

Reimagining Math Intervention *Through Building Thinking Classrooms*

Stephanie Eleck
seleck.educator@gmail.com
Math Specialist

📅 Tuesday June 30, 2026 10:30am - 11:25am EDT

📍 Cooperative Arts and Humanities High School - Room 328

Reimagining Math
Intervention

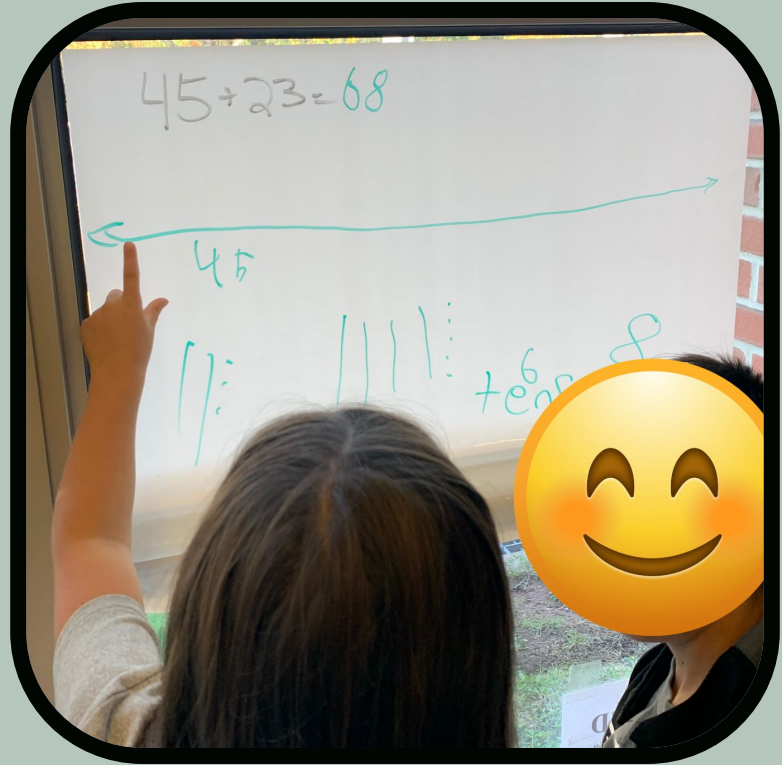


Reimagining Math Intervention *Through Building Thinking Classrooms*

Stephanie Eleck
seleck.educator@gmail.com
Math Specialist

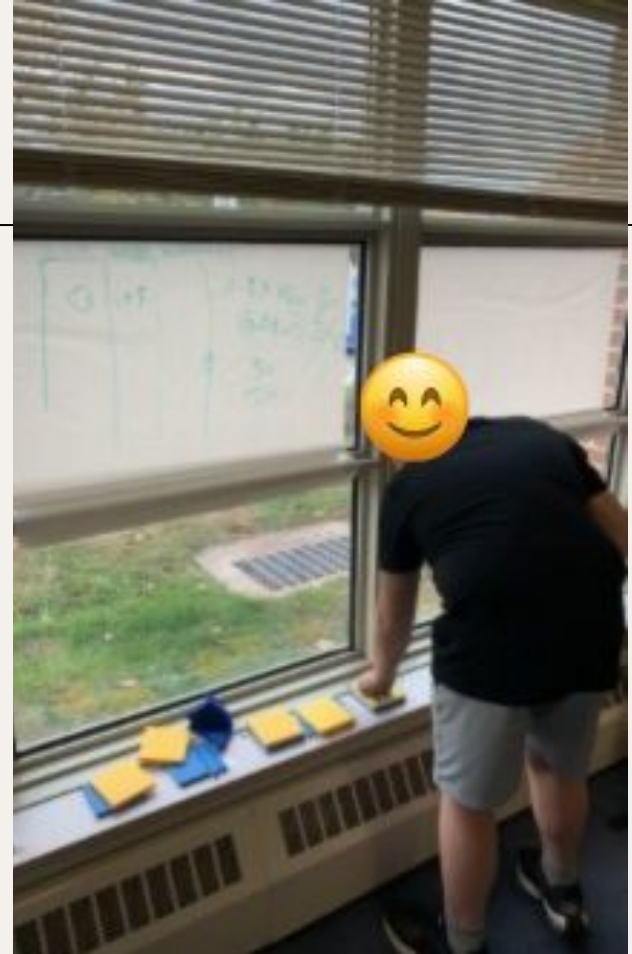
📅 Tuesday June 30, 2026 10:30am - 11:25am EDT

