



CENTER FOR RESPONSE TO INTERVENTION IN EARLY CHILDHOOD



*What's Happening in
Tier 1 Early Literacy
Instruction?*

*Examining the
Foundation of RTI in
Pre-Kindergarten*



Our Key Partners

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Today's Presentation

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- ❖ Work has been carried out by: Jane Atwater, Tracy Bradfield, Alisha Wackerle-Hollman, Annie Hommel, Naomi Schneider, Beth Spencer and a host of dedicated research assistants



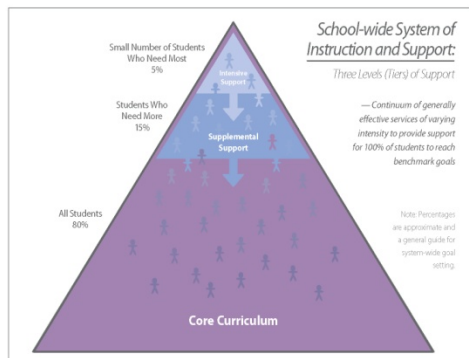
A Little Background on Rtl

- ❖ RTI is a systematic problem-solving process designed to:
 - Allow for earlier identification of students' difficulties.
 - Provide students with a level of instructional intensity matched to their demonstrated response to intervention.
 - Provide a data-based method for evaluating the effectiveness of instructional approaches and changing/improving them

