

# Multi-Tiered System of Support (MTSS): Building a Sustainable Prevention System in Secondary Settings

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October 22, 2019

## This session will...

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- Explain what multi-tiered system of support (MTSS) 'looks like' in secondary settings and how it is different and like implementation in elementary settings.
- Use the Taxonomy of Intervention Intensity and other resources to design and evaluate their tiered intervention system.
- Identify tips and tools for successful intervention implementation of MTSS in secondary settings.

# Tentative Agenda

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- 9:00 – 9:30 Welcome
- 9:30 – 10:15 Overview of MTSS in Secondary Settings
- 10:15 – 10:30 Break
- 10:30 – 11:45 MTSS Implementation in Secondary Settings
- 11:45 – 12:45 Lunch on your own
- 12:45 – 1:45 MTSS Implementation in Secondary Settings
- 1:45 - 2:00 Break
- 2:00 – 2:45 Contextual Factors Impacting MTSS Implementation
- 2:45 – 3:00 Closing and Next Step

There is no way a **single teacher**  
has all the **time**,  
all the **knowledge**,  
and all the **skills**  
to meet all the needs  
of every child in his or her class(es).

*Buffman, Mattos, & Webber 2009*

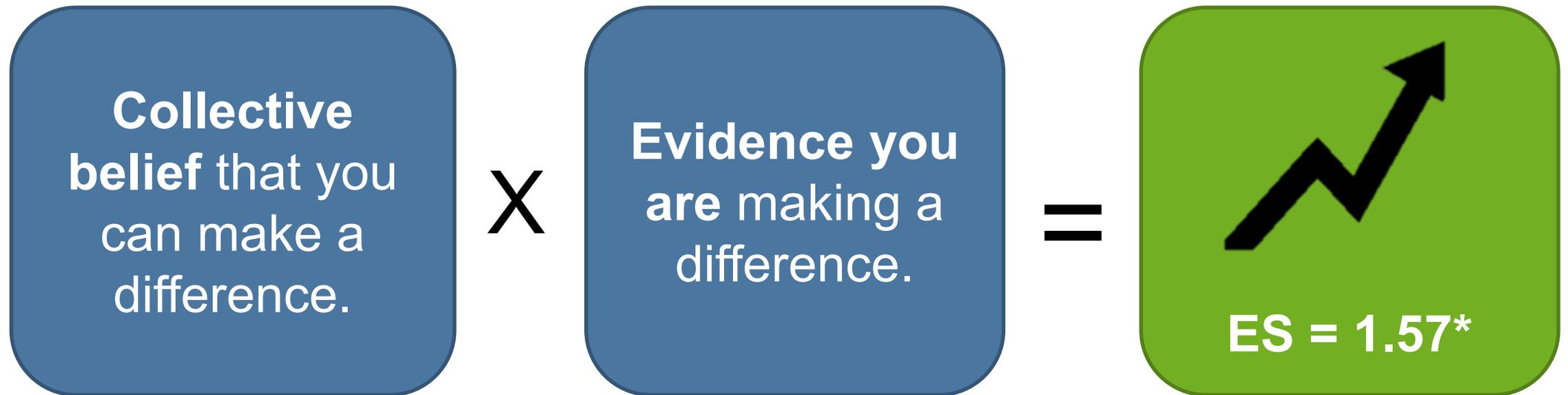
***We depend on collective efficacy.***

*Collective Teacher Efficacy is the collective belief of educators in their ability to positively affect students.*



(Donohoo, 2017; Hattie, 2017)

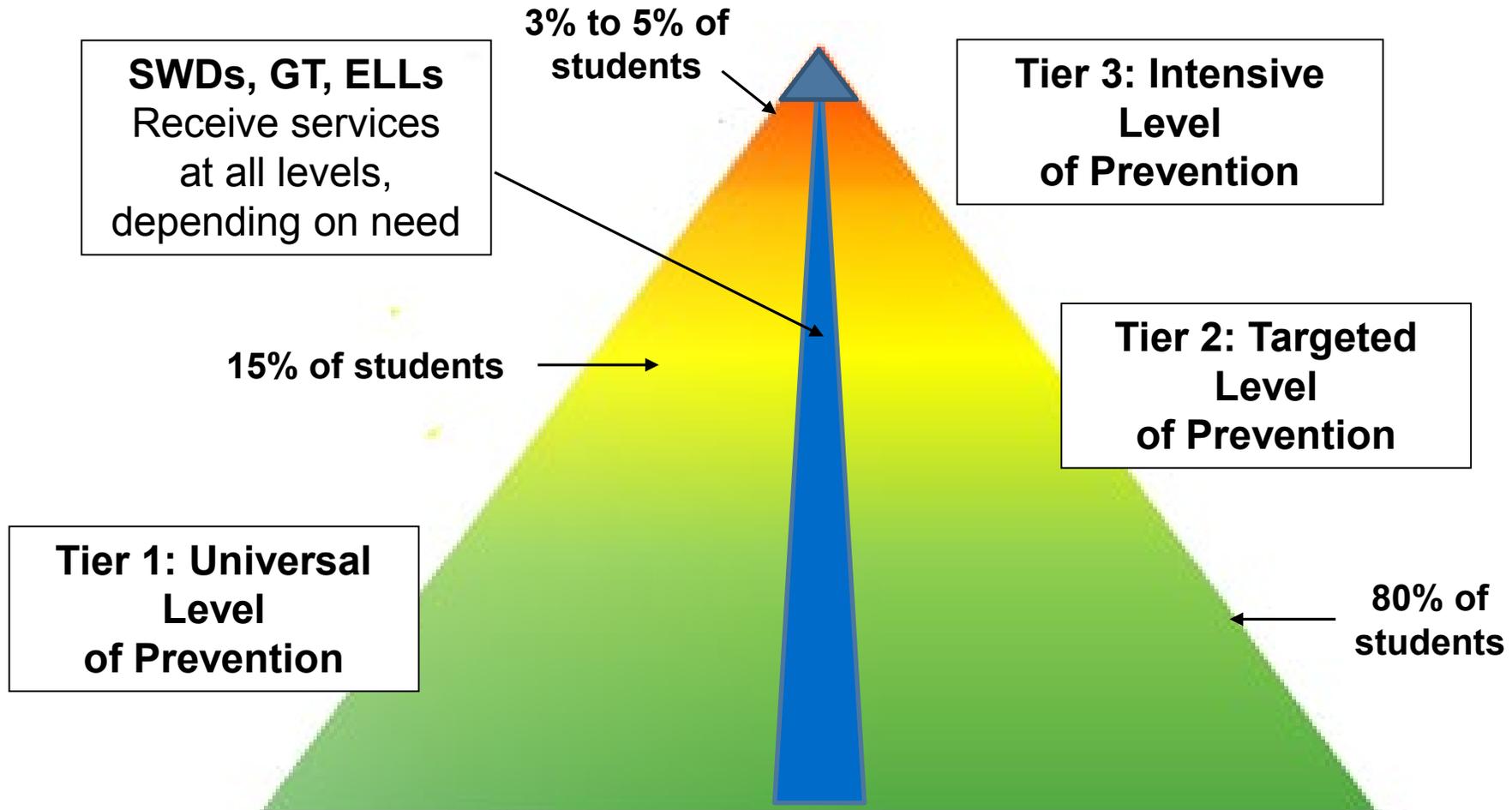
**Collective efficacy** is more than just 'beliefs'. It is built on **evidence** of impact.



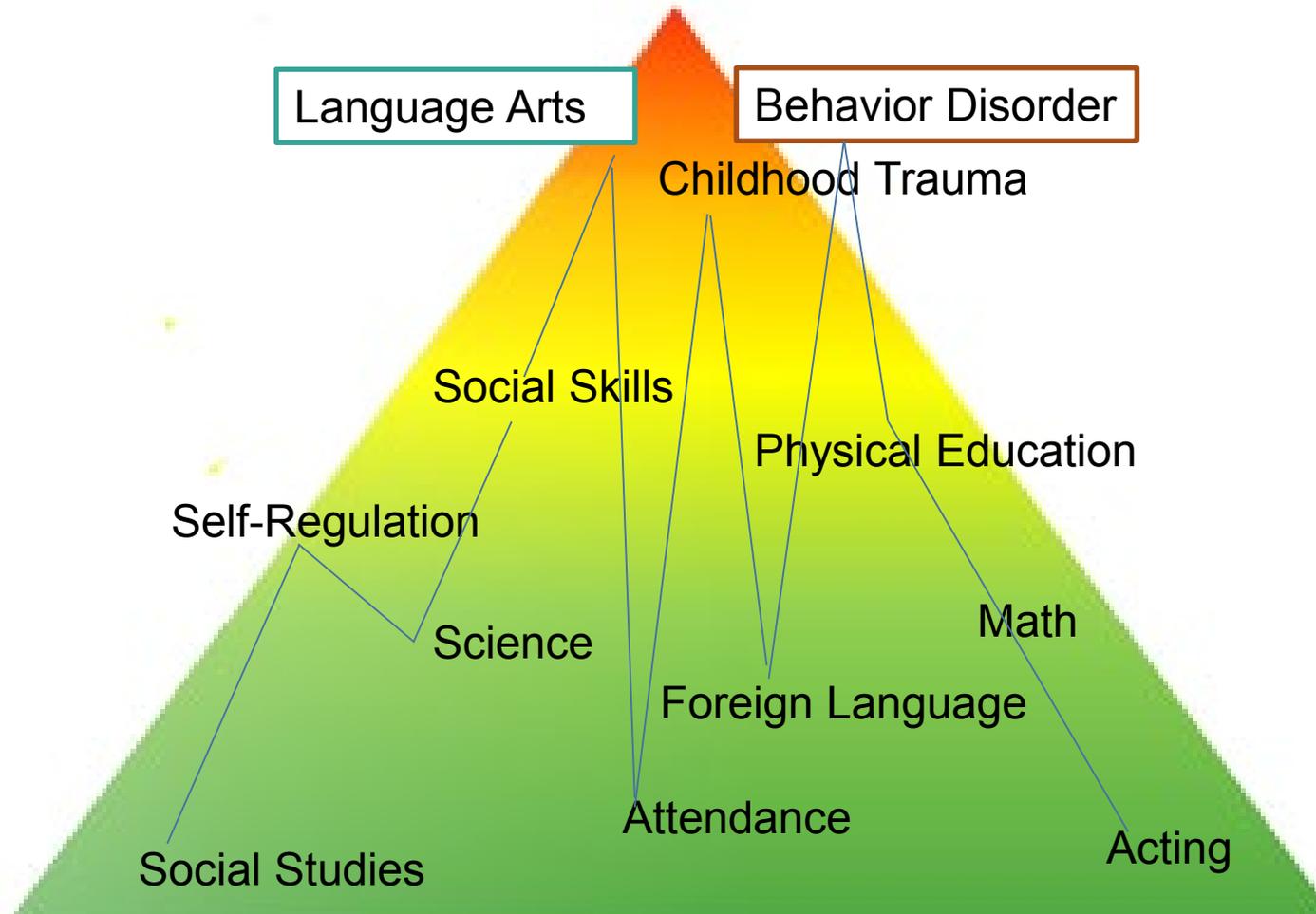
(Eells, 2011; Hattie, 2017)

