

# CHOOSING AND IMPLEMENTING DYSLEXIA INTERVENTION PROGRAMS IN THE CLASSROOM

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## TODAY'S ROADMAP



- Importance of understanding literacy and math skills trajectories
- A step-by-step model for assessing intervention products
- A review of sample programs
- From information to implementation
- Live audience Q&A

# INTEGRATION WITH RTI

## Response to Instruction and Intervention

# RTI<sup>2</sup>

GUIDING PRINCIPLES: Leadership Culture of Collaboration Prevention & Early Intervention

### TIER I All

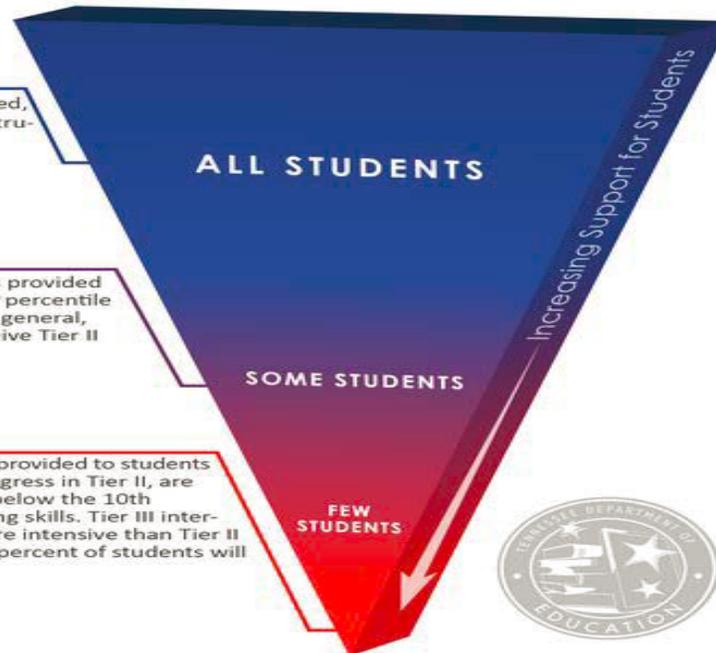
**ALL students** receive research-based, high quality, general education instruction. In general, 80-85 percent of students will receive only Tier I instruction.

### TIER II Some

**In ADDITION to Tier I**, extra help is provided to students who fall below the 25<sup>th</sup> percentile in basic math and reading skills. In general, 10-15 percent of students will receive Tier II interventions.

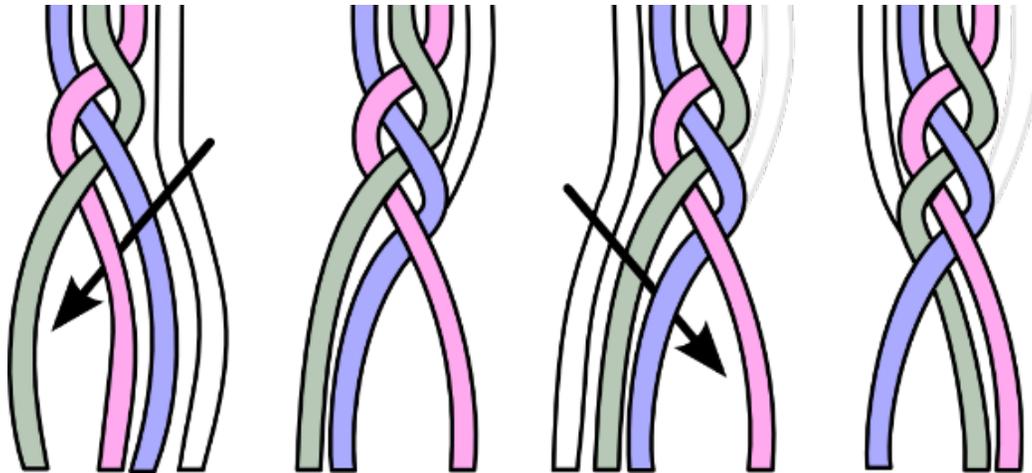
### TIER III Few

**In ADDITION to Tier I**, extra help is provided to students who have not made significant progress in Tier II, are 1½ –2 grade levels behind, or are below the 10<sup>th</sup> percentile in basic math and reading skills. Tier III interventions are more explicit and more intensive than Tier II interventions. In general, only 3-5 percent of students will receive Tier III interventions.

