



Welcome

- Welcome and Welcome Back
- What is Tier-1 Intervention?
- How does Tier-1 fit into your current service delivery model?
- New Measures
- What are your goals and standards for early literacy within ECFE and ECSE?
- How is RTI in Early Childhood Being supported at the state level?

Challenges in RTI in Early Childhood

- Percentage of respondents indicating area was a SIGNIFICANT CHALLENGE:
 - Insufficient trained personnel 63.3%
 - Lack of resources 56.7%
 - Lack of Tier 2 and Tier 3 strategies 53.3%
 - Lack of progress monitoring tools 53.3%
 - Lack of knowledge for putting RTI model together 46.7%

Tier-1

- What are the features of a quality classroom?
 - Instruction
 - Robust instructional strategies (direct instruction, teaching specific skills)
 - Infrastructure
 - Physical environment (classroom layout) and materials (classroom resources available to children and staff)
 - Curriculum
 - Robust research-based curricula
 - Data-Based Decision Making
 - Method for assessing both formative and summative performance.

Tier-1 Questions

- What constitutes an evidence-based curriculum in early literacy and language?
- What skills should be taught and instructional strategies used to implement the curriculum?
- How are instructional quality and quantity:
 - Related to children's growth in early literacy?
 - Related to the proportion of children who require more intensive levels of support in early literacy?

Tier-1 Concerns

- While some evidence-based curricula are available in early literacy and language, they are not implemented widely and quality of implementation is inconsistent.
- Quality of personnel in early childhood settings is highly variable and degree of staff turnover is very high.

CRTIEC Tier-1 Study

- Developing a tool to evaluate quality of Tier 1 curricula: How closely does it match up with research evidence in terms of WHAT is taught and HOW content is delivered?
- Studying how Tier 1 quality dimensions (curriculum, instructional delivery, time devoted to instruction, and children's exposure to curriculum) are related to children's performance and growth in early literacy

Resources for Evidence-Based Tier One Curriculum in Early Literacy

- What Works Clearinghouse: Early Childhood Education
 - <http://ies.ed.gov/ncee/wwc/reports/Topic.aspx?tid=13>.
- Center for Early Literacy and Language: OSEP-funded TA Center
 - <http://www.earlyliteracylearning.org>.
- Preschool Curriculum Evaluation Study: IES funded study of 14 curricula to promote school readiness
 - <http://ies.ed.gov/ncer/pubs/20082009/index.asp>

What we know about screening and progress monitoring

- These concepts are not new to early childhood special education but are still new to many general early childhood settings.
- Because there is no standard unified early childhood "system", the universe of students that will be screened depends on what students are in the program (e.g., Head Start, public Pre-K, community child care).
- While screening tools are available—not many progress monitoring tools yet exist that are sensitive to intervention effects over time.

Tier-1

- Introducing a Model
 - Establishing a Need
 - Buy in
 - Teacher initiated, personally valued
- Implementation
 - Selecting a focus in Early Literacy (change of curriculum, particular intervention)
 - Data (screening)
 - Evaluation and progress (what percentage of students need to move to Tier-2?)

Tier-1

- Models to facilitate change
 - Curriculum changes
 - Intervention packages
- Existing Models
 - EMERGE (University of Wisconsin, Madison)
 - Recognition and Response

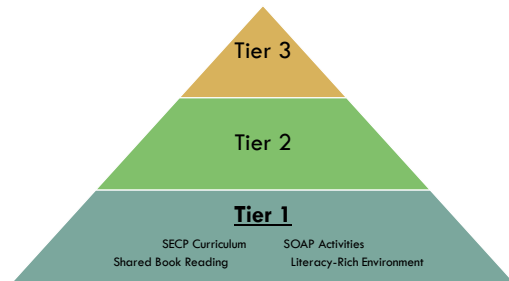
EMERGE (Gettinger & Stoiber, 2008)

- the EMERGE program is founded on the notions that:
 - children require continuous exposure to and structured interaction with print
 - frequent oral and written language interactions with adults
 - systematic, explicit instruction to develop skills.
 - literacy environments play a key role in developing children's language and early reading skills.
 - early childhood teachers require sustained, high-quality professional development to be successful in promoting children's literacy development.

