

## TIERED APPROACHES TO LANGUAGE AND LITERACY INSTRUCTION IN PRESCHOOL SETTINGS

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## What is Response to Intervention?

- Rtl is a systematic educational decision-making process designed to:
  - Identify students who need support early
  - Provide support that matches need
  - Provide a data-based method for evaluating the effects of instructional approaches
- Ultimate purpose is to meet educational needs and maximize learning and growth of all students

## Core Components of Response to Intervention (Rtl)

- Evidence-Based Tier 1 implemented with fidelity
- Universal screening
- Evidence-Based Tier 2 and Tier 3 Interventions
- Progress monitoring
- Instructional decision-making

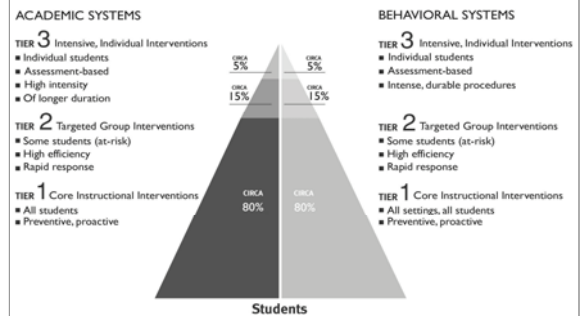
## Issues in the Implementation of Rtl in Early Childhood Programs

- Lack of evidence-based curricula/programs
- Lack of time
- Wide range of staff training and experience
- High turnover of staff
- Inadequate professional development programs
- Lack of resources and funding
- Philosophical differences

## Tiered Intervention Development: Guiding principles

- Curricular content and intervention procedures draw upon:
  - Developmental research
  - Existing Pre-K curricula
  - Intervention research
  - Principles of effective instruction
- Feasible for broad range of early childhood settings and curricula
- Part of an integrated system that includes assessment and decision making procedures

## Use of Multiple Tiers of Intervention



### What Will Center for Response to Intervention in Early Childhood (CRTIEC) Do?

- Develop and validate Tier 2 and Tier 3 interventions in early language and literacy.
- Develop and validate progress monitoring measures.
- Conduct descriptive study of Tier 1 instruction.
- Disseminate findings to practitioners, policymakers, and researchers.
- Provide national leadership on RtI for young children through the development of a national network:  
<http://www.crtiec.org/aboutcrtiec/preschoolrti.shtml>

### Tier 2 R & D Team at Ohio State

- Howard Goldstein
- Robyn Ziolkowski
- Sean Noe
- Rhonda Tabbah
- Beth Spencer
- Naomi Schneider



### Preliminary Studies for Tier 2 curriculum development

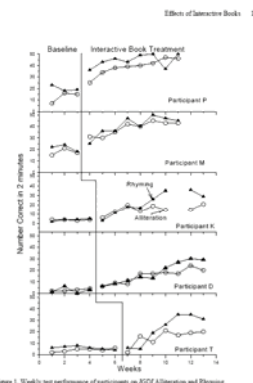
Ziolkowski, R. A., & Goldstein, H. (2008). Effects of an embedded phonological awareness intervention during repeated book reading on preschool children with language delays. *Journal of Early Intervention, 31*, 67-90.

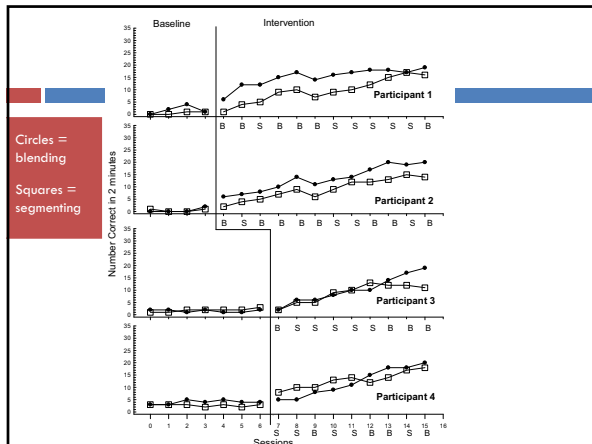
### Why teach PA?

