

Multi-Tiered System of Supports (MTSS): Supplemental Interventions at Tiers 2 and 3

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Session Outcomes

At the end of the session, participants will be able to:

- Define and explain the relationship among evidence-based practices (EBPs), evidence-based interventions (EBI), and high leverage practices (HLPs).
- Use existing tools and resources, including the Taxonomy of Intervention Intensity, to select and evaluate EBPs and EBIs at Tiers 2 and 3.
- Support implementation of interventions s the tiers of prevention within a multi-tiered system of support (MTSS).

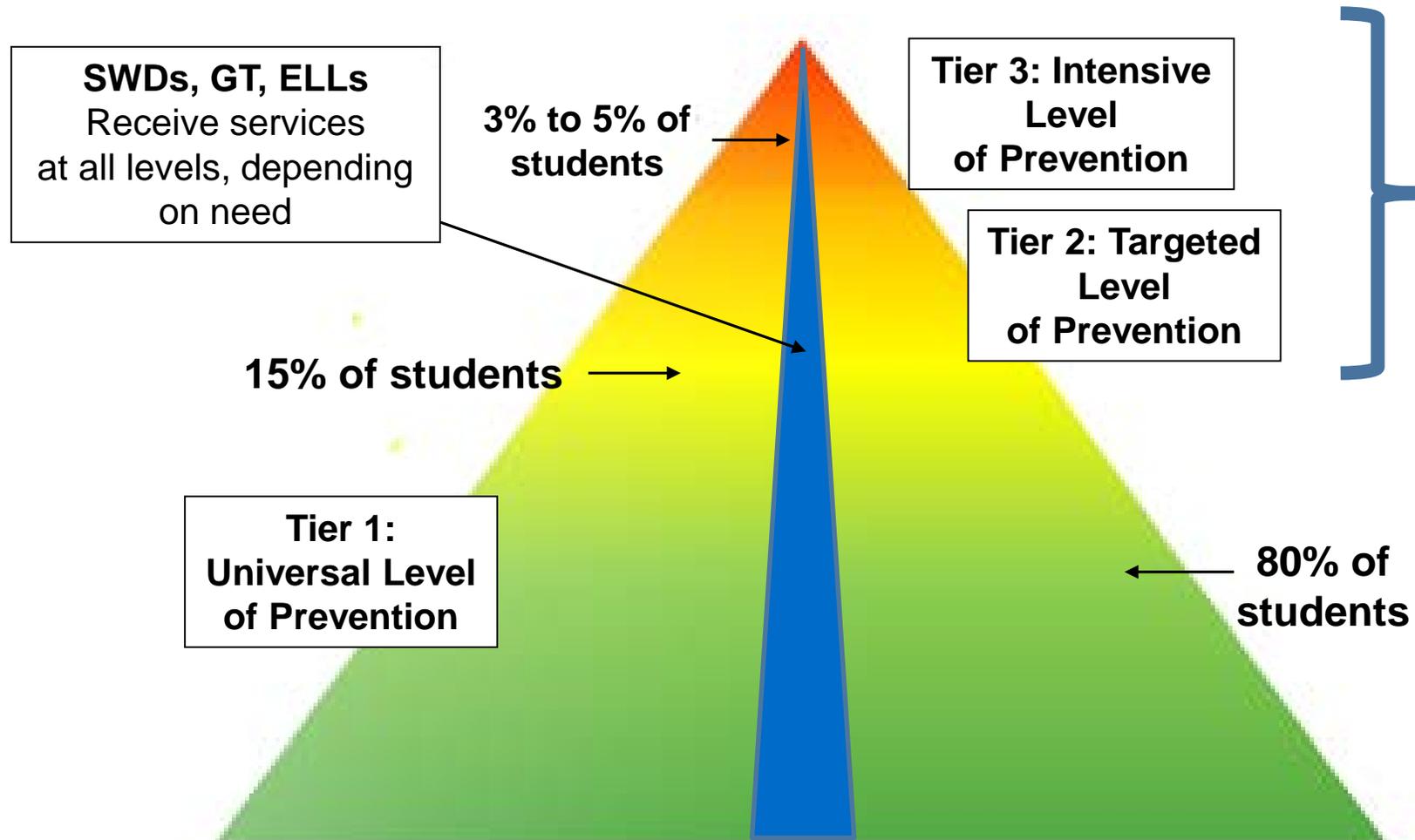
Agenda

- 9:00 – 9:30 Welcome and Overview
- 9:30 – 10:15 Introduction to Supplemental Interventions in MTSS
- 10:15 - 10:30 Break
- 10:30 – 12:00 Selection and Evaluation of EBPs and HLPs within MTSS
- 12:00 – 1:00 Lunch
- 1:00 – 1:15 Reflection Activity
- 1:15 – 2:45 Effective Implementation of Evidence-based Interventions
- 2:45 – 3:00 Closing and Next Steps

“Life is really simple, but we insist on making it complicated.”

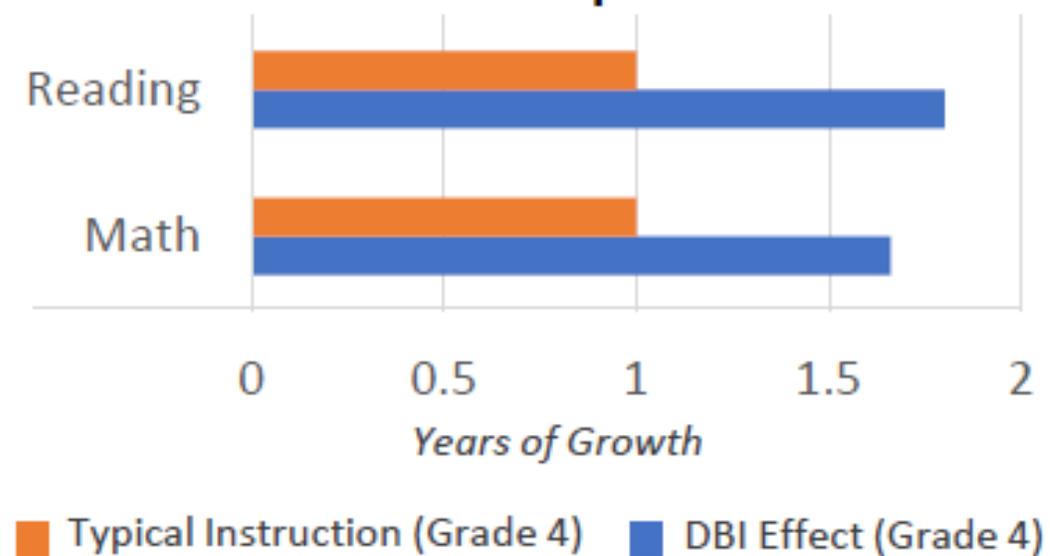
— Confucius

MTSS provides the data and infrastructure to develop collective efficacy!



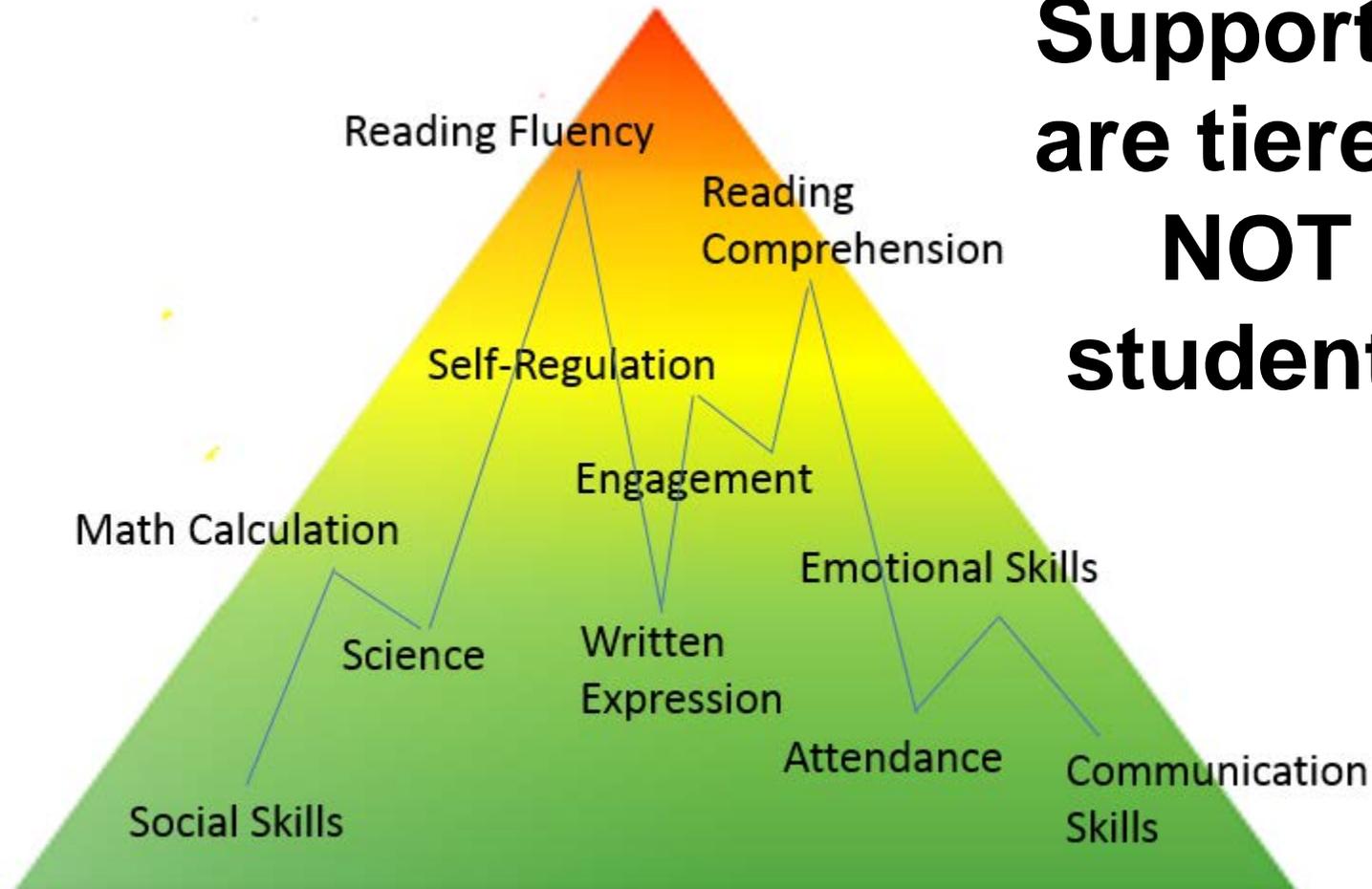
Impact of Interventions Depends on High-Quality Tier 1

Improves outcomes for K–12 students at or below the 10th percentile^a



[Jung, McMaster, Kunkel, Shin, & Stecker, 2018]

Remember: MTSS is About Addressing the Whole Child



**Supports
are tiered,
NOT
students**

Activity: Revised K-W-L

Taxonomy of Intervention Intensity: Revised K-W-L

Directions: Review the Taxonomy of Intervention Intensity handout and complete the activity below.

What does the resource help me KNOW ?	What do I WANT to know that the resource cannot answer?	How will I LEARN more?
What information can I gather from this resource without any additional explanations?	What new questions do I have? What more do I want to know?	

Handout

Introduction to HLPs, EBPs, EBIs within Tiers 2 & 3

What's in a name?

- Evidence-based Practices (EBPs)
- Evidence-based Intervention (EBI)
- Validated Interventions
- High Leverage Practices (HLPs)
- Effective Instructional Practice
- High Yield Practices
- Research-Based Practices
- Tier 1, 2, & 3 practices
- Others?



High Leverage Practices (HLPs)

- “A set of practices that are fundamental to support...student learning, and that can be taught, learned, and implemented by those entering the profession.”

(Windschitl, Thompson, Braaten, & Stroupe, 2012, p. 880)

- HLPs are HOW teachers deliver instruction. All teachers should have deep knowledge in a core set of effective instructional practices.

(McLeskey & Brownell, 2015)

HLPs

HLPs are applicable to the everyday work of teachers

Fundamental to effective teaching across the tiers

Cut across content domains and grade levels

Used frequently

Supported by research

Examples of HLPs

The screenshot shows the TeachingWorks website. At the top left is the TeachingWorks logo with the University of Michigan name. A navigation menu includes 'About', 'The Work of Teaching', 'Support & Resources', 'Publications & Presentations', and 'News & Events'. A quote at the top right reads 'Great teachers aren't born. THEY'RE TAUGHT.' Below the navigation is a large image of children looking at a dinosaur model, with the text 'High-Leverage Practices' overlaid. A sidebar on the left contains a menu with items like 'Overview', 'Core Ideas', 'Origin & Evolution', 'High-Leverage Practices', 'High-Leverage Content', 'Program Networks', and 'National Observational Teaching Examination'. A 'Subscribe' button is also visible. The main content area features a breadcrumb trail 'HOME / THE WORK OF TEACHING / HIGH-LEVERAGE PRACTICES', social sharing icons, and a section titled 'High-Leverage Practices' with a paragraph of text and a list of two practices: '1. Leading a group discussion' and '2. Explaining and modeling content, practices, and strategies'. Each list item has a 'READ MORE' link below it.

Handouts: Assessing Implementation of Tier 1 Instructional Practices or High-Leverage Practices and Tiers of Support

The graphic features the title 'HIGH-LEVERAGE PRACTICES' in large, bold, purple and orange letters at the top. Below the title are three small photographs: a teacher working with a young boy, a teacher interacting with a group of students, and a young girl reading a book. Underneath the photos, the words 'IN SPECIAL EDUCATION' are written in large, bold, blue and red letters. At the bottom right, there are two logos: the Council for Exceptional Children and the CEDAR CENTER logo.

Activity: HLPs Across the Tiers

- With your team, review the list of HLPs in Handout 2.
- Place an X to indicate which tier(s) of support you believe each HLP is applicable to (T1 – Tier 1, T2 – Tier 2, T3 - Tier 3).



High-Leverage Practices and Tiers of Support

“These high-leverage practices are used across subject areas, grade levels, and contexts. They are ‘high-leverage’ not only because they matter to student learning but because they are basic for advancing skill in teaching (www.TeachingWorks.org).” Place an X to indicate whether this HLP would be applicable in each tier (T1 – Tier 1, T2 – Tier 2, T3 - Tier 3).

T1	T2	T3	High Leverage Practice
			Leading a group discussion
			Explaining and modeling content, practices, and strategies
			Eliciting and interpreting individual students’ thinking
			Diagnosing particular common patterns of student thinking and development in a subject-matter domain
			Implementing norms and routines for classroom discourse and work
			Coordinating and adjusting instruction during a lesson
			Specifying and reinforcing productive student behavior
			Implementing organizational routines

What are Evidenced-Based Practices (EBPs)?

EBPs are delivered using HLPs!

Are content specific

Developmentally appropriate

Learner dependent

Supported by research

Early Elementary Literacy Evidence-based Practices (EBPs)

#	Recommendations	Evidence
1	Teach students academic language skills , including the use of inferential and narrative language, and vocabulary knowledge.	Minimal
2	Develop awareness of the segments of sounds in speech and how they link to letters.	Strong
3	Teach students to decode words, analyze word parts, and write and recognize words	Strong
4	Ensure that each student reads connected text every day to support reading accuracy, fluency, and comprehension.	Moderate
5	Provide intensive, systematic instruction in up to three foundational skills in small groups (Tier 2)	Strong*
6	Provide intensive instruction (Tier 3) on a daily basis that promotes development of the various components of reading proficiency to students who show minimal progress	Strong**

4th-8th Math Intervention Evidence-based Practices (EBPs)

#	Recommendations	Evidence
1	Prepare problems and use them in whole-class instruction	Minimal
2	Assist students in monitoring and reflecting on the problem-solving process.	Strong
3	Teach students how to use visual representations.	Strong
4	Expose students to multiple problem-solving strategies.	Moderate
5	Help students recognize and articulate mathematical concepts and notation.	Moderate
6	Instruction during the intervention should be explicit and systematic.	
7	Interventions at K-8 grade levels should devote about 10 minutes in each session to building fluent retrieval of basic arithmetic facts.	Moderate
8	Include motivational strategies in tier 2 and tier 3 interventions.	Minimal

Sample Tier 1 Adolescent Literacy Practices

#	Recommendations	Evidence
1	Provide explicit vocabulary instruction .	Strong
2	Provide direct and explicit comprehension strategy instruction .	Strong
3	Provide opportunities for extended discussion of text meaning and interpretation.	Moderate
4	Increase student motivation and engagement in literacy learning.	Moderate
5	Make available intensive and individualized interventions for struggling readers that can be provided by trained specialists.	Strong

(Kamil, Borman, Dole, et al., 2008)

Where do HLPs and EBPs fit within MTSS?