EMERGE

- "Tier 1 includes a research-supported curriculum, a literacy-rich environment, and instructional activities to support children's development of phonological awareness, oral language, alphabet knowledge, and print awareness. In Tier 1, the focus is on optimizing the quality of the overall environment and classroom practices to promote early literacy development among all children. Teachers participate in professional development, weekly coaching sessions, and collaborative planning to provide high-quality, scientifically based instruction and to create literacy-rich classrooms." (Gettinger & Stoiber, 2008)

EMERGE



EMERGE

- In effect, each EMERGE tier represents an increasingly stronger focus on, and greater assistance with, acquiring SOAP skills.
- Using alphabet knowledge as an example, all children receive instruction on target letters every week as part of the regular classroom activities.
- By providing children with multiple opportunities to respond during Tier-1 instruction, teachers are able to observe students' levels of alphabet knowledge. In addition, monthly progress monitoring enables teachers to determine which children require extra practice on letter identification. (Gettinger & Stoiber, 2008)

Tier-1

- Where are we without robust Tier-1 models?
 - Relying on previously discredited concepts:
- Emphasis on Maturation
 - Let's intervene early
- Emphasis on Enriched Environment
 - Let's ensure sufficient opportunities to gain important skills
- Emphasis on Teacher and Parent self-report and checklists
 - Let's obtain direct measures of child performance at regular intervals and in response to intervention trials (Vanderheyden, 2008)

Tier-1

- Who, what, where?
 - Teachers, coordinators, collaborators, para-professionals and family supporters
 - Data-based Decision Making: evaluating progress and effectiveness of the model?
 - Location: classrooms with dynamic differences- consider attendance, resource availability, structure of program.

Tier-1

- Experiences in Minnesota?
 - What are we currently using?
 - Do the curricula in place involve all necessary components?
 - Yes- how are we evaluating these?
 - No- how can we supplement?
- Strengths and Challenges of implementation?

New Measures

Research Process

- Extensive Literature Reviews
- Robust analyses of component skills for each early literacy area: Alphabetic Principle, Oral Language, Phonemic Awareness and Comprehension
- Research Design and Pilot implementation
- Finding the best 'Racehorse' – evaluating the measures
- Phase 1 trials
- Refinement

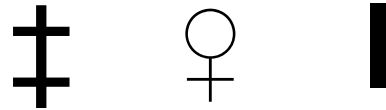
Alphabetic Principle

- *Alphabetic principle* is knowledge about the names and sounds of letters (McBride-Chang, 1999).
- We have developed 5 potential IGDIs that we believe span the ability range within the domain of alphabetic principle.
- Each of these is administered in 1 minute. The child's score is the total number of cards he responded to correctly.



Letter Orientation

Point to the letter.



Letter Orientation, cont.

Point to the letter.



Letter Identification

Point to the letter H.



Letter Identification, cont.

Point to the letter b.

q p b

Sound Identification

Point to the letter that makes the /t/ sound.

H F T

Sound Identification, cont.

Point to the letter that makes the /p/ sound.

q p b

Letter Naming

What letter is this?

M

Letter Naming, cont.

What letter is this?

a

Sound Naming

What sound does this letter make?

M

Sound Naming, cont.

What sound does this letter make?

a

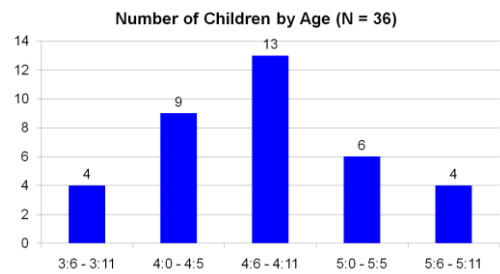
Criterion Measures

- Test of Preschool Early Literacy
 - Print Knowledge subtest
- Dynamic Indicators of Basic Early Literacy Skills
 - Letter Naming Fluency subtest
- Woodcock-Johnson Tests of Achievement: Third Edition
 - Letter-Word Identification subtest