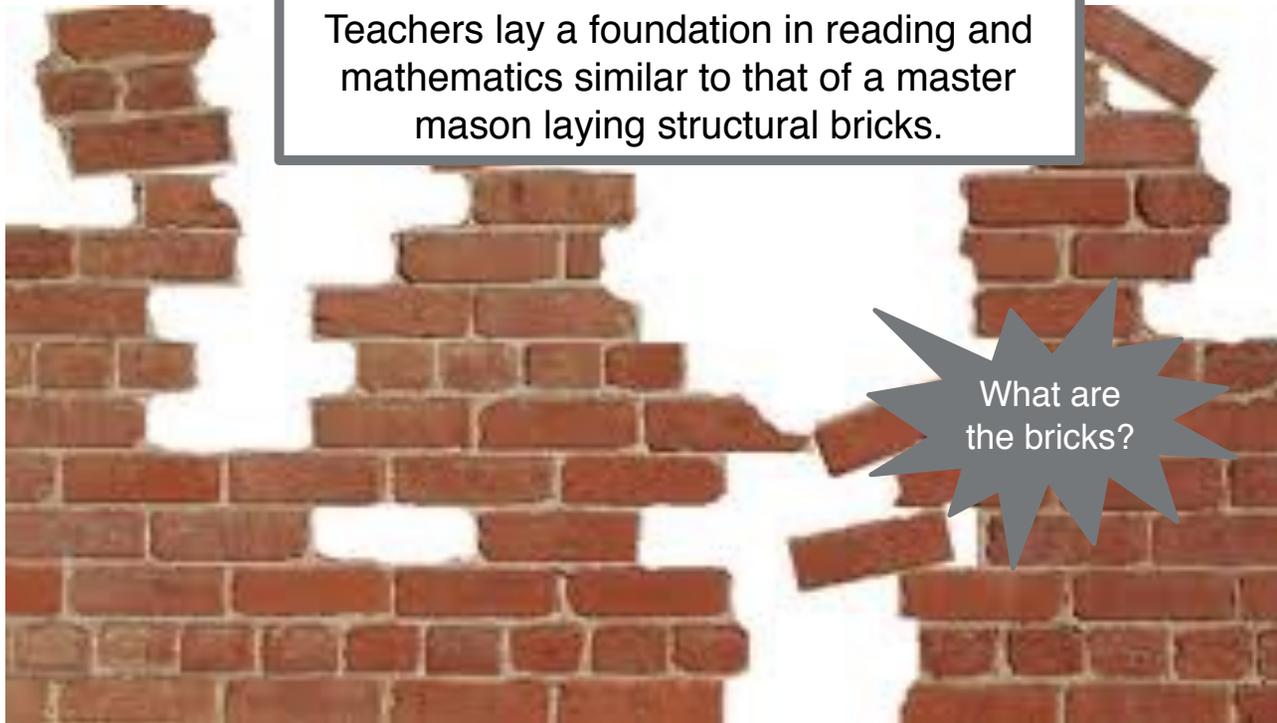


## OUR GOAL: CONNECTING THE DOTS

- Mapping from the universal screening process to survey level assessment to intervention and progress monitoring
- Our goal: To mirror the concept of “systematic and explicit” so that you’re armed with enough to implement in your own district or school



# THE IMPORTANCE OF BUILDING A FOUNDATION

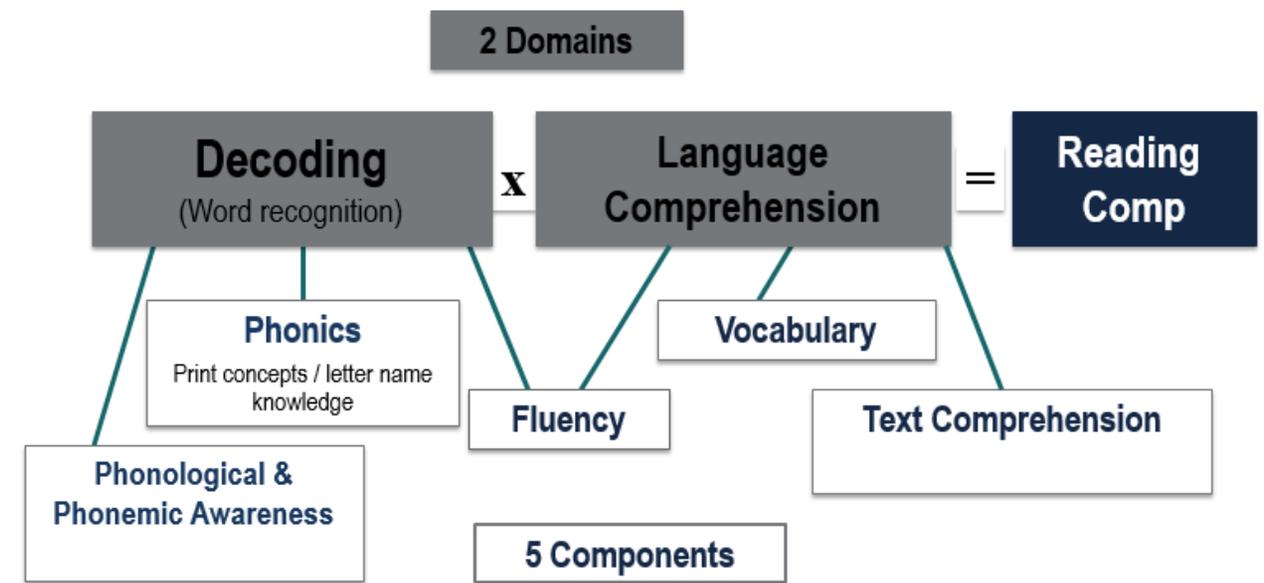


Teachers lay a foundation in reading and mathematics similar to that of a master mason laying structural bricks.

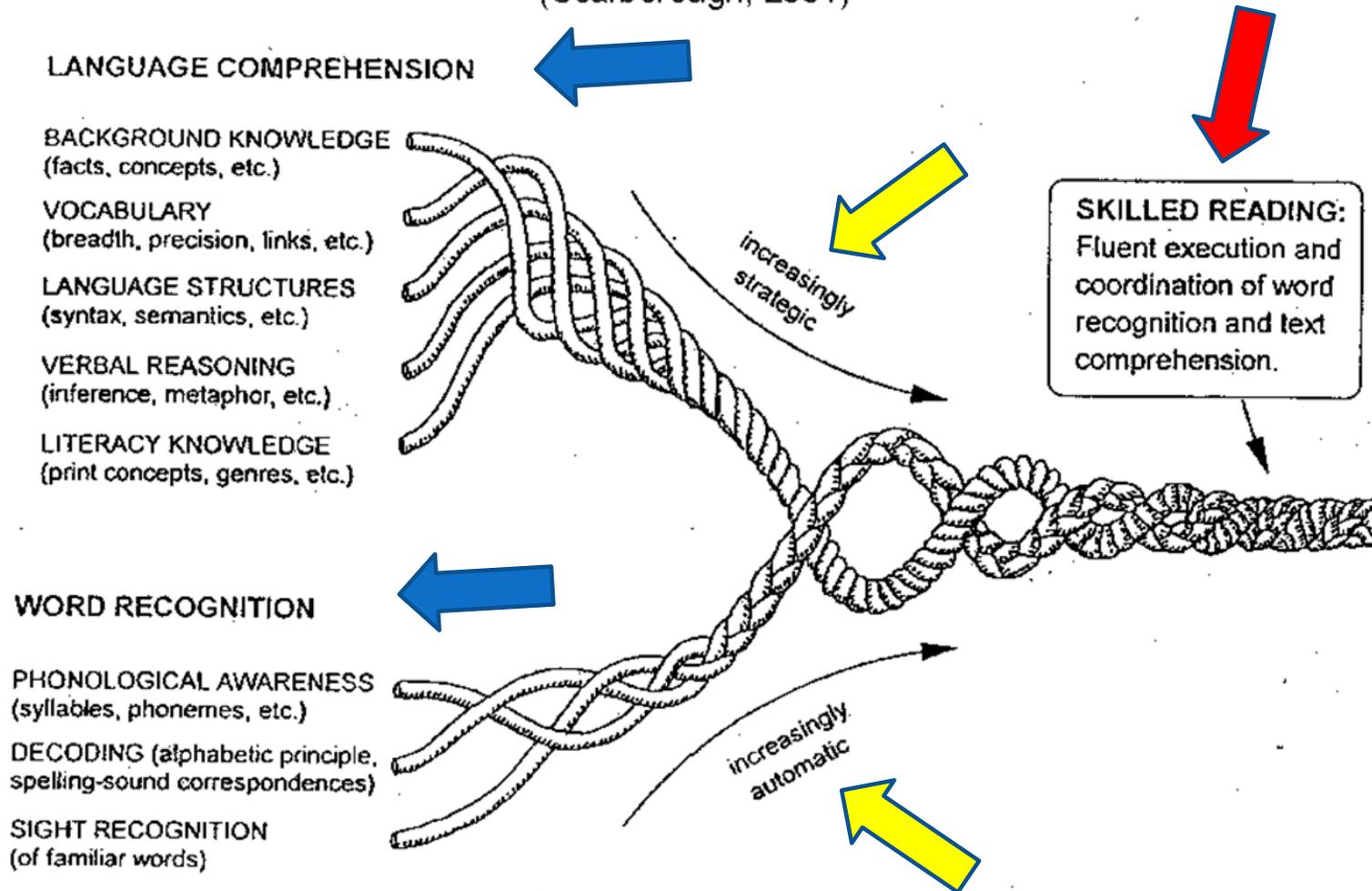
What are the bricks?