📍 Cooperative Arts and Humanities High School - Room 328



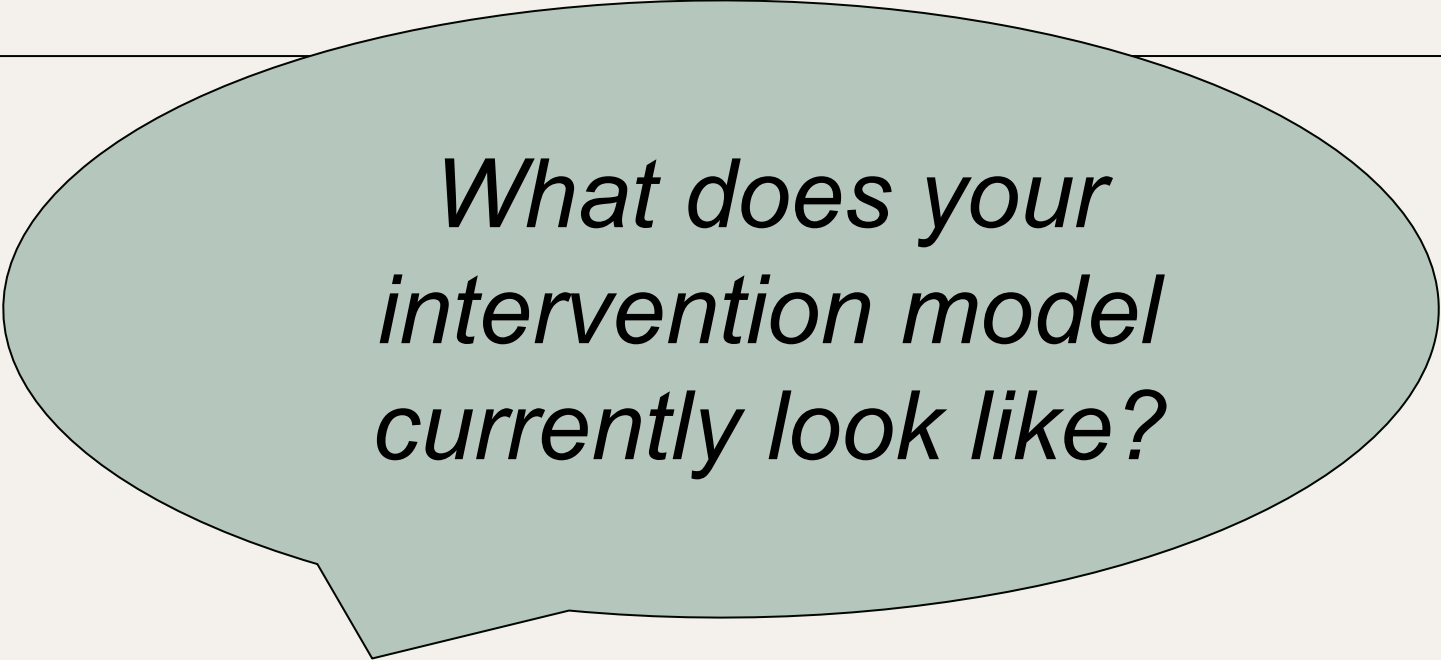
Learning Goals

- Explain how Building Thinking Classroom Strategies are beneficial to students who are in intervention
- See how math intervention lesson structure using BTC instructional strategies



Overview

- High Quality Math Instruction
- Accelerated Intervention Model
- Explicit Math Instruction
- Sample BTC lesson within an Intervention Block
- Closing: Meaningful Notes to Take With you



*What does your
intervention model
currently look like?*

01 High Quality Math Instruction



NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS

Mathematics Teaching Practices

Establish mathematics goals to focus learning. Effective teaching of mathematics establishes clear goals for the mathematics that students are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions.

Implement tasks that promote reasoning and problem solving. Effective teaching of mathematics engages students in solving and discussing tasks that promote mathematical reasoning, multiple entry points and varied solution strategies.

Use and connect mathematical representations. Effective teaching of mathematics involves making connections among mathematical representations to deepen understanding of concepts and procedures and as tools for problem solving.

Facilitate meaningful mathematical discourse. Effective teaching of mathematics facilitates discourse among students to build shared understanding of mathematical ideas by analyzing and comparing student approaches and arguments.

Providing a task where students discuss and then solve. Task has multiple entry points

Consolidation: Value is within the turn and talks through discussion

Whiteboards provide the space for multiple representations

Manipulatives available at whiteboards

Pose purposeful questions. Effective teaching of mathematics uses purposeful questions to build student understanding and sense making about important mathematical concepts.

During consolidation, teachers use purposeful questions to build student understanding

Build procedural fluency from conceptual understanding. Effective teaching of mathematics builds fluency with procedures on a foundation of conceptual understanding so that students, over time, become proficient in using procedures flexibly as they solve contextual and mathematical problems.

Whiteboard for conceptual learning & CYU for procedural fluency

Support productive struggle in learning mathematics. Effective teaching of mathematics provides students, individually and collectively, with opportunities and supports to engage in productive struggle as they grapple with mathematical ideas and relationships.

Elicit and use evidence of student thinking. Effective teaching of mathematics uses evidence of student thinking to assess progress toward mathematical understanding and to adjust instruction to support and extend learning.

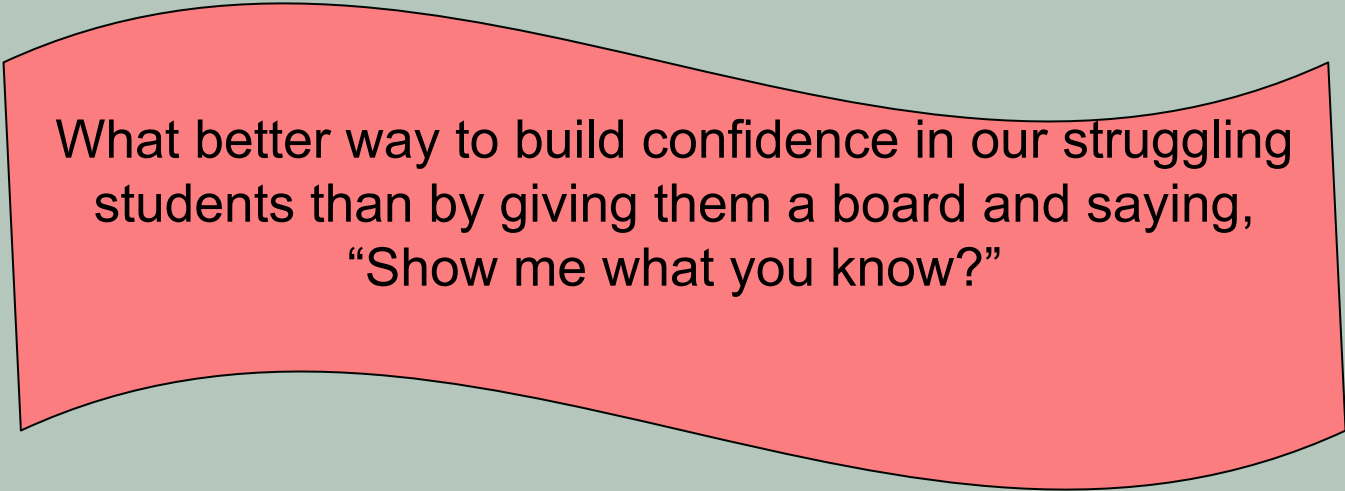
Whiteboards assist in making thinking visible. Then teachers support and extend learning.