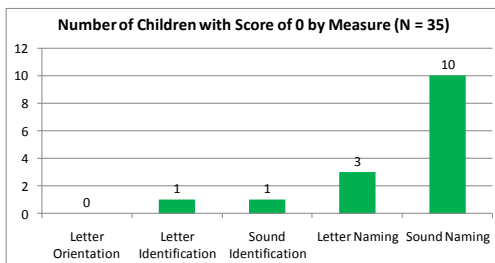
Sample

- Moundsview Public Schools
 - Early Childhood Family Education
 - Early Childhood Special Education
 - Head Start
- 36 preschoolers (3-5 years)
- 1 refusal

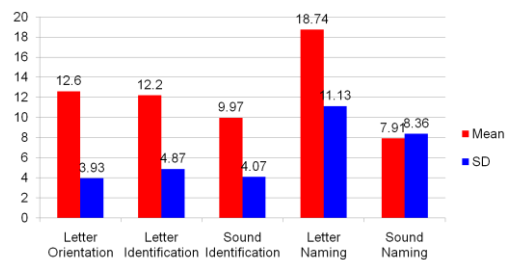
Sample, cont.



Trends



Trends, cont.



Trends, cont.

- Sound Naming total scores do not appear to be normally distributed.
 - ▣ Data are positively skewed.
- Total scores on the remaining 4 measures appear to be normally distributed.
 - ▣ Skewness and kurtosis are within the expected range.

Trends, cont.

- Letter Identification total score was related to child age ($r = .42, p < .05$).
- Sound Naming total score was related to child age ($r = .36, p < .05$).
- Total scores on the remaining 3 measures were not related to child age.

Trends, cont.

- Total scores on all 5 measures were correlated.
- The highest correlation was between Sound Identification and Sound Naming ($r = .66, p < .01$).
- The lowest correlation was between Letter Naming and Sound Naming ($r = .37, p < .05$).

Comprehension



- Comprehension in preschoolers consists of two parts:
 - *Text comprehension* is the ability to understand and interpret text, including pictures and symbols (Storch & Whitehurst, 2002; Dunst, Trivette, Masiello, Roper, & Robyak, 2006).
 - *Listening comprehension* is the ability to understand and interpret spoken language at multiple levels (Dickinson & Smith, 1994; Skarakis-Doyle, Dempsey, & Lee, 2008).
- An important component of comprehension is *inferencing*, or filling in information that was not actually seen or heard (Kendeou, Bohn-Gettler, White, & Van den Broek, 2008).



Comprehension, cont.

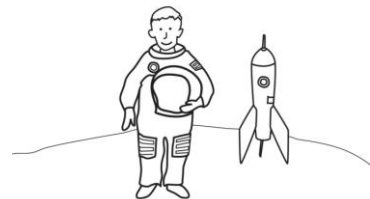


- We have developed 2 potential IGDIs that we believe span the ability range within the domain of comprehension.
 - ▣ Picture Comprehension (1-2 minute)
 - ▣ Story Titles (2 minute; no stimulus cards)



Picture Comprehension

Where is he going?



Picture Comprehension, cont.

What happens next?



Story Titles

**Mai forgot to take her umbrella
To wait for the school bus in the rain.
Her clothes were so wet and muddy
That the bus driver sent her home again.**

Should my story be called:

- 1 point – Buses Have Drivers
- 2 point – Mai Waits for the Bus Outside
- 3 point – Umbrellas Keep Clothes Dry

Story Titles, cont.

**Keisha bought an ice cream cone
One hot and sunny day.
When she tried to eat it,
The ice cream had melted away.**

Should my story be called:

- 1 point – Ice Cream Comes in a Cone
- 2 point – Keisha Likes Ice Cream
- 3 point – The Sun Melts Ice Cream

Phonological Awareness

Operational Definition:

Phonological awareness is the ability to detect and manipulate the sound structure of words independent of their meanings. (Phillips, Clancy-Menchetti, Lonigan, 2008)

Rationale:

Phonological awareness is one of the best determinates of successful early reading acquisition. (Foy & Mann, 2006)

Potential Phonological Awareness Measures

Potential Measures target:

- Detection of Sounds (initial sounds, rime)
 - Rhyming
 - Alliteration
- Manipulation of Sounds
 - Sound Blending
 - Syllable Segmentation

Rhyming

- Identify picture that rhymes with target picture), 2 minutes

We're going to look at some pictures and find the ones that rhyme. My turn: star, flute, car, horse. (Point to the pictures as you read them.)

Now I will find two that rhyme. Star, car –They rhyme. Star, car.