# MTSS provides the data and infrastructure to develop collective efficacy!

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# Designing for the Whole Child: MTSS



To what extent would your system support this child?

What challenges do you see for a child like this in your system?

# What's the big deal about MTSS?

1.07 ES  
(that's really large!!)

## Improved Outcomes

- Decreased expulsion, behavioral referrals, and suspension rates
- Sustained academic improvement.
- Increased in on-time graduation.

## Strong positive effects on system outcomes

- Increased instructional and planning time
- More efficient use of resources and staff
- Decreased inappropriate special education referral and placement rates
  - Reduction in student time in special education services
  - Reduction in student grade retention

(Source: Burns, Appleton, & Stehouwer, 2005; Dexter, Hughes, & Farmer, 2008; Simmons, Coyne, Kwok, McDonagh, Harn, & Kame'enui, 2008; Hattie, 2015)

# So why aren't we seeing these kinds of results?

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Lack of  
Fidelity

Poor  
Selection of  
EBPs/HLPs/  
Assessments

Poor  
Implementation

Many schools self-identifying as “implementing MTSS” are not implementing all of the components with fidelity.

Avoid focusing on the **wrong** questions:

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- What interventions or data systems should we purchase?
- How do we get students proficient on state tests?
- How do we meet the legal requirements for the state or federal law?
- What is wrong with the student?

Instead, focus on the **right** questions:

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- What do we want for our children, educators, and schools?
- What is our current reality and who are the players?
- What do our children, educators, and schools need to be successful?
- How can we support our students and educators?
- How can we maximize our resources to support students?

# Overview: MTSS in Secondary Setting

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# MTSS Focus Area for Secondary Settings

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- Elementary MTSS models are NOT considered appropriate for secondary schools.
- Before implementing MTSS in secondary settings, teams must determine the **focus** of implementing an MTSS model.
  - If prevention, which negative consequences will be the focus of your prevention efforts?
  - If proficiency, what areas are we moving students toward proficiency?

# Is MTSS the same for all grade levels?

## Elementary School MTSS

- Focus
  - Prevention of poor outcomes
  - Early Intervention
  - School-wide
- Outcome
  - Improvement in basic skills
  - Appropriate identification of students

## Middle/JH School MTSS

- Purpose
  - ✓ Dropout Prevention
  - ✓ Prevent poor learning outcomes in HS
- Outcome
  - ✓ Prepared for HS success
  - ✓ Credits/Proficiency on state exams

## High School MTSS

- Dropout prevention
- Mental Intensive Support
- Post Recovery
- High-achieving grades/populations
- e
- High graduation/school success
- More courses/exams

# Why MTSS in Secondary Settings?

Prevention of  
Negative  
Consequences

Academic  
Proficiency

## *What outcomes are the focus of secondary MTSS models?*

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### **BROAD OUTCOMES**

- Increasing graduation rates
- Preventing school dropout
- Increasing proficiency in basic literacy and math skills

### **SPECIFIC OUTCOMES**

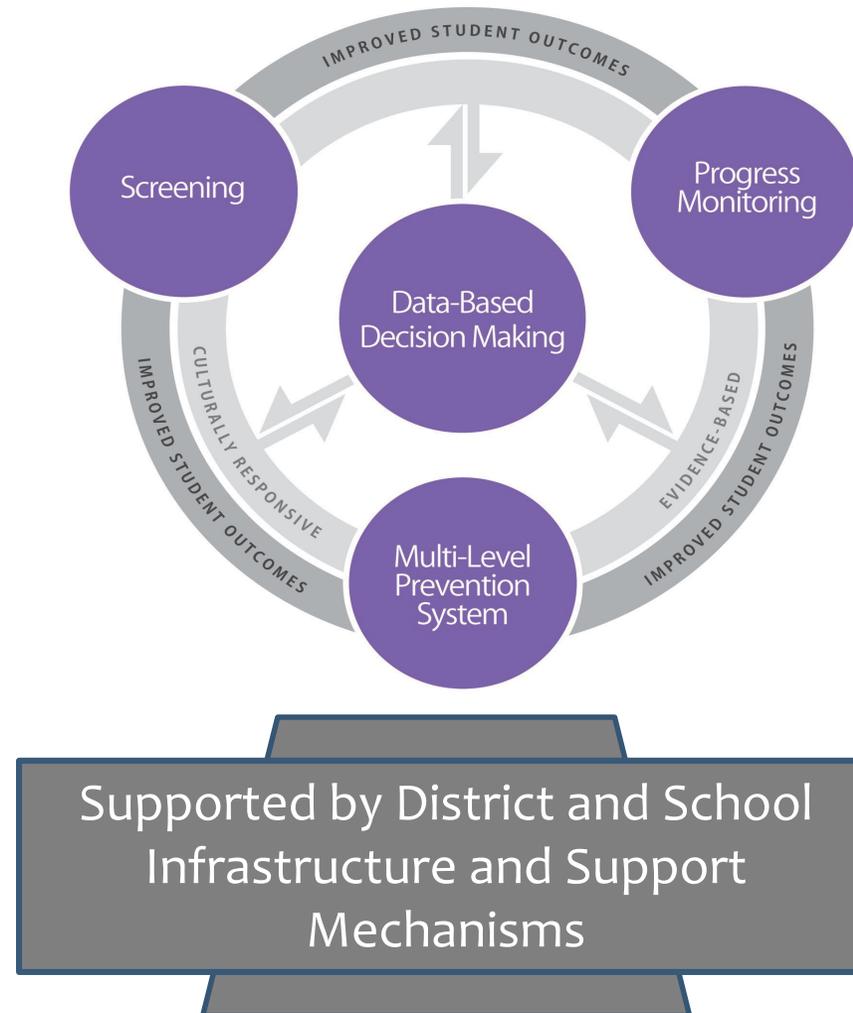
#### **IDENTIFIED THROUGH DATA ANALYSIS**

- Increasing homework completion
- Improving attendance
- Improving reading comprehension
- Reducing behavior problems

# How Does MTSS 'Look' in Secondary Settings?

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# Essential Components of the Nationally Aligned MTSS Framework



# What is Screening?

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**Process** of using brief assessments at least two times per year (i.e., fall, winter) with *all* students at a grade level, and followed by additional testing or short-term progress monitoring to corroborate students' risk status, to identify or predict students who may be at risk for poor learning outcomes.

Elementary School	Secondary Schools
Early Literacy Skills Math Calculation/ Application Behavior	Early Warning Indicators

# Screening is a Two-stage Process

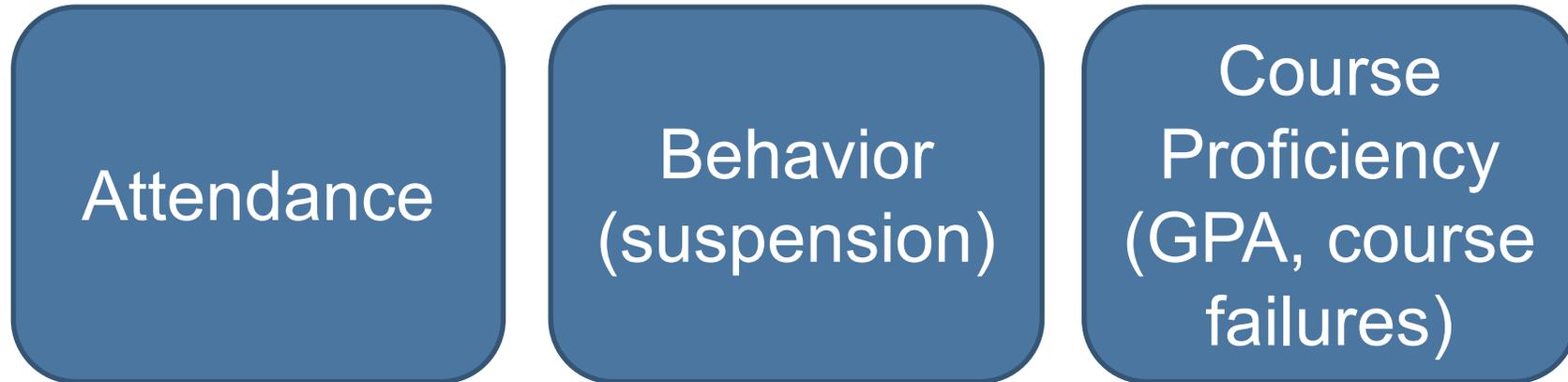
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- **Stage 1:** Brief assessment administered to all students to identify students at-risk.
  - Early Warning Systems (all)
- **Stage 2:** For students identified as at-risk, additional data are used to more accurately predict which students are truly at risk for poor learning outcomes.
  - Academic, Social Emotional, and Behavior Screeners/Progress Monitoring (at-risk)

# Screening in Secondary Settings: Early Warning Indicators (EWI)

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Indicators that are highly predictive of a student's likelihood of dropping out of school or not graduating in four years:



97% of HS use more than one type of indicator to trigger interventions. What data triggers an intervention in your school?