Characteristics	Tier 1	Tier 2	Tier 3
Instruction/ Intervention Approach	Comprehensive research-based curriculum	Standardized, targeted small-group instruction	Individualized, based on student data
Group Size	Class-wide (with some small group instruction)	3–7 students	No more than 3 students
Monitor Progress	1x per term	At least 1x per month	Weekly
Population Served	All students	At-risk students	Significant and persistent learning needs

THINK-PAIR-SHARE

- THINK about the relationship between HLPS and EBPs.
- PAIR with a table partner.
- SHARE a description of how you see the relationship between HLPs and EBPs.

Design

Delivery

What are evidenced-based interventions (EBIs)?

- Standardized, validated interventions designed for **at-risk** students.
- **Also known as...**
 - ✓ Tier 2 or supplemental interventions
 - ✓ Remedial curriculum
 - ✓ Small group interventions
- **Literacy examples**
 - Leveled Literacy Intervention (LLI)
 - Read Naturally
 - Reading Rockets

Why use with standardized, evidence-based interventions?

- When properly aligned to students' needs, they tend to work—teachers don't need to “reinvent the wheel.”
- They are efficient—teachers can plan instruction for groups rather than individual students.
- Many require only a modest amount of training—often, paraeducators can help with delivery.
- Often inexpensive.



Can I still implement EBI if I don't have a standardized programs?

- Yes!
- Use them *when available* and consider augmenting current offerings if there are content areas where you have insufficient resources.
- Consider designing interventions using EBPs outlined in IES Practice Guides and research articles.



Team Activity: Quick Intervention Inventory

- With your team, select an area of focus (e.g., math, reading, behavior).
- Create a *brief list* of standardized, published interventions available in your school(s) in that area.
- *Reflect:* How do you know if these are evidence-based?

Where do EBIs generally fit within MTSS?

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How do Tier 2 and Tier 3 Compare?

Characteristics	Tier 2	Tier 3
Instruction/ Intervention Approach	Follow standardized evidence-based intervention programs as designed	Use standardized evidence-based program as a platform, but adapt instruction based on student data
Duration and timeframe	Use duration and timeframe defined by developer	Increase frequency and/or duration to meet student needs
Group size	3–7 students (as defined by developer)	Decrease group size to meet student needs (no more than 3)
Progress Monitoring	At least monthly	Weekly
Population served	At-risk (typically 15–20% of student population)	Significant and persistent learning and/or behavior needs (typically 3–5% of student population)

Four Critical Features of Intervention Systems

1. Uses evidence-based interventions that support academic and behavior needs
2. Complements core academic and behavior instruction/program



Four Critical Features of Intervention Systems

3. Uses standardized interventions with appropriate dosage and grouping size delivered by trained personnel with fidelity

- Standardized intervention

- » uses research-based instructional programs

- » provided in a specific manner to students

- » typically includes a step-by-step sequence

(Vaughn et al., 2012)

4. Scheduled in addition to Tier I

Activity: Self-Evaluation of Intervention System



Handout

Selection and Evaluation of Evidence-Based Interventions within MTSS

Key Considerations When Selecting and Evaluating Evidence-based Interventions

- ✓ Does evidence suggest the intervention is expected to lead to improved outcomes (*strength*)?
- ✓ Will the group size, duration, and frequency provide sufficient opportunities to respond (*dosage*)?
- ✓ Does the intervention match to the student's identified needs (*alignment*)?
- ✓ Does it assist the student in generalizing the learned skills to general education or other tasks (*attention to transfer*)?
- ✓ Does the intervention include elements of explicit instruction (*comprehensiveness*)?
- ✓ Does the student have opportunities to develop the behavior skills necessary to be successful (*behavioral support*)?

Elements of Evidence-Based Interventions

1. Designed Based on Intervention Taxonomy

2. Fidelity

- a) Adherence
- b) Student Engagement
- c) Program Specificity
- d) Quality of Delivery
- e) Exposure

Taxonomy of Intervention Intensity

The *Taxonomy of Intervention Intensity** was developed based on existing research to support educators in evaluating and building intervention intensity.



Dimensions*	Description
Strength	How well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes of above .25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate; effect sizes of 0.50 or larger are strong (preferred).
Dosage	The number of opportunities a student has to respond and receive corrective feedback. It refers to the size of the instructional group, the number of minutes each session lasts, and the number of sessions provided per week.
Alignment	How well the program (a) addresses the target student's full set of academic skill deficits, (b) does <i>not</i> address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade-appropriate curricular standards.
Attention to transfer	The extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.
Comprehensiveness	The number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; providing practice so students use the strategies to generate many correct responses; and incorporating systematic cumulative review).
Behavioral support	The extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize nonproductive behavior.
Individualization	A validated, data-based process for individualizing intervention, in which the educator systematically adjusts the intervention over time, in response to ongoing progress-monitoring data, to address the student's complex learning needs.

*Fuchs, L.S, Fuchs, D. & Malone, A.S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

Handout

How do you measure *Strength* for academics?

Strength	Effect Size
Small (minimum)	0.25 to 0.34
Moderate	0.35 to 0.49
Strong	0.50 or larger

Understanding Intervention Effect Size

Student Outcome	Early Elementary K–3		Upper Grades 4–9	
	Mean ES	No. of Effects	Mean ES	No. of Effects
Comprehension	.46	25	.09	37
Reading Fluency	.34	11	.12	8
Word Reading	.56	53	.20	22
Spelling	.40	24	.20	5

Note: ES = effect size

(Wanzek et al., 2013)

What to Look For When Examining the Published Evidence Base

- **Type/Source**

- Is the source reputable? Can it be trusted?

- **Population**

- Were the students included in the study similar to our students?

- **Desired Outcomes**

- Were the outcomes of interest relevant to our students?

- **Effect Size**

- Does the evidence suggest the intervention can produce the result we expect?

Strength: Behavior

- How well the program works for students with intensive intervention needs, sometimes expressed as a promising or effective program by a reliable source (e.g., NCII Tools Charts, WWC).
- Why don't we use effect size to determine the strength of (some) behavioral interventions?
 - » Group design vs. single-subject designs

Resources for Evaluating Evidence Base of Practices and Standardized Interventions

NCII Interventions
Tools Chart

<http://www.intensiveintervention.org/chart/instructional-intervention-tools>

What Works
Clearinghouse

<http://ies.ed.gov/ncee/wwc/findwhatworks.aspx>

Best Evidence
Encyclopedia

<http://www.bestevidence.org/>

*Handout: Tools for
Identifying Evidence-
Based Practices and
Interventions*

ESSA Levels of Evidence

All other programs under Titles I–IV

Title I, Section 1003

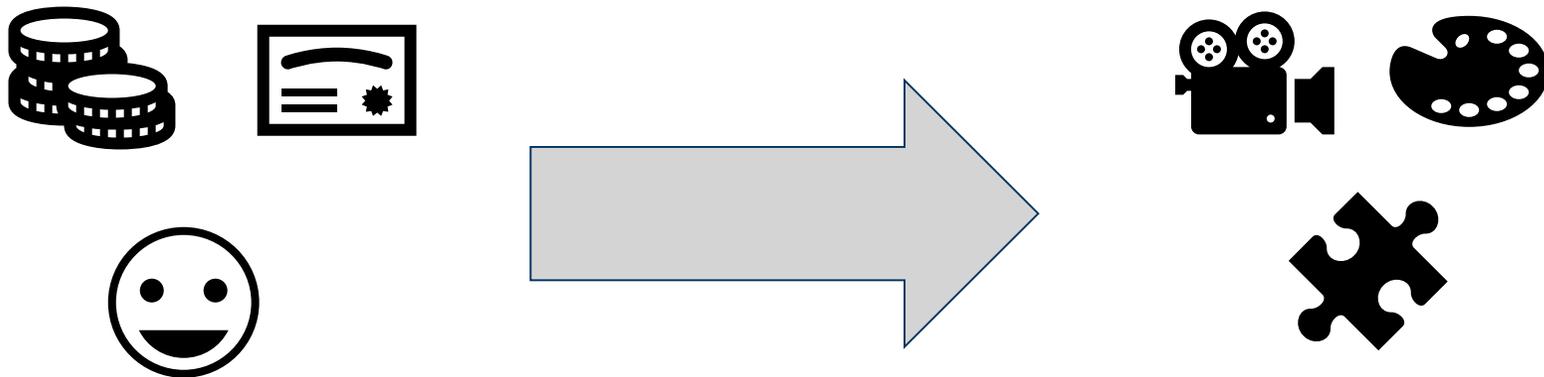
- **Tier 1 – Strong Evidence:** supported by one or more well-designed and well-implemented randomized control experimental studies.
- **Tier 2 – Moderate Evidence:** supported by one or more well-designed and well-implemented quasi-experimental studies.
- **Tier 3 – Promising Evidence:** supported by one or more well-designed and well-implemented correlational studies (with statistical controls for selection bias).
- **Tier 4 – Demonstrates a Rationale:** practices that have a well-defined logic model or theory of action, are supported by research, and have some effort underway by an SEA, LEA, or outside research organization to determine their effectiveness.

Dosage: Academics

- Refers to number of opportunities to respond and receive corrective feedback.
- Impacted by several variables:
 - » Size of instructional group
 - » Number of minutes each session lasts
 - » Number of sessions provided per week

Dosage: Behavior

- The number of opportunities a student has to (a) respond (i.e., practice/demonstrate skill), (b) receive positive feedback (e.g., praise, tokens, points), (c) exchange for backup reinforcers, and (d) receive corrective feedback.



Alignment: Academics

- Addresses the target student's full set of academic skill deficits.
- Does *not* address skills the target student has already mastered (extraneous skills for that student).
- Interventions should focus on systematic instruction on up to three foundational reading skills (e.g., phonics, comprehension, fluency).
- Incorporates a meaningful focus on skills necessary to access grade-appropriate curricular standards.

Alignment: Behavior

- How well the program
 - » addresses school-wide expectations,
 - » addresses classroom/teacher expectations,
 - » addresses student's skill deficits,
 - » matches rewards to student's preferences and/or function of problem behavior, and
 - » does not address extraneous skills.

Attention to Transfer: Academics

- Refers to the extent to which
 - an intervention is *systematically designed* to help students transfer the skills they learn to other formats and contexts.
 - the intervention helps students realize connections between mastered and related skills

“generalization”

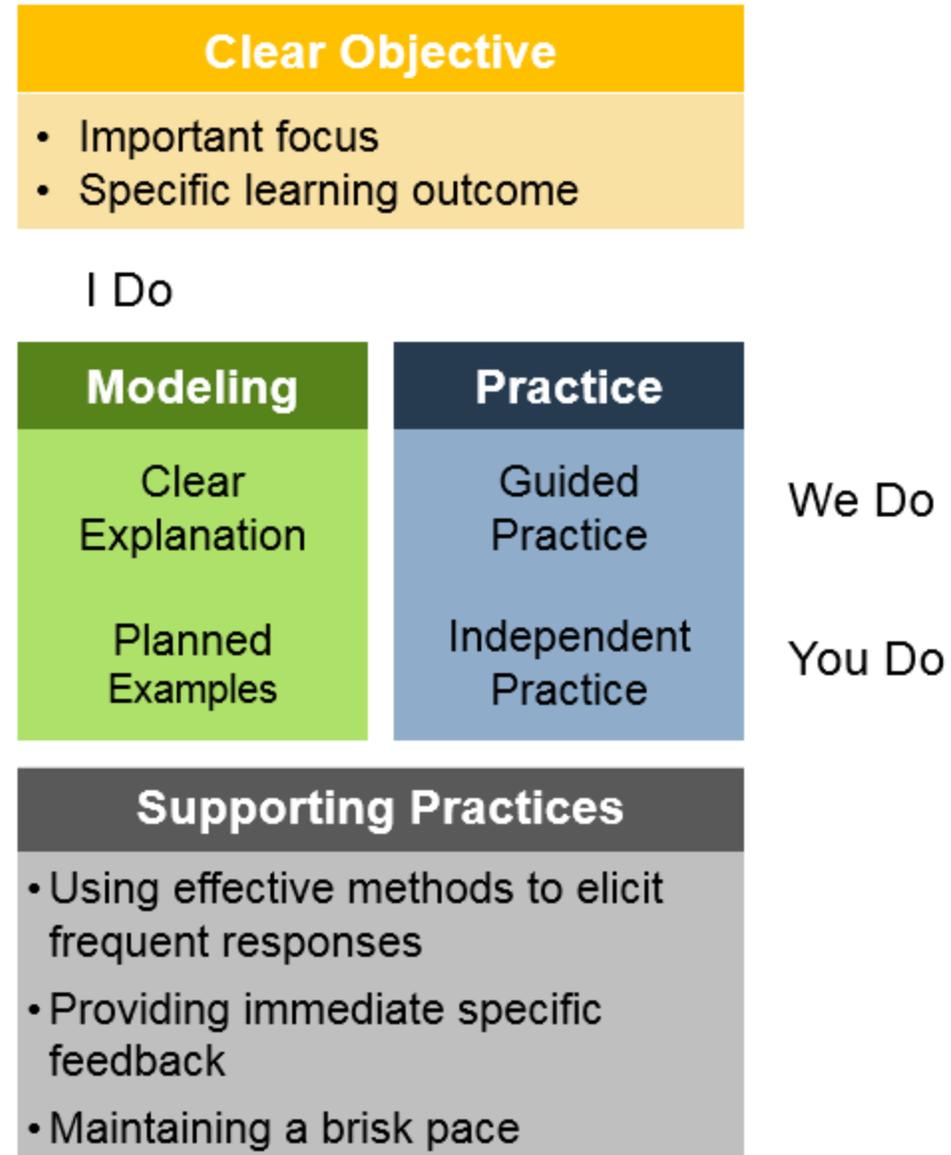
Attention to Transfer: Behavior

- The extent to which an intervention emphasizes how and when a student uses skills across contexts/situations and includes opportunities to practice using skills across context/situations.
- The program reinforces the use of skills across contexts/situations.

Comprehensiveness: Academics

Reflects the number of explicit instruction principles the intervention incorporates. Examples...

1. provides explanations in simple, direct language.
2. models efficient strategies (e.g., decoding unknown words) instead of expecting students to discover strategies on their own.
3. ensures students have the necessary background knowledge and skills to succeed with those strategies.
4. gradually fades support for students' correct execution of those strategies.
5. provides practice so students use the strategies to generate many correct responses.
6. incorporates systematic cumulative review



Comprehensiveness: Behavior

- **The extent to which the intervention includes a plan for:**
 - » teaching appropriate behavior,
 - » adjusting antecedent conditions to prevent problem behavior,
 - » reinforcing appropriate behavior,
 - » minimizing reinforcement for problem behavior,
 - » fading supports,
 - » monitoring fidelity,
 - » working in conjunction with related services, and
 - » communicating with parents.

Behavior Support in Academic Interventions

self-regulation

ability to manage your emotions and behavior in accordance with the demands of the situation

executive function

a set of processes that all have to do with managing oneself and one's resources in order to achieve a goal

These make up the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully

Academic Support in Behavior Interventions

- Are behavioral interventions easily integrated within the context of academic instruction?
- Does it complement rather than supplant the academic focus?
- Does it include procedures for reinforcing responses related to academic achievement (e.g., engagement, work completion)?

Resources for Evaluating and Selecting Evidence-Based Practices

What Works
Clearinghouse

<http://ies.ed.gov/ncee/wwc/findwhatworks.aspx>

NCII Interventions
Tools Chart

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Handout: Tools for Identifying Evidence-Based Practices and Interventions

Select topics to filter



Literacy



Children and Youth with Disabilities



Early Childhood (Pre-K)

WELCOME TO THE WHAT WORKS CLEARINGHOUSE

The What Works Clearinghouse (WWC) reviews the existing research on different programs, products, practices, and policies in education. Our goal is to provide educators with the information they need to make evidence-based decisions. We focus on the results from high-quality research to answer the question "What works in education?" Find more information **about the WWC**.