## A VIEW OF READING

Reading comprehension is the product of *decoding* (the ability to read words on a page) and *language comprehension* (understanding those words).



## The Many Strands that are Woven into Skilled Reading (Scarborough, 2001)



## DISCUSSION

- How would understanding the Simple View of Reading benefit Tier II, Tier III, or SPED intervention?
- How would understanding the Simple View of Reading benefit Tier I Core Instruction?
- How do you plan to use this information with your students? Teachers? Interventionists?

## A READING SURVEY LEVEL ASSESSMENT (SLA)

Look at a reading survey level assessment.

- How could this survey help us find our students' "missing brick" in their learning?
- How will this enable us to identify the most accurate skills specific intervention?

## Reading Associated Areas of Deficit

Domain/Area	Definition	Associated Deficit Areas Academic Impact on Core Instruction	Intervention Characteristics	Example Curriculum Based Measures Probes to Support Progress
Phonemic Awareness (K-1) Basic Reading	Isolating sounds, segmenting, and blending sounds in words and non-words.  Ability to notice, think about, or manipulate the individual sounds in words.	<i>Difficulty with:</i> Letter Sounds Phoneme Blending Phoneme Segmentation Rhyming Syllable Segmenting Phoneme Deletion	<i>Intervention focus on systematic development of letter sound correspondence, word analysis skills, and sight word recognition</i>	Letter naming fluency probe Phoneme segmentation probe Initial sounds probe First sound probes Letter Sounds probes
Phonics Word Recognition (K-2) Basic Reading	Matching sounds to symbols. Reading words by sight or by applying phonics to decode. Focus is on word production not meaning	<i>Difficulty with:</i> Letter-sound associations Sound blending Segmenting Manipulating letter-sound correspondences Reading nonsense words Word identification	<i>Intervention focus on systematic development of letter sound correspondence, word analysis skills, sight word recognition, consonant blends/digraphs, syllable division/ types, affixes, word attack skills, etc.</i>	Nonsense word probe Letter Name probe Word Reading Fluency probes
Reading Fluency (1-12)	Rate at which reader reads text, which could include speeded word, sentence, or text reading, as well as segmentation and/or blending of phonemes. Also includes voice intonation and expression during reading.	<i>Difficulty with:</i> Accuracy of Fluency Reading Rate Word Reading Efficiency Sentence Fluency	<i>Intervention focus on guided oral reading, repeated readings, echo read, shadow read, paired reading, and direct explicit instruction in chunking and phrasing</i>	Nonsense word probe Oral reading fluency probe Word Reading fluency probe Passage Reading fluency probe
Reading Comprehension (1-12)	The construction of meaning from text including understanding of the author's intent or message. Comprehension is reflected in the recall of specific information, as well as in inferences drawn from presented information.	<i>Difficulty with:</i> Passage Reading Sentence Comprehension Oral Reading Silent Reading Words in isolation or in Context Matching Vocabulary	<i>Intervention focus on specific skill instruction for vocabulary, fact finding, and making inferences as well as explicit strategies in comprehension monitoring and reading for different purposes</i>	Retell probe Daze probe Maze probe Multiple Choice Reading Comprehension probe Cloze Task probe
Written Expression (1-12)	The ability to form letters and numbers correctly, to write words spontaneously or from dictation, and organize words into meaningful thoughts	<i>Difficulty with:</i> Hold/ Use Pencil Trace/ Copy Letters Written Words Written Word Sequence Spelling Planning processes Composition/ reviewing and revising	<i>Intervention focus on transcription; letter formatting, and associating letter shapes with the name of the letter, as well as composition; explicit instruction in mechanics, word and sentence construction, paragraph construction, and multi-paragraph essays</i>	Writing Readiness Skills probe Number of Letters Written probe Number of Words Written probe Correct Word Sequence probe Correct Spelling probe Correct Writing Sequence probe

↑ Table above, provides guidance on identifying deficit areas for the domains of reading. \*If your skill based universal screener identifies one of these areas as a deficit, basic reading (phonemic awareness or phonics), reading fluency, comprehension, or written expression, intervene on that particular area. Use survey level assessment(s) to further gather specific information regarding the specific s area of need (Academic Impact on Core Instruction).