US Department of Education (2016, Sept)

# Early Warning Indicators: 6<sup>th</sup> – 12<sup>th</sup> Grades

	6	7	8	9	10	11	12
More than 9 <b>absences</b> per quarter, Total of 36/year	X	X	X	X			
Missed 10% or more of <b>instructional time</b>				X	X	X	X
Locally valid <b>behavior data</b>				X	X	X	X
<b>Office referrals:</b> More than 2 per quarter/6/year	X	X	X	X			
More than 1 <b>suspension</b> per quarter/2 per year	X	X	X	X			
<2.0 <b>GPA</b> on 4.0 scale				X	X	X	X
One or more <b>course failures (any)</b>				X	X	X	X
One or more <b>core course failures</b>	X	X	X	X	X	X	X
<b>On-track indicator</b> – core course failure(s) AND credit deficient for promotion				X			

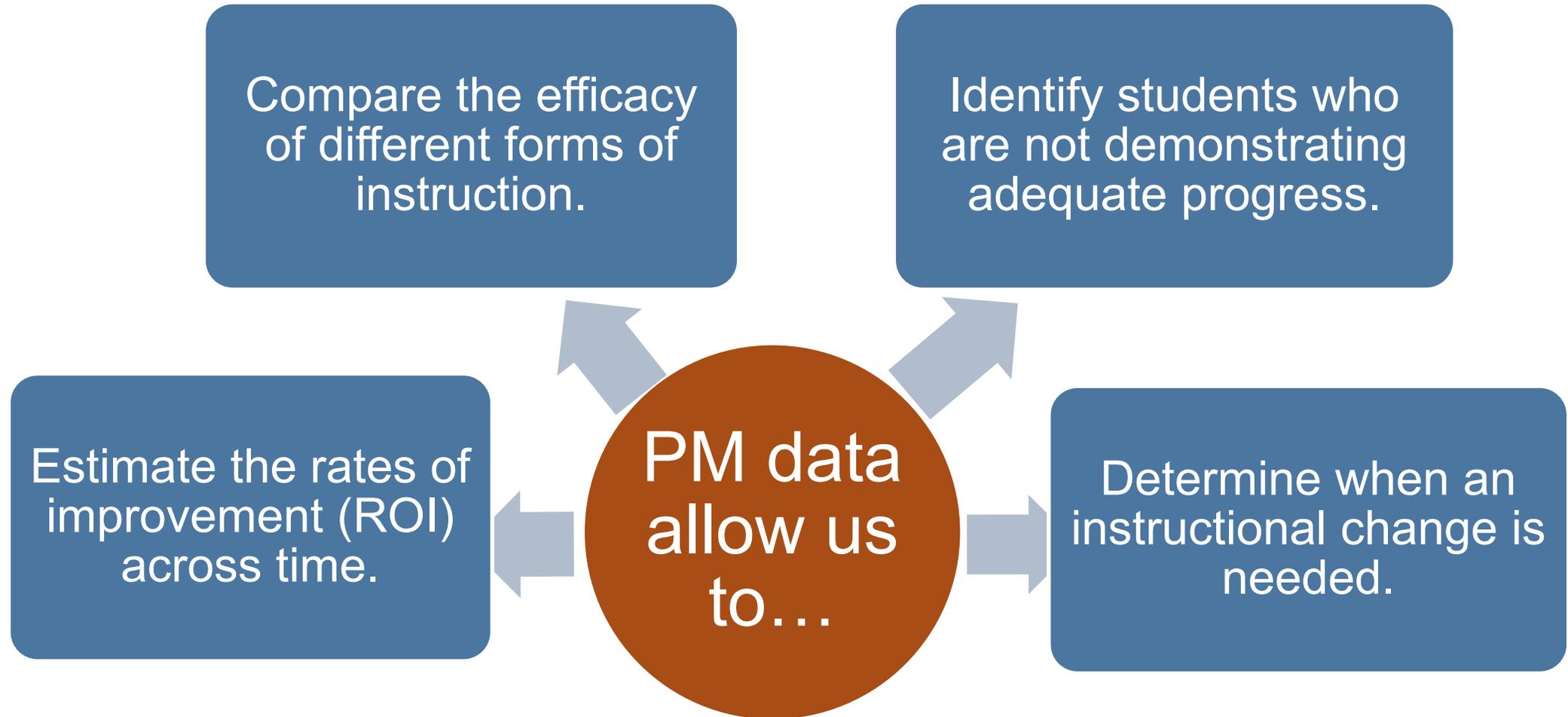
(John Hopkins University, 2012; Therriault, O’Cummings, Heppen, Yerhot, and Scala, 2013; Allensworth & Easton, 2005)

Did you know?

“Sixth-grade students in **high poverty environments** with one or more of the indicators may have only a 15% to 25% chance of graduating from high school on time or within one year of expected graduation.”

# What is Progress Monitoring (PM)?

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# Examples: Secondary PM Tools

Tiers	Measures	Frequency
1	<ul style="list-style-type: none"> <li>• Ongoing formative assessment</li> <li>• Common math assessments</li> <li>• Common writing prompts</li> <li>• Grades</li> <li>• Attendance</li> <li>• Behavior data</li> </ul>	<ul style="list-style-type: none"> <li>• Daily</li> <li>• Monthly</li> <li>• Monthly</li> <li>• Semester/quarterly</li> <li>• First 20 days of school</li> </ul>
2	<ul style="list-style-type: none"> <li>• Algebra CBMs or math general outcome measures (GOMs)</li> <li>• Maze or oral reading passages</li> <li>• <b>D/F reports</b></li> <li>• <b>Systematic Direct Observations/Direct Behavior Ratings (DBR)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Every other week</li> <li>• Weekly/every other week</li> <li>• Weekly</li> <li>• Weekly</li> </ul>
3	<ul style="list-style-type: none"> <li>• Maze or oral reading passages</li> <li>• Algebra CBMs or math GOMs</li> <li>• <b>Intervention specific measures</b></li> <li>• <b>Systematic Direct Observations/DBR</b></li> </ul>	<ul style="list-style-type: none"> <li>• Daily/Weekly</li> <li>• Daily</li> </ul>

# Direct Behavior Rating Example - Academic Engagement

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## **Academic engagement**

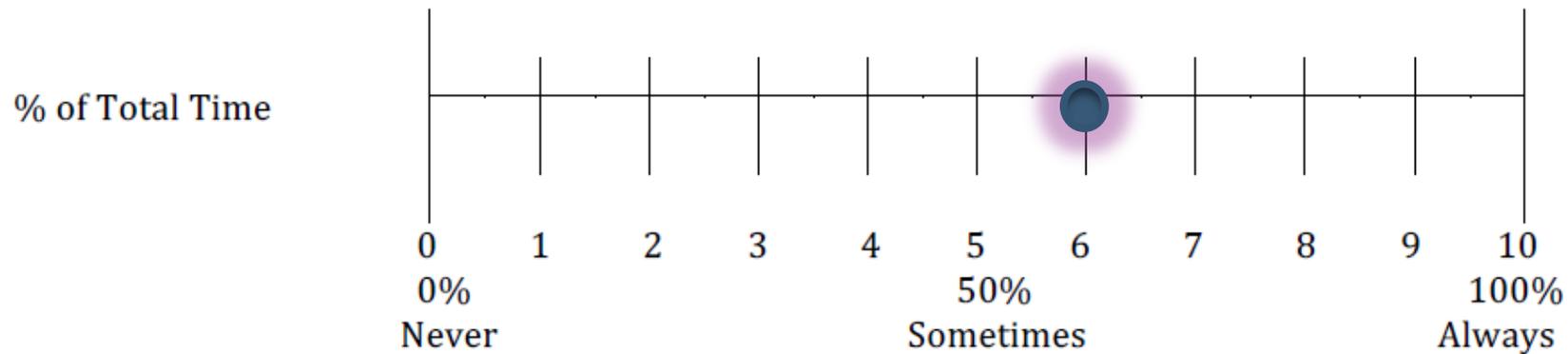
- Active or passive participation in the classroom activity
- *Examples* include writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, and looking at instructional material.

(Chafouleas, Riley-Tillman, Christ, & Sugai, 2009)

# Progress Monitoring Example: Academic Engagement

## Academically Engaged

Place a mark along the line that best reflects the percentage of total time the student was academically engaged during math today.



**Interpretation:** The teacher estimated that the student displayed *academically engaged* behavior during 60 percent of large-group math instruction today.

Slide adapted from Chafouleas (2011) with permission.