NCTM Mathematics Teaching Practices

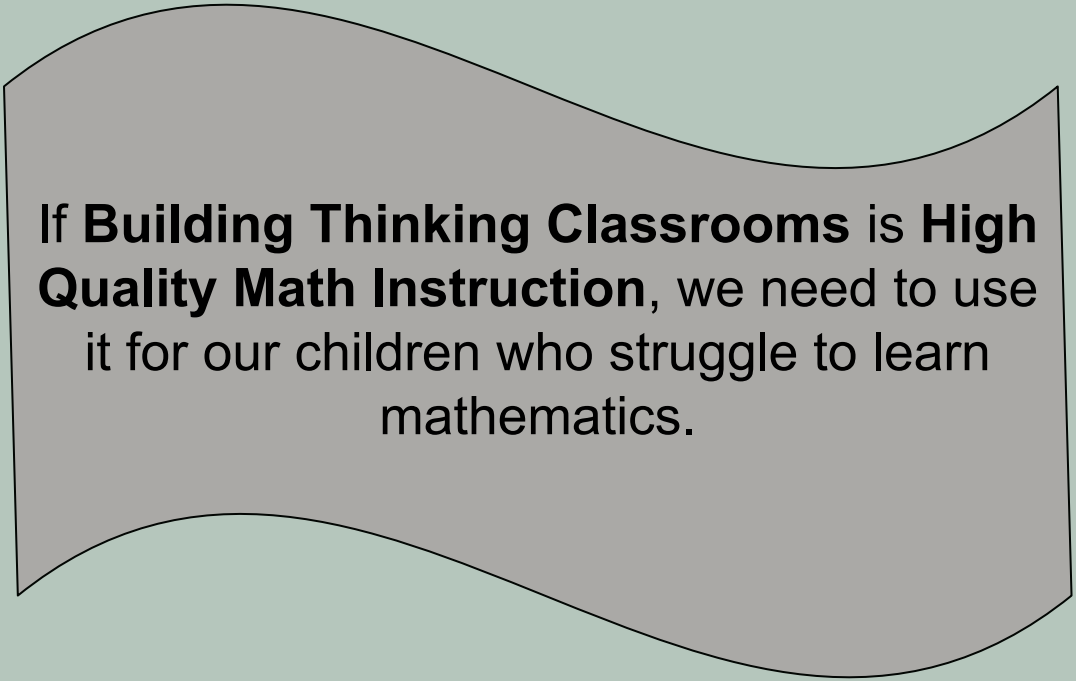
NCTM Principles to
Action Executive
Summary

Behind Effective Math Instruction

Belief that “we must develop mathematical understanding and self-confidence in all students” NCTM Principles to Action Executive Summary



What better way to build confidence in our struggling students than by giving them a board and saying,
“Show me what you know?”



If Building Thinking Classrooms is High Quality Math Instruction, we need to use it for our children who struggle to learn mathematics.