## WHAT INTERVENTIONS DO I HAVE AVAILABLE FOR STUDENTS?

- Districts/schools must complete an audit of all interventions available for students
- Districts/schools must identify gaps in available interventions or teachers skilled in teaching reading
- Districts/schools must list intervention and areas addressed so that teams know what interventions are available for specific areas
- Districts/schools must determine future purchases or trainings based on gaps based on needs of students and available options

## CASE STUDY EXAMPLE

- Garrett is currently a fourth grade student at Sunnyside Elementary School. After the winter universal screening, the RTI data team met and determined that Garrett was in need of intervention due to his performance on measures of Oral Reading Fluency which fell below the 10<sup>th</sup> percentile. In particular, his teacher reported that Garrett struggled in all subject areas. He was unable to work independently and was often off task.
- After Mr. Girard, the reading coach, administered a survey level assessment, the foundational deficit was identified within closed syllables with digraphs, doubles, and blends, as well as limited high frequency word recognition.

## NEXT STEPS

- What do we need to do next in order to best meet the needs of Steven?
- Who is going to be responsible for these steps?
- How will we make sure that we select an appropriate intervention for Steven's skill deficit?

## INTERVENTION REVIEW PROCESS

Materials needed:

- Intervention Peer Review Screening Instrument
- Program(s) to review
  
- An example of TN review process

## BEFORE WE BEGIN

- Do not get bogged down on definitions
- Evidence research has been around for years, it is not new
- Vendors who are familiar with evidence research, peer review, and validity measures will clearly reflect the evidence in their submission
- Evidence research may not be clearly noted when the evidence is not available to support the submission
- Be informed, they will tell you anything

## SECTION ONE: DEFICIT AREAS

Only use the section of the screening tool that is aligned to the focus area(s) of the program.

- Reading: 1A Pg. 2
  - Math: 1B Pg. 4
  - Writing: 1C Pg. 5
- 
- Evidence must be clearly noted to support deficit area submission
  - It's a YES or NO- there is no in-between

*Example: if vendor says it meets standard ELA 1A- it is not skills based.*

**Program must meet all criterion under Deficit Area in order to meet the skills based deficit area requirement.**

## DEFICIT AREAS?

- Basic Reading Skills (letters, letter sounds, phonological awareness, phonics)
- Reading fluency
- Reading Comprehension
- Written expression
- Math calculation (column addition, basic facts, complex computation, decimals, fractions, conversions, percentages, etc.)
- Math reasoning/problem solving (number and operations, base ten, place value, measurement and length, fractions, geometry, algebra, expressions, linear equations etc.)

# SKILLS VS. STANDARDS

## Skills Based

- Intervene on skill deficit/need
- Warning system for your most at-risk students and identifies discrete skill deficit(s)
- Not adaptive. Task does not change based on student performance
- Consistently measures same skill
- Independent of grade level standard

## Standards Based

- Intervene on a standard
- Tells you what to reteach/remediate (Tier 1)
- Adaptive. Task changes based on student performance
- Does not consistently measure the same skill over and over to determine if intervention is working

## SECTION 2: VALID, EVIDENCE BASED AND PEER REVIEWED

**Internal Validity:** information is important to the outcome, the results of the intervention were based solely on the use of the intervention alone. The intervention was not in conjunction with any other programs.

**External Validity:** can be generalized to all populations. It can be replicated in other grades and other areas. Students were not hand selected, the population was a random selection.

*Example: If the study was done in a “research lab” the results will be perfect.*

What does this mean for an actual school?

- Intervention needs to be done with real students in real schools.

## SECTION 2: VALID, EVIDENCE BASED AND PEER REVIEWED

### **Evidence Based and Peer Reviewed**

- This is used in publishing and in professional settings where work and or action is examined and reviewed by a group of individuals that have professional credentials and experiential backgrounds that are equivalent to the individual who's work is being reviewed.
- This process is used to examine work for many purposes.
- Evidence based interventions have demonstrated through extensive research to be effective for the majority of students.
- Vendors should not rely on their own research, be worried if they provide this only.

## SECTION 2: METRICS AND VALIDITY

A. How well did this work for students?

*Example: A result of .25 or greater means the program is effective at some point. The higher the result of the intervention... the better!*

B. Fidelity: If it is not implemented with fidelity we cannot say the intervention has worked through the research provided

C. Randomly assigned: students were not hand selected and were all “at-risk” students

D. Positive findings in multiple studies

E. Random sample populations from multiple schools

F.  $N > 75$  means number of students in the study needs to be greater (*This number was based off research, however, based on the effectiveness of the intervention this number may vary.*)

**It must meet 4 out of the 6 in the area of validity including D.**

## SECTION 3: SYSTEMATIC AND EXPLICIT INSTRUCTION

### **Systematic Instruction**

The plan is carefully thought out, strategic, and designed before activities and lessons are developed. Lessons build on previously taught information, from simple to complex, with clear, concise student objectives, that are driven by on-going assessment. There is evidence of scaffolding instruction.

### **Explicit Instruction**

Involves direct, face to face teaching that is highly structured, focused on specific learning outcomes, and based on high level of student and teacher interaction. It involves explanation, demonstration, and practice with topics being taught in a logical order. Majority (over 50%) of the program should be direct intervention provided by the interventionist: however, computer based and or technology assisted interventions can be used to provide practice opportunities.

## METRICS FOR SYSTEMATIC AND EXPLICIT INSTRUCTION

**Systematic- must have met 2 of the 3 criterion**

**Explicit- must have met 2 of the 3 criterion**

## SECTION 4: INTERVENTION TIER AND GRADE

Evidence is provided by the vendor to confirm the intervention adequately targets the grade submitted. Tier II, Tier III, and Special Education Interventions will be explicit, systematic, evidence based interventions that target the student's identified area of deficit.

The intensity level is the measure of strength by which instruction or intervention is delivered. Intensive academic and interventions are characterized by their increased focus for students who fail to respond to less intensive forms of instruction. Intensity of interventions can be increased through many dimensions including length, frequency, and duration of implementation.