INTERVENTION REPORTS

FIND RESEARCH WITH STUDENTS LIKE YOURS

Filter by topic

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners
- Teacher Excellence
- Charter Schools
- Early Childhood (Pre-K)
- Kindergarten to 12th Grade
- Path to Graduation

Find What Works based on the evidence

How to Use FWW Print

228 Results filtered by:

Literacy x

Evidence of effectiveness	Intervention	Grades examined	Compare
	Literacy Express	PK	<input type="checkbox"/>
	Phonological Awareness Training	PK	<input type="checkbox"/>
	Knowledge is Power Program (KIPP)	5-12	<input type="checkbox"/>
	Reading Recovery®	1	<input type="checkbox"/>
	READ 180®	4-10	<input type="checkbox"/>
	Sound Partners	K-1	<input type="checkbox"/>
	Phonological Awareness Training plus Letter Knowledge Training	PK	<input type="checkbox"/>
	Instructional Conversations and Literature Logs	2-5	<input type="checkbox"/>
	SpellRead	5-6	<input type="checkbox"/>
	Dialogic Reading	PK	<input type="checkbox"/>
	Success for All®	K-4	<input type="checkbox"/>
	DaisyQuest	PK-1	<input type="checkbox"/>

Filter by topic

Evidence of effectiveness ⓘ

Grades

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners
- Teacher Excellence
- Charter Schools
- Early Childhood (Pre-K)
- K-12 Kindergarten to 12th Grade
- Path to Graduation
- Postsecondary

MORE FILTERS ▶

More Filters



Grade



PK

K

1

2

3

4

5

Class Type ▶

6

7

8

9

10

11

12

School Type ▶

Delivery Method ▶

Program Type ▶

Outcomes ▶

228 Results

Done

Clear All



Leveled Literacy Intervention

K-2



Stepping Stones to Literacy

K



Peer-Assisted Learning Strategies

K-6



Filter by topic

Evidence of effectiveness ⓘ

Grades

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners
- Teacher Excellence
- Charter Schools
- Early Childhood (Pre-K)
- K-12 Kindergarten to 12th Grade
- Path to Graduation
- Postsecondary

MORE FILTERS ▶

More Filters



Grade ▶ Select one or more of the characteristics to the left to filter your search results.

Class Type ▶

School Type ▶

Individual

Small Group

Delivery Method ▶

Whole Class

School

Program Type ▶

Outcomes ▶

228 Results

Done

Clear All

	Leveled Literacy Intervention	K-2	<input checked="" type="checkbox"/>
	Stepping Stones to Literacy	K	<input type="checkbox"/>
	Peer-Assisted Learning Strategies	K-6	<input type="checkbox"/>

Filter by topic

Evidence of effectiveness ⓘ

Grades

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners
- Teacher Excellence
- Charter Schools
- Early Childhood (Pre-K)
- K-12 Kindergarten to 12th Grade
- Path to Graduation
- Postsecondary

MORE FILTERS ▶

More Filters

Grade ▶

Class Type ▶

School Type ▶

Delivery Method ▶

Program Type ▶

Outcomes ▶

- ▶ Behavior
- ▶ Children and Youth with Disabilities
- ▶ English Learners

▼ Literacy

- Alphabetic
- Communication/ Language
- Comprehension
- Early reading/writing
- English language arts achievement
- Literacy achievement
- Oral language
- Phonological processing
- Print knowledge
- Reading achievement
- Reading fluency
- Writing achievement

- ▶ Mathematics
- ▶ Path to Graduation
- ▶ Science

Done

Clear All

Table 1. Summary of findings³

Outcome domain	Rating of effectiveness	Improvement index (percentile points)		Number of studies	Number of students	Extent of evidence
		Average	Range			
General reading achievement	Potentially positive effects	+10	+6 to +17	2	126	Small
Reading fluency	Mixed effects	+7	+1 to +18	4	440	Medium to large
Alphabetics	No discernible effects	+2	-2 to +5	2	264	Small
Comprehension	No discernible effects	0	-16 to +9	4	439	Medium to large

...toring of student progress by teachers and the students themselves. Students work at their reading level, progress through the program at their own rate, and work (for the most part) on an independent basis. The program can be delivered in three ways: (1) students use audio CDs with hard-copy reading materials (*Read Naturally® Masters*, *Read Naturally® Encore*), (2) students use the computer-based version (*Read Naturally® Software Edition*), or (3) students use the web-based version (*Read Naturally® Live*). This intervention report includes studies of *Read Naturally® Masters Edition* and *Read Naturally® Software Edition*.

Research²

Findings included in the Rating for Each Outcome Domain	p.24
Supplemental Findings for Each Outcome Domain	p.29
Endnotes	p.30
Rating Criteria	p.31
Glossary of Terms	p.32

Appendix C.4: Findings included in the rating for the general reading achievement domain

Outcome measure	Study sample	Sample size	Mean (standard deviation)		WWC calculations			p-value
			Intervention group	Comparison group	Mean difference	Effect size	Improvement index	
Arvans, 2010^a								
<i>Woodcock-Johnson III (WJ-III): Summary Scores</i>	Grades 2–4	82 students	94.82 (9.85)	93.09 (11.17)	1.73	0.16	+6	> 0.05
Domain average for general reading achievement (Arvans, 2010)						0.16	+6	Not statistically significant
Heistad, 2008^b								
<i>Minnesota Comprehensive Assessment (MCA): Reading portion</i>	Grade 3	44 students	1,363.18 (162.08)	1,331.36 (139.77)	31.82	0.21	+8	0.27
<i>Northwest Achievement Levels Test (NALT): Reading portion</i>	Grade 3	44 students	192.30 (10.51)	187.73 (10.18)	4.56	0.43	+17	0.02
Domain average for general reading achievement (Heistad, 2008)						0.32	+13	Statistically significant
Domain average for general reading achievement across all studies						0.24	+10	na

Appendix C.1: Findings included in the rating for the alphabets domain

Outcome measure	Study sample	Sample size	Mean (standard deviation)		WWC calculations			
			Intervention group	Comparison group	Mean difference	Effect size	Improvement index	p-value
Christ & Davie, 2009^a								
<i>Test of Word Reading Efficiency (TOWRE)</i>	Grade 3	106 students	94.90 (10.00)	93.50 (11.00)	1.40	0.13	+5	0.31
<i>Woodcock Reading Mastery Tests-Revised (WRMT-R): Word Identification subtest</i>	Grade 3	105 students	99.00 (7.00)	98.00 (8.00)	1.00	0.04	+2	0.75
Domain average for alphabets (Christ & Davie, 2009)						0.09	+3	Not statistically significant
Kemp, 2006^b								
<i>Orthographic Choice Test</i>	Grade 3	158 students	13.49 (2.30)	13.41 (2.12)	0.08	0.04	+1	> 0.05
<i>Rosner Auditory Analysis Test</i>	Grade 3	158 students	27.52 (8.96)	27.29 (9.05)	0.23	0.03	+1	> 0.05
<i>TOWRE: Phonemic Decoding Efficiency subtest</i>	Grade 3	158 students	35.32 (11.95)	34.63 (11.98)	0.69	0.06	+2	> 0.05
<i>TOWRE: Sight Word Efficiency subtest</i>	Grade 3	158 students	64.29 (12.81)	64.91 (10.24)	-0.62	-0.05	-2	> 0.05
Domain average for alphabets (Kemp, 2006)						0.02	+1	Not statistically significant
Domain average for alphabets across all studies						0.05	+2	na

Resources for Evaluating and Selecting Evidence-Based Practices

What Works Clearinghouse

<http://ies.ed.gov/ncee/wwc/findwhatworks.aspx>

NCII Interventions Tools Chart

<http://www.intensiveintervention.org/chart/instructional-intervention-tools>

Best Evidence Encyclopedia

<http://www.bestevidence.org/>

Handout: Tools for Identifying Evidence-Based Practices and Interventions

NCII Academic Intervention Tools Chart

	Program		Control		Additional Research
	Number	Percentage	Number	Percentage	
Grade level					
Kindergarten					
Grade 1					
Grade 2	2	50%	2	50%	
Grade 3	1	33%	2	67%	
Grade 4	3	43%	4	57%	●
Grade 5	4	57%	3	43%	
Grade 6	5	50%	5	50%	◐
Grade 7	4	44%	5	56%	
Grade 8	6	60%	4	40%	○
Grade 9	8	53%	7	47%	
Grade 10	2	50%	2	50%	●
Grade 11	3	38%	5	63%	
Incremental Rehearsal					—
Burns (2005)					●
Single-Subject Design					◐

Print Chart

Additional Research

Measures (Broader)

NCII Academic Intervention Tools Chart

FILTER RESULTS

Subject Reading Math Writing

Grade Pre-K Elementary Middle School High School

[Apply](#) [Print Chart](#)

[Hide/Show Advanced Filters](#) [Clear Filters](#)

Targeted Measures

Construct	Measure	Effect Size
Reading	Academy of READING Placement Test	0.72*
Reading	GMRT Total Score	0.35
Reading	STEEP	0.17
Reading	Academy of READING ORFBA	0.19

Broader Measures

Construct	Measure	Effect Size
Reading	GMRT Comprehension	0.26
Reading	GMRT Vocabulary	0.39
Reading	OAA Scaled	0.70*
Reading	OAA Raw	0.63

<input type="checkbox"/>	Incremental Rehearsal	Burns (2005)	Single-Subject Design	1 Math	—	—	●	No	No
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NCII Academic Intervention Tools Chart

FILTER RESULTS

Subject Reading Math Writing

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[Apply](#) [Print Chart](#)

[Hide/Show Advanced Filters](#) [Clear Filters](#)

Reset Chart		Compare Tools	Prev Tab	Next Tab	Study Quality	Study Results	Intensity	Additional Research
All <input type="checkbox"/>	Title	Study	Study Type	Administration Group Size	Duration of Intervention	Minimum Interventionist Requirements		
<input type="checkbox"/>	Academy of READING	Fiedorowicz & Irites (1987)	Group Design	Individual	30 minutes 3 times a week 8-12 weeks	Paraprofessional 6 hours of training		
<input type="checkbox"/>	Academy of READING	Torlaković (2011)	Group Design	Individual	30 minutes 3-5 times a week 13 weeks	Paraprofessional 6 hours of hands-on training; 3 days of on-site training (teachers not pulled out)		
<input type="checkbox"/>	Achieve Intervention	Tracey & Young (2004)	Group Design	Individual Small Group (n=20-25)	40 minutes 2 times a week 35 weeks	Professional 1-2 days of training		
<input type="checkbox"/>	Failure Free Reading	Torgesen, Myers, Schirm, Stuart, Vartivarian, et al. (2006)	Group Design	Small Group (n=3)	60 minutes 5 times a week 18 weeks	Teachers		
<input type="checkbox"/>	Incremental Rehearsal	Burns (2005)	Single-Subject Design	Individual	10-15 minutes 3-4 times a week 10-15 weeks	Paraprofessional Training is not required		

NCII Academic Intervention Tools Chart

FILTER RESULTS

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Reset Chart		Compare Tools		◀ Prev Tab		Next Tab ▶		Study Quality	Study Results	Intensity	Additional Research
All <input type="checkbox"/>	Title	Study	Study Type	<u>Reviewed by WWC or E-ESSA</u>		<u>Other Research: Potentially Eligible for NCII Review</u>					
<input type="checkbox"/>	Academy of READING	Fiedorowicz & Trites (1987)	Group Design	<u>WWC & E-ESSA</u>		<u>2 studies</u>					
<input type="checkbox"/>	Academy of READING	Torlaković (2011)	Group Design	<u>WWC & E-ESSA</u>		<u>2 studies</u>					
<input type="checkbox"/>	Achieve Intervention	Tracey & Young (2004)	Group Design	<u>No</u>		<u>0 studies</u>					
<input type="checkbox"/>	Failure Free Reading	Torgesen, Myers, Schirm, Stuart, Vartivarian, et al. (2006)	Group Design	<u>WWC</u>		<u>0 studies</u>					
<input type="checkbox"/>	Incremental Rehearsal	Burns (2005)	Single-Subject Design	<u>No</u>		<u>9 studies</u>					

Behavior Intervention Tools Chart

	Age/Grade	Gender	Race-ethnicity	Socioeconomic status	Disability Status	ELL status	Other Relevant Descriptive Characteristics
Case 1: Kyle	2 nd	Male	Caucasian	Not reported	Received special education services under the category	Not	Kyle had been diagnosed with attention deficit hyperactivity disorder (combined type) and was taking methylphenidate throughout the study. The levels of methylphenidate remained constant throughout the study. Kyle was referred to CICO due
Case 2: Mike							
Case 3: Nick							
Case 4: Paul	5 th grade	Male	Caucasian	Not reported	Received services under the category of specific learning disability in reading.	Not reported	Paul was referred to the study by his teacher due to disruption and noncompliance, which included talking to peers during quiet time, making inappropriate noises such as pencil tapping and humming, and refusing to complete work (Campbell & Anderson, 2011).

Results in terms of within and between phase patterns: Kyle decreased his problem behavior from 37% of intervals in baseline to 12% of intervals in intervention. Mike decreased his problem behavior from 28% of intervals during baseline to 11% of intervals in intervention. Nick decreased his problem behavior from 28% of intervals during baseline to 8% of intervals during intervention. Paul reduced his problem behavior from 23% of intervals during baseline to 16% of intervals during intervention. All participants had increases in academic engagement, and these improvements were maintained throughout the component analysis. During CICO, the average percentage of DPR points earned was 84% for Kyle, 82% for Mike, 90% for Nick, and 86% for Paul. During the component analysis, the participants maintained over 84% of DPR points earned when morning and afternoon feedback sessions were removed, and maintained over 72% of DPR points when the final feedback session was removed. All participants displayed slightly increasing trends of problem behavior during baseline and return to baseline. With the exception of Paul, whose intervention data showed a moderate degree of variability, each of the participants' variability and level of problem behavior decreased during the first intervention phase. During the second intervention phase, all participants level, variability and trend of problem behavior decreased. This trend was maintained during the component analysis, with only slight increases in variability for each participant. For academic engagement, the students showed either level or moderately decreasing trends during baseline. During intervention phases, graphs of each students' academic engagement reflect moderately increasing trends, as well as decreasing variability. These trends were maintained during component analysis, with only very slight increases in variability for Nick and Paul (Campbell & Anderson, 2011).

Activity, Part 1. Assessing Quality of the Evidence-based Intervention Platform

1. In groups of 2-3, select one (1) intervention for the group from the list shared earlier.
2. Review the handout definitions for each dimension.
3. Rate the intervention **as designed** for each dimension (0-3).
4. Record your responses in the third column.

Dimensions	Definition	Rating (0 – 3)	How could you intensify?
Strength	How well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes of above .25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate; effect sizes of 0.50 or larger are strong (preferred).		
Dosage	The number of opportunities a student has to respond and receive corrective feedback. It refers to the size of the instructional group, the number of minutes each session lasts, and the number of sessions provided per week.		
Alignment	How well the program (a) addresses the target student’s full set of academic skill deficits, (b) does <i>not</i> address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade-appropriate curricular standards.		
Attention to transfer	The extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.		
Comprehensiveness	The number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; ensuring students have the necessary background knowledge and skills to succeed with those strategies; gradually fading support for students’ correct execution of those strategies; providing practice so students use the strategies to generate many correct responses; and incorporating systematic cumulative review).		
Behavioral support	The extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize nonproductive behavior.		

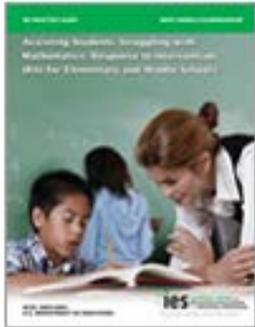
*Fuchs, L.S, Fuchs, D. & Malone, A. S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50 (1), pp. 35–4

Handout

What If Evidence-Based Interventions Aren't Available?