- Accelerates reading & writing development of all students
- Best known predictor of future reading ability
- Unless taught directly, PA skills are **not** mastered by ~25% of middle-class 1st graders (many more from less literacy-rich environments)

## EFFECTS OF INTERACTIVE BOOKS ON PHONOLOGICAL AWARENESS SKILLS IN PRE-KINDERGARTEN CHILDREN FROM LOW-INCOME ENVIRONMENTS

Amy Hempstead





- ## Intensity of Instruction
- Pros
    - Alignment with curriculum
    - Ensures more opportunities for learning
  - Cons
    - More of the same not necessarily effective
    - Focus of intervention may be too diffuse
    - Group size and duration is not directly related to opportunities to respond (OTR)
  - The Child's Perspective
    - Effectively teaching the proper skills with sufficient OTR

- ## Three Tiers??
- Lots of instructional variations can invoke lots of potential tiers
    - Changing motivational characteristics
    - Creating branch steps
    - What happens when a child is at different levels in different domains?
    - Might effective Tier 2 interventions be adopted in Tier 1?

- ## Tier 2 Curriculum Issues
- Is it realistic to expect teachers to deliver multiple tiers of instruction?
  - Try to align with multiple curricula
  - How might one efficiently package curricular areas?

- ## Skill Focused Listening Center Activities: Tier 2
- Skill Focused Activities are designed to be independent of teacher instruction. Monitoring can be done by a paraprofessional.
  - Supplemental, rather than substitute for Tier 1 curriculum in 4 major domains
    - Phonological Awareness and Alphabet Knowledge
    - Vocabulary and Comprehension
  - Follow a general, developmental progression based on previous evaluation of curricular skill implementation timelines.
    - For example, in the PA area, Storybook Script 1 focuses on "Recognizing rhyming words," whereas Storybook Script 9 focuses on "Identification and production of first sounds in words."

- ## Tier 1: Review of 8 Curricula
- DLM Early Childhood Express
  - Scott Foresman Reading Street
  - Harcourt Storytown
  - SRA Imagine It
  - Creative Curriculum
  - Opening the World of Learning (OWL)
  - Building Language for Literacy (BLL)
    - Phase 1 (BLL-1) is tailored to children ages 3 and 4.
    - Phase 2 (BLL-2) is designed for 4- and 5-year-olds and is intended as supplementary material for children who have mastered the skills in Phase 1.

## Phonological Awareness

- Phonological awareness refers to the awareness and sensitivity to the sounds of spoken language.
- Skills taught to foster the development of phonological awareness include
  - Discriminate units of speech
  - recognize, identify, and produce rhymes
  - hear and identify individual syllables in words; hear and identify initial sounds of words
  - hear and identify ending sounds of words
  - hear and identify sounds within words
  - blend sounds
  - segment sounds
  - isolate sounds.

## PA/AK Scope and Sequence

Week	Forest Friends	Skill	
1	Pablo's Prickly Problem	Recognize rhyme words	Thumb Up/Thumb Down
2	Suki's Slumber Surprise	Identification of Rhyme	Choice of Two Supported
3	Fae's Smelly Situation	Identification of Rhyme	Choice of Two
4	Fae's Nose Knows the Way	Identification/Production of Rhyme	Choice of Three
5	Snowday for Fae	Recognize Initial Sounds	Thumb Up/Thumb Down /m//p/
6	Bobby's EmBEARassing moment	Identification of Initial Sounds	Choice of Two Sounds Only /k//d/
7	Suki's Selfish Saturday	Identification of Initial Sounds	Choice of Two Sounds/ Supported Alphabet/f//w/?
8	Pablo's Map Matters	Identification/Production of Initial Sound	Choice of Two Sounds/ Supported Alphabet /s//h/?
9	Where is Bobby Bear?	Identification/Production of Initial Sound	Choice of Two Sounds/ Supported Alphabet/b//t/