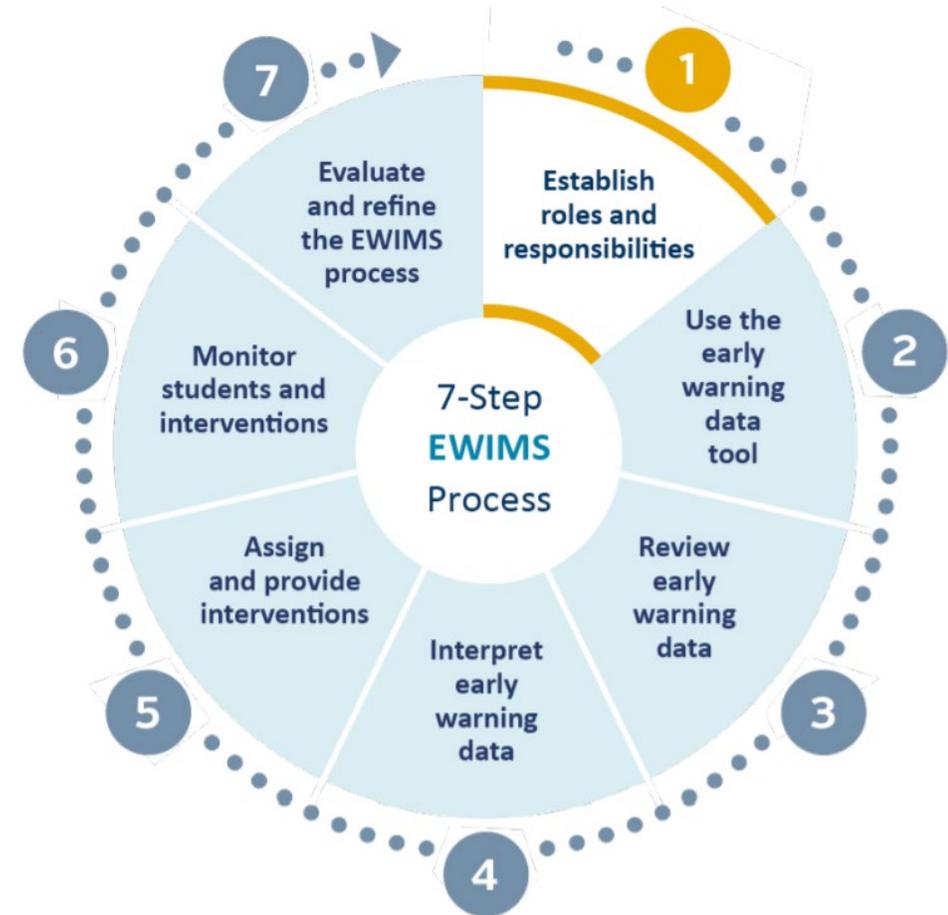
# Critical Reading Skills at Secondary Level and Examples of Published Measures

AR #	Title	Area	Grade	Classification Accuracy		Technical Standards		Usability Features	
				Criterion 1 Fall	Criterion 1 Winter	Criterion 2 Spring	Criterion 2 Fall	Criterion 2 Winter	Criterion 2 Spring
1	Academy Reading Labs (DELLS Next)	Comprehension	8	●	●	●	●	●	●
2	Academy Reading Labs (DELLS Next)	Comprehension	1	●	●	●	●	●	●
3	Academy Reading Labs (DELLS Next)	Comprehension	2	●	●	●	●	●	●
4	Academy Reading Labs (DELLS Next)	Comprehension	3	●	●	●	●	●	●
5	Academy Reading Labs (DELLS Next)	Comprehension	4	●	●	●	●	●	●

Critical Reading Skills	Example Reading Progress Monitoring Tools
Fluency Reading Connected Text	Oral Reading Fluency Probes, Passage Reading Probes
Vocabulary	easyCBM Vocabulary, Star Reading
Comprehension	MAZE measures, easyCBM Multiple Choice Comprehension, Star Reading

# Getting students on track for graduation: Impacts of the Early Warning Intervention and Monitoring System (EWIMS)

- EWIMS is a seven-step, data-driven decision-making process.
- A rigorous impact study found EWIMS to be a promising evidence-based strategy.
- After one year, EWIMS schools reduced chronic absences and course failure.



(Faria, et al, 2017; Therriault, et al, 2013)

# **Essential Component: Multi-level Prevention System in Secondary MTSS**

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# What is Tier 1?

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- The education system designed to meet the diverse needs of its learners.
- Includes the ‘what’ and ‘how’.
- Includes everything that is NOT “intervention”. For example,
  - » Core academic and behavior curriculum and instruction
  - » Schedule
  - » Teacher – student interaction
  - » School culture
  - » Standards
  - » State and district requirements
  - » Technology and resources

# Critical Features of Tier I Instruction

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## Design

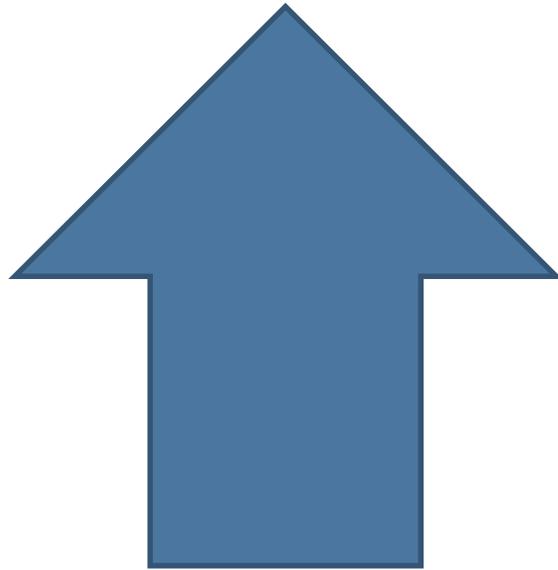
- Uses research-based curriculum materials
- Articulation of teaching and learning (in and across grade levels)
- Curriculum aligned with state standards
- Schedule

## Delivery

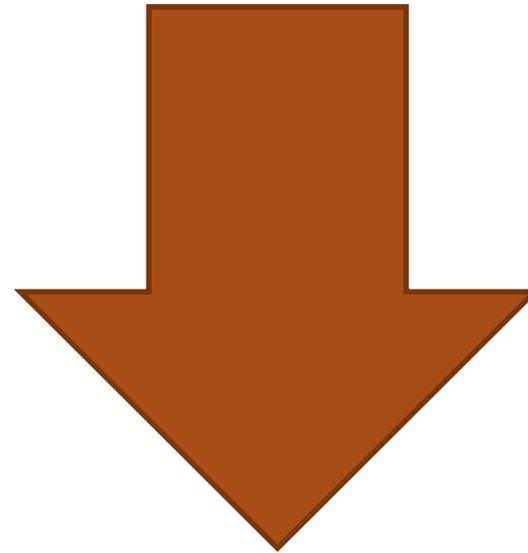
- EBPs and high leverage practices
- Consistent use of differentiated instruction
- Inclusion of students with disabilities and those exceeding benchmark

# Impact of poor quality of Tier 1 programming

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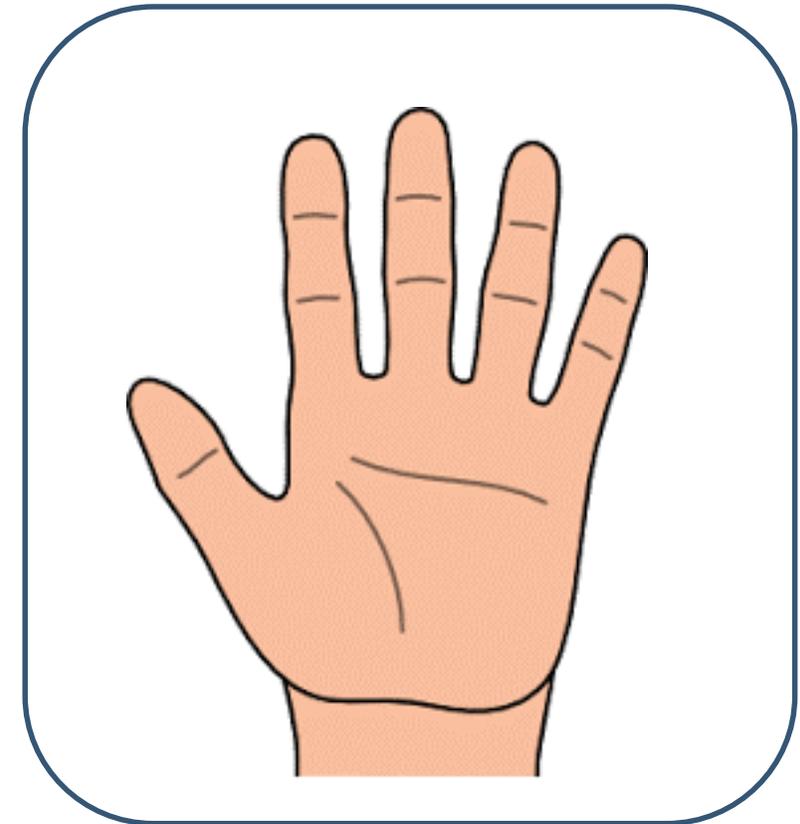
Increase in # of  
students in  
intervention.



Decrease in impact of  
interventions and  
instruction.

# Indicators of Tier 1 Concerns: How Many Do You See?

- ✓ Less than 75-80% of students are identified as at or above grade level expectation or identified measures.
- ✓ Inconsistent performance across classrooms, grades, or schools.
- ✓ Poor attendance, low student engagement, and/or frequent behavior problems.
- ✓ High rates of students (>20%) identified for supplemental support.
- ✓ Differential benefit across subpopulations.
- ✓ Low teacher satisfaction or engagement.



# Key Characteristics of High Quality Tier 1 Instruction

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**1** Consistent opportunities to work on **GRADE-APPROPRIATE ASSIGNMENTS**.

**2** **STRONG CORE INSTRUCTION**, where students do most of the thinking in a lesson.

**3** **DEEP ENGAGEMENT** in what they're learning.

**4** Teachers who hold **HIGH EXPECTATIONS** for students and believe they can meet grade-level standards (ES = 1.29).

(TNTP, Inc. 2018)

# High Leverage Practices (HLPs)

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- “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 at Tier 1

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HLPs are applicable to the everyday work and delivery of EBPs by educators.

Fundamental to effective teaching across the tiers

Cut across content domains and grade levels

Used frequently

Supported by research

# What are Evidenced-Based Practices (EBPs)?

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HLPs are essential for implementing EBPs.