- Use them when available and consider augmenting current offerings, if feasible.
- Also consider:
 - Remediation materials that came with your core program materials
 - Expert recommendations (if evidence-based programs are not available)
 - Standards-aligned materials

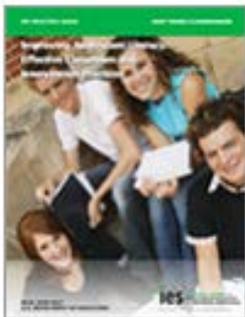
IES Practice Guides: Designing Evidence-Based Interventions



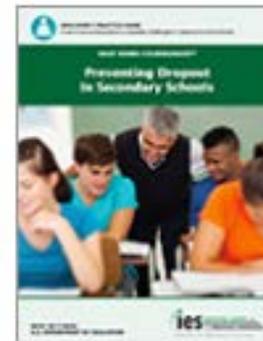
Assisting Students Struggling with Mathematics: Response to Intervention (RtI) for Elementary and Middle Schools



Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Primary Grades



Improving Adolescent Literacy: Effective Classroom and Intervention Practices



Preventing Dropout in Secondary Schools

See full list of Practice Guides at <https://ies.ed.gov/ncee/wwc/PracticeGuides>

Activity: Revised K-W-L

Taxonomy of Intervention Intensity: Revised K-W-L

Directions: Review the Taxonomy of Intervention Intensity handout and complete the activity below.

What does the resource help me KNOW ?	What do I WANT to know that the resource cannot answer?	How will I LEARN more?

Handout

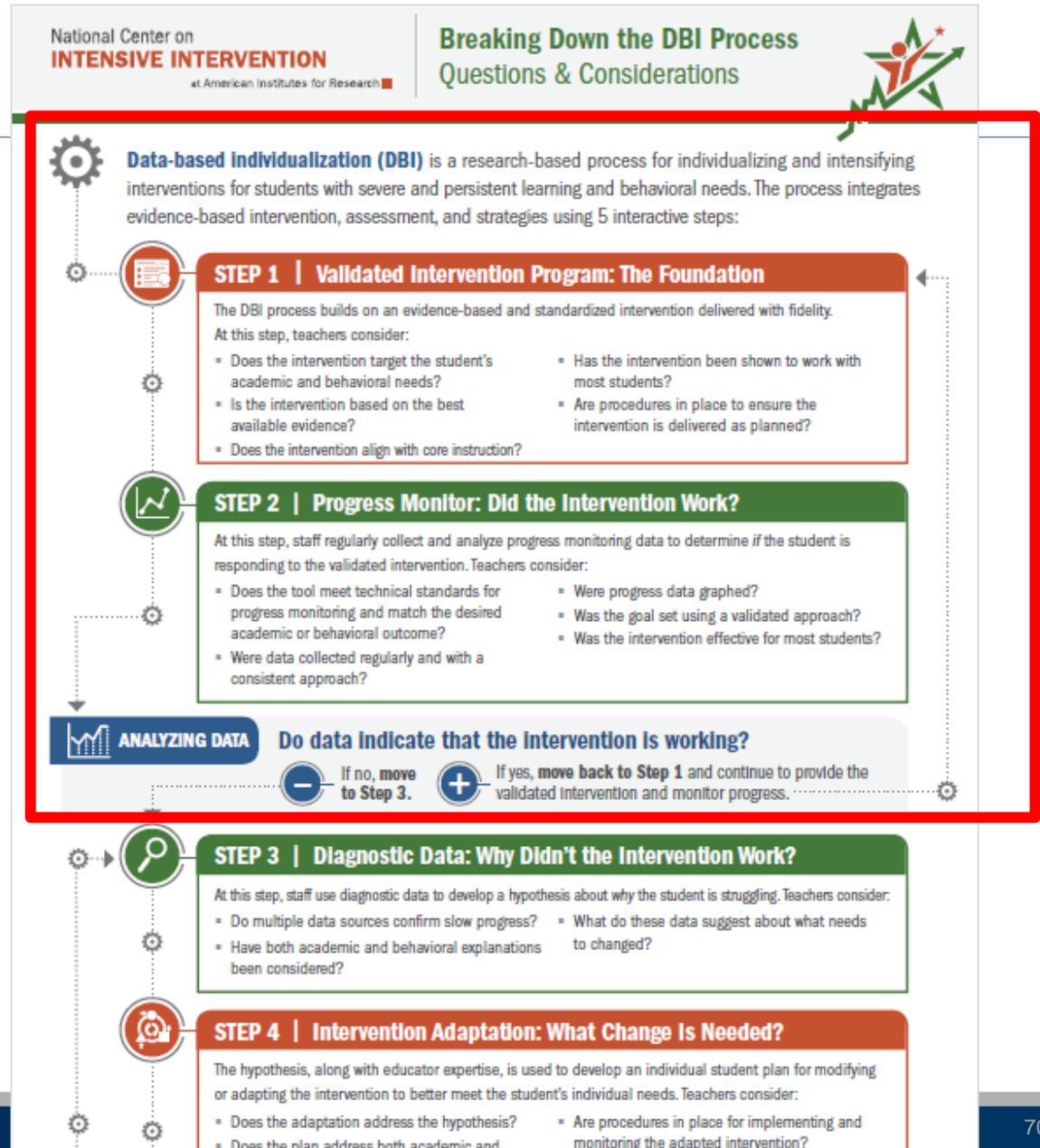
Disclaimer

There is not a single evidence-based practice or intervention that works for every student.

Effective Implementation of Interventions within MTSS

Review and Reflect

- With your table or partner, review steps 1 and 2 and analyzing data.
- How does this align with your Tier 2 intervention system?
- What percentage of students are identified as progressing in your Tier 2 intervention?



What should I do if the evidence-based intervention isn't working...for most students?

- ✓ Ensure implementation fidelity
- ✓ Ensure a match between the intervention outcomes and student needs
- ✓ Ensure staff are adequately trained to deliver the interventions
- ✓ Change the intervention!
- ✓ **Make adaptation for all students using the Taxonomy of Intervention Intensity**
- ✓ Select a new intervention

Elements of Evidence-based Interventions

1. Designed Based on Intervention Taxonomy

2. Fidelity

- a) Adherence
- b) Student Engagement
- c) Program Specificity
- d) Quality of Delivery
- e) Exposure

Handout

Why Is Fidelity Important?

Ensures that instruction has been implemented as intended.

Allows us to link student outcomes to instruction.

Helps in the determination of intervention effectiveness and instructional decision-making.

Positive student outcomes depend on level of fidelity of intervention implementation.

(Pierangelo & Giuliani, 2008)

What Is Fidelity?

- Degree to which the program is implemented the way intended.
- **What happens if you adapt an intervention?**
 - Fidelity refers to the extent to which you implement the intervention adaptation as designed.
 - Maintain fidelity to the problem solving or adaptation process.

Gersten et al., 2005; Mellard & Johnson, 2007; Sanetti & Kratochwill, 2009

Five Elements of Fidelity

Student Engagement: How engaged and involved are the students in this intervention or activity?

Program specificity: How well is the intervention defined and different from other interventions?

Quality of Delivery: How well is the intervention, assessment, or instruction delivered? Do you use good teaching practices?



Adherence: How well do we stick to the plan, curriculum, or assessment?

Exposure/Duration: How often does a student receive an intervention? How long does an intervention last?

(Dane & Schneider, 1998; Gresham et al., 1993; O'Donnell, 2008)

Monitoring Intervention Fidelity of Implementation – Examples

Element	Data Source Examples
Adherence	Self-report, observation checklist
Duration/exposure	Self-report, observation
Quality of delivery	Observation, reflection, self-report on techniques used
Program specificity	Intervention component checklist
Student engagement	Student progress, student survey

Handout

Sources: Dane & Schneider, 1998; Mellard & Johnson, 2008; O'Donnell, 2008

Tools to Monitor Intervention Fidelity

National Center on
INTENSIVE INTERVENTION
 at American Institutes for Research




Student Plan for Intensive Intervention and Progress Monitoring

- Is the plan in writing?
 Yes No N/A

Data Log:

Purpose individual monitoring implementation Student-

Teacher

Student

Week of

Daily

Please fill in the following information:
 Offered? (Student
 of the intervention, rate the extent of student engagement, and rate the plan implementation.

Day	Intervention Offered?	Student Present?	Intervention Duration or Frequency	Was the Student Engaged?			Was the Intervention Implemented as Planned?		
				No	Partially	Yes	No	Partially	Yes
Monday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Tuesday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Wednesday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Thursday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Friday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

klist-2

Day	Intervention Offered?	Student Present?	Intervention Duration or Frequency	Was the Student Engaged?			Was the Intervention Implemented as Planned?		
				No	Partially	Yes	No	Partially	Yes
Monday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Tuesday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Wednesday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Thursday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Friday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

- Does the plan specify a method for progress monitoring?
 Yes No N/A
- Does the plan identify the person(s) responsible for collecting progress monitoring data?
 Yes No N/A
- Is a valid and reliable progress monitoring tool used (if available)?
 Yes No N/A
- Will progress monitoring data be collected at least weekly?
 Yes No N/A
- Will progress monitoring data be graphed?

Please note any relevant information to explain the above ratings.

Intensifying Interventions within MTSS

What happens when an evidence-based intervention is not working...for a student?

- ✓ Consider providing more intensive support (Tier 3) for the student.
- ✓ **Make individualized, adaptations for the identified student using the Taxonomy of Intervention Intensity**
- ✓ Select a new intervention

Intensive Intervention at Tier 3

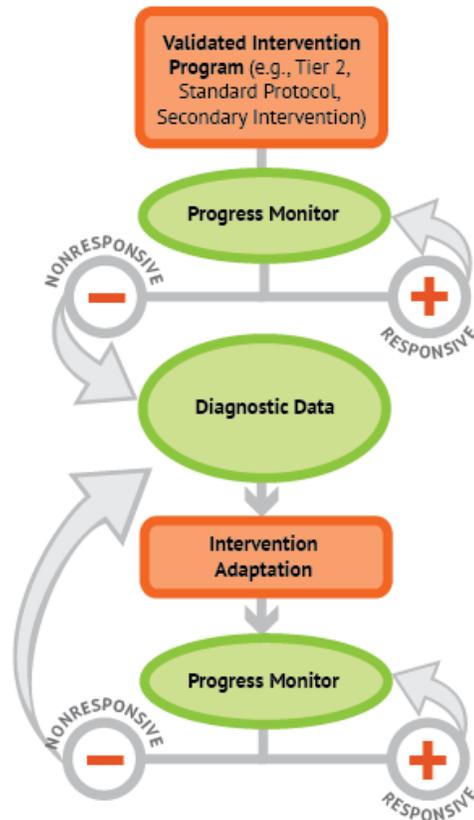
Characteristics	Tier 2	Tier 3
Instruction/ Intervention Approach	Follow standardized evidence-based intervention programs as designed	Use standardized evidence-based program as a platform, but adapt instruction based on student data
Duration and timeframe	Use duration and timeframe defined by developer	Increase frequency and/or duration to meet student needs
Group size	3–7 students (as defined by developer)	Decrease group size to meet student needs (no more than 3)
Progress Monitoring	At least monthly	Weekly
Population served	At-risk (typically 15–20% of student population)	Significant and persistent learning and/or behavior needs (typically 3–5% of student population)

Critical Features of Tier 3: Intensive Intervention

Tier 3 or intensive intervention

- 1) Is **more intensive** than Tier 2 interventions.
- 2) Is **adapted to address individual student needs** in a number of ways (e.g., increased duration or frequency, change in interventionist, decreased group size, change in instructional delivery, and change in type of intervention).
- 3) Uses **an iterative process** based on student data.

What is Data-Based Individualization (DBI)?



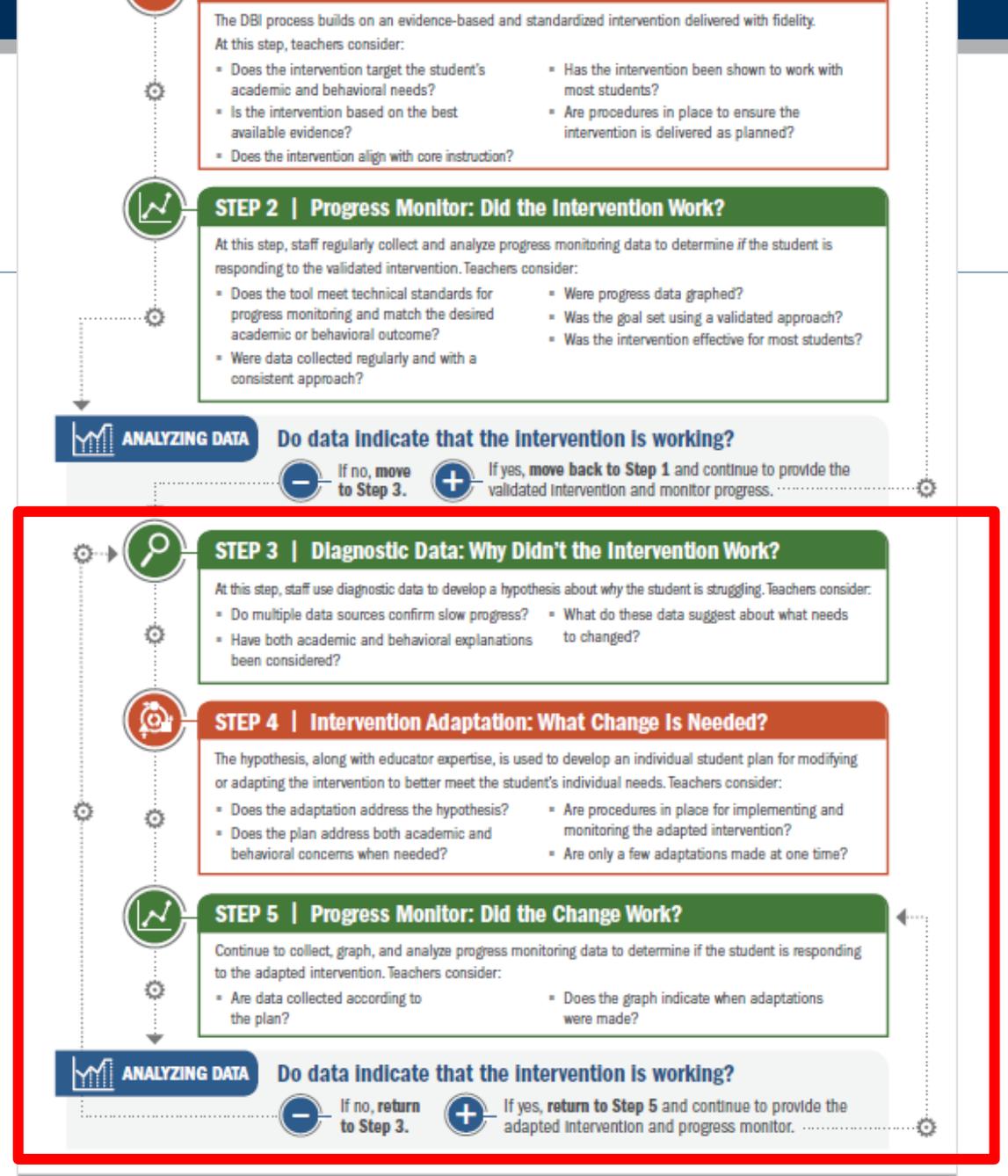
Evidence-based approach to intensive interventions for students with significant and persistent learning challenges.

- Origins in experimental teaching
- Systematic *process* for decision making and intensifying instruction
- NOT A ONE-TIME FIX

Handout

Review and Reflect

- With your table or partner, review steps 3-5 and analyzing data.
- How does this align with your Tier 3 intervention system?
- What percentage of students are identified as progressing in your Tier 3 intervention?



Tier 3: Intensifying Instruction Using the Taxonomy of Intervention Intensity

The *Taxonomy of Intervention Intensity** was developed based on existing research to support educators in evaluating and building intervention intensity.



Dimensions*	Description
Strength	How well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes of above .25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate; effect sizes of 0.50 or larger are strong (preferred).
Dosage	The number of opportunities a student has to respond and receive corrective feedback. It refers to the size of the instructional group, the number of minutes each session lasts, and the number of sessions provided per week.
Alignment	How well the program (a) addresses the target student's full set of academic skill deficits, (b) does <i>not</i> address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade-appropriate curricular standards.
Attention to transfer	The extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.
Comprehensiveness	The number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; providing practice so students use the strategies to generate many correct responses; and incorporating systematic cumulative review).
Behavioral support	The extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize nonproductive behavior.
Individualization	A validated, data-based process for individualizing intervention, in which the educator systematically adjusts the intervention over time, in response to ongoing progress-monitoring data, to address the student's complex learning needs.