## 2<sup>nd</sup> and 3<sup>rd</sup> Nine Weeks

Jungle Friends	Ocean Friends
10 Recognize Ending Sounds	19 Segment Compound Words Supported
11 Identification of Ending Sounds	20 Segment Compound Words
12 Identification of Ending Sounds	21 Segment Onset Rime
13 Identification/Production of End Sound	22 Segment Onset Rime
14 Blending Compound Words Supported	23 Segment Onset Rime
15 Blending Compound Words	24 I-F Blend with Alphabet
16 Blending Onset Rime	25 I-F Blend with Alphabet
17 Blending Onset Rime	26 IMF Blend with Alphabet
18 Blending Onset Rime	27 IMF Blend with Alphabet

## Print Awareness

- Print awareness is the understanding of print in everyday surroundings.
- It is the understanding that reading and writing are ways to obtain information and knowledge, generate and communicate thoughts and ideas, and solve problems.
- Examples of skills taught for the development of print awareness skills include
  - the ability to distinguish words from pictures
  - understanding that books are handled in certain ways; knowledge that a book has multiple parts (i.e., front, back, author, and illustrator)
  - knowledge of the directionality of print
  - knowledge of print conventions

## Alphabet Knowledge

- Alphabet knowledge is the knowledge of the letters of the alphabet and recognition of upper and lower case letter symbols in print.
- Skills that encompass alphabet knowledge include:
  - Naming the letters of the alphabet
  - Recognizing and identifying letters in print
  - Associating the name of a letter with its shape
  - Associating letters with corresponding phonemes or sounds
  - Recognizing upper and lower case letters.

## How is the Tier 2 Intervention Delivered?

- Activities are designed to be administered in "listening centers" for which scripts are pre-recorded onto compact discs.
- Children listen using headphones and respond to the embedded interactive activities. Familiar characters (e.g., Sally the Sound Seal, Luke the Letter Lion) serve as the teaching "guide."
- Pre-recorded scripts contain visual and auditory cues to increase children's ability to complete the listening center each day with minimal adult assistance.

## Training Book

- Introduction to the Listening Center
- Children train to mastery criterion on:
  - ▣ Not opening book until instructed
  - ▣ Turning pages only when instructed
  - ▣ Following directions/receiving training specific to each intervention type
    - Pointing
    - Thumb up/Thumb Down
    - Lift the Flap
    - Pull the Tab
    - Turn the Wheel

## Print Awareness

- Do you have your book? Make sure it is closed. Look at the front cover of the book. Now...Do not open it until I tell you to..... Your book should have a picture of Pablo Porcupine on the cover. Make sure Pablo Porcupine is not upside down. Remember do not open the book yet....Look at the top of the book. Do you see the words? This is the title or the name of the book. Do you see the finger with bump on it? touch the bump under the first word. Follow the arrow under the words as we read the title together, it says .... Pablo's Prickly Problem.
- Chime\* turn the page

## Rhyme Recognition Example

- [..\My Movies\Pablo.mov](#)

## Initial Sound Video



## Vocabulary

- Curriculum review for the vocabulary domain consisted of lists of novel words and not so novel words introduced throughout the curricula.
- Potential Word bank with variety of norms
- Avoid words that are:
  - ▣ Too advanced
  - ▣ Too easy (Beck & McKeown's Tier 1 words)
  - ▣ Too difficult to represent concretely or to define

## Comprehension

- Comprehension involves knowing the meanings of words, forming conceptual relationships, understanding factual or literal content, and making inferences (Joseph, 2006).
- In several curricula, comprehension skills were presented under "Oral Language," because children were required to respond orally to questions asked about stories.

## Comprehension

- Answering questions related to the story
- Levels of questions
  - ▣ Answering simple recall questions related to the story (e.g., Who was surprised in the story?)
  - ▣ Answering inferential questions related to the story (e.g., Why was Suki surprised?)
  - ▣ Answering questions that require a prediction or a connection to own life (e.g., When was a time when you felt embarrassed?)

