematic Approaches	Systematic Approaches with Direct Instruction	Multisensory Structured Language

Moderate

MacKenzie, 2000

Comparison of Explicit Approaches

- <u>Direct Instruction</u>
- Founded on the work of Englemann
- 30 years of research
- Highly structured, scripted, explicit instruction across domains; systematic
- Strong fidelity, positive results for the most challenged readers
- Examples: Reading Mastery; SRA Corrective Reading; REWARDS

- <u>Multisensory Structured Language</u>
- Based on the work of Samuel Orton and Anna Gillingham
- Formal programs are highly structured, explicit, and systematic; feature Direct Instruction as well
- Focuses on delivering instruction across a variety of pathways (visual, auditory, kinesthetic, tactile)
- Examples: Wilson Language Program, Project Read
- A note about Orton Gillingham

Interventions

- Best conceptualized as "stand alone" intervention types and "programs" for the sake of conversation
- Stand alone interventions may be evidence based, but are not part of a program. Example: Phoneme segmentation activities; repeated readings
- Program interventions may include stand alone interventions that you are familiar with, but are packaged along with other approaches covering a variety of domains, typically following a particular instructional approach (e.g., Direct Instruction, peer instruction)
- Many programs offer a stronger evidence base and have strong history of demonstrated efficacy; greater implementation fidelity
- Must research efficacy of interventions that you use- drawing from Miss Tammy's Reading Web Page is not a good idea

Determining Evidence Bases

- Should select "stand alone" and "program" oriented interventions that have some evidence supporting them

- The number of stand alone reading interventions is not limitless- if you only keep finding certain interventions, there is a reason (interventions discussed later)

- Many programs offer some degree of evidence; many more do not

Determining Evidence Bases

- Refer back to Ellis (2006) information
- Gold standard in research: Randomized controlled trials featuring matched samples
- However, this standard 1) has not frequently been applied to educational research until recently and 2) is very challenging to conduct in applied (e.g., school based) settings
- Should seek to select programs with some evidence collected according to this standard, while also considering other types of evidence across large scale implementations
- To learn more about what appropriate research establishing evidence bases consists of, see handout regarding evidence based practices

Useful Tools

- Florida Center for Reading Research www.fcrr.org
- Texas Reading www.meadowscenter.org/vgc
- What Works Clearinghouse http://ies.ed.gov/ncee/wwc/
- Doing What Works (new US Dept of Ed web page) http://dww.ed.gov/ *caution
- Best Evidence Encyclopedia www.bestevidence.org
- Oregon Reading First (review of contents in reference to Big 5 in reading only) http://oregonreadingfirst.uoregon.edu/inst_curr_review_si.html

Interventions by Tier: Tier 1

- Daily, minimum 90 minutes core (supplemental in addition to core- recommended 120 minutes total, minimum)

- Tier 1: Frequently referred to as "core instructional program"

- However: Core instructional program includes 1) core instructional materials- primary reading series 2) supplemental tools/instructional approaches used by educators in addition to core series

Tier 1 "Musts"

- Must review core series to determine if it is research based and includes evidence based components
- Instruction in the Big 5 Ideas of Reading should be more explicit than inferential
- Supplemental classroom reading materials should feature some evidence base
- To learn how to review your core program:
- http://reading.uoregon.edu/cia/curricula/index.php
- Overview of core instruction "musts" http://www.k8accesscenter.org/training_resources/effectivereadingcomponents.asp

Tier 1

- Instruction should be differentiated for students with various learning needs
- May be accomplished by use of teacher led activities, teacher directed centers, and use of paraprofessionals – all must feature appropriate materials- should have evidence backing them
- Materials on your table are examples of Tier 1 materials for differentiated instruction; many are Tier 2 appropriate "stand alone" materials
- Additional list of interventions for Tier 1 and 2 provided