## INTERVENTION LEVELS OF INTENSITY

Core  
Instruction  
Plus Tier II  
(30 minutes  
daily)



Instruction  
Plus Tier III  
(45-60  
minutes)



Intervention  
(More  
Intensive  
than general)

## METRICS FOR INTERVENTION TIERS

### A. There is evidence for:

- Tier II is at least 25-30 minutes in duration and can be delivered daily
- Tier III is 45 minutes in duration and can be delivered daily
- Special Education intervention is 45-60 minutes, individualized, and can be delivered daily (the length is at least 45 minutes in duration daily)

### B. Instructional Focus:

- Tier II -group/individual-rarely individual
- Tier III-smaller groups
- Special Education Intervention- small groups strive to provide more individualized intervention-wrap around supports

### C. Evidence of Assessment Support:

- Tier II- group or individualized SLA
- Tier III and Special Education Intervention – individualized SLA

## METRICS FOR INTERVENTION TIERS

### D. Student Engagement and Response:

- Tier II- interventions provided opportunities for students to respond to the teacher
- Tier III-increased response opportunity in small group
- Special Education Intervention- Interventions provided opportunities MORE often than Tier II and Tier III

### E. Special Education Intervention:

- Evidence that intervention can be individualized to a student's specific needs and allows for the student to begin the intervention only at levels needed or required. There must be individualization of entry points and exit points.

## METRICS FOR INTERVENTION TIERS

- **Tier II- Intervention must have met at least 3 of the 5 above criterion**
- **Tier III- Intervention must have met at least 4 of the 5 above criterion**
- **Special Education intervention must have met at least 4 of the 5 above criterion, including COMPONENT E.**

## METRICS FOR INTERVENTION TIER-GRADES

A. There is evidence of grade level appropriateness

B. The graphic and materials are age appropriate for students

*Example: If a phonics based screener is needed for a middle school student make sure it does not resemble a program that a primary student would use*

**Intervention program must have met both criterion above to confirm the grade(s) specified by the vendor.**

## SECTION 5: TEACHER USABILITY

The intervention is user friendly for teachers. It provides materials to support teachers in ways such as the following:

- Planning (including ideas for pacing), introducing and concluding lessons, assessment types, vocabulary, activities, and record keeping. Materials are clear and easy to read for students, teachers, and parents. The design in graphics do not distract from the intervention.

## METRICS FOR TEACHER USABILITY

- A. Materials provide instructional support
- B. Materials support teachers in planning and record keeping
- C. Materials are clear and easy to read for all parties involved. The design in graphics do not distract from the reading, mathematics, or writing.

**The intervention program must have met 2 of the 3 criterion above, including COMPONENT A to receive a “met” rating in the area of teacher usability.**

## REVIEW PROCESS

- Review Sample Programs

*S.P.I.R.E.*  
*Corrective Reading*  
*Orton-Gillingham*

## CURRENT LANDSCAPE: BRIDGE TO PRACTICE

- Use the rubric discussed today to conduct an inventory on current interventions within your school.
- What deficit area(s) do interventions address?
- What level(s) of intensity does the intervention address?
- Does the program address special education intervention? If so, how does it differ from Tier III?

## LIVE AUDIENCE Q&A

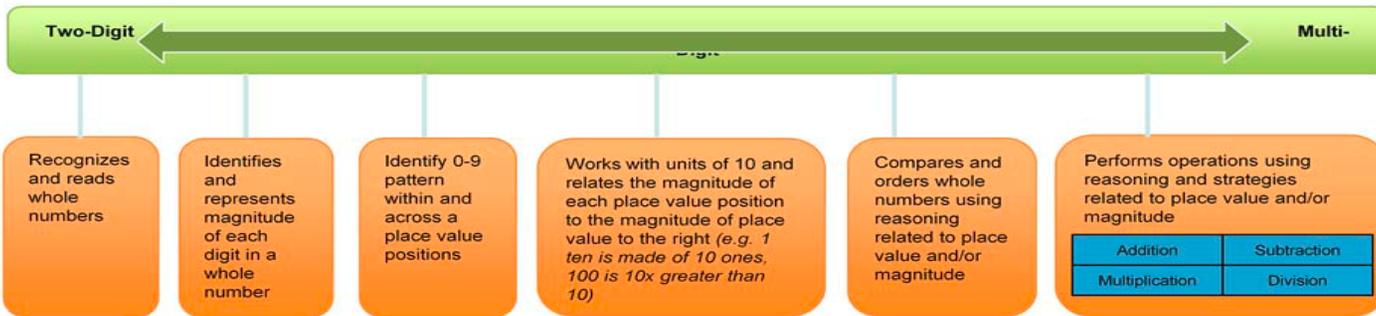


## RESOURCES

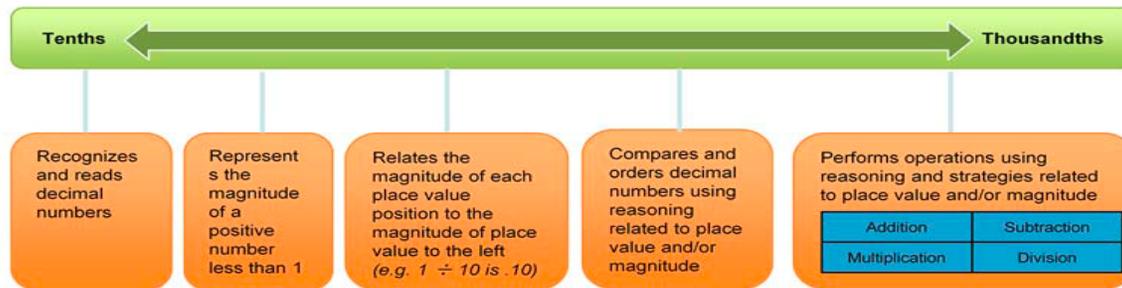
- Math Trajectories (See following slides below)
- Reading and Math Domains (See following slides below)
- Review process guiding documents
  - **Intervention Peer Review Process 2015–Feedback Form**
  - **Intervention Peer Review Screening Instrument K-12 Reading, Mathematics, and Writing**
    - <http://www.doctormichaelhart.com/2869-2/>
- Simple view of writing (See slide below)