02

Accelerated Intervention Model

Intervention Models



Filling Gaps

- Identify areas of weakness
- Teach below grade skills



Accelerated Intervention

- Start at grade level
- Backfill as needed

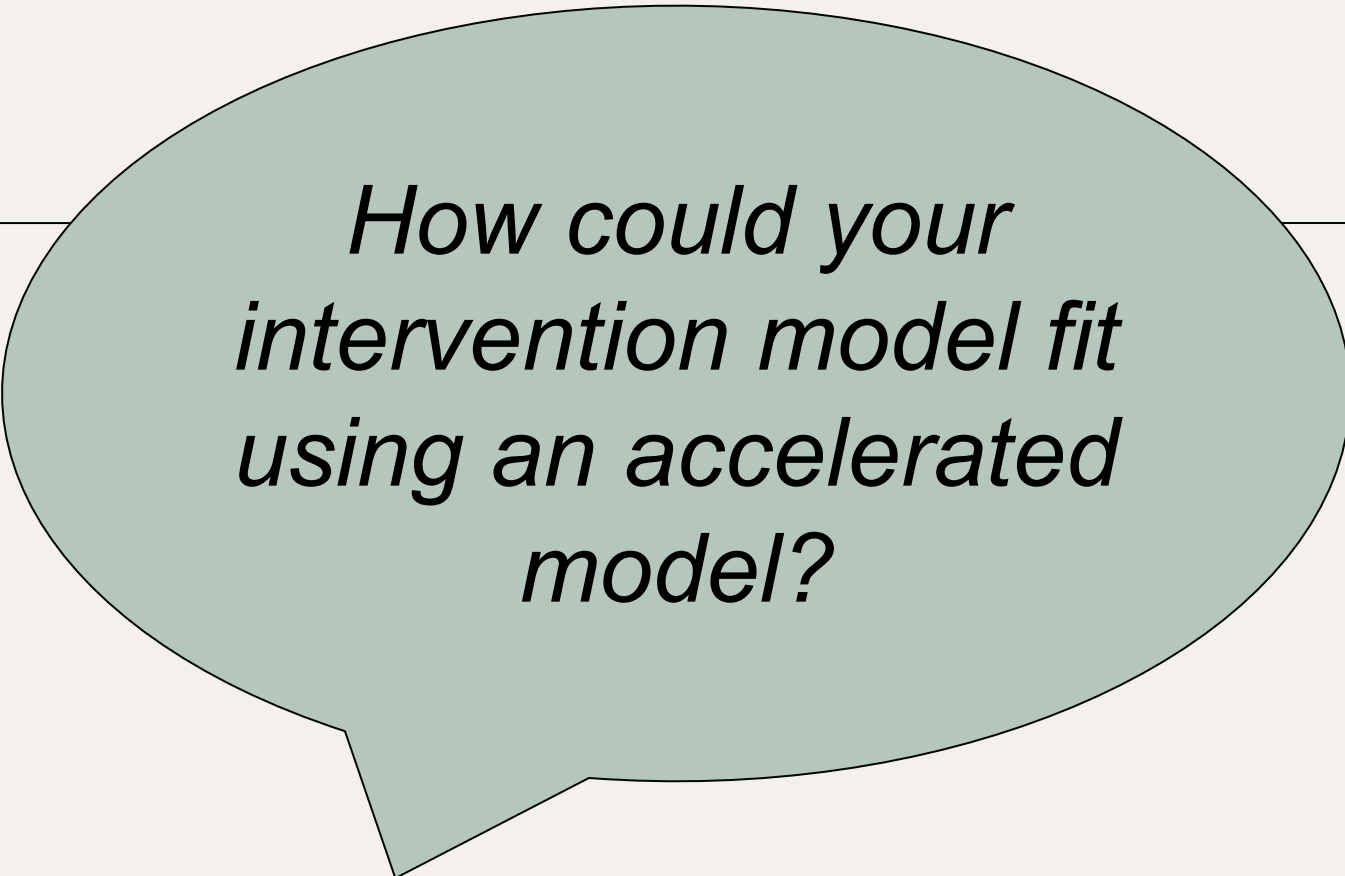
Accelerated Intervention Model



Students

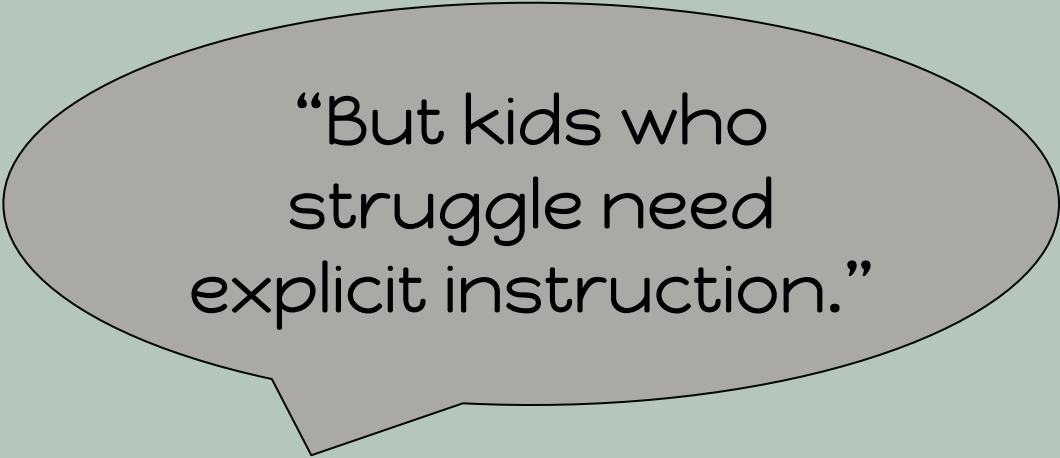
- More engaged as intervention is connected to grade-level instruction
- Confidence increased as they were successful in math classroom

Article: [How One Connecticut School Used Learning Acceleration to Help Math Students](#)



*How could your
intervention model fit
using an accelerated
model?*

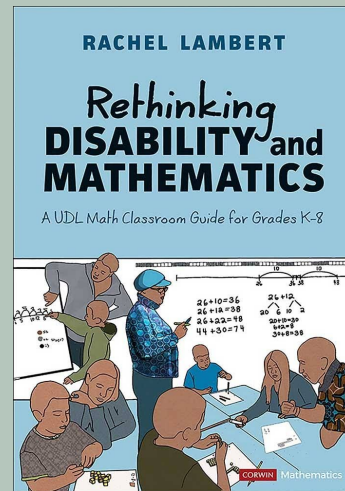
03 Explicit Math Instruction



“But kids who
struggle need
explicit instruction.”

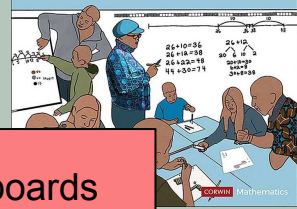
Explicit Instruction

- Teacher models a new skill
- Teacher provides guided practice
- Teacher checks for understanding
- Students practice



According to Rachel Lambert of Rethinking Disabilities and Mathematics,

“A meal of only explicit instruction in procedures is not a well-rounded mathematical diet, depriving students of the opportunity to solve complex, authentic problems.”