Are content specific

Developmentally appropriate

Learner dependent

Supported by research

# Secondary Core Tier 1 Evidence-based Practices: School Completion

#	Dropout Intervention Recommendations	Evidence
1	Monitor the progress of all students, and proactively <b>intervene when students show early signs of attendance, behavior, or academic problems.</b>	Minimal
2	<b>Provide intensive, individualized support</b> to students who have fallen off track and face significant challenges to success.	Moderate
3	<b>Engage students</b> by offering curricula and programs that connect schoolwork with college and career success and that improve students' capacity to manage challenges in and out of school.	Strong
4	For schools with many at-risk students, create <b>small, personalized communities</b> to facilitate monitoring and support.	Moderate

(Rumberger, R., Addis, H., Allensworth, E., et al., 2017).

# Secondary Core Tier 1 Evidence-based Practices: Adolescent Literacy

#	Recommendations	Evidence
1	Provide <b>explicit vocabulary instruction</b> .	Strong
2	Provide <b>direct and explicit comprehension strategy instruction</b> .	Strong
3	Provide opportunities for <b>extended discussion</b> of text meaning and interpretation.	Moderate
4	Increase <b>student motivation and engagement</b> in literacy learning.	Moderate

(Kamil, M. L., Borman, G. D., Dole, et al., 2008).

# Secondary Core Tier 1 Evidence-based Practices: 4<sup>th</sup>-8<sup>th</sup> Math

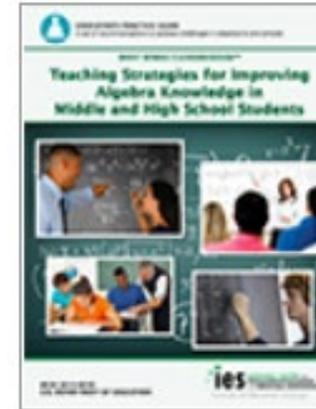
#	Recommendations	Evidence
1	<b>Prepare problems</b> and use them in whole-class instruction	Minimal
2	Assist students in <b>monitoring and reflecting on the problem-solving process.</b>	Strong
3	Teach students how to use <b>visual representations.</b>	Strong
4	Expose students to <b>multiple problem-solving</b> strategies.	Moderate
5	Help students <b>recognize and articulate mathematical concepts</b> and notation.	Moderate

(Woodward, Beckmann, Driscoll, et al., 2018)

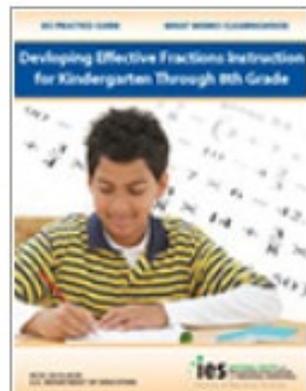
# Other IES Practice Guides to Identify Core Tier 1 Evidence-based Practices in Secondary Settings



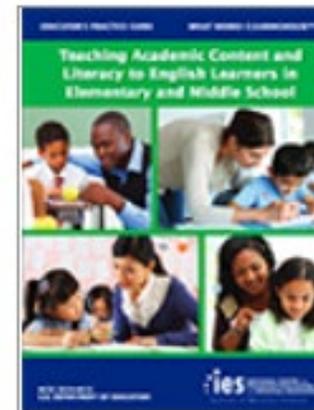
**Teaching Secondary Students to Write Effectively**



**Teaching Strategies for Improving Algebra Knowledge in Middle and High School Students**



**Developing Effective Fractions Instruction for Kindergarten Through 8th Grade**



**Teaching Academic Content and Literacy to English Learners in Elementary and Middle School**

# Considerations for Selecting EBPs

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<b>F</b> easibility	Cost, specialized training, or complexity are feasible within current context.
<b>A</b> ceptability	Acceptable for impacted stakeholders, including teachers, leaders, and families.
<b>I</b> mpact	Evidence that it produced positive results on desired outcomes, strength of the effects, and amount of evidence.
<b>R</b> elevance	Research demonstrates impacts in similar setting and with children with similar characteristics (age/grade, cultural, needs, socioeconomic) .

## How do Tier 2 and Tier 3 Interventions Compare?

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

## Tiers 2 and 3 in Secondary Settings

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- *Population:* Students identified through screening as at risk for poor learning outcomes and verified by progress monitoring or other data
  - Typically, 15 percent to 20 percent of entire school population
- At the high school level, a problem-solving approach should be used if the failure rate in any course, especially core courses, is greater than 10 percent

## Tiers 2 and 3 in Secondary Settings

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- Secondary students struggling in academics often need a higher level intensity of support , more similar to Tier 3 intensive intervention, than elementary students.
- Traditional Tier 2 group interventions are less effective at the secondary level.

Why do we see smaller effect sizes for secondary interventions?

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

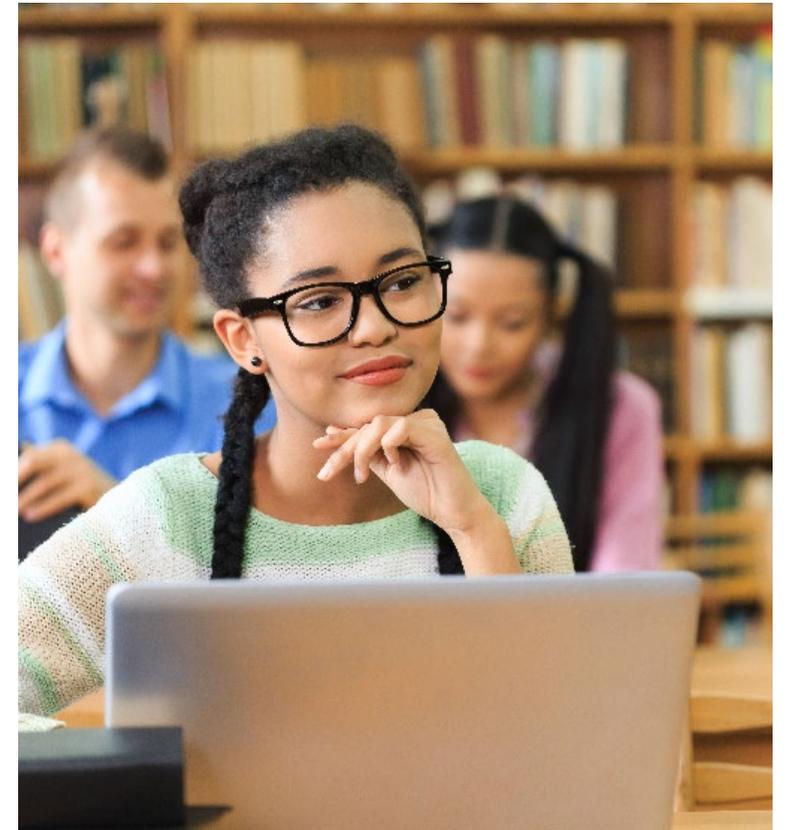
Note: ES = effect size

(Wanzek et al., 2013)

# Interventions in Secondary Schools Are Often Designed to Address Multiple Student Needs

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- Increase reading comprehension or vocabulary skills
- Learn *strategy* to access content of text with limited reading ability.
- Learn *strategy* to complete homework independently.
- Learn to use different assistive technologies to increase access to learning (e.g., screen readers, organizational tools)
- Increase in school engagement



# Secondary School MTSS: Changing Role of Students

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Secondary students should be **partners** in the selection and design of interventions.

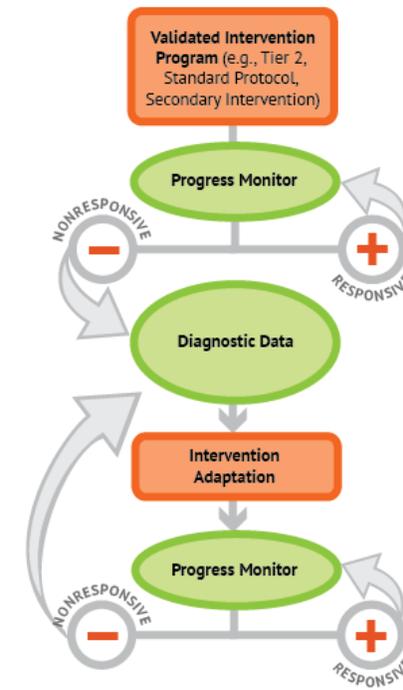
# Examples of Secondary Tiers 2 and 3 Evidence-Based Interventions and Processes

## Tier 2 Standardized Interventions

- Repeated Readings
- Read 180
- Explicit Vocabulary Instruction
- Metacognitive Strategy Instruction
- Check-in Check-Out
- Check and Connect

