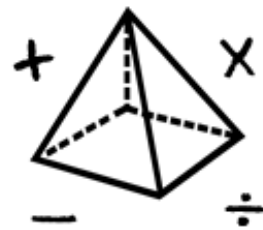


Intensive Interventions in Mathematics



Module 3 Activity Workbook

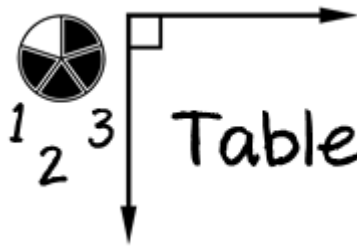
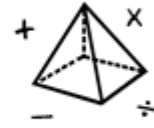
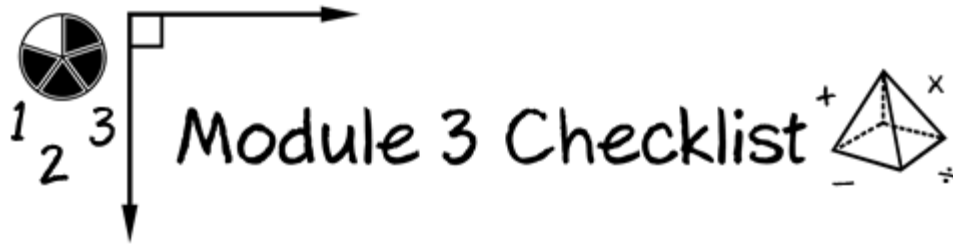


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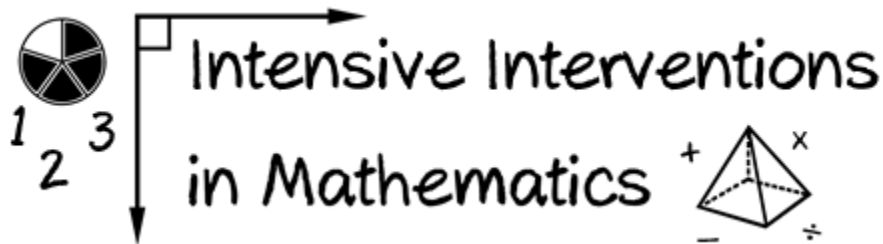
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Module 3 Checklist

The purpose of this Activity Workbook is to help organize content for this Module. You will do some Activities on your own to help you engage with and think about the content. You will not be required to submit your responses for those activities. There are other activities, however, that you will submit online and apply in your classroom. The activities that you must submit before completing this Module are listed in the “Online” column below.

Section	Assignment	To Be Completed In Activity Workbook	To Be Completed Online	To Be Completed With Coach
Intro	Video		<input type="checkbox"/> Watch Module 3 Introduction Video Presentation	
Part 1	Video		<input type="checkbox"/> Watch Module 3 Part 1 Video Presentation	
	Activity 1	<input type="checkbox"/> Determine Categories of Evidence-based Practices		
	Activity 2	<input type="checkbox"/> Rate the Evidence of Various Practices		
	Discussion		<input type="checkbox"/> Discussion Board: <i>Example of evidence-based practice</i>	
Part 2	Video		<input type="checkbox"/> Watch Module 3 Part 2 Video Presentation	
	Activity 3	<input type="checkbox"/> Compare Websites for Locating Evidence-Based Practices		
	Activity 4	<input type="checkbox"/> Locate Interventions and Compare Available Evidence		
Part 3	Video		<input type="checkbox"/> Watch Module 3 Part 3 Video Presentation	
	Activity 5	<input type="checkbox"/> Find Evidence-based Practices for a Student’s Needs		
	Activity 6	<input type="checkbox"/> Focus on Your Grade Level – What is Available?		
	Discussion		<input type="checkbox"/> Discussion Board: <i>Intensive Intervention Needs?</i> <input type="checkbox"/> Write Your Response <input type="checkbox"/> Respond to 2 Others	
Next Steps	Video		<input type="checkbox"/> Watch Module 3 Closing Video Presentation	
	Classroom Application			<input type="checkbox"/> Evaluate the Evidence Base of Your Current Instructional Practices



Intensive Interventions in Mathematics

- Module 3
- Part 1
- Activity #1

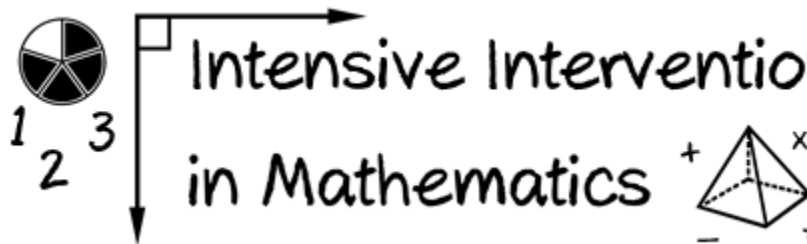


Look at the examples of different evidence-based practices. Is each an *evidence-based intervention*, an *evidence-based strategy*, or a *promising practice*?