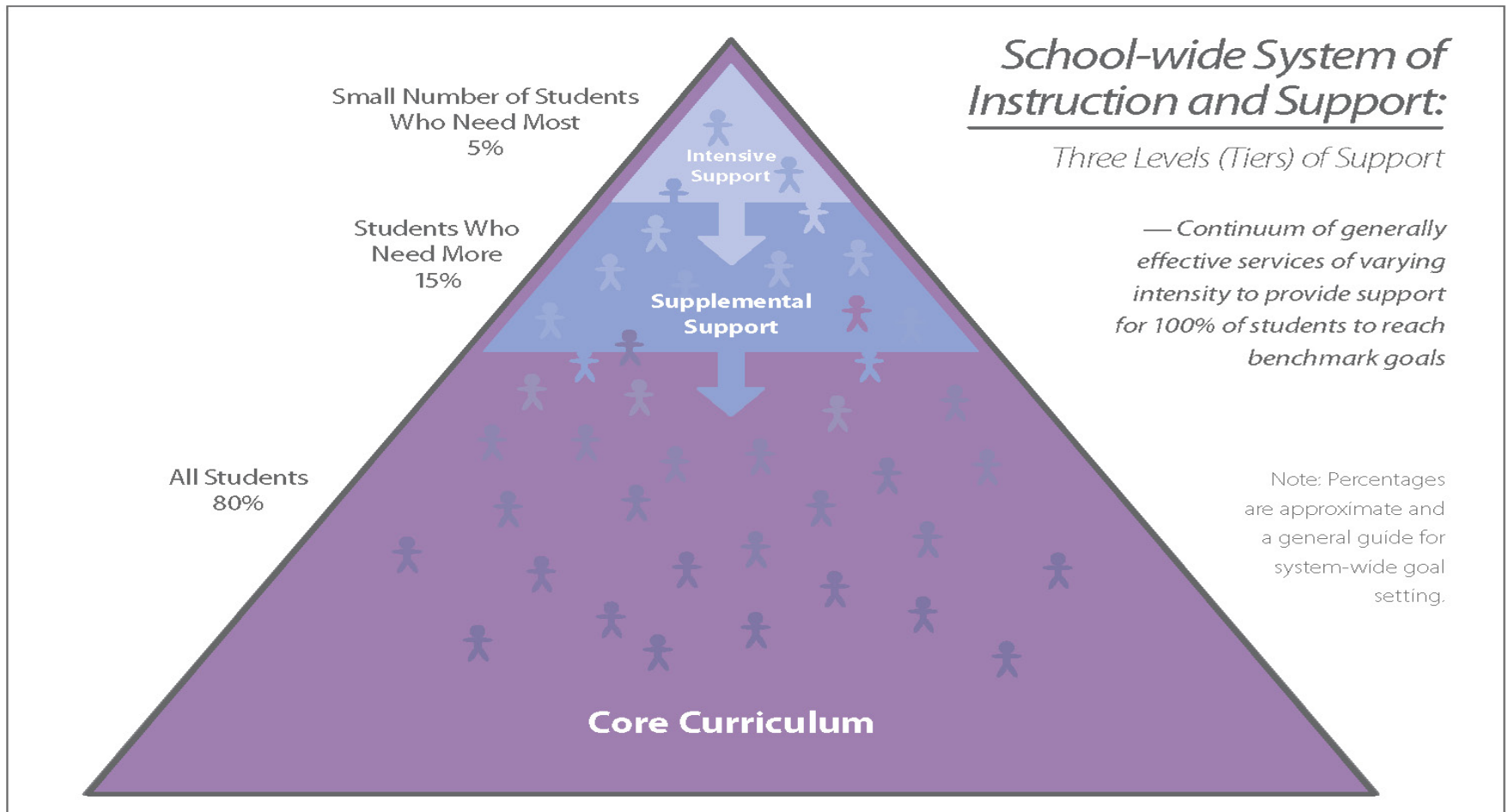


Essential Components of Rtl

1. Use of multiple tiers of intervention
2. Reliance on evidence-based practices in all tiers
3. Use of monitoring to determine if students are making progress
4. Problem-solving approach to determine most appropriate level of intervention for individual students



Integrated System of Support: Multiple Tiers of Intervention





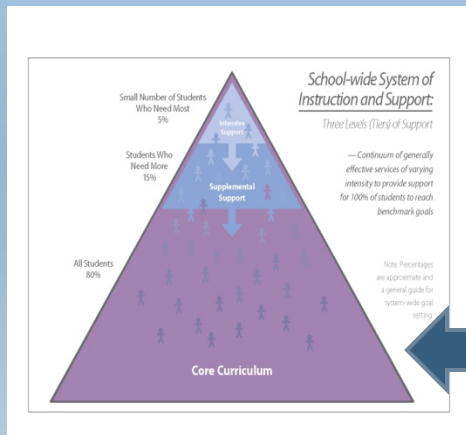
Underlying Assumptions of Rtl

- ❖ RTI will reduce the need for special education by improving and providing additional services early.
- ❖ Resources and services will be added as needed to increase instructional opportunities.
- ❖ RTI services will be individualized and based on evidence-based strategies.
- ❖ A critical assumption is that instruction at the universal level is of high quality based on an evidence-based core curriculum implemented with high fidelity.



Rtl services assume a high quality of general instruction or core curriculum.

- ❖ How valid is this assumption in pre-kindergarten?
- ❖ Are pre-kindergarten programs ready for Rtl?
- ❖ How solid is the base of the RTI triangle in pre-kindergarten?
- ❖ What do we know about the general level of instructional support for early literacy for all children?





CRTIEC Tier 1 study *(a work in progress)*

- ❖ A descriptive study of the quality of early literacy instruction across 65 classrooms in 4 regions of the country (KS/MO, MN, OH, OR)
- ❖ Key questions:
 - What are the **proportions** of children who begin their pre-kindergarten year at-risk in early literacy? (who might need Tier 2 or Tier 3 instruction)?
 - What is the **quality of classroom instruction** and children's engagement in literacy instruction?
 - **How do children perform** on early literacy progress monitoring measures at the beginning of the pre-k year?



Overarching Question 1

- ❖ **What proportion of children can we expect in each of the tiers in a three-tier Rtl model;**
 - what proportion of children will fail to meet cut points on screening measures in early literacy and language development, and thus be identified for Tier 2 or Tier 3 level of early literacy and language intervention?



Overarching Question 2

- ❖ **Will the proportions of children at risk will be influenced by students' characteristics at program entry as well as instructional quality and quantity?**
 - the quality of curriculum (evidence base for its skill content and instructional delivery);
 - instructional interactions (i.e., teachers' use of evidence-based teaching procedures);
 - dosage (number of days of instruction students experience)?



How we will characterize quality and quantity of instruction

- Quality of curriculum (Rating of the skills and sequence of skills and instructional design);
- Instructional interactions
 1. Extent of teachers' use of early literacy/language promoting strategies (Direct observation)
 2. Level of child active engagement in early literacy activities (Direct observation)
- Dosage (information about actual number of days of early literacy instruction)



Sorry to disappoint...