What can Instruction Look Like?

A Sequence of Math Instruction

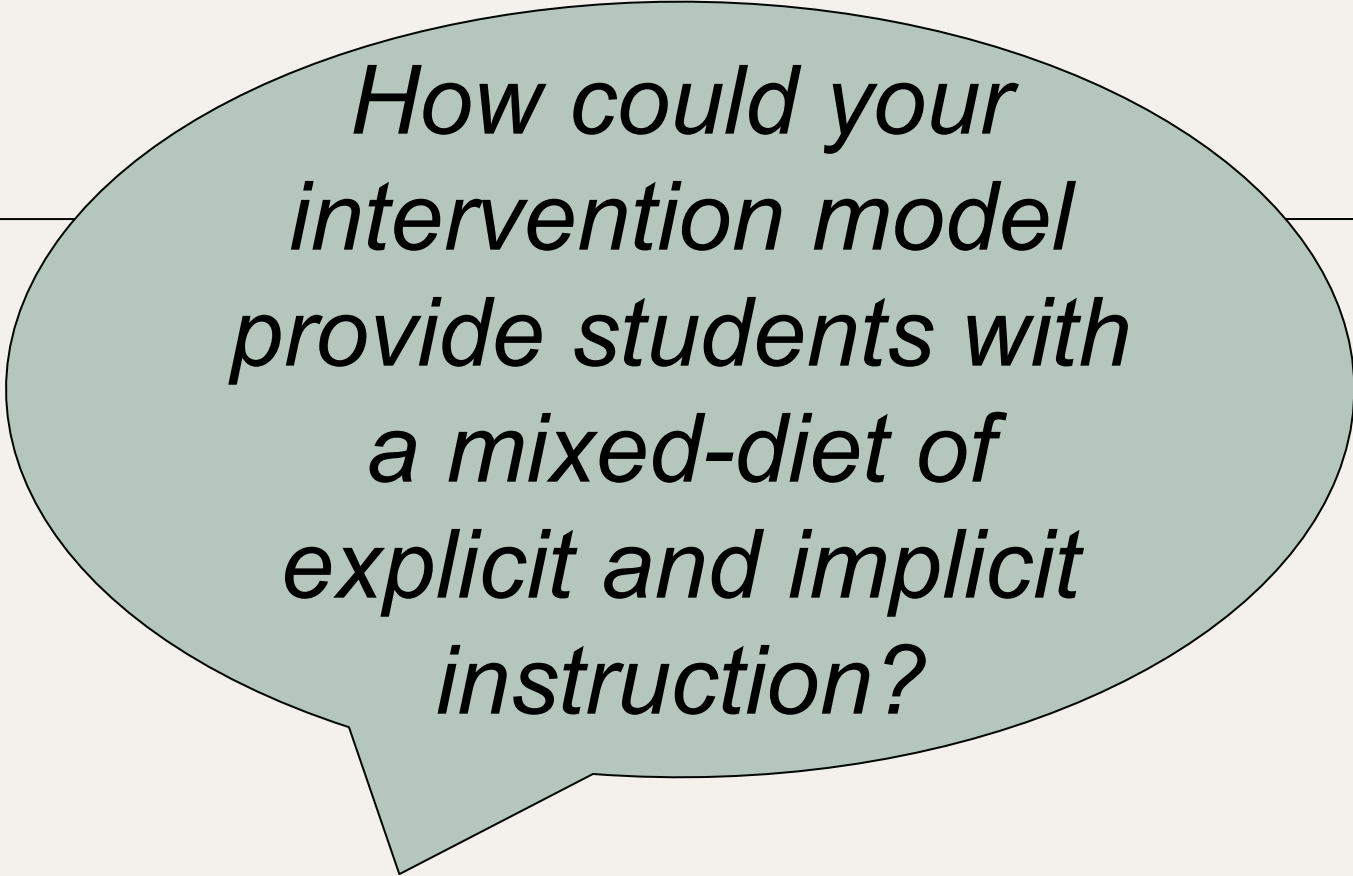
- Begin a topic with Guided Inquiry Tasks
- When students are ready for a procedure, explicit instruction.
 - Explicit Instruction - short and to the point
- Just in Time Strategic Coaching as needed