Name of Practice	Description	EBI	EBS	PP
Number Rockets	A tutoring program covering first grade math skills.			
Explicit Instruction	A structured instructional method that includes techniques like modeling, scaffolding, breaking difficult tasks into smaller steps, etc.			
Taped Problems	Students are presented with a set of number combination, then listen to then on an audio-recording that includes a brief pause after each problem and then the correct answer. The students' goal is to write down the correct response before the recording states the answer.			
Roots	50 lessons targeting number sense skills for kindergarteners.			
Word Problem Mnemonics	Memory devices that remind students of steps required to solve a word problem.			
Incremental Rehearsal	Using flashcards, student works on approximately equal numbers of known and unknown facts. Student targets the unknown facts with increasing numbers of known facts between reviews.			
Schema-based Instruction	When solving word problems, students identify a problem type, then use a diagram or an equation to solve the problem.			
Concrete-Representational-Abstract (CRA)	Students are taught mathematics concepts using concrete materials, pictorial representations, and symbolic notation, to facilitate the understanding of mathematical procedures.			
Pirate Math	A schema-based word-problem tutoring program for 2nd and 3rd grade students. Students use schemas to analyze addition and subtraction word-problems, then write equations with an "X" representing the missing information, and solve for "X."			

Note: EBI = evidence-based intervention; EBP = evidence-based strategy; PP = promising practice

Notes/Comments: _____





Intensive Interventions in Mathematics


- Module 3
- Part 1
- Activity #2



Look at the same examples of different evidence-based practices. How would YOU rate the evidence?

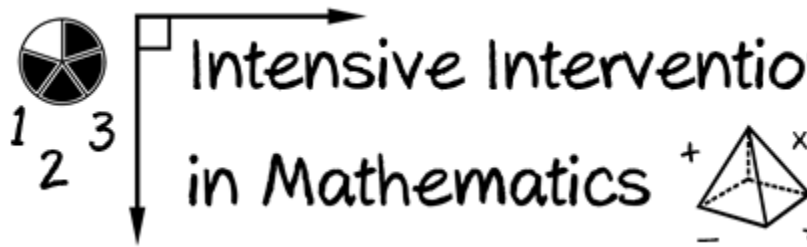
Name of Practice	Improvement from Before Intervention	Improvement Compared to No Treatment Students	Multiple Researchers	Multiple Students	Multiple Times	Setting and Students Similar to Your Own?	Your Overall Rating
Number Rockets							
Explicit Instruction							
Taped Problems							
Roots							
Word Problem Mnemonics							
Incremental Rehearsal							
Schema-based Instruction							
Concrete-Representational-Abstract (CRA)							
Pirate Math							

 Intensive Interventions
in Mathematics 

- Module 3
 - Part 1
 - Discussion
- 

Share an example of an evidence-based intervention or strategy that you find useful in the classroom.

(This space is for organizing your ideas.)



Intensive Interventions in Mathematics

- Module 3
- Part 2
- Activity #3



Locate a Tier 2 evidence-based practice in mathematics for a 4th-grade student.

Compare sites on:

- Ease of locating information
- Quality of information
- Pros and cons of the site


Evidence-based practice to compare across sites:

Site Name and Web Address	Site Characteristics	Notes
What Works Clearinghouse https://ies.ed.gov/ncee/wwc/	Ease of Locating Information	
	Quality of Information	
	Pros of Site	
	Cons of Site	
Evidence for ESSA https://www.evidencefoessa.org/	Ease of Locating Information	
	Quality of Information	
	Pros of Site	
	Cons of Site	
Teaching LD http://teachingld.org/	Ease of Locating Information	
	Quality of Information	
	Pros of Site	
	Cons of Site	


- Module 3
- Part 2
- Activity #3 (cont.)




Evidence Based Intervention Network http://ebi.missouri.edu/	Ease of Locating Information	
	Quality of Information	
	Pros of Site	
	Cons of Site	
National Center on Intensive Intervention http://www.intensiveintervention.org/	Ease of Locating Information	
	Quality of Information	
	Pros of Site	
	Cons of Site	
Another site you currently use:	Ease of Locating Information	
	Quality of Information	
	Pros of Site	
	Cons of Site	
Another site you currently use:	Ease of Locating Information	
	Quality of Information	
	Pros of Site	
	Cons of Site	



Intensive Interventions in Mathematics




- Module 3
 - Part 2
 - Activity #4
- 

Locate the following mathematics interventions. How would you rate the evidence?


(Choose two evidence-based interventions and two evidence-based strategies in *mathematics* for the grade level you teach.)


Name of Practice	Assessment Data to Show Results		Replication			Setting
	Improvement from Before Intervention	Improvement Compared to No Treatment Students	Multiple Researchers	Multiple Students	Multiple Times	Setting and Students Similar to Your Own?
Evidence-based <u>Intervention</u> 1:						
Evidence-based <u>Intervention</u> 2:						
Evidence-based <u>Strategy</u> 1:						
Evidence-based <u>Strategy</u> 2:						

Notes/Comments:



Intensive Interventions in Mathematics



- Module 3
 - Part 3
 - Activity #5
- 

You met Emma in the module about assessment within DBI.