**BUT WE WON'T BE ABLE TO ANSWER
ALL THOSE QUESTIONS TODAY....**

**We just started this study in
September!!!**



We will describe:

- ❖ Early literacy and language performance of approximately 750 children at start of pre-k year
- ❖ An estimate of the proportion of children in Tier 1, 2, and 3 if we used the Get Ready to Read Screener
- ❖ Information about the quality of early literacy instruction and child engagement
- ❖ Initial performance of children on early literacy and language IGDIs



Questions we'd like to explore later this morning:

- ❖ What are the best ways to capture quality and quantity of Tier 1 instruction?
- ❖ What's the best way to set cut points to differentiate tiers of risk for early literacy?
- ❖ On what critical dimensions of quality and quantity should we differentiate instruction
 - between Tier 1 and Tier 2?
 - between Tier 2 and Tier 3?



Design

- ❖ Descriptive study of 70 classrooms in 4 regions of U.S.
- ❖ Observation data collected on classrooms and 6 randomly selected children in each classroom
- ❖ Standardized measures collected on all consented children at the beginning and end of the school year
- ❖ At least 3 waves of IGDIs collected on all children across the school year



Classroom Inclusionary Criteria

These were classrooms where RTI might occur.

- ❖ Currently implementing an early literacy curriculum that has a specific scope and sequence.
- ❖ Majority of early literacy instruction in English.
- ❖ Included at least 10 students who would be age-eligible for kindergarten in the fall of 2010.
- ❖ The majority of children did not have identified disabilities but could include children with disabilities
- ❖ Operated at least 12 hours/week.
- ❖



Settings

- ❖ 70 classrooms selected to broadly represent the types of classrooms where children might receive literacy instruction during their pre-kindergarten year
 - 22 State Pre-K classrooms
 - 17 Head Start classrooms
 - 21 Title 1 classrooms
 - 10 Private tuition early childhood education classrooms



Child Participants

- ❖ 756 children embedded in 70 classrooms
- ❖ Ethnicity
 - 40.4% African-American
 - 25.3% Caucasian
 - 20.6% Hispanic/Latino
 - 9.6% Multi-ethnic
 - 2.1% Asian-American
- ❖ IEP status: 9.3% had IEP
- ❖ Language status: 20% most comfortable with language other than English
- ❖ Parent education: 28.1 had less than HS diploma