*Fuchs, L.S, Fuchs, D. & Malone, A.S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

Handout

Adapting the Intervention

Tips for Successful Intensification!

- Select strategies that address the hypothesis.
- Start with quantitative strategies first (easier)!
- Consider qualitative strategies if unsuccessful.

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research

AIR
AMERICAN INSTITUTES FOR RESEARCH

IDEAS that Work
U.S. Office of Special Education Programs

Intensification Strategy Checklist

Use these ideas, as well as your own, to guide planning for intensive intervention. For more information about intensifying intervention, see the following modules:

- Designing and Delivering Intervention for Students with Severe and Persistent Academic Needs
<http://www.intensiveintervention.org/resource/designing-and-delivering-intervention-students-severe-and-persistent-academic-needs-dbi>
- Designing and Delivering Intervention for Students with Severe and Persistent Behavior Needs
<http://www.intensiveintervention.org/resource/designing-and-delivering-intensive-intervention-behavior-dbi-training-series-module-8>

Note: Before adapting or intensifying an intervention, always consider whether the current intervention program has been implemented with fidelity, and for a sufficient amount of time.

Possible Quantitative Strategies (Try First)

- Increase the length of intervention sessions
- Increase the number of intervention sessions per week
- Decrease the group size
- Increase the total number of sessions
- Decrease the heterogeneity of group (group student with others of a closer performance level)
- Consider an intervention setting with fewer distractions
- _____
- _____
- _____

1. Possible Qualitative Strategies (Try Next)

Elements of Explicit Instruction

- Use precise, simple language to teach key concepts or procedures.
- Model new concepts with examples and “think aloud” as you work through steps
- Fade steps from examples, so that students gradually assume responsibility and more steps.
- Break tasks into smaller steps, compared to less intensive levels of instruction
- Break behavior goals into small chunks or steps
- Provide concrete learning opportunities (including role play and use of manipulatives)
- Have students explain new concepts, in their own words, incorporating what they have taught

Handout

Try quantitative change(s) first...

- ✓ **Increase** dosage (i.e., intervention frequency, length of sessions, or duration).
 - ✓ **Decrease** group size.
 - ✓ **Decrease** heterogeneity of the intervention group.
- **Note:** In many cases, quantitative changes may be necessary, but not sufficient, to facilitate progress for students with intensive needs.

New NCII Resource!! *Strategies for Scheduling: How to Find Time to Intensify and Individualize Intervention*

Consider qualitative changes second...

Qualitative adaptations may be made to the intervention program that alter—

- ✓ Instruction based on learner characteristics (e.g., addressing working memory or attention problems)
- ✓ Skill level of interventionist
- ✓ Content delivery
- ✓ How students respond
- ✓ The amount of adult feedback and error correction students receive
- ✓ Frequency/specificity of checks for retention
- ✓ The materials, curriculum, or whole intervention (could be a complete change in program)

Additional HLPs support implementation of Intensive Intervention in Tier 3 and Special Education Across the Tiers

- HLP 12: **Systematically design instruction** toward a specific learning goal.
- HLP 13: **Adapt curriculum** tasks and materials for specific learning goals.
- HLP 14: **Teach cognitive and metacognitive strategies** to support learning and independence.
- HLP 15: **Provide scaffolded supports.**
- HLP 16: Use **explicit instruction.**
- HLP 17: Use **flexible grouping.**
- HLP 19: **Use assistive and instructional technologies.**
- HLP 20: Provide **intensive instruction.**
- HLP 21: Teach students to **maintain and generalize** new learning across time and settings.

(<https://highleveragepractices.org/>)

NCII Intensive Intervention Resources

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research ■

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research ■

Sample Fraction Addition and Subtraction Concepts Activities 1–3

College- and Career-Ready Standard Addressed:

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

4.NF.3. Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.

- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.

Activity One: Using Fraction Tiles and Fraction Circles

Purpose:

- To show addition concepts (joining) with fraction tiles (or circles).
- Give the student a visual representation of adding fractions along with an equation that matches the visual.

Principles of Intensive Intervention Illustrated:

- Provide concrete learning opportunities (including use of manipulatives).
- Provide explicit error correction and have the student repeat the correct process.

Words With

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Self-Management

Terminology and Definitions

Self-Management: Students are taught self-management strategies as way to help them take responsibility for their behavior. Self-management should be used in conjunction with reinforcement strategies, and it is important to have a student focus on appropriate behaviors when using self-management strategies.

Self-Monitoring: Students record their demonstration of a specified, observable behavior.

Self-Evaluation: Students evaluate their performance demonstrating a specified, observable behavior to be compared against preidentified performance expectations or a teacher's rating.

Purpose and Overview

Teaching students to use techniques to monitor and manage their own behaviors can support them with independent regulation of emotions or behaviors. Self-management systems include self-monitoring (e.g., recording), self-evaluating (e.g., rating) behaviors, or both in conjunction with reinforcement strategies. Students need to be taught how to use self-management systems, as well as the purpose of monitoring or evaluating one's own behavior.

Prior to implementing a self-management system, it is important to use data to determine

1. Patterns about when the problem behavior occurs (e.g., time of day, specific activities, with a specific person)
2. Frequency, duration, and intensity of behavior
3. The hypothesized function the behavior serves (e.g., attention seeking, escape/avoidance)

Activity, Part 2. Intensifying the Intervention

1. With your team, identify 2-3 dimensions that could be adapted to increase the intensity and effectiveness of the intervention.
2. Review the *Intensification Strategy Checklist* or *CEC HLPs* and identify at least one strategy for intensifying that dimension.
3. Record your responses in the final column.

Handout

Dimensions	Definition	Rating (0 – 3)	How could you intensify?
Strength	How well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes of above .25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate; effect sizes of 0.50 or larger are strong (preferred).		
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Attention to transfer	The extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.		
Comprehensiveness	The number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; ensuring students have the necessary background knowledge and skills to succeed with those strategies; gradually fading support for students' correct execution of those strategies; providing practice so students use the strategies to generate many correct responses; and incorporating systematic cumulative review).		
Behavioral support	The extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize nonproductive behavior.		

*Fuchs, L.S, Fuchs, D. & Malone, A. S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50 (1), pp. 35–43.

Reflection

- To what extent do we have a validated approach to intensifying intervention at Tier 3?
- What are our strengths? Where can we improve?

Tier 3: Academic Illustration of Tier 3 Intensive Intervention

Academic Illustration of DBI —Kelsey

- **Background:** Kelsey presented serious reading problems, reading at an first-grade level at the beginning of 3rd grade. Classroom assessments and diagnostics assessments identified three deficit areas: phonological awareness, word study, and reading fluency.
- **Intervention program:** Kelsey's teacher selected a research-validated program that addressed phonological awareness, word study, and fluency skills.

Begin with an evidence-based intervention!

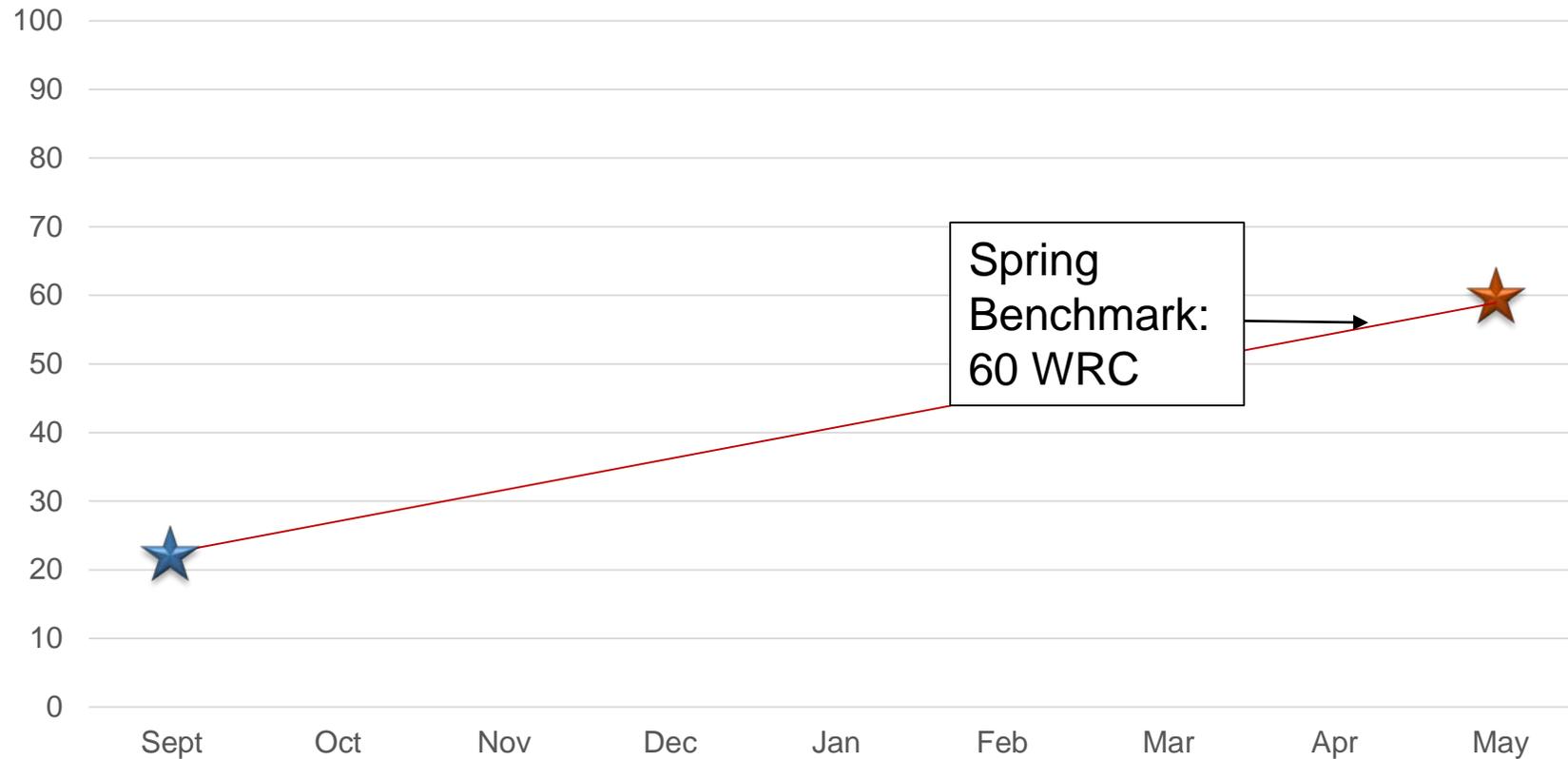
Intervention Dimensions	Rating (0 – 3)	Evidence
Strength	2	ES = Between 0.35 to 0.49
Dosage		<i>Group size: six students</i> <i>Session length: 20 minutes per session</i> <i>Frequency: four sessions per week</i>
Alignment		explicit instruction covering skills deficit areas, PA, word study and fluency
Attention to transfer		Builds on previously learned skills; not clearly connected to Tier 1 content
Comprehensiveness		Includes 3 explicit instruction principles
Behavioral support		None found but doesn't appear to be needed for student

Progress Monitoring Plan

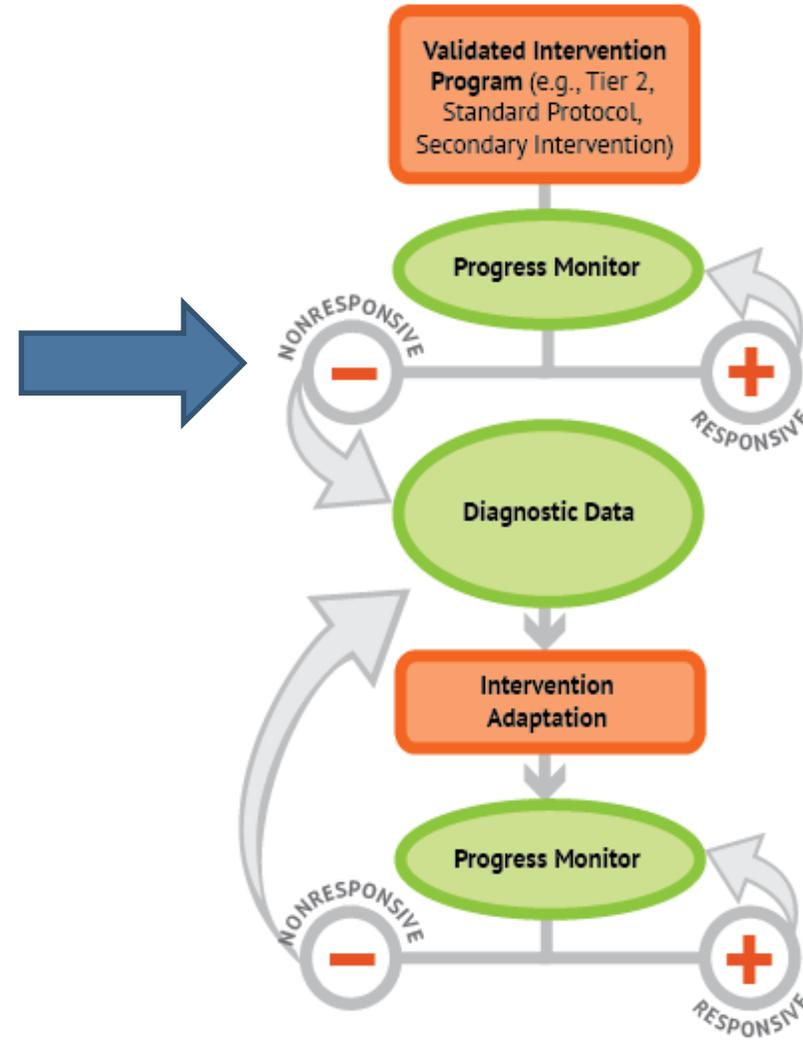
- *Tool: Passage Reading Fluency (PRF) – 2nd grade*
- *Frequency: Weekly*
- *Review Date: 4-6 weeks*
- *Baseline: 23 WRC*
- *Target Goal (Spring Benchmark): 60 WRC*

Progress Monitoring Graph

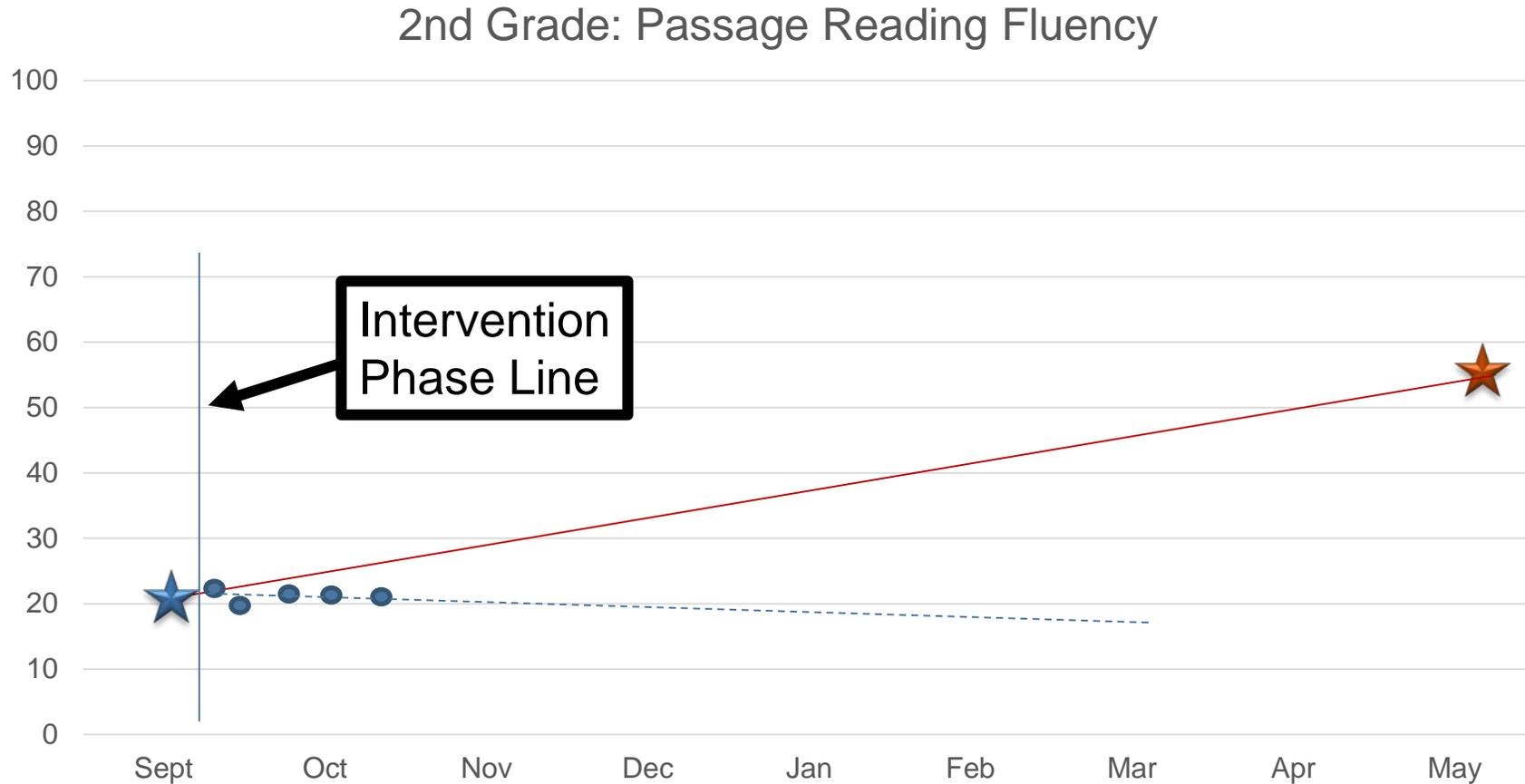
2nd Grade: Passage Reading Fluency



Individual teacher or teams of teachers assess student's responsiveness.