Tier 2

- Supplemental intervention materials are used
- Provided in addition to core instruction
- Minimum 3 times weekly- minimum 30 minutes- more time weekly/daily preferred
- Interventions may be part of a program – <u>recommended</u> for fidelity/intensity/evidence base purposes
- Interventions may not be part of a program
- One program may be used for the entire instructional period (e.g., Reading Mastery), or a combination of programs of shorter duration can be combined and used (e.g., PALS, combined with Road to the Code activities)

Tier 2 Interventions

- Please see handout and upcoming slide

- It is important to note that overlap can exist between activities used at Tier 1, 2, and 3; overlap between Tier 2 and 3 most common

Tier 3 Interventions

- Please see handout and next slide

TIER I MATERIALS	TIER 2 MATERIALS AND PROGRAMS	TIER 3 PROGRAMS
•Road to the Code used in differentiated instruction •Phonemic Awareness for Young Children used for differentiated instruction •Readers Theatre •FCRR interventions manual by grade level for differentiated instruction/flexible grouping •Stand alone interventions listed on handout •* this list is not exhaustive	•Standard protocol of particular stand alone interventions/some FCRR interventions •Road to the Code •Phonemic Awareness Training for Reading •Phonemic Awareness for Young Children •Fundations (Wilson Language) (K-3) •PALS, K-PALS, Teacher Directed PALS (K-12 depending upon materials)** •Horizons (K-12) •Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech •Early Reading Intervention •Voyager Passport (K-5) •Waterford Early Reading •Great Leaps •Passport Reading Journeys (6-12)**	•Reading Mastery (K-6) •SRA Corrective Reading** •Wilson Language (grade 3+) •Fundations (Wilson Language) (K-3) •REWARDS (4-6); (6-12)** •Talking Letters •LANGUAGE! (3-12)** •Voyager programs
	** middle/high school	

Adolescent Reading Intervention

- Meta analysis of 31 studies regarding adolescent reading intervention approaches yielded the following findings with direct implications for practice:

- "Reading comprehension strategy interventions can have a significant impact on the reading ability of adolescent struggling readers"

- "Adolescent struggling readers benefit from word-study interventions"

- "Focusing on multiple components of reading instruction within the same intervention can produce meaningful effects"

Adolescent Reading Intervention

- "Repeated reading was the most prevalent fluency intervention in the studies used for this meta-analysis, and it appears that its effect on the reading ability of older readers is limited"
- "Vocabulary instruction yielded largest effects" but "generalized impact on reading comprehension needs to be explored"
- "Learning disabled students respond to intervention in meaningful ways that reflect significant improvements in reading and reading-related skills"
- "The fidelity with which an intervention is implemented can influence the size of effects"
- "Consistent with research findings at the primary grade level, intervention for older struggling readers is most effective when it is provided as early as possible" "middle school readers evidenced greatest improvement"

Scammacca, Roberts, Vaughn, Edmonds, Wexler, Reutebuch, & Torgesen, 2007, p. 15-16

Implications at Middle/High School Level

- Reading intervention across the Big 5 in reading (word study-phonemic awareness/alphabetic principle-, fluency, vocabulary, comprehension) remains the best approach to providing intervention

- Contrary to popular belief, word study is effective at the MS/HS level

- Materials for instruction need to match developmental level – concepts may remain the same to meet needs of a student with delays

Structure at MS/HS Level

- Tier 1 becomes a considerable challenge- can be negotiated somewhat at MS level; HS more prohibitive

- Emphasis on Tier 2 and Tier 3 intervention

- Use of stand-alone intervention periods

- Focus on skills instruction for delayed readers

MS/HS Intervention Leads

- For more information regarding the needs of middle school/high school students with reading delays and disabilities, as well as related interventions, see:

- http://www.rti4success.org/images/stories/coi_struggling_readers.pdf

- Extensive reference page provides an abundance of intervention citations- see also intervention program overview slide

- Many interventions cited on handout can be employed at the MS/HS levels- some require material adaptation for age

Thank You!

References will be posted to file share for this presentation.