# A Trajectory of Learning

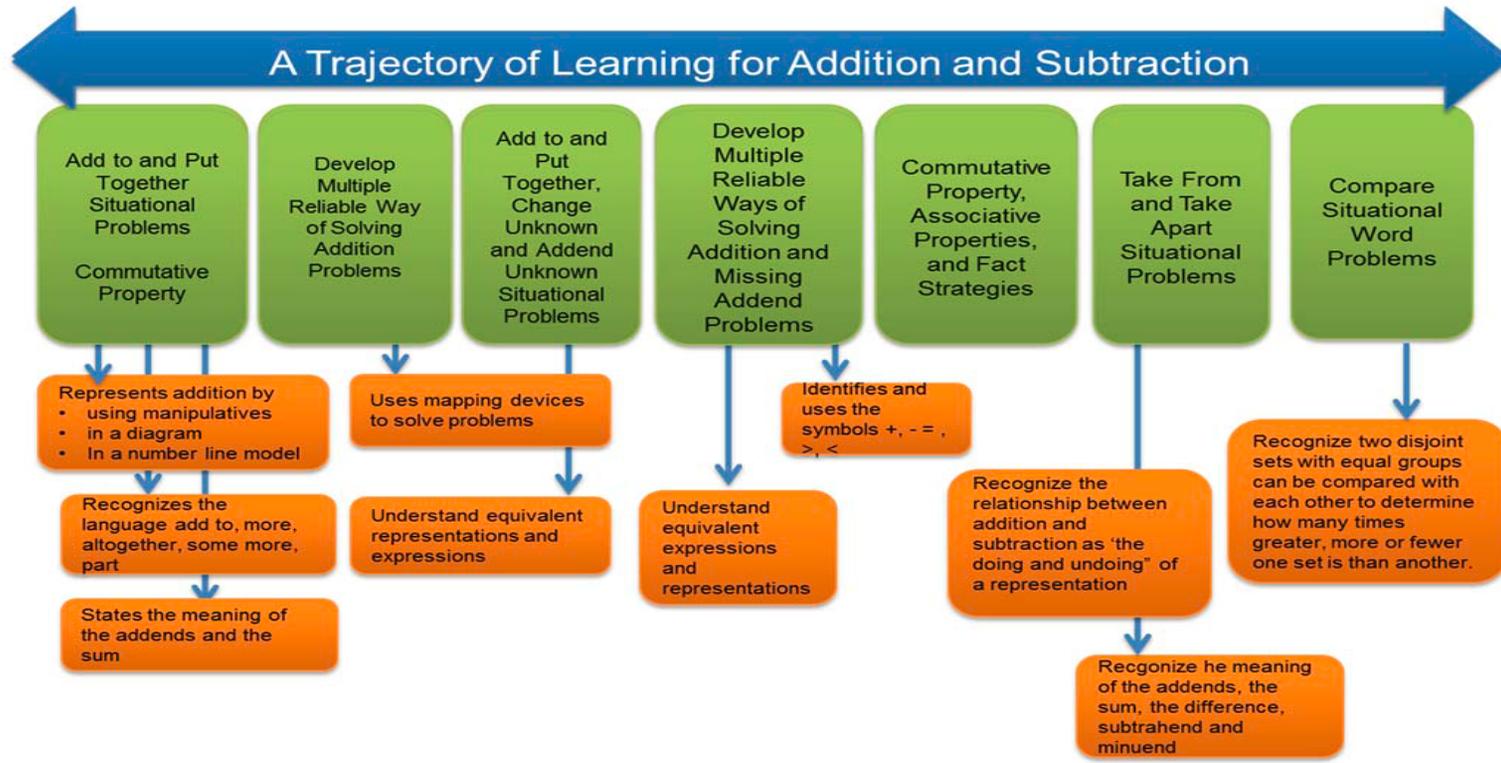
## A Trajectory of Learning for Numbers and Operations in Base Ten – Understanding and Reasoning with Whole Numbers –



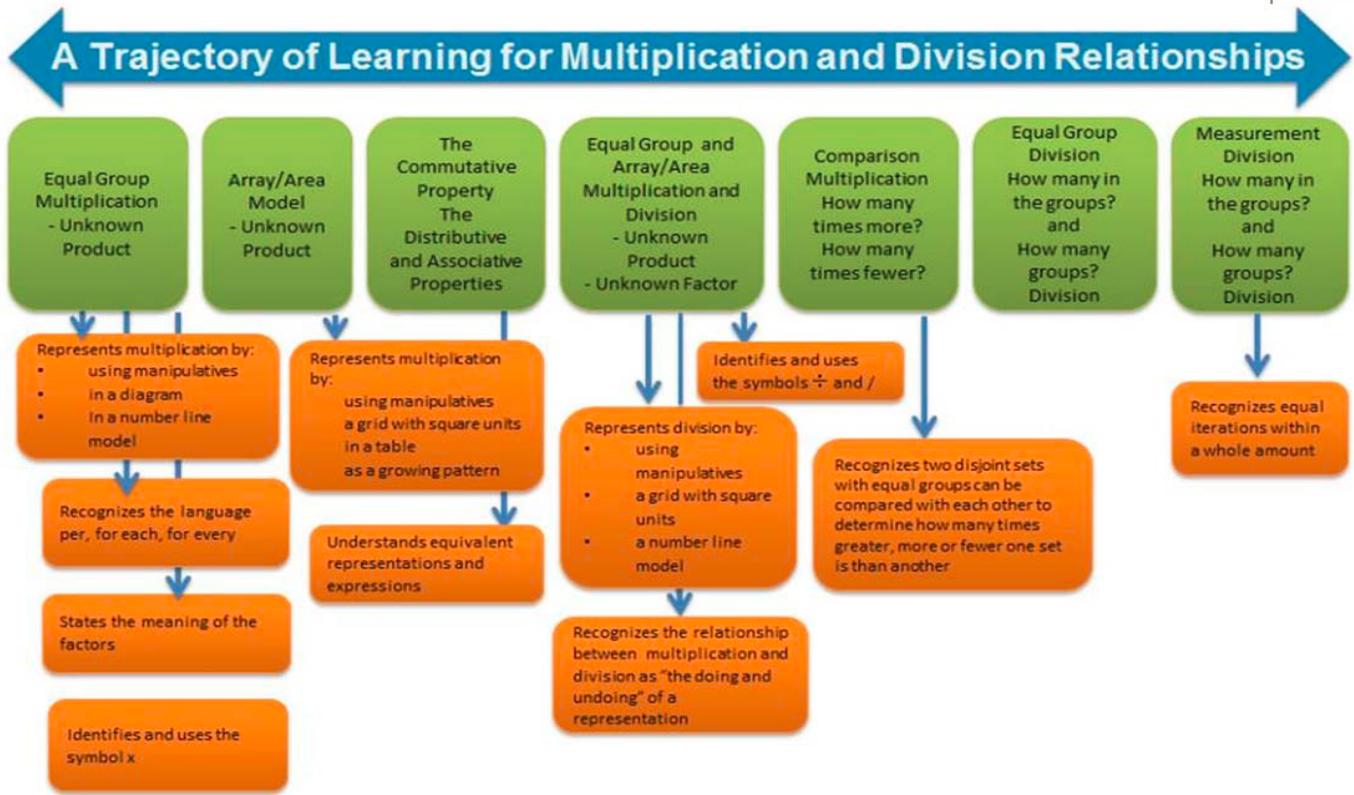
## A Trajectory of Learning for Numbers and Operations in Base Ten – Understanding and Reasoning with Decimal Numbers –