Alliteration

- Identify picture that starts with the same sound as target word with adjective/name, 2 minutes

We're going to look at some pictures and find the ones that start with the same sound. This is Phil the Fish. I'll find the one that starts like Phil the Fish. Fan, Key, Shoes (Point to the pictures as you read them.) Fan, Fan starts like Phil the Fish. Listen: Fan, Phil, Fish.



Sound Blending

- Blending compound words, 2-syllable words, begin/ending sounds, 2 minutes

I'm going to say some words in a funny way. See if you can say them the real way.

For example, I can say cow (tap first block, 1 sec pause) boy (tap second block), that's the funny way. Cowboy (push blocks together) is the real way.

Here's another one. A (tap first block, 1 second pause) ple (tap second block) is a funny way. Apple (push blocks together) is the real way.

Cup	cake	_____
Ba	by	_____
B	ike	_____
Sun	shine	_____

Syllable Segmentation

- Syllable Segmentation (clap syllables of 2,3, 4-syllable words), 2 minutes

When we say words, we can say their parts using claps. We can say elephant like this : eL...e...phant (clap a total of three times, one clap as you say each syllable). Now you do it.

Win/dow	2	_____
Yes/ter/day	3	_____
Pen/cil	2	_____
Butt/er/fly	3	_____
Mor/ning	2	_____



Oral Language

- Oral language can be operationally defined as: "Ability to use words to communicate ideas and thoughts and to use language as a tool to communicate to others."
- We choose oral language because of research indicating that vocabulary is a good indicator of later reading ability.
- This definition can be broken down into two major categories:
 - Expressive Language** (Ability to use words to convey meaning)
 - Receptive Language** (Ability to listen, process, and understand the meaning of spoken words)



Expressive Language Measures

- Picture Naming
 - 1 minute
 - Child says the name of the picture

Expressive Language Measures

- Definitional Vocabulary w/ Pictures
 - 1 minute
 - Child looks at a picture and answers a question about the object in the picture

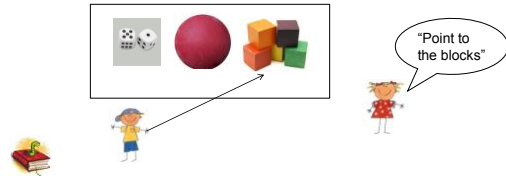
Expressive Language Measures

- Definitional Vocabulary w/o Pictures
 - ▣ 1 minute
 - ▣ Child answers a question about a noun



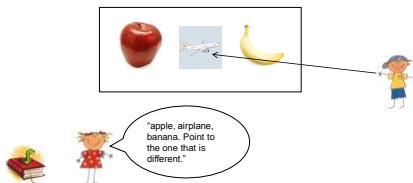
Receptive Language Measures

- Point-to-Picture
 - ▣ 1 minute
 - ▣ Child points to the picture of the word you say aloud



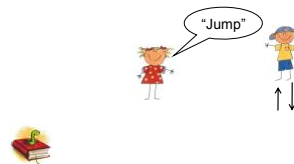
Receptive Language Measures

- Which one Doesn't Belong?
 - ▣ 2 minute
 - ▣ Child points to the picture that is different from the other pictures



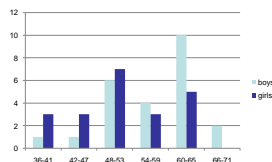
Receptive Language Measures

- Motor Instructions
 - ▣ 30 seconds
 - ▣ Child performs the action



Demographic Information

- Kids Place Child Care
 - ▣ Full day child care
 - ▣ 100% private pay
- Creative Play Pre-K
 - ▣ 2 or 3 days a week
 - ▣ 100% private pay
- Gender
 - ▣ 24 boys (53%)
 - ▣ 21 girls (47%)
- Age
 - ▣ 8, 3 year olds (18%)
 - ▣ 20, 4 year olds (44%)
 - ▣ 17, 5 year olds (38%)



Impressions from Phase I

- No measure has consistent zeros
 - ▣ No measure hasn't worked – only a 2 or 3 children have failed the assessment cards
- Difficult to get a good idea of correlation between IGDl's and criterion measures because one administrator doesn't always administer to the same kids



Thank You!

Questions?

Comments?