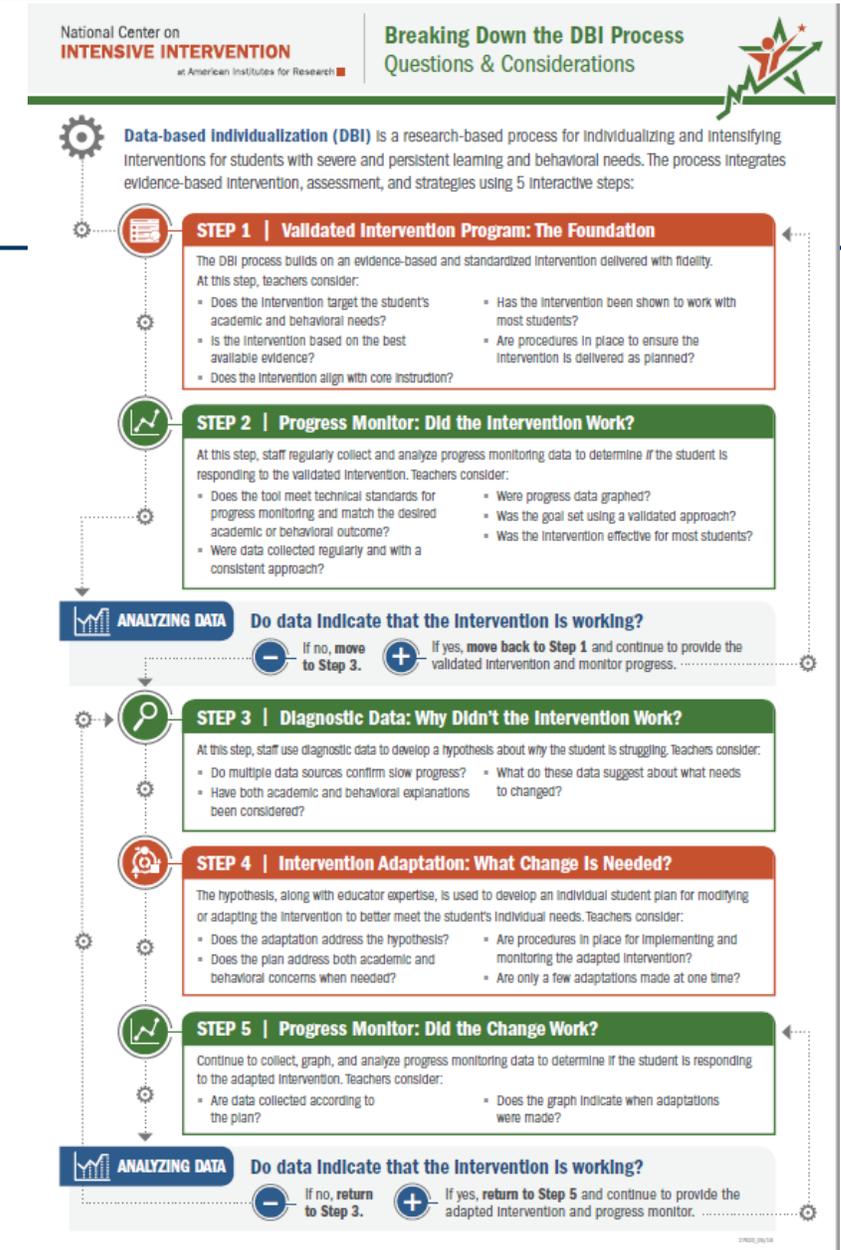


Progress Monitoring: Does Kelsey need intensive intervention?



Considerations

- ✓ To what extent was the intervention expected to impact student growth?
- ✓ Is there sufficient evidence that the intervention was delivered with fidelity to Kelsey?
- ✓ **Are most students in the group responding?**
- ✓ What is the Kelsey's level of engagement?
- ✓ Others?

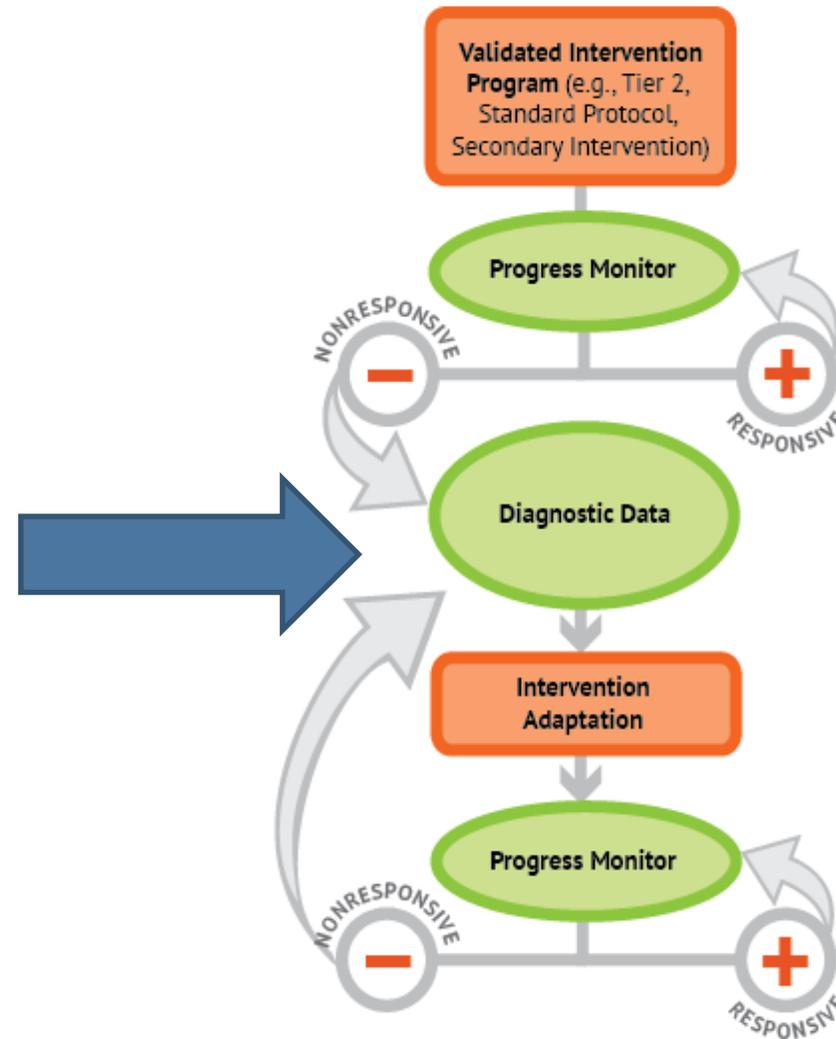


Delivered with fidelity?

Day	Intervention Offered? <input type="checkbox"/> Y <input type="checkbox"/> N	Student Present? <input type="checkbox"/> Y <input type="checkbox"/> N	Intervention Duration or Frequency	Was the Student Engaged?			Was the Intervention Implemented as Planned?		
				No	Partially	Yes	No	Partially	Yes
Monday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	18	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Tuesday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	23	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Wednesday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	21	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Thursday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	18	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Friday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	20	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3

Duration ~ 20 minutes per session

Diagnostic Assessment:
*What changes are
needed to support
Kelsey?*



Informal Diagnostic Assessment

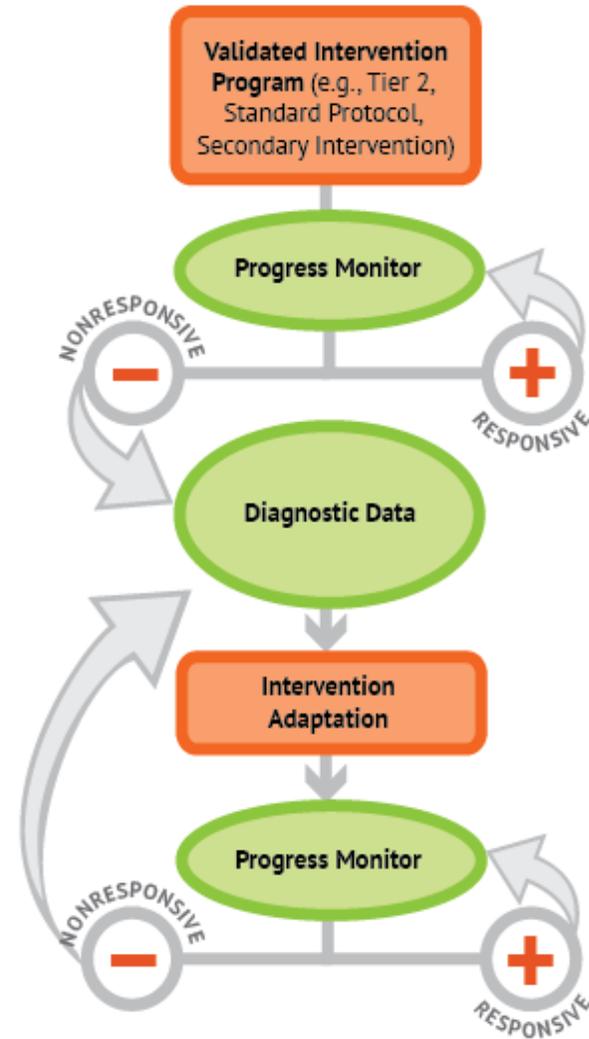
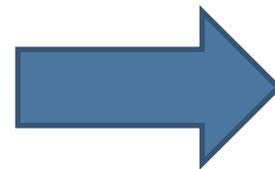
- Progress monitoring assessments help teams determine *when* an instructional change is needed.
- Informal diagnostic assessments allow teams to use available data (e.g., progress monitoring data, informal skill inventories, work samples) to help determine the *nature* of the intervention change needed.

Results of Review of Diagnostic Data

- Teacher reviews her classroom assessment data and conducted observations of her learning behavior. Behavior observations indicated that Kelsey struggles to master skills as quickly as her same age peers.
- *Hypothesis:* Kelsey needs additional opportunities to practice target skills in order to master skills.

Dimensions*
Strength
Dosage
Alignment
Attention to transfer
Comprehensiveness
Behavioral support
Individualization

Intervention Adaptation:
Use diagnostic data to
adapt the intervention



What do you recommend?

The teacher uses the intensification checklist to identify an appropriate intensification strategy.

Remember!

- Start with quantitative strategies first (easier!).
- Consider qualitative strategies if unsuccessful.

Intensification Strategy Checklist

Use these ideas, as well as your own, to guide planning for intensive intervention. For more information about intensifying intervention, see the following modules:

- Designing and Delivering Intervention for Students with Severe and Persistent Academic Needs
<http://www.intensiveintervention.org/resource/designing-and-delivering-intervention-students-severe-and-persistent-academic-needs-dbi>
- Designing and Delivering Intervention for Students with Severe and Persistent Behavior Needs
<http://www.intensiveintervention.org/resource/designing-and-delivering-intensive-intervention-behavior-dbi-training-series-module-8>

Note: Before adapting or intensifying an intervention, always consider whether the current intervention program has been implemented with fidelity, and for a sufficient amount of time.

Possible Quantitative Strategies (Try First)

- Increase the length of intervention sessions
- Increase the number of intervention sessions per week
- Decrease the group size
- Increase the total number of sessions
- Decrease the heterogeneity of group (group student with others of a closer performance level)
- Consider an intervention setting with fewer distractions
- _____
- _____
- _____

1. Possible Qualitative Strategies (Try Next)

Elements of Explicit Instruction

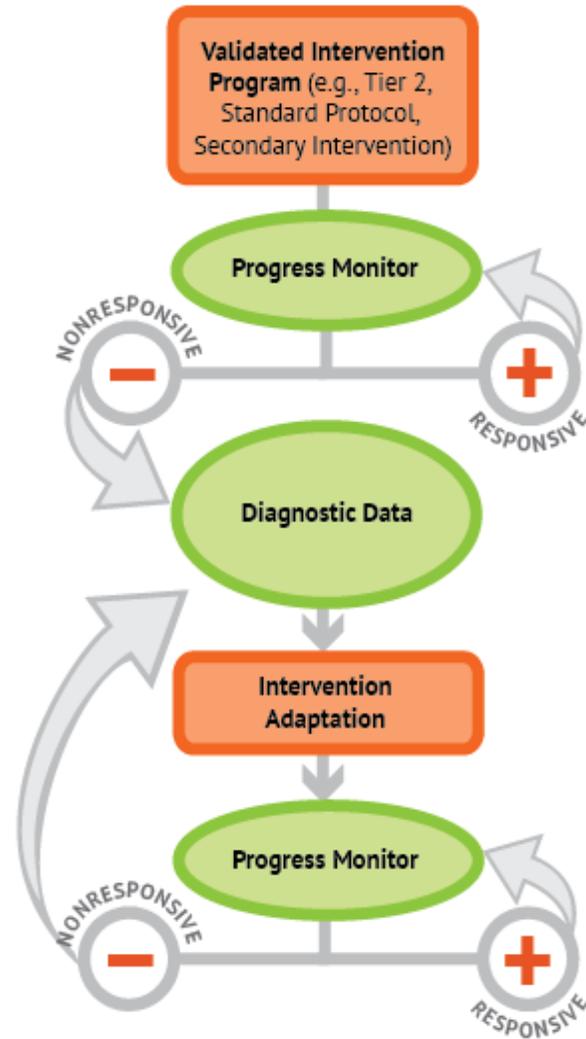
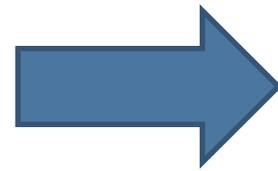
- Use precise, simple language to teach key concepts or procedures.
- Model new concepts with examples and “think aloud” as you work through steps
- Fade steps from examples, so that students gradually assume responsibility for completing more and more steps.
- Break tasks into smaller steps, compared to less intensive levels of instruction/intervention.
- Break behavior goals into small chunks or steps
- Provide concrete learning opportunities (including role play and use of manipulatives).
- Have students explain new concepts, in their own words, incorporating the important terms you have taught

Intervention Dimensions	Rate	Evidence	Adaptation 1
Strength	2	ES = Between 0.35 to 0.49	
Dosage	2	<i>Group size: six students</i> <i>Session length: 20 minutes per session</i> <i>Frequency: five sessions per week</i>	
Alignment	3	explicit instruction covering skills deficit areas, PA, word study and fluency	
Attention to transfer	2	Builds on previously learned skills; not clearly connected to Tier 1 content	
Comprehensiveness	2	Includes 3 explicit instruction principles	
Behavioral support	1	None found but doesn't appear needed for student	