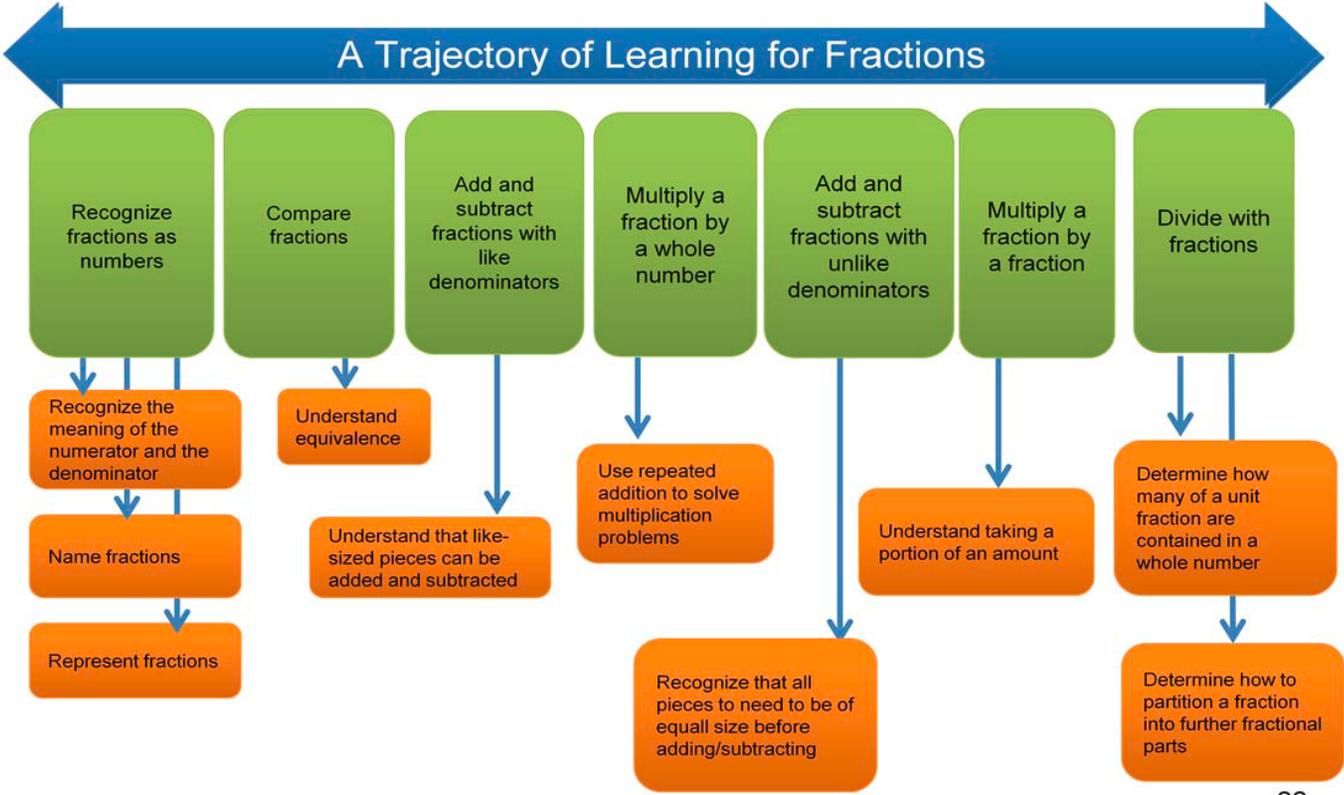
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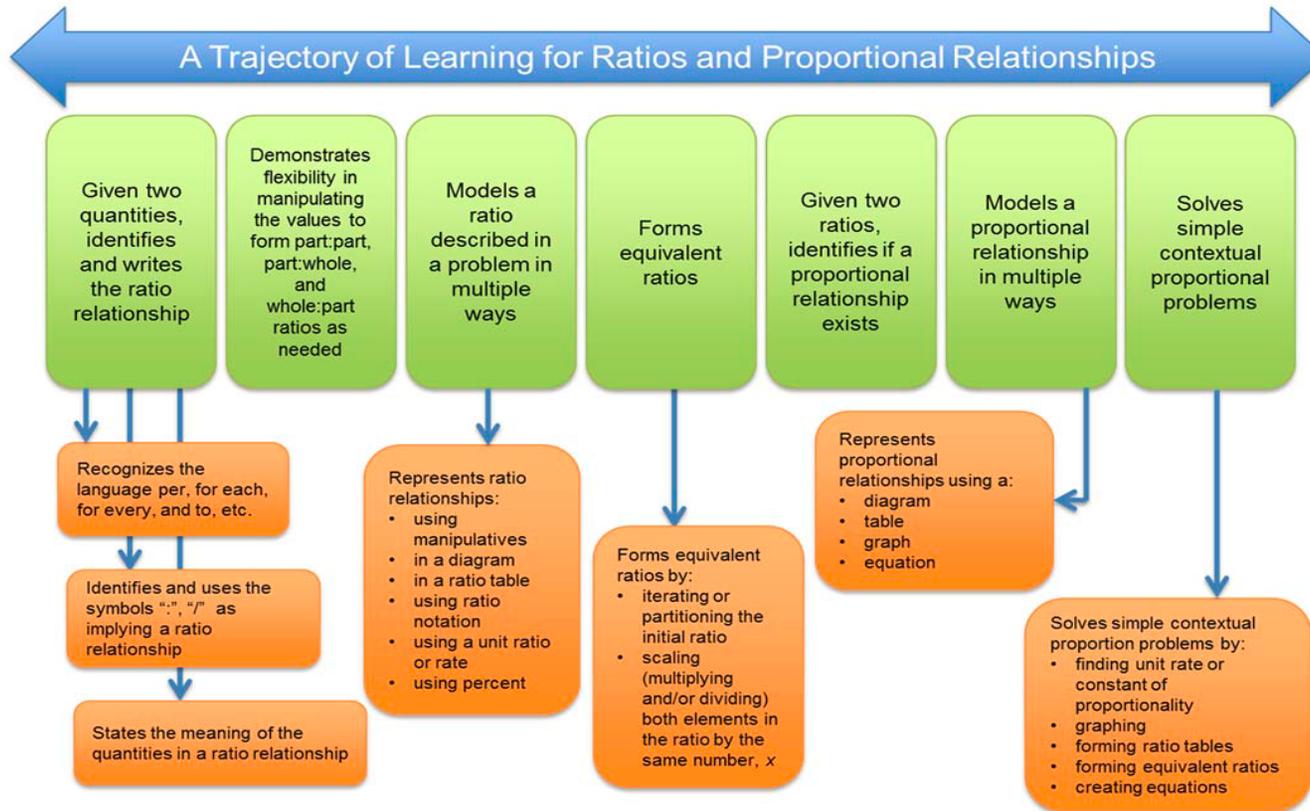
# A Trajectory of Learning