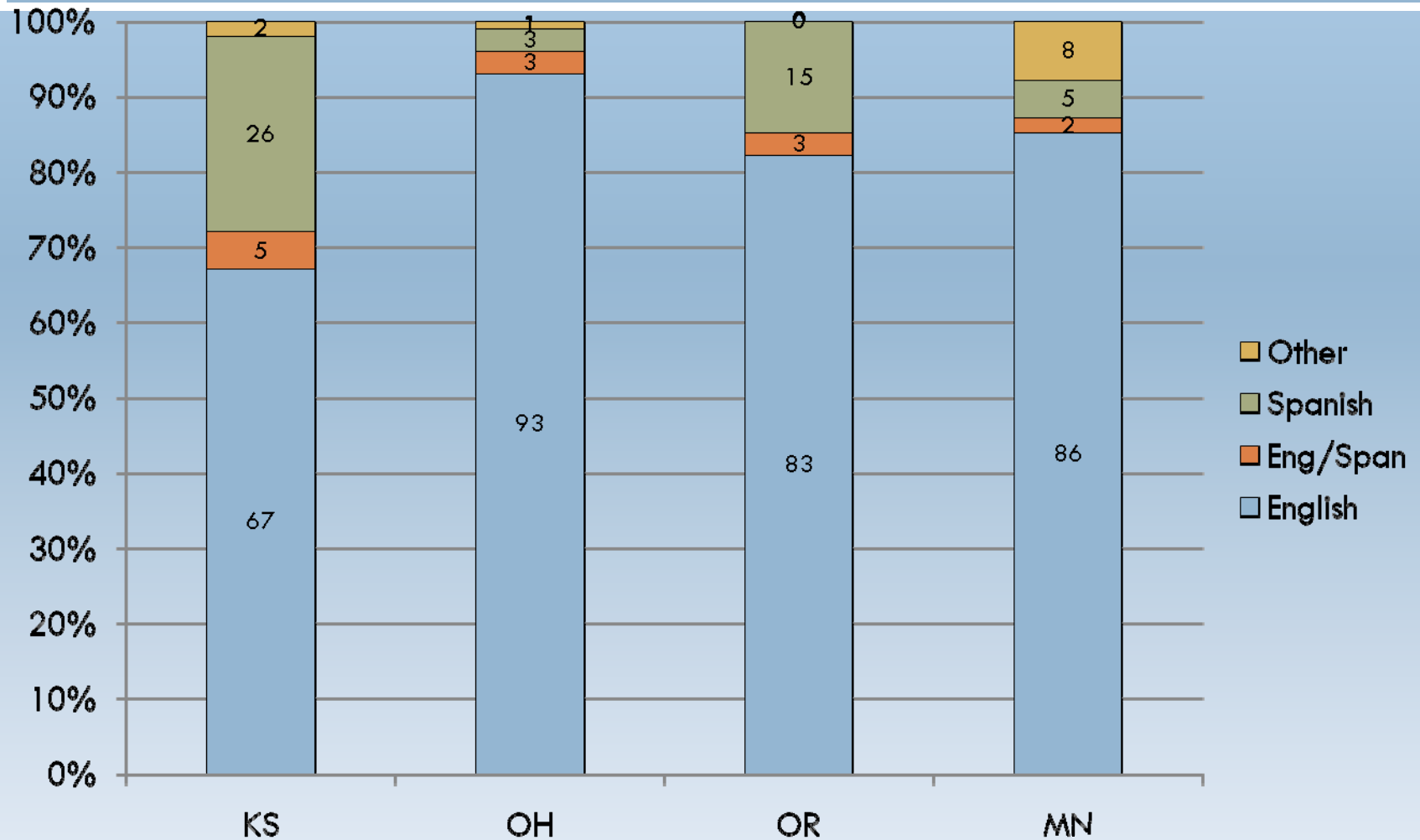


Number of Classrooms Across Sites

	KS	OH	OR	MN
Full-Day		12	1	13
Half-Day	22		16	3
State-Funded Pre-K	14	1		7
Head Start			17	
Title 1	6	11		4
Private Tuition				10