Missing Number—1, Fall
Date: _____ Number Correct _____

Direction: Write the number that the student says in the blank.

- | | | |
|------------------|------------------|-----------------|
| 1. <u>✓</u> (9) | 2. <u>--</u> (6) | 3. <u>6</u> (5) |
| 4. <u>2</u> (60) | 5. _____ (4) | 6. _____ (6) |
| 7. _____ (2) | 8. _____ (20) | 9. _____ (9) |
| 10. _____ (3) | 11. _____ (9) | 12. _____ (7) |
| 13. _____ (25) | 14. _____ (8) | 15. _____ (1) |



OSEP Award #H324H030003

<https://www.progressmonitoring.org/>



This student had 1 correct response out of 4 attempts.

Missing Number, page 1—Student copy

7 8 9 10

3 4 5 --

4 6 6 7

30 40 50 2

1 2 3 _____

4 5 _____ 7

- Module 3
- Part 3
- Activity #5 (cont.)



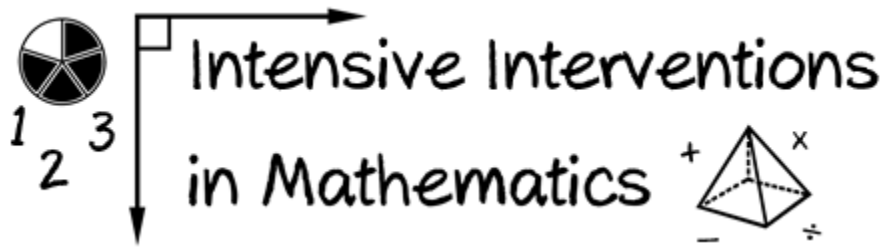
Emma's ENI Results

Subtest	Emma's Scores	Strengths	Weakness
Number Identification	12/22	Fluent on numbers less than 20	Did not correctly identify any numbers greater than 20
Quantity Discrimination	16/16	Accurate with numbers less than 20	(All numbers were less than 20)
Missing Number	1/4	None identified.	Supplying a missing number in sequence, even when counting by ones


Considering the mathematical strengths and weaknesses of Emma:

1. What would be a scope and sequence for Emma?

2. What evidence-based interventions or evidence-based strategies are available?

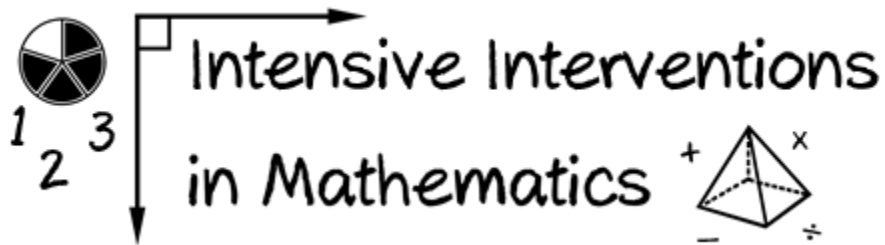


Intensive Interventions in Mathematics

- Module 3
 - Part 3
 - Activity #6
- 

Using the resources we've discussed (and additional resources), what evidence-based interventions and evidence-based strategies are available at the grade(s) you teach? What's the quality of the evidence?

Evidence-based <u>Interventions</u>	Location of Evidence	Quality of Evidence
Evidence-based <u>Strategies</u>	Location of Evidence	Quality of Evidence



Intensive Interventions
in Mathematics

- Module 3
- Part 3
- Discussion



**What evidence-based practices do you need for intensive intervention?
Share with your classmates.**

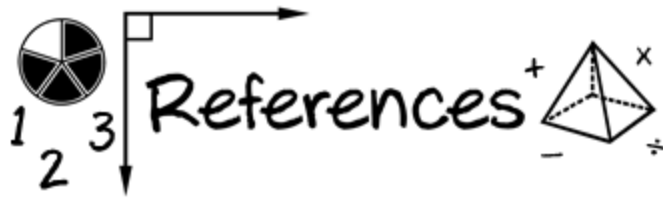
**Write an original post on the Discussion Board and respond to two peers.
(This space is for organizing your ideas.)**



Evaluate a current instructional intervention or strategy. What is the evidence?

In Part 2 of this Module, you wrote a reflection on the evidence-based practices you are currently using in your classroom and how you knew of their evidence base. Now take this a step further: examine your go-to intervention or strategy closely. Look at the evidence. Determine whether to continue that practice, or to replace/supplement it.

Name of Practice	Assessment Data to Show Results		Replication			Setting
	Improvement from Before Intervention	Improvement Compared to No Treatment Students	Multiple Researchers	Multiple Students	Multiple Times	Setting and Students Similar to Your Own?
Continue to Use? YES NO	Replace With		Supplement With			
Continue to Use? YES NO	Replace With		Supplement With			



Hughes, E. M., Powell, S. R., Lembke, E. S., & Riley-Tillman, T. C. (2016). Taking the guesswork out of locating evidence-based practices for diverse learners. *Learning Disabilities Research and Practice*, 31, 130–141. <https://doi.org/10.1111/ldrp.12103>