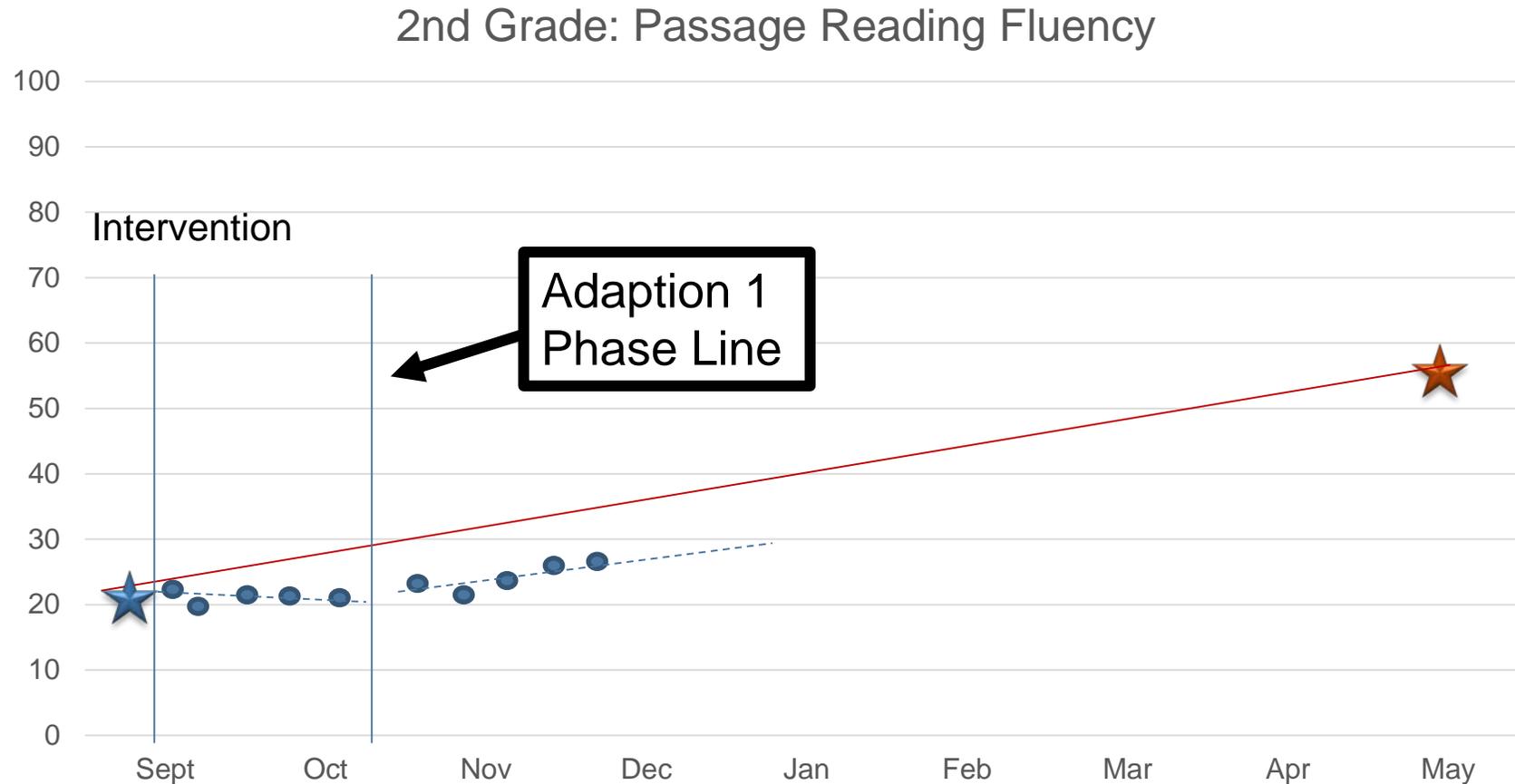
Intervention adaptation delivered with fidelity?

Day	Intervention Offered? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Student Present? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Intervention Duration or Frequency	Was the Student Engaged?			Was the Intervention Implemented as Planned?		
				No	Partially	Yes	No	Partially	Yes
Monday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	38	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Tuesday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	36	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Wednesday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	40	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Thursday	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	38	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Friday	<input type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	38	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3

Progress monitor and assess the impact of the intensification.



Progress Monitoring: Is Kelsey responding to the intervention?



Informal Diagnostic Tools for Literacy

Consider a wide range of data sources to gather information about what literacy skill a student is struggling with.

Kelsey

Words Their Way Elementary Spelling Inventory Feature Guide

Student's Name: Kelsey Teacher: Bailey Grade: 2 Date: 12/18/18

Words Spelled Correctly: 17 / 62 Feature Points: 5 / 62 Total: 7 / 87 Spelling Stage: Within Word

SPELLING STAGES →	EMERGENT		LETTER NAME-ALPHABETIC				WITHIN WORD PATTERN				SYLLABLES AND AFFIXES			DERIVATIONAL RELATIONS		Words Spelled Correctly											
	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	Harder Suffixes	Bases or Roots	Feature Points	EARLY	MIDDLE												
Features →	Consonants Initial Final		Short Vowels	Digraphs	Blends	Long Vowels	Other Vowels	Inflected Endings	Syllable Junctures	Unaccented Final Syllables	Harder Suffixes	Bases or Roots	Feature Points	EARLY	MIDDLE												
1. bed	b	d	e																								
2. ship		p	i	sh																							
3. when			w	wh																							
4. lump	l		u		mp																						
5. float		f	o			oa																					
6. train		r	a			ai																					
7. place			e			a-e																					
8. drive		v	i			igh																					
9. bright																											
10. shopping			o	sh				pping																			
11. spoil					sp		oi																				
12. serving							er	vng																			
13. chewed				ch			ew	ed																			
14. carries							ar	ies	rr																		
15. marched				ch			ar	ed																			
16. shower				sh			ow				er																
17. bottle								tt	le																		
18. favor								v	or																		
19. ripen									p	en																	
20. cellar									ll	ar																	
21. pleasure										ure	pleas																
22. fortunate							or			ate	fortun																
23. confident										ent	confid																
24. civilize										ize	civil																
25. opposition										tion	pos																
Totals			7	17	5	15	4	16	7	17	1	15	0	17	1	15	0	15	0	15	0	5	0	62	0	17	25

Kelsey

Phonics Inventory Score Sheet

Name: Kelsey Date: Dec 2018

Overview
This inventory patterns. The syllables. Be yourself with on the score s

Phonetic Pat
Consonant-v by a vowel an invented wor the word. Inv

Consonant-v a vowel and t of this pattern words. Listen consonant, an are fesp, nasp

Consonant-v

Page 1 ↓ tade (made) _____ 0 waig (plague) <u>na</u> 0 fesp (nesp) <u>feesh</u> * 1 kur (fur) _____ 1 nasp (clasp) _____ 0 foat (goat) <u>float</u>	Page 2 1 seg (leg) _____ 0 keal (heal) <u>kel</u> * 1 sug (tug) _____ 1 pide (side) _____ 0 leat (seat) <u>let</u> * 0 yad (bad) <u>yard</u>	Page 3 0 taig (plague) <u>tang</u> 1 bift (lift) <u>bift</u> 1 poat (boat) _____ 1 zote (note) _____ 1 gar (tar) _____ 1 lote (goat) _____	Page 4 0 lemmit (hem-fit) _____ 1 zattng (Batting) _____ 1 siler (tyler) _____ 0 battum (cat-sum) <u>battum</u> 1 polide (low-ride) _____ 1 yitter (bitter) _____	Page 5 1 telben (fell-ten) _____ 1 femmit (hem-sit) <u>fitmit</u> 0 wapor (vapor) <u>wapor</u> * 1 gappel (apple) _____ 0 telbis (el-vis) <u>tilbis</u> 1 siper (sniper) _____	Page 6 1 koggng (jogging) _____ 0 demsug (hem-tug) <u>dismus</u> 1 nater (later) _____ 0 togging (jogging) <u>fig</u> 1 vappel (apple) _____ 1 fesrip (messtip) _____
---	--	--	---	--	---

What do you recommend?

Diagnostic data indicated Kelsey had **difficulty applying decoding strategies to words with short and long vowels, especially ‘i’ and e’**.

Intensification Strategy Checklist

Use these ideas, as well as your own, to guide planning for intensive intervention. For more information about intensifying intervention, see the following modules:

- Designing and Delivering Intervention for Students with Severe and Persistent Academic Needs
<http://www.intensiveintervention.org/resource/designing-and-delivering-intervention-students-severe-and-persistent-academic-needs-dbi>
- Designing and Delivering Intervention for Students with Severe and Persistent Behavior Needs
<http://www.intensiveintervention.org/resource/designing-and-delivering-intensive-intervention-behavior-dbi-training-series-module-8>

Note: Before adapting or intensifying an intervention, always consider whether the current intervention has been implemented with fidelity, and for a sufficient amount of time.

Possible Quantitative Strategies (Try First)

- Increase the length of intervention sessions
- Increase the number of intervention sessions per week
- Decrease the group size
- Increase the total number of sessions
- Decrease the heterogeneity of group (group student with others of a closer performance level)
- Consider an intervention setting with fewer distractions
- _____
- _____
- _____

1. Possible Qualitative Strategies (Try Next)

Elements of Explicit Instruction

- Use precise, simple language to teach key concepts or procedures.
- Model new concepts with examples and “think aloud” as you work through steps
- Fade steps from examples, so that students gradually assume responsibility for completing more and more steps.
- Break tasks into smaller steps, compared to less intensive levels of instruction/intervention.
- Break behavior goals into small chunks or steps
- Provide concrete learning opportunities (including role play and use of manipulatives).
- Have students explain new concepts, in their own words, incorporating the important terms you have taught

Intensifying the Intervention: Kelsey

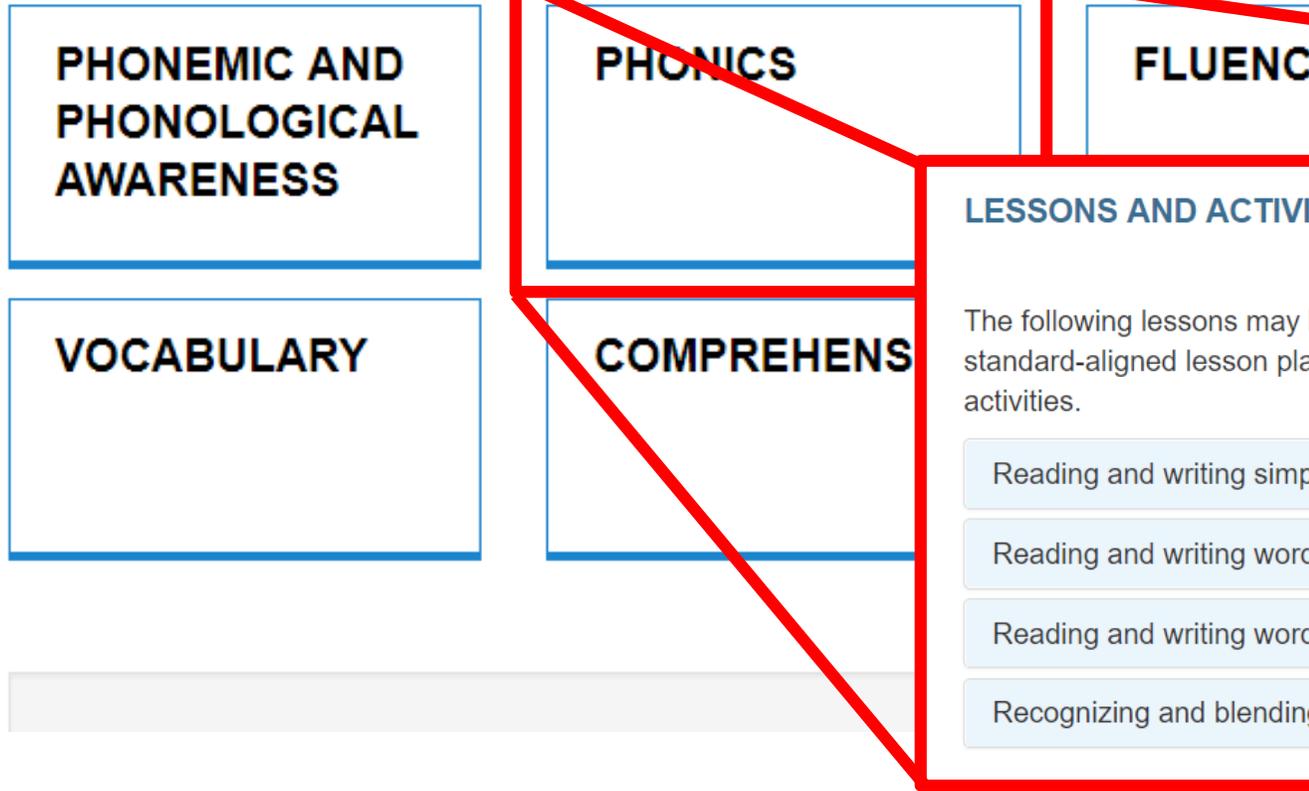
Observations also suggest that she needs the following instructional principles to benefit from decoding instruction:

- ✓ Concrete, repeated opportunities to correctly practice the skill and receive feedback.
- ✓ Precise, simple language to introduce the lesson.
- ✓ Frequent checks for retention with reteaching as needed



Lesson Plan Selection

Select a skill to explore:



National Center on
INTENSIVE INTERVENTION
at American Institutes for Research

AIR
American Institutes for Research

IDEA
Work
U.S. Office of Special
Education Programs

Short or Long?

College- and Career-Ready Standard Addressed: RF.2.3a–c

Know and apply grade-level phonics and word analysis skills in decoding words.

- Distinguish long and short vowels when reading regularly spelled one-syllable words.
- Know the spelling-sound correspondences for additional common vowel teams.
- Decode regularly spelled two-syllable words with long vowels.

Objective: Students will distinguish between long “e” and short “e” sounds and vowel patterns and will sort them accordingly (including words that are “exceptions”).

Materials

- Word cards with short “e” and long “e” vowel patterns (“e,” “ea,” “ee” patterns; see sample below).
- One set of word cards for each student or a single set of word cards if the activity is to be completed as a group.

Suggested Schedule and Group Size

Schedule: Daily, no more than 5 minutes to 10 minutes per session.
Recommended group size: Individual or small group (up to five students).
Note: The following script is intended as a model.

Activity

Intervention Principle	Sample Script and Procedures
Use precise, simple language to introduce the lesson.	Today we are going to review some sounds you have already learned, words, and the meaning of those words.
Use explicit instruction and modeling to review concepts and introduce new procedures.	Hold up a word card and point to the vowel sound (e.g., ea). This sound says “ee.” What sound? Students respond. That’s right, “ea” makes the “ee” sound. Review the rest of the short and long “e” vowel patterns. Then read through all the word cards together and discuss the meanings of the words. Ask students what they notice about the cards. Tell students that they are going to sort the word cards according to the sound (short or long) of the “e” vowel patterns. Hold up the word card “met.” This word is “met.” “Met.” The “e” (point) says –eh. That’s a short “e” sound, so I’m going to place the card here. If students are going to be using their own sets of cards, have them find the word “met” and place it in a pile just as you did.

Adapted with permission from The Meadows Center for Preventing Educational Risk, Texas Center for Reading and Language Arts. (2002). *Word study for students with learning disabilities and English language learners* (p. 40). Austin, TX: University of Texas at Austin.