# A Trajectory of Learning



# A Learning Trajectory



## Math Domains and Skill Areas (Draft Document)

Grade	Domain/Area	Definition	Associated Deficit Areas Academic Impact on Core Instruction	Example Curriculum-Based Measures Probes to Support Progress	Intervention Characteristics
K	Math Calculation: Counting and Cardinality	Identifying and naming numbers up to 100. Understanding the relationship between numbers and quantities	<i>Difficulty with:</i> <i>Identifying numbers</i> <i>Naming numbers</i> <i>Relationship between numbers and the actual quantities</i>	Early Numeracy Probes	<i>Intervention focus on systematic development of identifying numbers and the relationship between actual quantities</i>
	Math Reasoning/ Problem Solving: Counting and Cardinality	Identifies whether number of objects in a group is greater than, less than, or equal to a number of objects in another group.	<i>Difficulty with:</i> <i>Relationship between numbers and the actual quantities</i> <i>The size of numbers</i> <i>Matching and counting strategies</i>	Early Numeracy Probes	<i>Intervention focus on systematic development of identifying numbers and the relationship between actual quantities</i>
1	Math Calculation: Size of Numbers Column Addition Basic Facts Complex Computation	Represent and solve problems involving addition and subtraction.  Understand and apply properties of operations and the relationship between addition and subtraction.  Add and subtract within 20.  Work with addition and subtraction equations.	<i>Difficulty with:</i> <i>Addition and subtraction</i> <i>Understanding the relationship between addition and subtraction</i> <i>Solving addition and subtraction problems within 20</i>	Math Calculation Probes	<i>Intervention focus on systematic development of understanding addition and subtraction and strategies surrounding these operations</i>
	Math Reasoning/ Problem Solving: Size of Numbers Column Addition Basic Facts Complex Computation	Represent and solve problems involving addition and subtraction.  Understand and apply properties of operations and the relationship between addition and subtraction.  Add and subtract within 20.  Work with addition and subtraction equations.	<i>Difficulty with:</i> <i>Representing and solving problems with addition and subtraction</i> <i>Understanding the relationship between addition and subtraction</i> <i>Solving addition and subtraction problems within 20</i>	Early Numeracy Probes	<i>Intervention focus on systematic development of understanding addition and subtraction and strategies surrounding these operations</i>

\*If your survey level assessment identifies one of these skill areas as a deficit, intervene on that particular skill area. Use survey level assessment(s) to further gather specific information regarding student area of need.

## Reading Associated Areas of Deficit

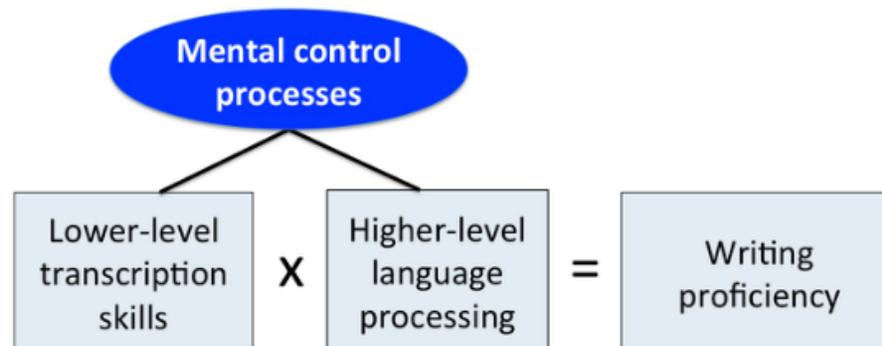
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I think this will also overload the system after all the information prior. We could speak to this as a resource and talk about writing as higher order thinking and should come in conjunction all day

## VIEW OF WRITING

### The Simple View of Writing



Plus ... lots of practice!

*Thank you very much for your time and consideration  
today!*

*And a special thank you to Tie Hodack, Ed.S for  
joining us!*

*Please sign up for my newsletter at  
[www.drMichaelhart.com](http://www.drMichaelhart.com) for discounts, bonus materials and information  
about upcoming events*

*Feel free to contact me at [doctormichaelhart@gmail.com](mailto:doctormichaelhart@gmail.com)*