

Reinventing Mathematics Intervention

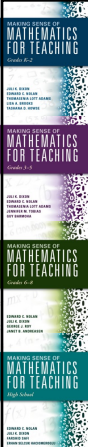
Juli K. Dixon, Ph.D.

JuliDixonMath@gmail.com



Handout:
<http://www.dnamath.com/presentations/>

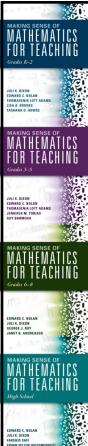
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Session Goals

- Examine current structures for intervention.
- Explore six features for reinventing intervention.
- Share a plan to initiate the reinvention.

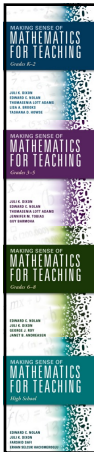
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Rethinking Intervention

What is the purpose of intervention?

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Rethinking Intervention

What is the purpose of intervention?

- ✓ Reteach
- ✓ Address gaps in foundational skills

Is this accomplishing your goals?
Are students succeeding?

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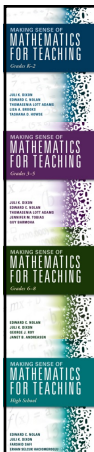


Rethinking Intervention

What is the purpose of intervention?

- ✓ Reteach
- ✓ Address gaps in foundational skills
- ✓ Develop conceptual understanding

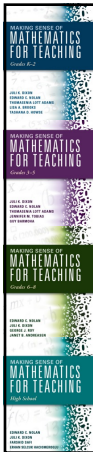
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Why do we intervene?

How do we make intervention purposeful?

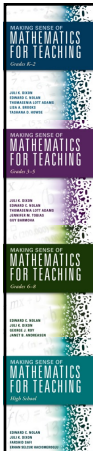
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Six Features for Re-Inventing Intervention

1. Focus on conceptual development.
2. Connect concepts and procedures.
3. Prioritize a strategic selection of content.
4. Support discourse through engaging tasks and targeted questioning.
5. Elicit and linger on common errors.
6. Provide professional development focused on content knowledge for teaching for all interventionists.

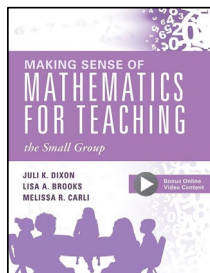
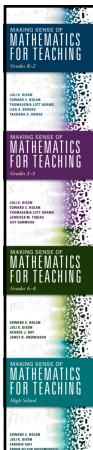
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Six Features for Re-Inventing Intervention

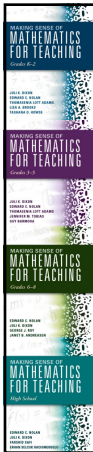
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Making Sense of Mathematics for Teaching the Small Group

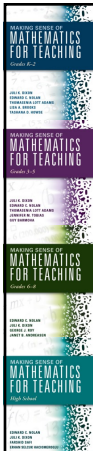
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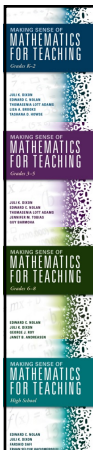


Consider this task:

The candy shop at Sweet Tooth Elementary School has 376 candies. If the school orders another 258 candies, how much will the store have then?

How would you use this task to connect concepts and procedures?

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Why do we intervene?

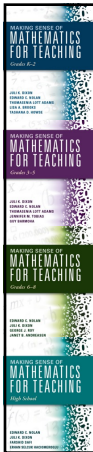
Cultivate Perseverance

- Just-in-case scaffolding
- Just-in-time scaffolding

HMH 
Blog:



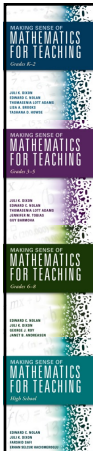
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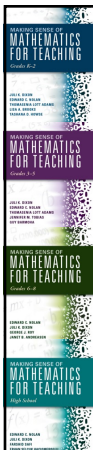


Purposeful Content

What do we focus on with students who are significantly far behind?

This needs to be a deep conversation.

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Priority Topics (where I am now)

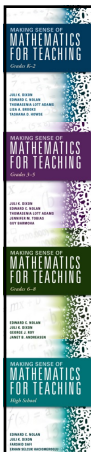
Grades 3-5

- Meaning of Operations
- Fact Strategies (for addition & multiplication)
- Multidigit Addition & Subtraction
- Place Value

Grades 6-8

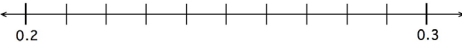
- Multidigit Multiplication & Division
- Fractions/Decimals Operations
- Rates & Ratios
- Integer Operations
- Equivalent Expressions

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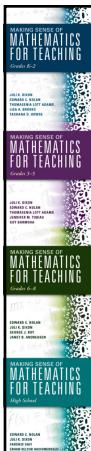


Support discourse through engaging tasks and targeted questioning.

Locate and label two decimals between 0.24 and 0.25 on the number line below.



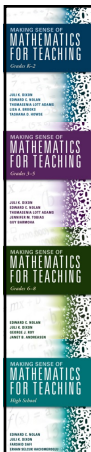
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Discourse Norms

- Provide explanations and justifications with solutions.
- Make sense of others' solutions.
- Communicate when you don't understand or don't agree.

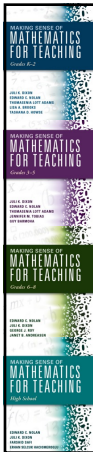
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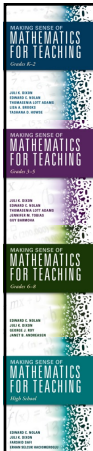
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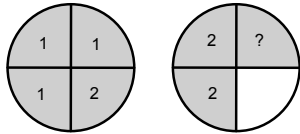
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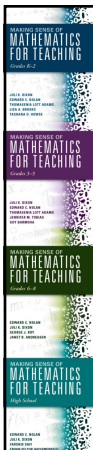


Eliciting Student Errors

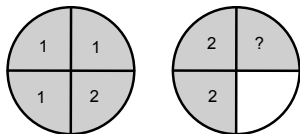


What is the thinking behind the common error 2 servings?

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Eliciting Student Errors



What is the thinking behind the common error $2\frac{1}{4}$ servings?

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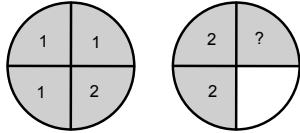
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