## Vocabulary & Comprehension Content

Vocabulary	Pablo's Prickly Problem	Suki's Slumber Surprise	Fae's Smelly Situation	Bobby's Embarrassing Moment
Basic Concepts	In front, behind	first, next, last	first, second, third	tall, short
Target Words	porcupine, protect	surprise, slumber	idea, inhale	embarrassed, accident
<b>Comprehension Qs</b>				
Level I				
Level II	Did Pablo look the same as the other animals?	Who was surprised in the story?	Who smelled stinky in the story?	Who was embarrassed in the story?
Level III		Why was Suki surprised in the story?	Why was Fae Fox so smelly in the story?	Why was Bobby embarrassed in the story?
Level IV	How did Pablo feel at the end of the story?			

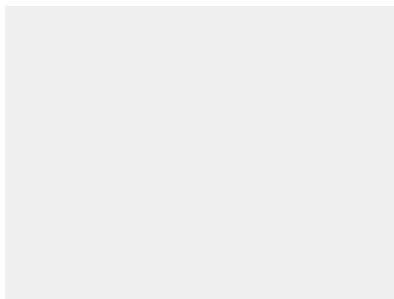
## How is learning maximized?

- Scripts require active participation and responding by modeling answers, asking questions, and providing time for spoken, pointing, and manipulative responses.
- Feedback is provided within context of the recorded scripts so children can monitor whether they are responding correctly
- Multiple embedded opportunities to respond
  - Each script has 5-6 activities, including initial instruction, 3-4 interruptions, and review; ~ 40 embedded opportunities to respond
  - Script is repeated 3X per week
- Demands on teachers' instructional time are minimized and treatment fidelity is high

## How do we know T2 is effective?

- We routinely see students become more proficient with their responses as the week progresses.
- **Mastery monitoring probe** - designed to track progress of the skills being taught that week.

## Progress Over Time



## Mastery Monitoring probe example

- [Mastery monitoring probe video](#)

## Anticipated problems

- Ripped intervention pages – possible solution
- Child on the wrong page
- Fine motor issues

## What happens if.....?

- Not all SFCAs will lend themselves to this degree of independent interaction.
- In those cases, we would have the paraprofessional leading an activity in which we have added instructional scripts.
- Expect further development over the next few years as children help us refine timing, density of instruction, word choices, teaching techniques, the language of instruction, etc.

## We Expect to Learn....

That embedding supplemental instruction within a book reading activity enables most children to learn skills needed to progress within the Tier 1 curriculum.

*Questions we expect to answer:*

- What are the language and literacy profiles of children for whom T2 is most effective?
- For what areas (PA, Alphabet/Print, Vocabulary, Comprehension) are T2 curriculum most and least effective?
- Do we need to increase/decrease the opportunities to respond in T2 to be effective?
- Can we combine skill sets and still maintain high levels of learning?

## Tier 3 BRIEF Activities

- Brief, Reading-related, Activities that are Intense, Engaging, and Focused
  - Brief 5-20 minute small-group activities
  - Focus on the critical skills, taught in optimal sequence
  - Teach in ways that are fun, stimulating, engaging
  - Provide variations and scaffolds to support diverse learning needs
  - Provide supplemental activities and materials to support what is taught

## Explicit teaching example: I do, we do, you do

Introduce /m/

- When we talk, we say words. The words that we say are made up of different sounds. One of the sounds in the words we say is the sound /m/. Listen and say these words with me: me, mouse, mom, my (emphasize /m/)
- Watch and listen. When I say /m/, I put my lips together like this and I hum, like this. You try it. (Children take turns looking in mirror as they say /m/. Children repeat 1 syllable words that begin with /m/ looking in mirror.)
- Name pictures that start with /m/.

## Establishing Network in Early Childhood Rtl

- Help people keep up with what's happening in Rtl in early education
- Learn about current research on progress monitoring and interventions in early literacy
- Find out what local agencies are doing in Rtl

Join the network at [www.crtiec.org](http://www.crtiec.org)