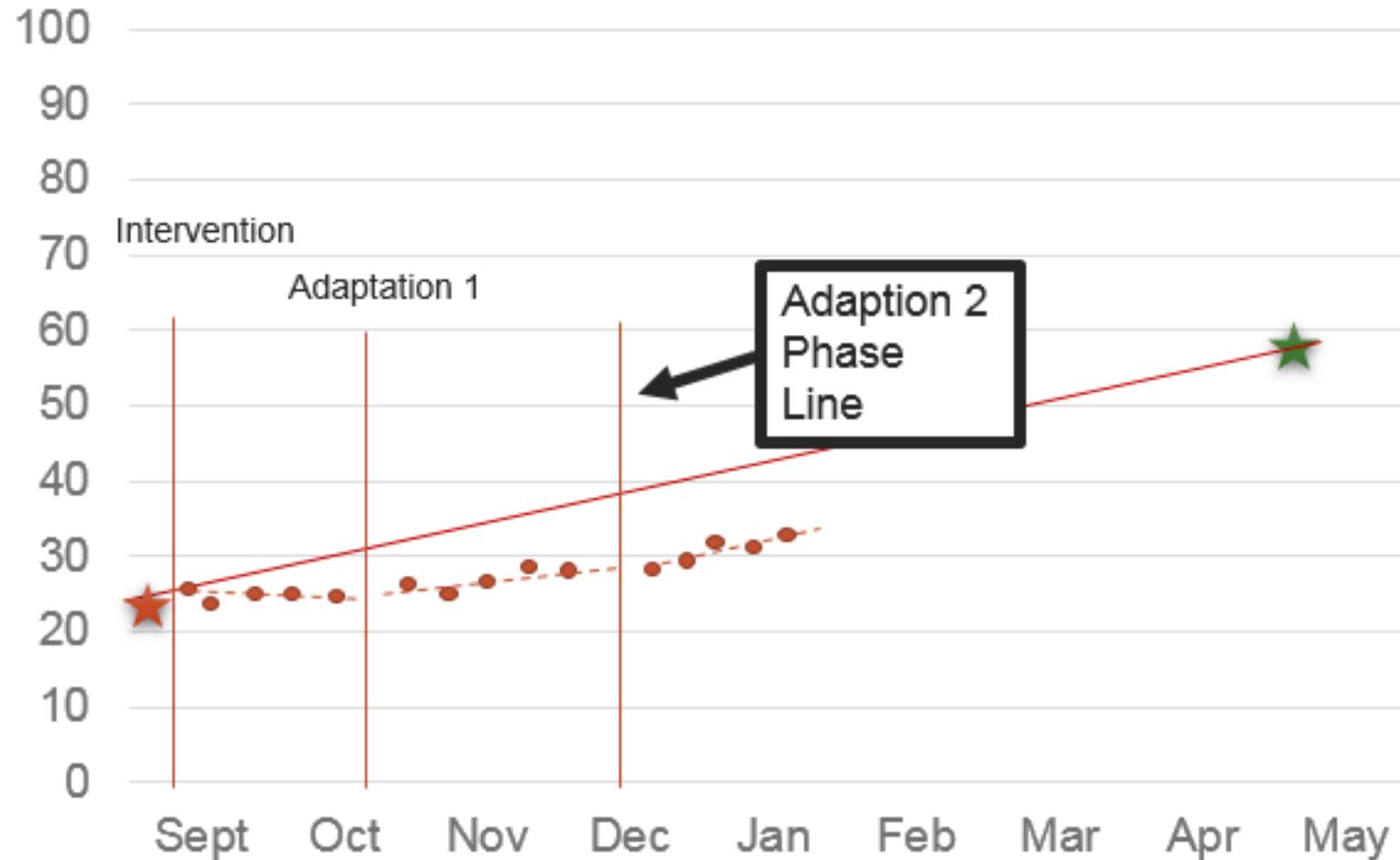
National Center on Intensive Intervention

Short or Long?—1
0350_02/17

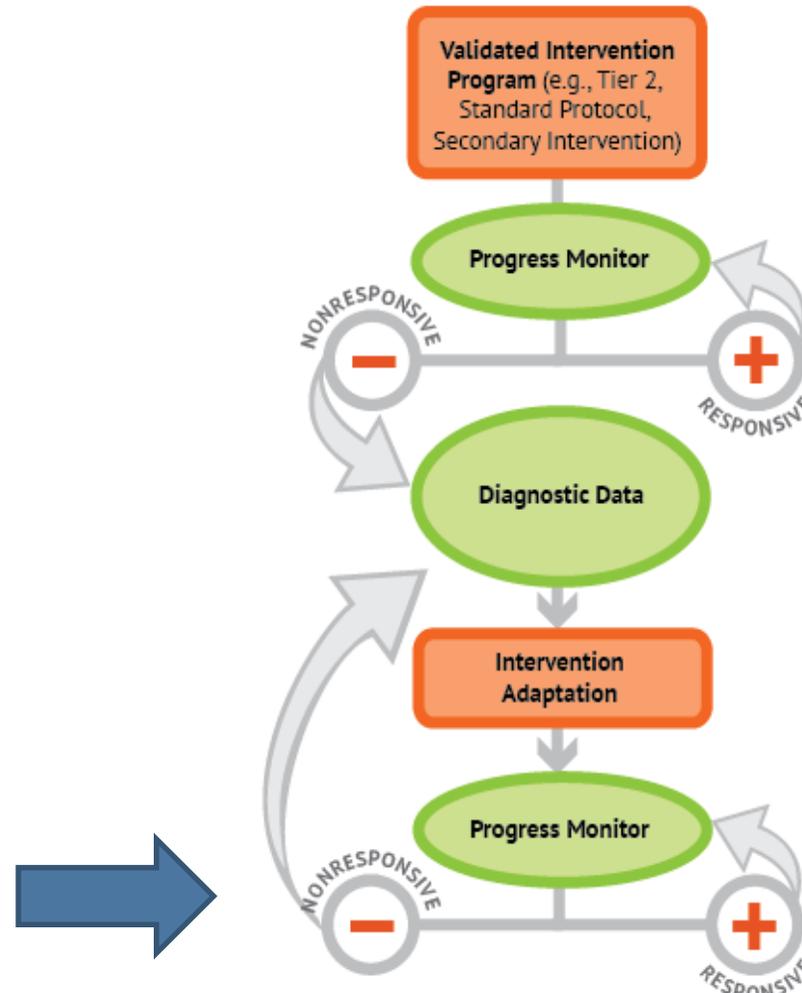
Intervention Dimensions	Rate	Evidence	Adaptation 1	Adaptation 2
Strength	2	ES = Between 0.35 to 0.49		
Dosage	2	<i>Group size: six students</i> <i>Session length: 20 minutes per session</i> <i>Frequency: five sessions per week</i>	<i>Provide 40 minutes each session in smaller group</i>	✓
Alignment	3	explicit instruction covering skills deficit areas, PA, word study and fluency		
Attention to transfer	2	Builds on previously learned skills; not clearly connected to Tier 1 content		
Comprehensiveness	2	Includes 3 explicit instruction principles		Provide additional explicit instructional strategies
Behavioral support	1	None found but doesn't appear needed for student		

Progress Monitoring: Is Kelsey responding to the adapted intervention?

2nd Grade: Passage Reading Fluency



Tier 3 Intensive Intervention is an ongoing process.



What would you do?

- Fidelity and observation data indicate that Kelsey is becoming more frustrated and less engaged in the intervention.
- *Hypothesis:* If Kelsey was more engaged and able to control her frustration she would benefit more from the intervention.

Intensification Strategy Checklist

Use these ideas, as well as your own, to guide planning for intensive intervention. For more information about intensifying intervention, see the following modules:

- Designing and Delivering Intervention for Students with Severe and Persistent Academic Needs
<http://www.intensiveintervention.org/resource/designing-and-delivering-intervention-students-severe-and-persistent-academic-needs-dbi>
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<http://www.intensiveintervention.org/resource/designing-and-delivering-intensive-intervention-behavior-dbi-training-series-module-8>

Note: Before adapting or intensifying an intervention, always consider whether the current intervention program has been implemented with fidelity, and for a sufficient amount of time.

Possible Quantitative Strategies (Try First)

- Increase the length of intervention sessions
- Increase the number of intervention sessions per week
- Decrease the group size
- Increase the total number of sessions
- Decrease the heterogeneity of group (group student with others of a closer performance level)
- Consider an intervention setting with fewer distractions
- _____
- _____
- _____

1. Possible Qualitative Strategies (Try Next)

Elements of Explicit Instruction

- Use precise, simple language to teach key concepts or procedures.
- Model new concepts with examples and “think aloud” as you work through steps
- Fade steps from examples, so that students gradually assume responsibility for completing more and more steps.
- Break tasks into smaller steps, compared to less intensive levels of instruction/intervention.
- Break behavior goals into small chunks or steps
- Provide concrete learning opportunities (including role play and use of manipulatives).
- Have students explain new concepts, in their own words, incorporating the important terms you have taught.

Using Data to Intensify the Intervention

- Fidelity and observation data indicate that Kelsey is becoming more frustrated and less engaged in the intervention.
- *Hypothesis:* If Kelsey was more engaged and able to control her frustration she would benefit more from the intervention.

[Behavior Strategies to Support Intensifying Interventions](#)

Self-Management

Terminology and Definitions

Self-Management: Students are taught self-management strategies as way to help them take responsibility for their behavior. Self-management should be used in conjunction with reinforcement strategies, and it is important to have a student focus on appropriate behaviors when using self-management strategies.

Self-Monitoring: Students record their demonstration of a specified, observable behavior.

Self-Evaluation: Students evaluate their performance demonstrating a specified, observable behavior to be compared against preidentified performance expectations or a teacher's rating.

Purpose and Overview

Teaching students to use techniques to monitor and manage their own behaviors can support them with independent regulation of emotions or behaviors. Self-management systems include self-monitoring (e.g., recording), self-evaluating (e.g., rating) behaviors, or both in conjunction with reinforcement strategies. Students need to be taught how to use self-management systems, as well as the purpose of monitoring or evaluating one's own behavior.

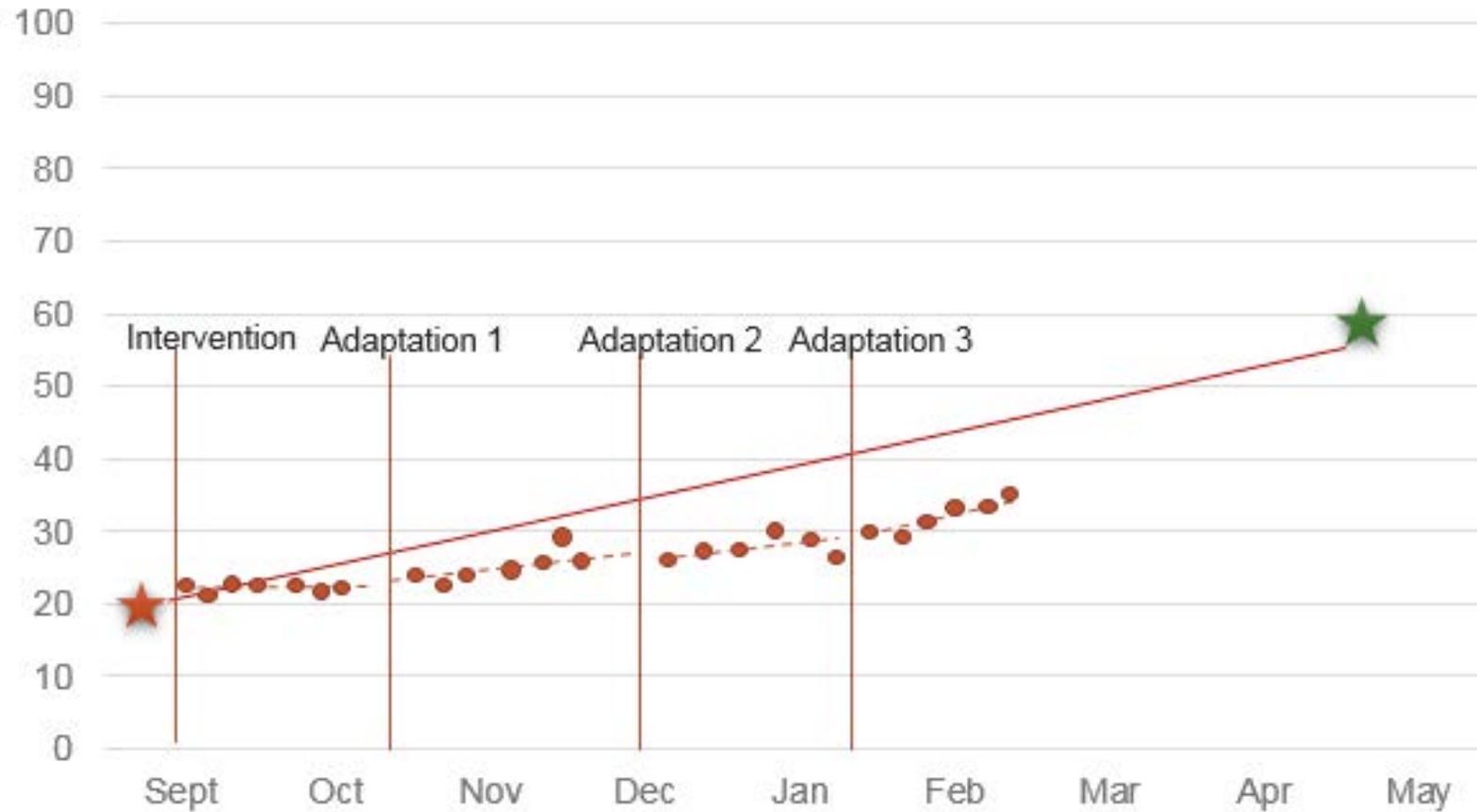
Prior to implementing a self-management system, it is important to use data to determine

1. Patterns about when the problem behavior occurs (e.g., time of day, specific activities, with a specific person)
2. Frequency, duration, and intensity of behavior
3. The hypothesized function the behavior serves (e.g., attention seeking, escape/avoidance)

Intervention Dimensions	Rate	Evidence	Adapt 1	Adapt 2	Adapt 3
Strength	2	ES = Between 0.35 to 0.49			
Dosage	2	<i>Group size: six students Session length: 20 minutes per session Frequency: three to four sessions per week</i>	<i>Provide 40 minutes each session in smaller group</i>	✓	✓
Alignment	3	explicit instruction covering skills deficit areas, PA, word study and fluency			
Attention to transfer	2	Builds on previously learned skills; not clearly connected to Tier 1 content			
Comprehensiveness	2	Includes 3 explicit instruction principles		<i>additional explicit instructional strategies</i>	✓
Behavioral support	1	None found but doesn't appear needed for student			Implement engagement and self regulation strategy

Is Kelsey responding to the adapted intervention? What would you do?

2nd Grade: Passage Reading Fluency



Closing and Next Steps

Activity: Revised K-W-L

Taxonomy of Intervention Intensity: Revised K-W-L

Directions: Review the Taxonomy of Intervention Intensity handout and complete the activity below.

What does the resource help me KNOW ?	What do I WANT to know that the resource cannot answer?	How will I LEARN more?

Handout

Did We Meet the Session Outcomes?

Are you able to...

- Define and explain the relationship among evidence-based practices (EBPs), evidence-based interventions (EBI), and high leverage practices (HLPs).
- Use existing tools and resources, including the Taxonomy of Intervention Intensity, to select and evaluate EBPs and EBIs at Tiers 2 and 3.
- Support implementation of interventions s the tiers of prevention within a multi-tiered system of support (MTSS).

National Resources to Support Implementation of EBPs and HLPs

National Center on Intensive Intervention

www.intensiveintervention.org

CEEDAR Center

<http://cedar.education.ufl.edu/>

What Works Clearing House

<https://ies.ed.gov/ncee/wwc/>

Teaching Works

www.teachingworks.org

High Leverage Practices in Special Education

www.highleveragepractices.org

Center on Response to Intervention

www.rti4success.org

Thank You!

Tessie Rose Bailey, PhD

Principal Technical Assistance Consultant | American Institutes for Research

National Center on Response to Intervention (CRTI)

National Center on Intensive Intervention (NCII)

National Center on Systemic Improvement (NCSI)

CEEDAR Center | Educator Preparation

tbailey@air.org

References

- Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). *Foundational skills to support reading for understanding in kindergarten through 3rd grade* (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: <http://whatworks.ed.gov> .
- Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., and Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices: A Practice Guide* (NCEE #2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc> .
- National Center on Response to Intervention. *The essential components of RTI*. Retrieved from www.rti4success.org
- Woodward, J., Beckmann, S., Driscoll, M., Franke, M., Herzig, P., Jitendra, A., Koedinger, K. R., & Ogbuehi, P. (2012). *Improving mathematical problem solving in grades 4 through 8: A practice guide* (NCEE 2012-4055). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/publications_reviews.aspx#pubsearch/.