Vertical Whiteboards

Consolidation

Check Your
Understanding

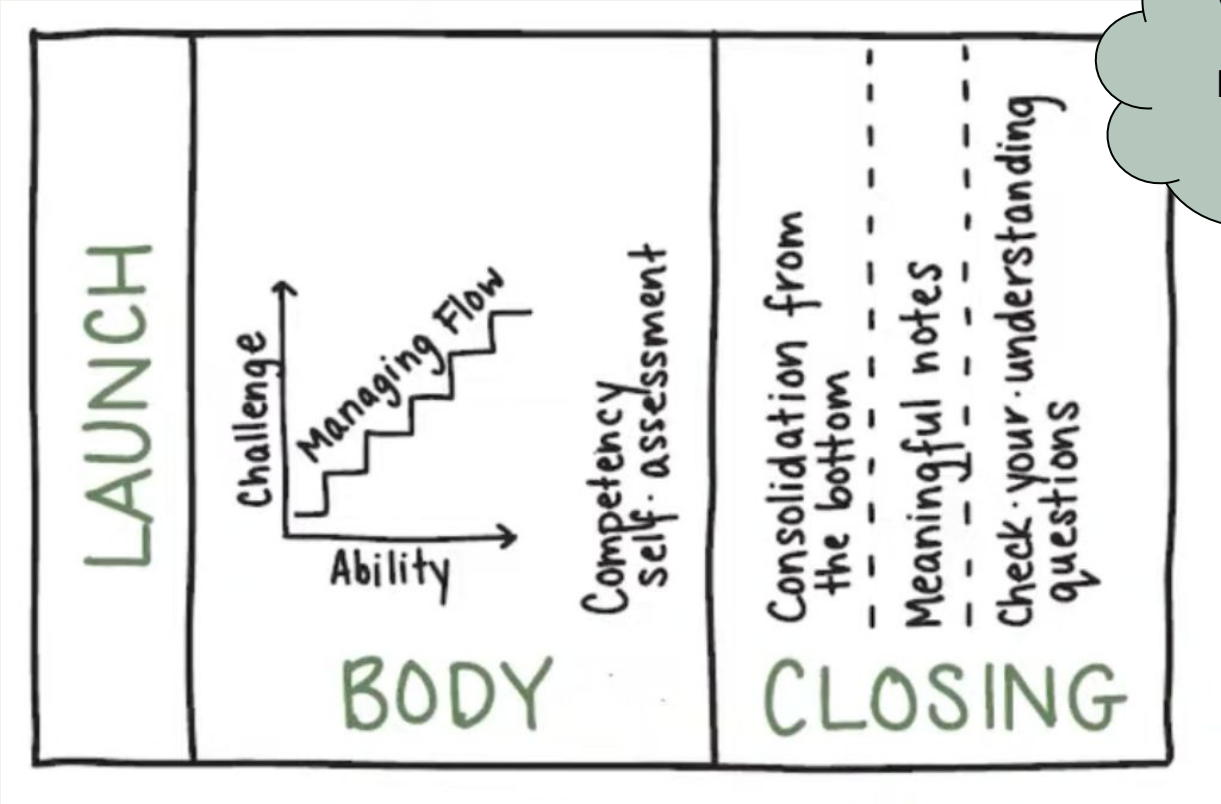
(Lambert, p. 71)



*How could your
intervention model
provide students with
a mixed-diet of
explicit and implicit
instruction?*

04 Building Thinking Classrooms during Intervention Block (iBlock)

iBlock: 30-Minute Lesson Structure



BTC: $\frac{1}{3}$ of the Class to Close

Myself: 30-min i-Block: $\frac{1}{2}$ to Close

30-Minute Intervention Block

Launch:
3 minutes

Body:
12 minutes minutes

Closing:
Consolidation: 5 minutes
Check Your Understanding: 10 Minutes

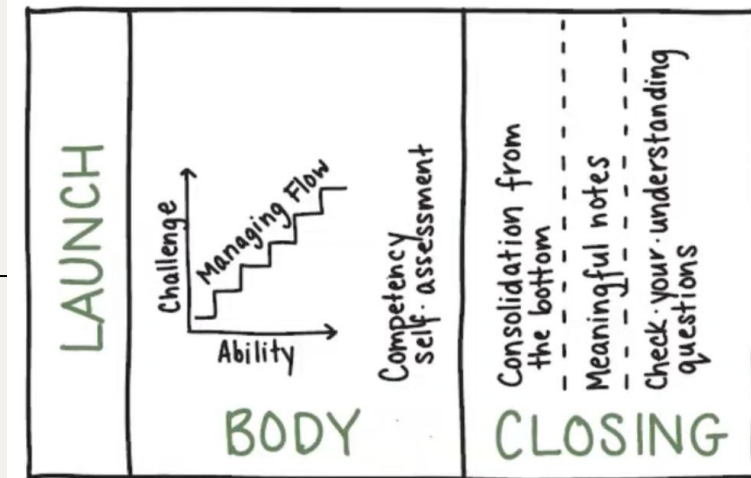
Within the Quicker Lesson Structure

- Body

- Focus on One Type of Problems
 - Possibly 2 Types on a second day of the topic
- As a smaller group, may incorporate explicit instruction within groups at the boards

- Closing

- Possibly a consolidation conversation
- Check Your Understanding
 - A Must! Individual Think Time
 - Make it Engaging - Gamify if Possible



04

Sample iBlock Lessons

2nd Grade Lesson: Adding Three-Digit Numbers

Day 1: Regrouping Ones

Goal: For students to link concrete (manipulatives) or pictorial representations to an abstract strategy like expanded form or a place value chart.

Lesson Set Up:

- Visibly place students into random groups of 2 students (K - 2) or 3 students (3 - 5). If intervention classes are small, may use partners for any age
- The Marker Rule: One marker per pair. The person who holds the marker is not the one solving the problem.

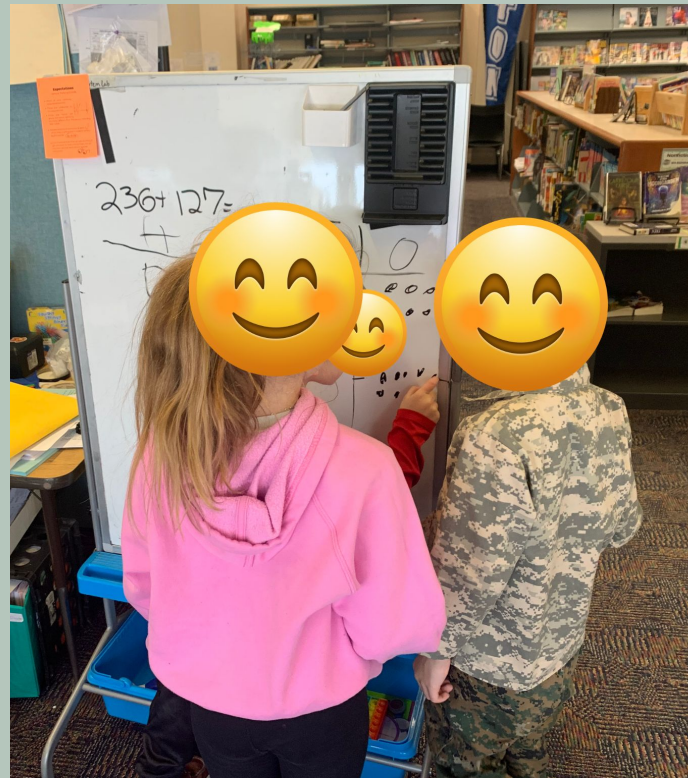
Launch (2 minutes): I want to see how you can solve $237 + 128$ on the whiteboard.