## Tier 3 Intensive Interventions

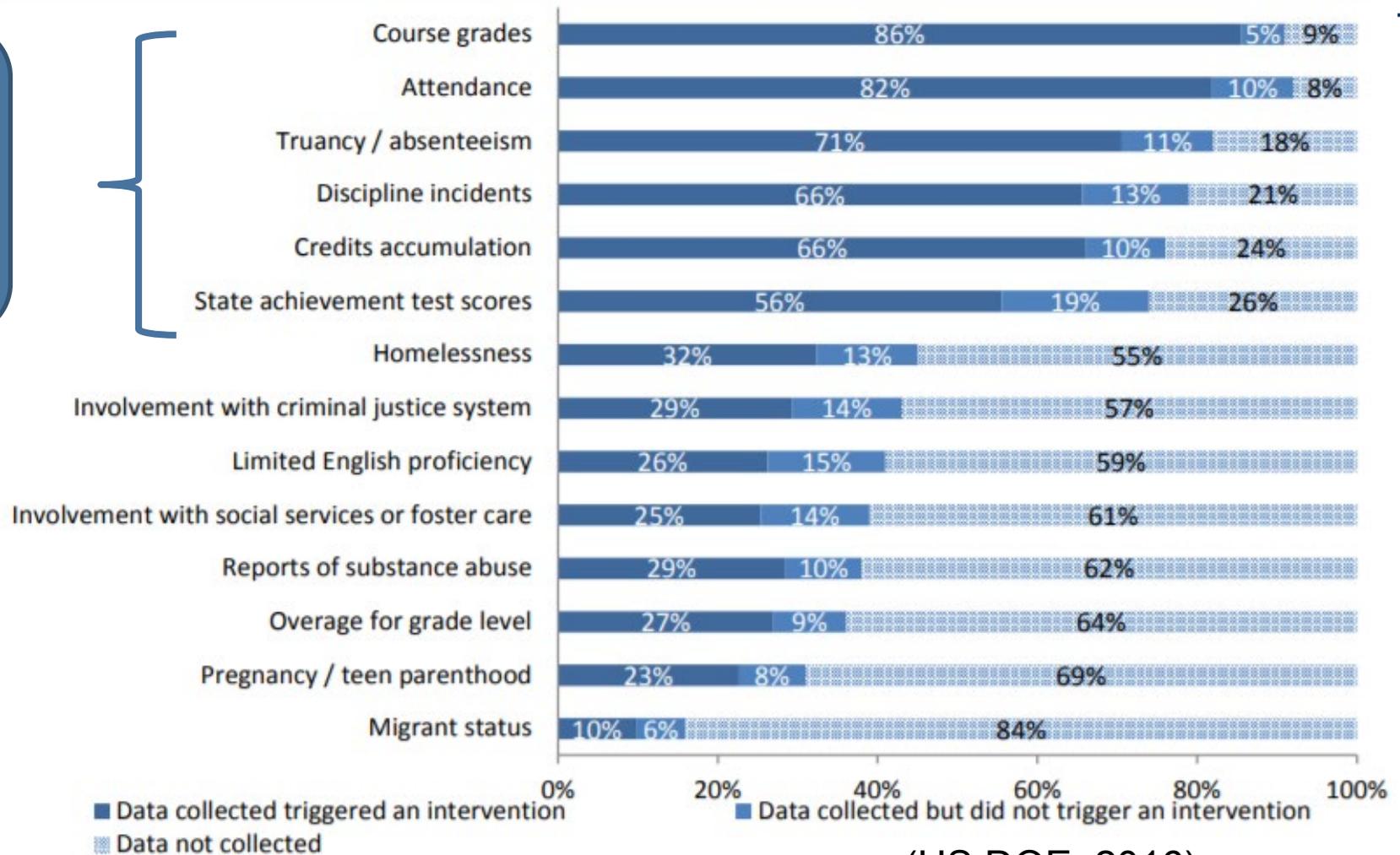
### Data-based Individualization



(NCII, 2013)

# What EWIs support student intervention?

## 6 Student Intervention Triggers



(US DOE, 2016)

## Four Critical Features of Tier 2

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

**PRIORITY**

Handout

## Four Critical Features of Tier II

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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

## How do Tier 2 and Tier 3 Interventions Compare?

Characteristics	Tier 2	Tier 3 - DBI
<b>Instruction/ Intervention Approach</b>	Follow <b>standardized evidence-based programs</b> as designed	Use <b>standardized evidence-based program as a platform, but adapt instruction</b> based on student data
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<b>Progress Monitoring</b>	At least monthly	Weekly
<b>Population served</b>	At-risk (typically 15–20% of student population)	Significant and persistent learning and/or behavior needs (typically 3–5% of student population)

# Why start with a standardized, evidence-based program?

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- 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 interventions if I don't have a standardized programs?

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- Yes!
- Use them *when available* and consider augmenting current offerings if there are content areas where you have insufficient resources.



# Key Considerations When Selecting/Designing Validated Interventions

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- ✓ 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 at Tiers 2 and 3

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# Elements of Evidence-based Interventions

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## **1. Designed Based on Intervention Taxonomy**

## **2. Fidelity**

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

# Evaluating Strength

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

OR

**Best Available  
Research  
Evidence (BARE)**

NCSI, 2018

# Evaluating Strength: Avoid Assumptions About Evidence

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- **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

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- 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

## Dosage: Academics

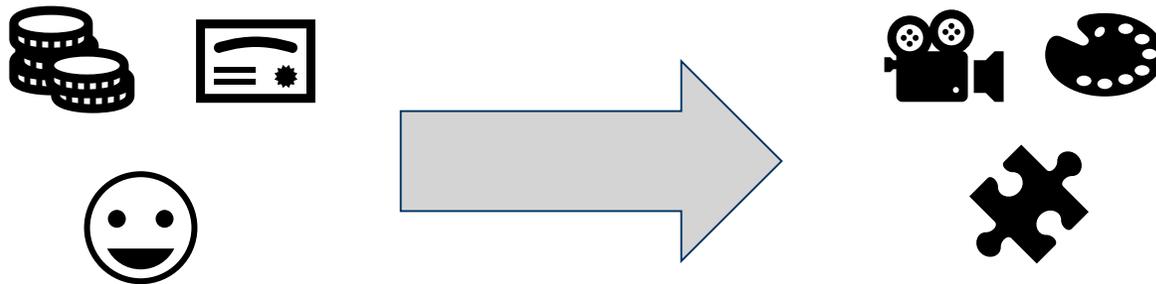
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- Refers to number of opportunities to respond and receive corrective feedback.
- Impacted by several variables:
  - » Size of instructional group
  - » Number of minutes each session lasts
  - » Number of sessions provided per week

# Dosage: Behavior

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- 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

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- 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., .
- Incorporates a meaningful focus on skills necessary to access grade-appropriate curricular standards.

# Alignment: Behavior

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- 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

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- 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

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- 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

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**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

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- **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

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## self-regulation

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

## executive function

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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

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- 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)?

# Elements of Evidence-based Interventions

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## 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?

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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?

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- 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 DBI process.

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

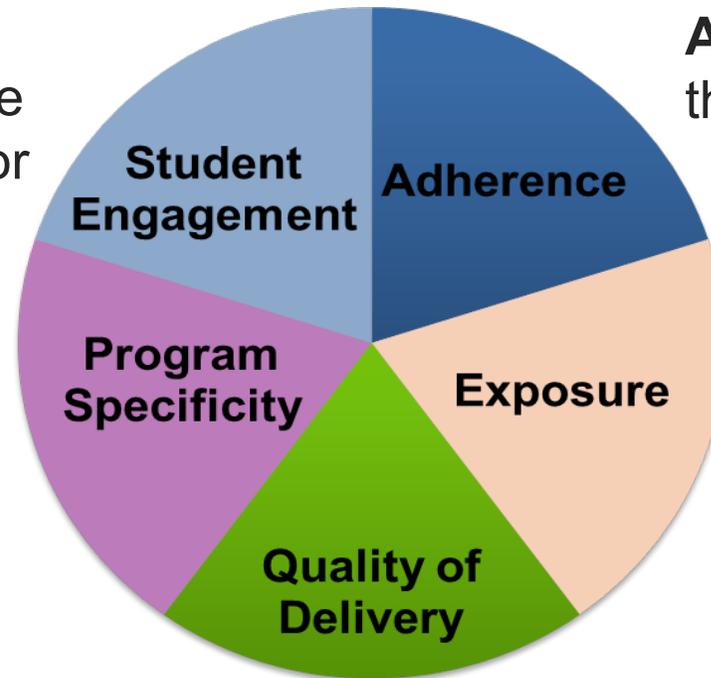
# Five Elements of Fidelity

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**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)

# Tools to Monitor General Intervention Fidelity

National Center on

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

(Student Present? = Y), indicate the duration (minutes) or frequency (e.g., number of check-ins) 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

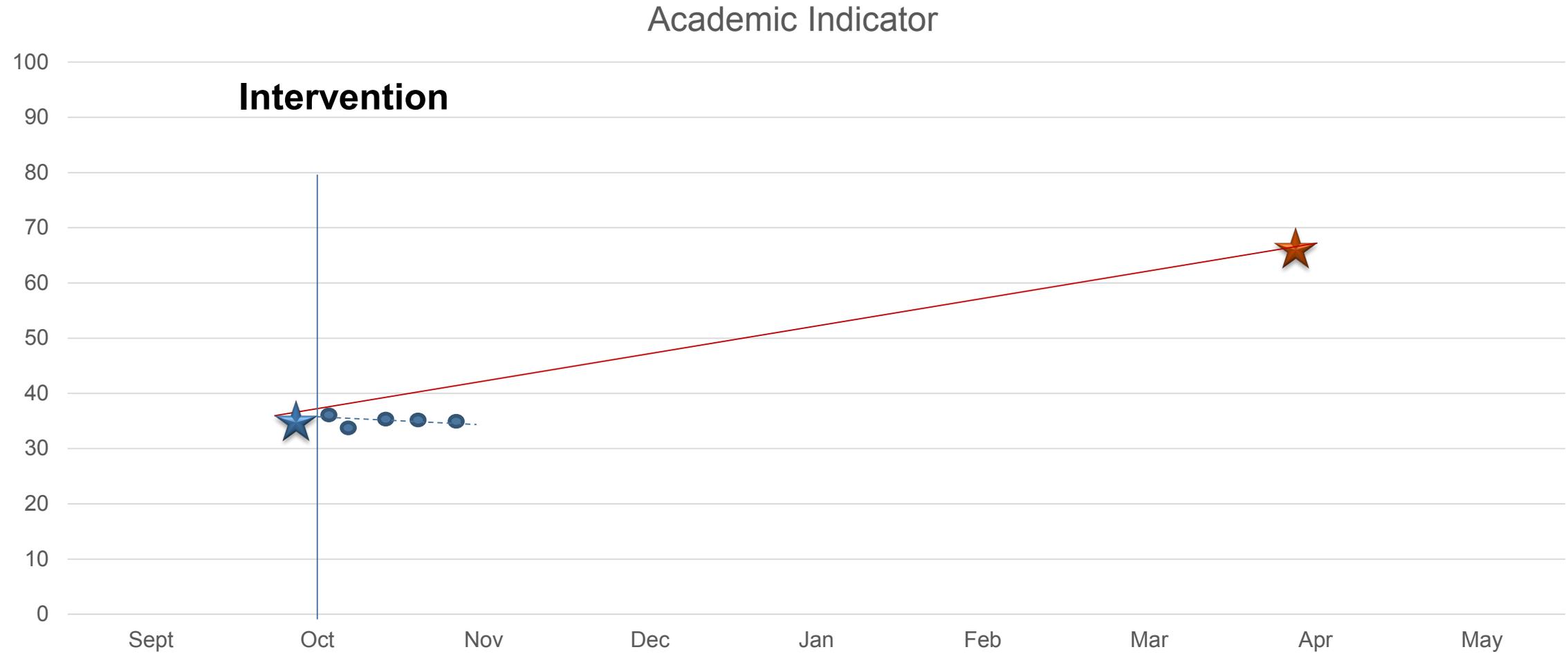
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Please note any relevant information to explain the above ratings.