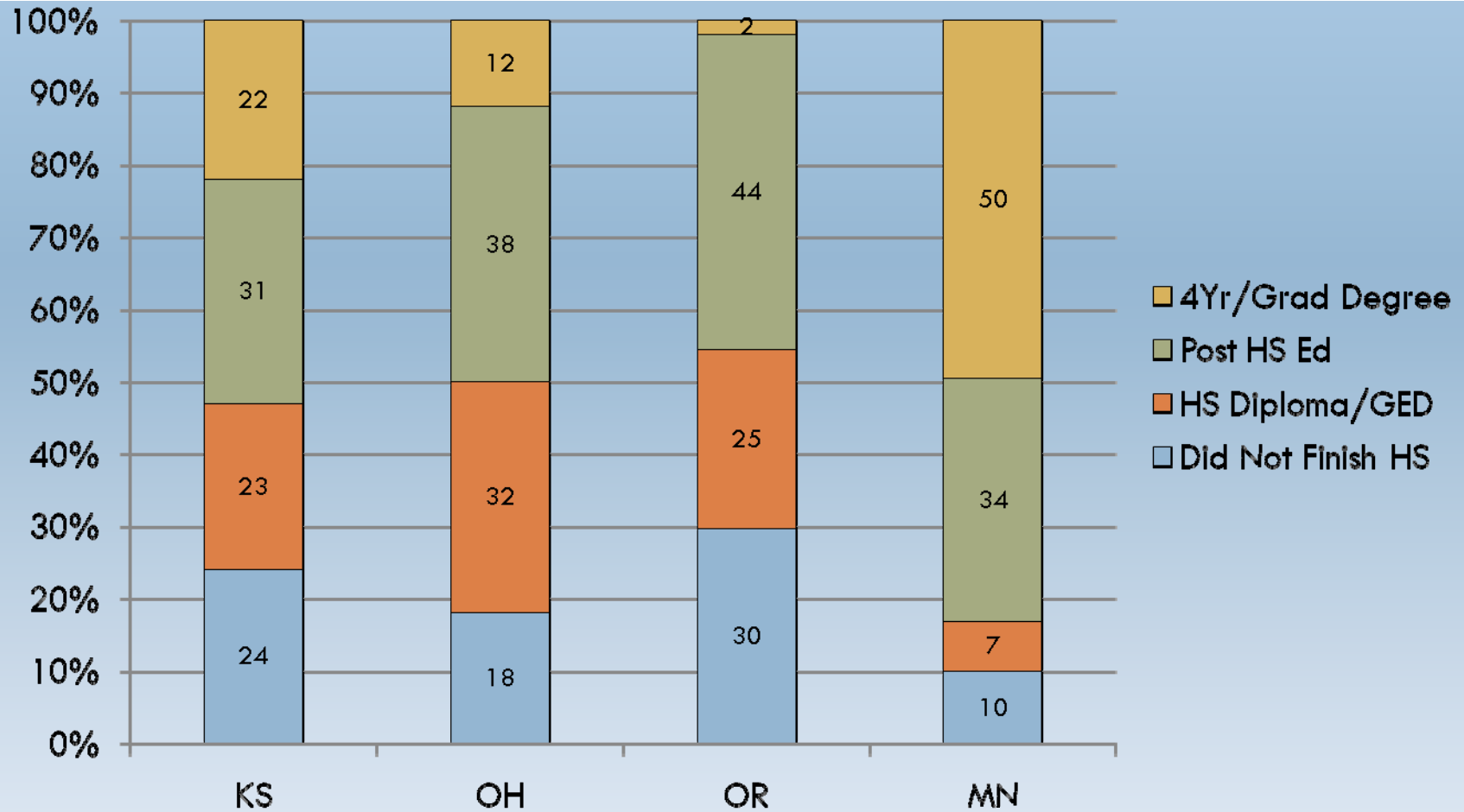


Language Child is Most Comfortable With





Parent Education





Measures

- *Get Ready to Read* early literacy screen at pre
- 4 repeated measures of early literacy and language IGDIS on all children in class
- Pre- and post standardized early language and literacy measures (*TOPEL, PPVT, CELF*) on all consented children
- *Classroom Code for Interactive Recording of Children's Language Environment (CIRCLE)* on 6 randomly selected children
- *Classroom Assessment Scoring System (CLASS)*



Scores on Beginning of the Year Standardized Measures

	N	Mean	SD	Range	% 1 SD Below Mean
PPVT	206	89.8	19.6	24-149	38.8%
CELF Core Skills	197	86.7	18.2	45-123	42.6%
TOPEL Print Knowledge	207	94.6	15.0	26-130	45.9%
TOPEL-Phonological Awareness	206	89.3	15.3	55-126	51.0%