Think Time: "With your partner, take a moment to decide on a strategy before you start writing."

Tasks (13 minutes):

Type 1: Regrouping the Ones

- $237 + 128 = ?$
- $369 + 318 = ?$
- $325 + 316 = ?$



G2: Adding Three-Digit Numbers

2nd Grade Lesson: Adding Three-Digit Numbers

Closing: Check Your Understanding

May be interactive/ gamified to incorporate

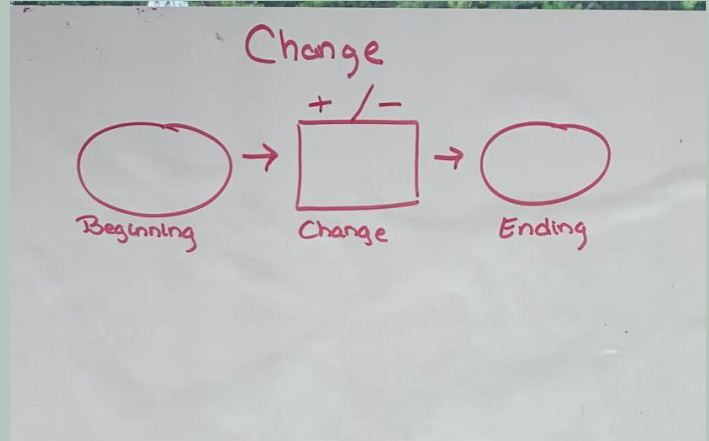
			+				=	
(0 - 5)	(0 - 5)	(4 - 9)		(0 - 5)	(0 - 5)	(4 - 9)		

2nd Grade: 3-digit addition: Roll dice or flip cards to create problems

2nd Grade Lesson: with Bridges Intervention Materials

Bridges:

- Activity: Word problems on whiteboards
 - Graphic organizers on whiteboards
 - Solve the problem
 - Discuss meaning of the numbers
- Consolidation:
 - Student worksheet for independent practice



Static Cling Whiteboards

- Draw organizers directly on them

3rd Grade: Writing Multiplication Word Problems

Day 1: Writing Word Problems for Multiplication

Goal: For students to create word problems given a multiplication equation.

Lesson Set Up:

- Visibly place students into random groups of 2 students (K - 2) or 3 students (3 - 5). If intervention classes are small, may use partners for any age
- The Marker Rule: One marker per pair. The person who holds the marker is not the one solving the problem.

Launch (2 minutes): Let's get our minds ready. What is the meaning for multiplication? (*Answer to show equal groups of things*). Where in real life do we see equal groups of items? (*baskets with flowers, cookies on plates*).

Tasks (13 minutes) *May cut into strips and place on the table. Students then select the next problem after they complete the first one.*

- Write a multiplication story problem for $3 \times 5 = ?$ Then solve it.

G3: Writing
Multiplication
Word
Problems

3rd Grade: Writing Multiplication Word Problems

Check Your Understanding: Writing Word Problems

1. Write a multiplication story problem for $2 \times 6 = ?$ Then solve it.

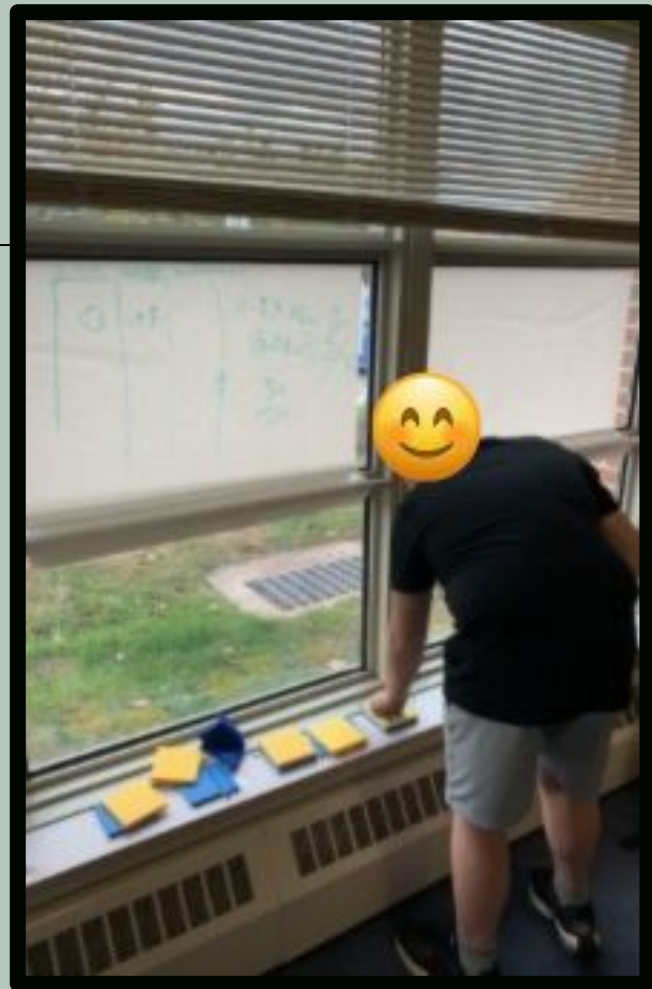
2. Write a multiplication story problem for $5 \times 3 = ?$ Then solve it.