# **Intensifying Interventions Using the Taxonomy of Intervention Intensity**

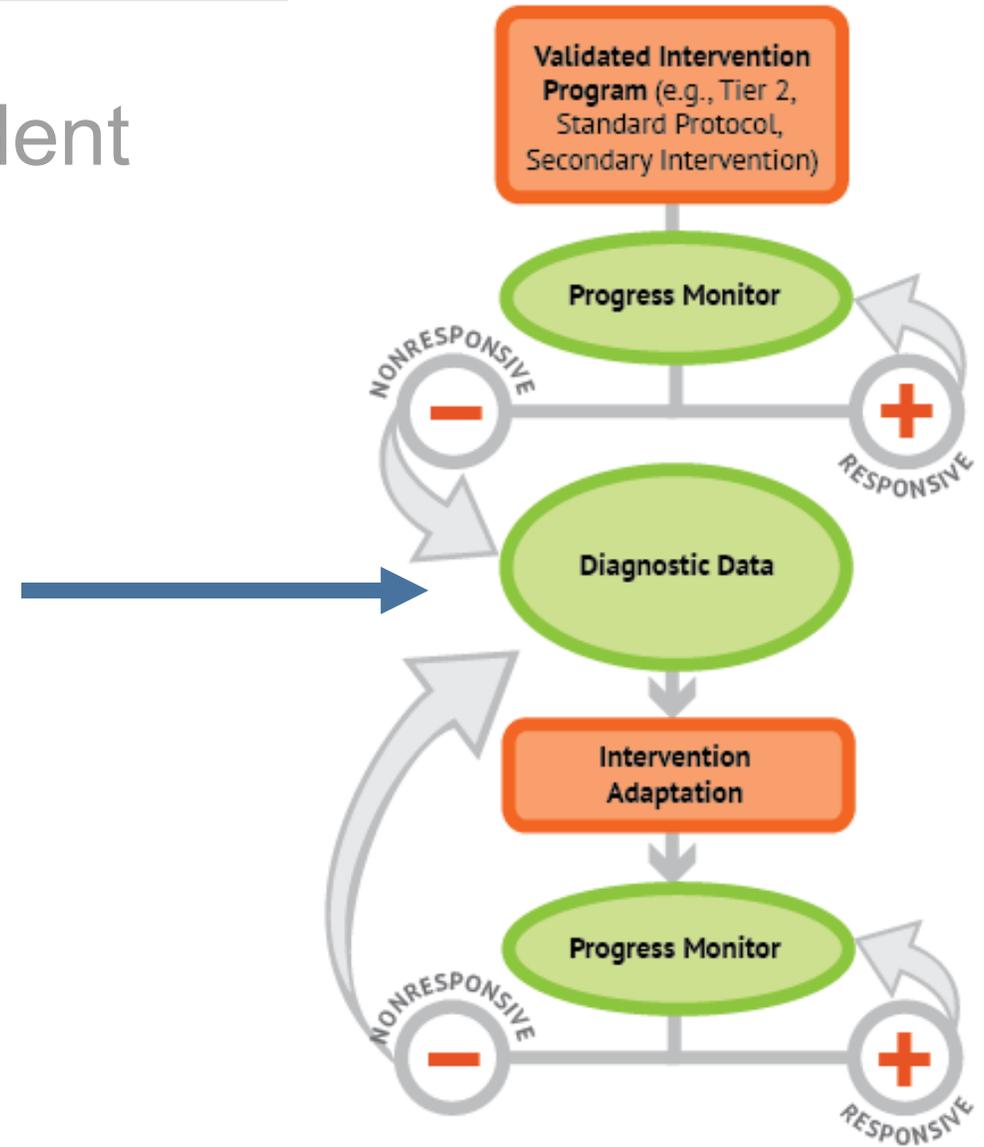
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# Progress Monitoring: Is Kelsey responding to the intervention?



# What Should Happen When a Student Doesn't Respond?

Team/teacher collects and analyzes informal diagnostic data and develops a hypothesis about why the student is not responding



# Developing the Hypothesis

- The hypothesis drives the intensification strategy selection.
- The taxonomy and this tool help teams develop a clear and more accurate hypothesis.

## Ask Clarifying Questions to Create a Hypothesis to Guide Intervention Changes

### Question Bank

*Purpose: The team should ask clarifying questions in order to analyze the data and develop a hypothesis to guide future intervention planning (e.g., skill deficit, function of behavior). The following questions may be used to help prompt discussion with your team. They are divided by areas of consideration outlined in the Taxonomy of Intervention Intensity.*

#### **Intervention Design and Delivery** (*strength and fidelity*)

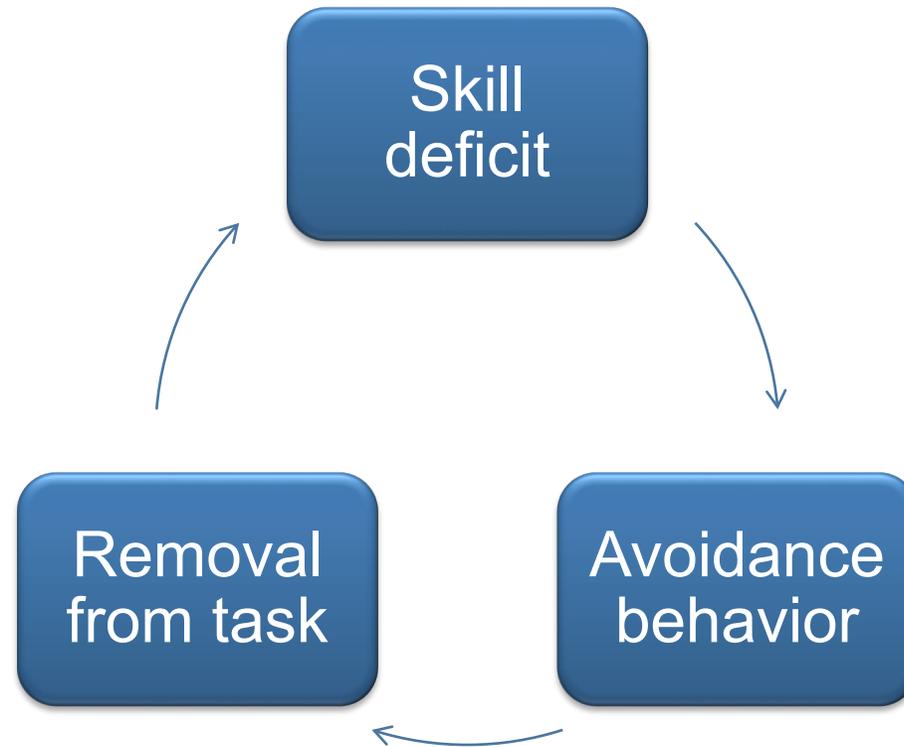
- Was the validated intervention evidence-based?
- Does evidence suggest the intervention is expected to lead to improved outcomes for a student with similar needs?
- Was the intervention delivered with fidelity? Consider:
  - Adherence: How well do we stick to the plan, curriculum, or assessment?
  - Program specificity: How well is the intervention defined and different from other interventions?
- Did any factors prevent the student from receiving the intervention as intended?

#### **Learner Needs and Background**

- Is the student an English language learner? Are appropriate practices to support language development used?
- Is the student regularly attending school? Intervention?
- What previous interventions or supports has the student received? How has he/she responded to these interventions or supports?
- Has the teacher communicated with previous teachers, parents, or the student to get a better sense of his/her performance?
- For students with an identified disability, consider the following
  - Does the student have an IEP or 504 plan?

# Integration of Academic-Behavior

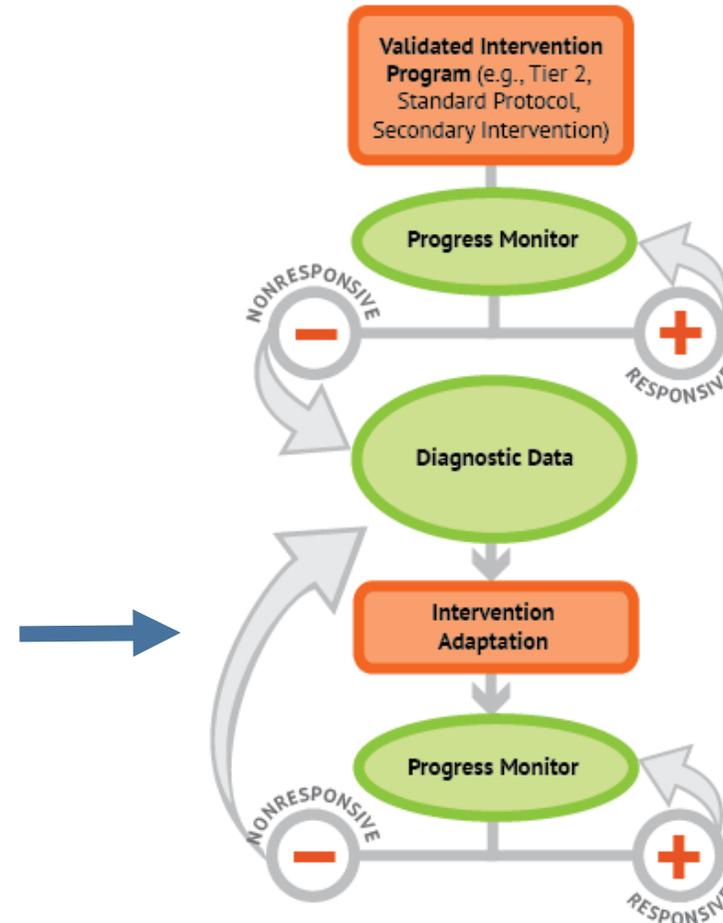
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Dimensions*
Strength
Dosage
Alignment
Attention to transfer
Comprehensiveness
Behavioral or academic support

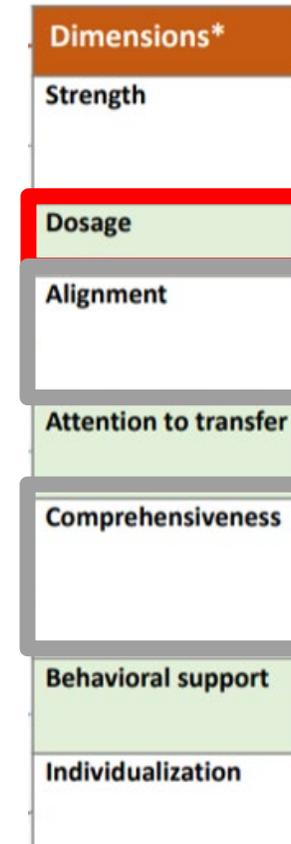
# Responding to non-responders

Intensify and individualize the intervention to address the hypothesis.