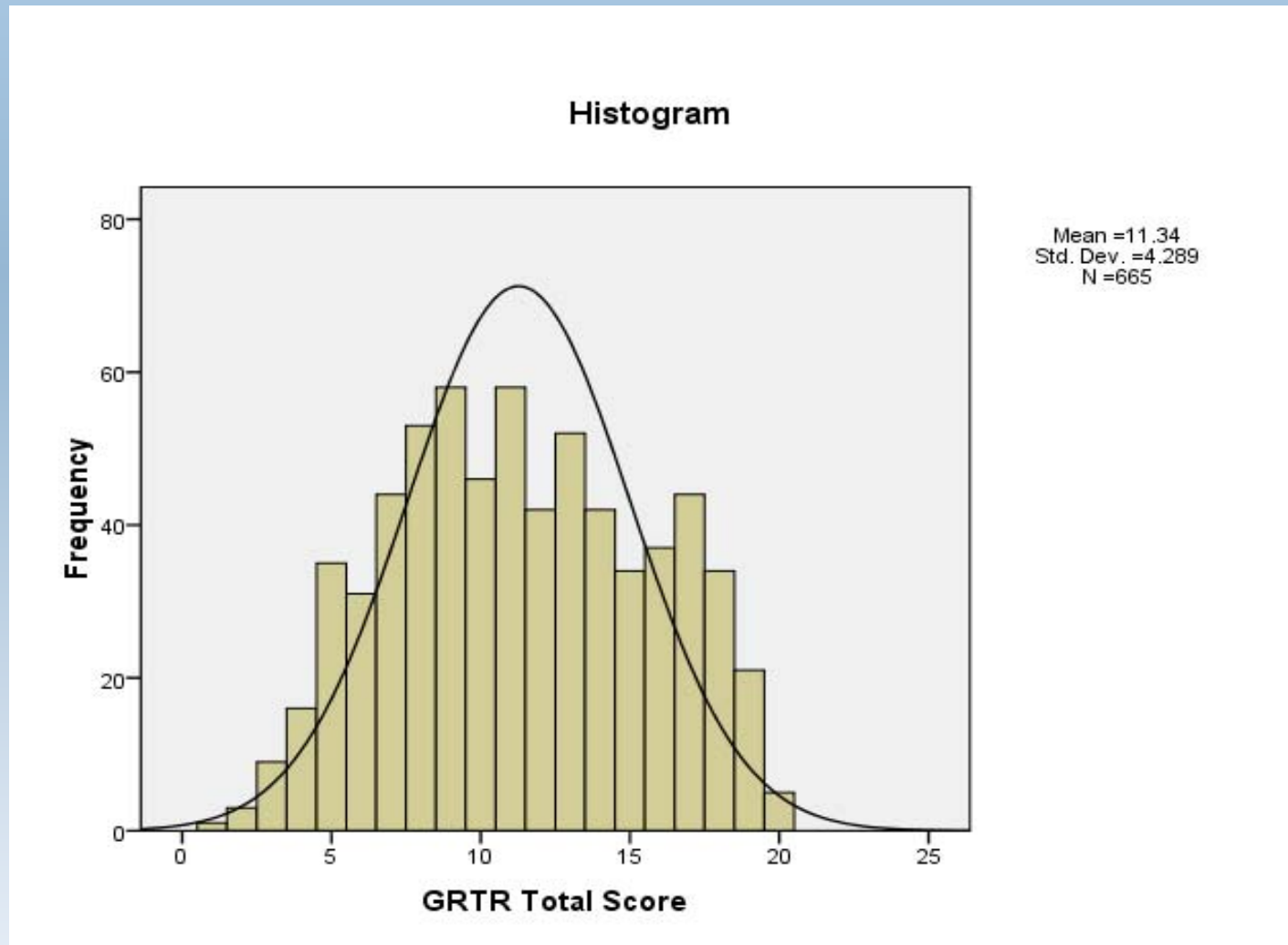
What measures should be used to differentiate children into tiers?

- ❖ One possibility—Get Ready to Read Screener
- ❖ 20 item screener that taps the following domains:
 - ❖ Book knowledge (“Find the picture that shows the back of the book.”);
 - ❖ Print knowledge (“Find the picture of a cereal box that shows the name of the cereal.”);
 - ❖ Letter knowledge (“Find the letter G.”);
 - ❖ Letter-sound correspondence (“Find the letter that makes the *buh* sound.”);
 - ❖ Emergent writing (“Some children wrote the letter F. Find the one that is written best.”); Linguistic awareness – initial phonemes (“Find the picture of the thing that starts with the *duh* sound.”);
 - ❖ Linguistic awareness -- rhyming (“Find the one that rhymes with ball.”);
 - ❖ Linguistic awareness – compound words (“Find what you get when you put SEA and SHELL together.”).