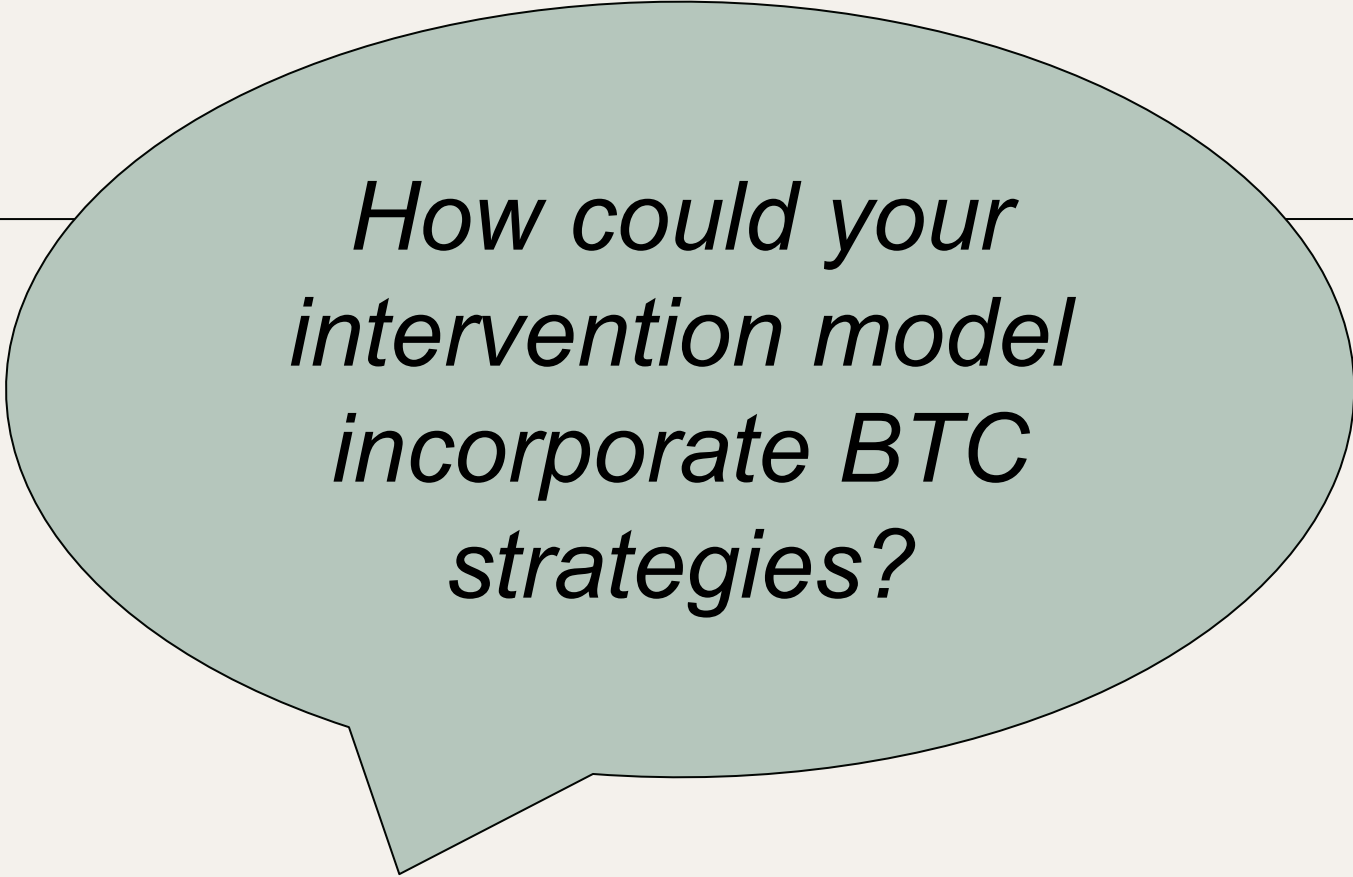
In the
moment
feedback

G3: Writing
Multiplication Word
Problems

5th Grade: Multiplying Decimals by Powers of 10

- 4 tenths $\times 10 = 40$ tenths
 - $0.4 \times 10 = 4.0$
- 7 tenths $\times 10 = 70$ tenths
 - $0.7 \times 10 = 70$
- Build with base ten blocks
- Represent on place value chart
- Focus on place value increasing
- Consolidation Conversation
- Check Your Understanding





*How could your
intervention model
incorporate BTC
strategies?*

Conclusions

Building Thinking Classrooms is High Quality Instruction.

Using BTC instructional strategies with our students who are struggling:

- builds self-confidence
- increases engagement
- provides students with opportunities to make mathematical gains alongside their peers

Meaningful Notes

How can you incorporate vertical whiteboards into your intervention model?	How can you incorporate consolidation into your intervention model?
Things to Remember:	DIY:

Reimagining Math
Intervention



THANK *YOU*

Questions?

Stephanie Eleck

Reimagining Math
Intervention