# Using Diagnostic Data to Develop Hypothesis to Intensify

- Teacher reviews Kelsey's classroom assessment data and conducts observations of her learning behavior. Behavior observations suggest that Kelsey struggles to master skills as quickly as her same age peers and needs more practice than her peers.
- *Hypothesis:* If Kelsey is provided additional opportunities of direct instruction, feedback, and practice on target skills, she would move to mastery of these skills more quickly.



# Using Diagnostic Data to Develop Hypothesis to Intensify

- Fidelity and observation data indicate that Kelsey is easily frustrated and less engaged in the intervention than her peers. Data indicate she can learn the skill if she attends to the task.
- *Hypothesis:* If Kelsey was more engaged and able to control her frustration she would benefit more from the intervention.

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

# Intensifying the Intervention Along the Dimensions

## Tips for Successful Intensification!

- Select strategies that address the hypothesis.
- Start by increasing opportunities for practice and feedback.
- Make few but important changes.

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

### Intervention Intensification Strategy Checklist

Use these ideas, as well as your own, to intensify interventions. For more information about intensifying interventions, check out our website, [www.intensiveintervention.org](http://www.intensiveintervention.org). 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.

**Strength:** Teams can increase the strength of an intervention by focusing on strategies and attention given to other dimensions of the [Taxonomy of Intervention Intensity](#).

**Dosage**  
Increase opportunities for practice and corrective feedback.

- 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 the groups (group students with similar performance levels).
- Consider an intervention setting with fewer distractions.
- Embed additional practice and feedback sessions throughout the day.
- \_\_\_\_\_

**Alignment**

- Increase instructional time for the target skill.\*
- Supplement intervention with National Center on Intensive Intervention materials in [reading](#), [math](#), or [behavior](#).
- Focus on discrete skill instruction within the target skill.
- \_\_\_\_\_

**Attention to Transfer**

- Align instructional routines and language with core instruction.
- Preteach content.
- Embed guided practice on target skills within core instruction.
- Embed explicit opportunities in other settings to maintain skills.
- Explicitly teach connections.

NCII  
Resource

# IRIS Literacy Intervention Resources for Secondary Settings

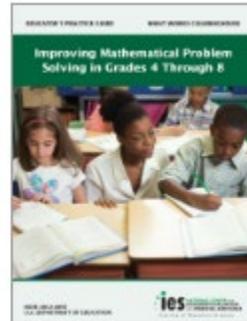
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- [Collaborative Strategic Reading \(CSR\): A Reading Comprehension Strategy](#)
- [Secondary Reading Instruction \(Part 1\): Teaching Vocabulary and Comprehension in the Content Areas](#)
- [Secondary Reading Instruction \(Part 2\): Deepening Middle School Content-Area Learning with Vocabulary and Comprehension Strategies](#)
- [PALS: A Reading Strategy for High School](#)

# IES Practice Guides



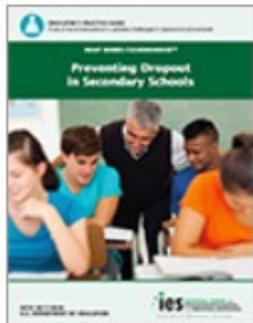
**Teaching Secondary Students to Write Effectively**



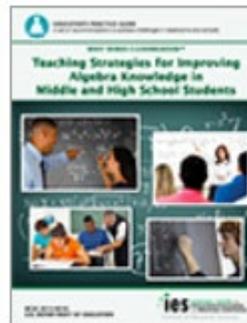
**Improving Mathematical Problem Solving in Grades 4 Through 8**



**Developing Effective Fractions Instruction for Kindergarten Through 8th Grade**



**Preventing Dropout in Secondary Schools**



**Teaching Strategies for Improving Algebra Knowledge in Middle and High School Students**



**Improving Adolescent Literacy: Effective Classroom and Intervention Practices**

# **Contextual Factors Impacting MTSS Implementation in Secondary Settings: Lesson Learned**

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# Contextual Factors Impacting MTSS Implementation In Secondary Settings

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- Graduation Requirements/Credit Based System
- Instructional Organization - Scheduling
- Staff Roles and Capacity
- Access to Evidence Based Practices
- Student Involvement

NHSC et al., 2010

# Graduation Requirements - Credit Based System

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- **Challenges**

- Lack of flexibility of moving in and out of ‘intervention classes’
- Students receiving academic intervention miss classes required for graduation
- Intervention classes are not credit bearing or do not count toward college admission

*Recommendation:* Reduce need for supplemental support through high quality Tier 1 instruction and differentiation. Embedded individualized interventions within existing courses.



# Instructional Organization - Scheduling

- **Challenges**

- Finding time to analyze and discuss student data and plan instruction and intervention with teachers and students.
- Finding sufficient time to implement intensive interventions.
- Creating flexible schedules or adapting master schedule.

*Recommendations:* Build in data review and intervention planning time into the master schedule (e.g., PLCs). Consider master scheduling approaches that allow embedded intervention time (block scheduling) and use intensification strategies that focus on other dimensions than adding additional minutes.

# Staff Roles and Capacity

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- **Challenges**

- Building teacher knowledge
- Supporting implementation through coaching
- Providing teachers time to problem solve, consult with colleagues, provide/receive coaching

*Recommendations:* Plan for adequate professional development and coaching to support implementation. Start small and focus on powerful practices!

# Access to Academic Evidence-Based Interventions

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- **Challenge**
  - Limited evidence for academic intervention programs at secondary level

*Recommendation:* Use available resources, like IES Practice Guides, to develop and implement effective programs. Focus interventions on skills necessary for school success that can be embedded within current instruction.

# Student Involvement

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- **Challenge**
  - Higher levels of disengagement for struggling students high school students
  - Students often don't see the value of 'interventions'

*Recommendation:* Share screening and progress monitoring data with identified students and problem solve *with* the student about why they are struggling and what interventions and supports would help.

# MTSS Planning Considerations

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- Focus
- School Culture
- Instructional Organization
- Graduation Requirements/Credit Based System
- Implementation Alignment
- Scheduling
- Staff Roles and Capacity
- Instruction and Assessment Resources
- Student Involvement

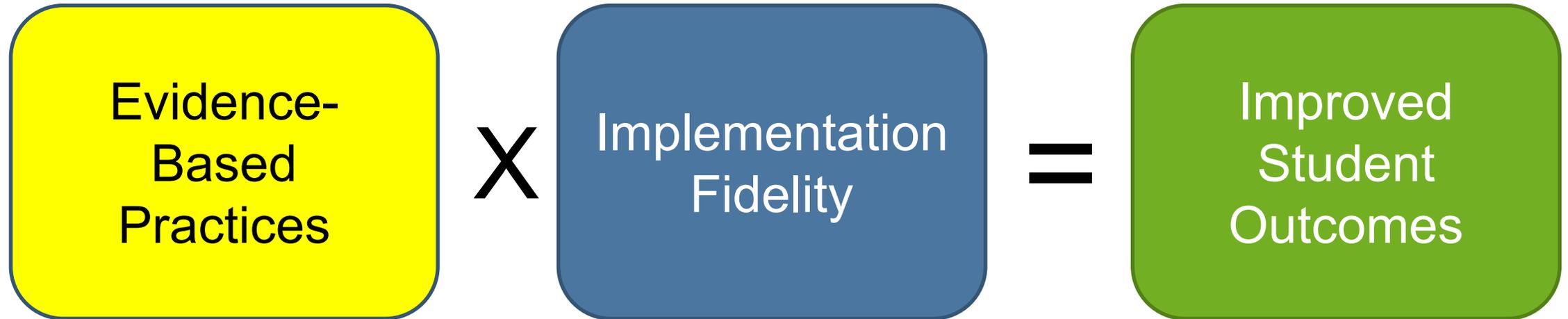
Handout

# Closing and Next Steps

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# You do the math!

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# Team Reflection

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- Share one thing that you heard today that excited you.
- Share one thing that challenged your thinking.
- Share one question you still have.

# Thank You!

*Tessie Rose Bailey, Ph.D.*

Principal Technical Assistance Consultant, American Institutes for Research (AIR)

National Center For Systemic Improvement (NCSI), <https://ncsi.wested.org/>

CEEDAR Center, <http://cedar.education.ufl.edu/>

National Center on Intensive Interventions (NCII), <https://www.intensiveintervention.org/>

Center on Response to Intervention, <https://www.rti4success.org/>

EMAIL: [TBailey@air.org](mailto:TBailey@air.org)

PHONE: 202.763.3955

# References

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