Distribution of Get Ready to Read Scores

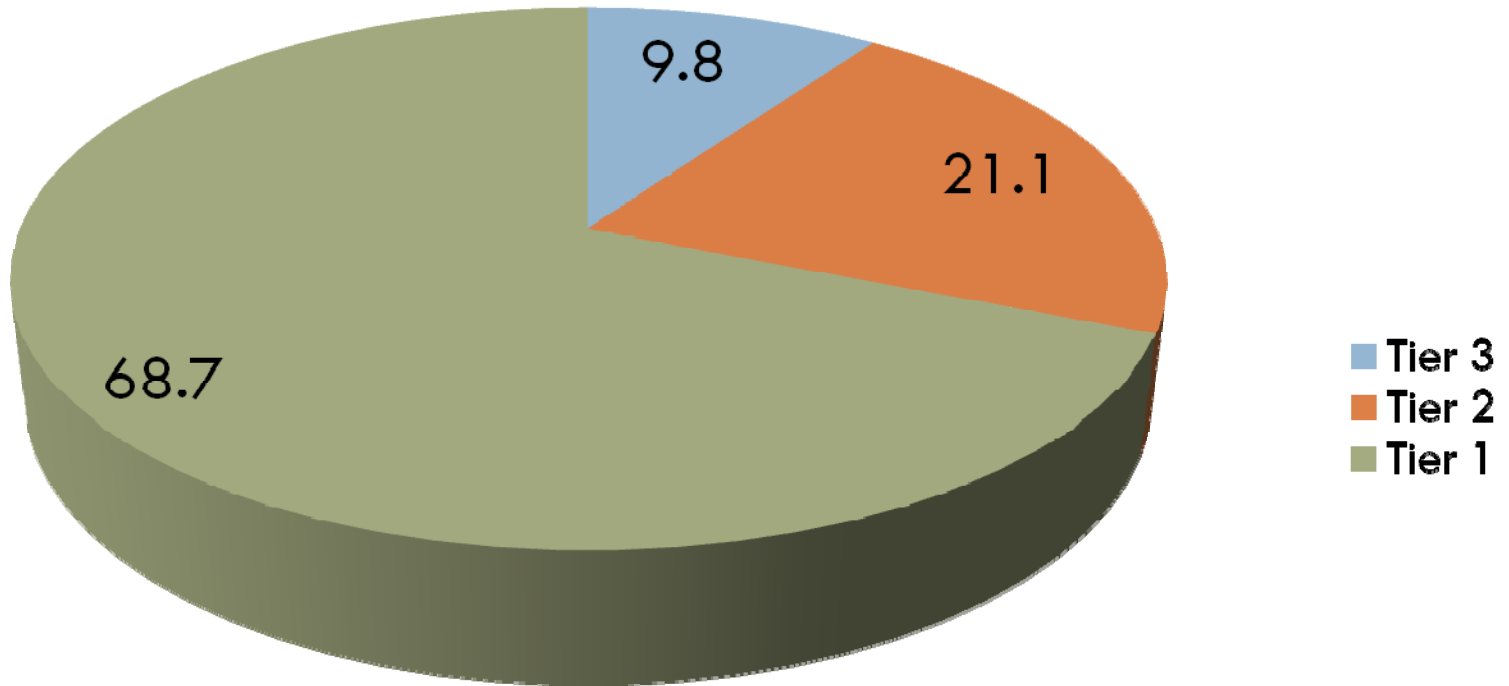
Negatively skewed distribution





Proportion of Children at Different Levels on GRTR

Percentage of Children in each tier





Who are the children in the 3 Tiers at start of school year?

	Children's Literacy Status on <i>Get Ready to Read</i> Screener		
	Tier 1 Avg or Above (GRTR = 9-20) N = 355	Tier 2 Weak Skills (GRTR = 6-8) N = 109	Tier 3 Very Weak Skills (GRTR = 0-5) N = 53
% on IEPS	11.6	8.7	10.6
% with Low Parent Education	18.3	23.9	46.7
% Dual Language Learners	13.5	24.3	47.1
% with Low Home Literacy (no one has read to the child in the past week)	3.1	4.6	15.1



Beginning of the Year Scores on Standardized Measures by Program Type

	Pre-K	Head Start	Title 1	Private
TOPEL – Print Awareness				
N	58	41	63	21
Mean	92.6	90.2	96.4	102.2
Range	(65-128)	(66-118)	(76-130)	(26-120)
% 1 SD below mean	55	54	41	24
TOPEL – Phonological Awareness				
N	57	41	63	21
Mean	84.2	91.7	90.0	97.8
Range	(55-124)	(62-123)	(55-126)	(73-124)
% 1 SD below mean	65	49	48	33



What Have We Learned From This Initial Snapshot of Tier 1

- Many children are entering the pre-k year with significant delays in early literacy and language and may need Tier 2 or 3 intervention.
- Proportion of children needing early literacy support beyond what's available at the universal varies from about 30-50% depending on the measure.
- Many home variables will influence the proportion of children needing extra early literacy support in preschool.
- Proportion of children will vary depending on the type of pre-k program.



WHAT IS THE QUALITY OF EARLY LITERACY INSTRUCTION IN PRE-KINDERGARTEN?