



Intensive Intervention within MTSS

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Outcomes

- Understand how intensive intervention fits within broader MTSS implementation.
- Learn how to use the *Taxonomy of Intervention Intensity* to select or review interventions.
- Learn how to use the *Taxonomy of Intervention Intensity* to inform intensifying and individualizing interventions.



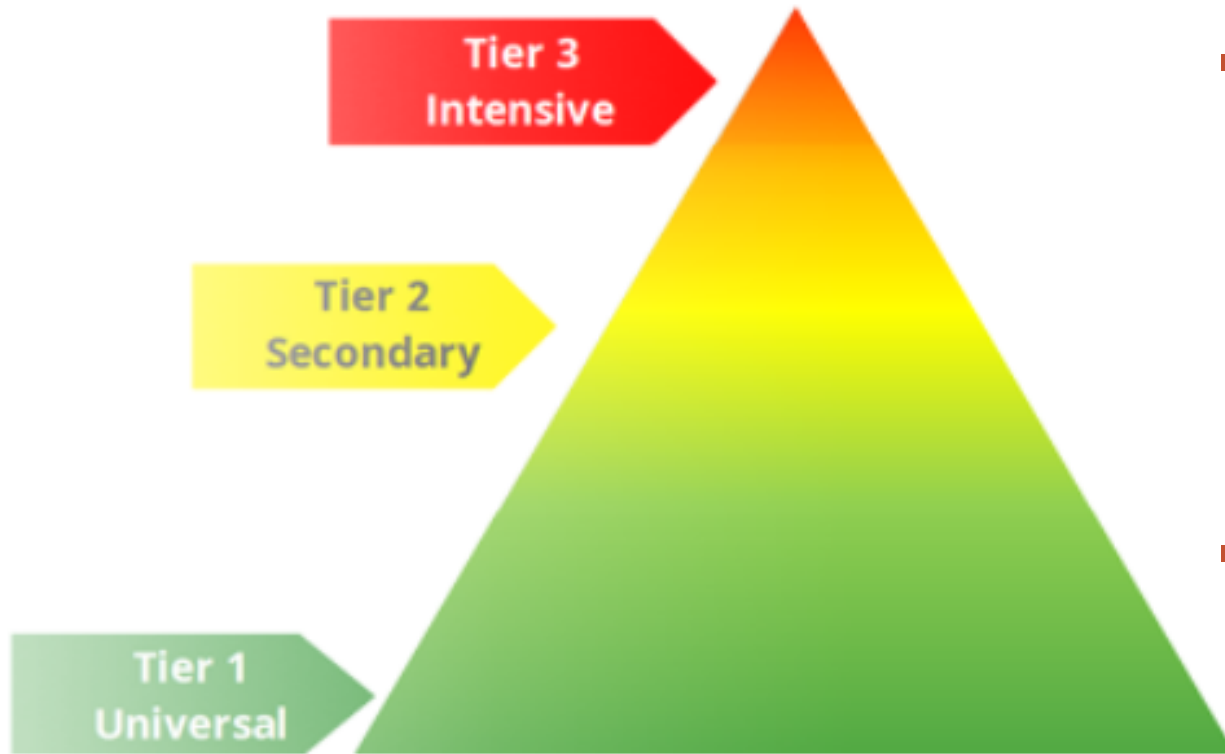


Activation

What do you and/or your state or district consider to be the “essential elements” of MTSS implementation?



Multi-Tiered System of Supports



- Focus on prevention.
- Use of data to inform decisions at ALL levels:
 - Universal screening to identify risk.
 - Progress monitoring to determine student responsiveness and the effectiveness of supports.
- Ensure student access to increasingly intensive levels of instruction and interventions.

www.rti4success.org



Common Pitfalls

- Research-based core curricula may be in place (and even followed), but without attention given to universally-designed instructional practices.
- Screening data are used to place students into Tier 2 intervention groups, but not to inform changes that may be needed at Tier 1. Conversely, Tier 3 supports may not be offered soon enough for some students.
- Tier 2 interventions are selected based on availability and/or without attention to alignment with student/small group needs.
- Interventions may be changed without consideration given to implementation fidelity.
- Misalignment exists between expected outcomes and intervention outcomes.
- Tier 2 problem-solving teams focus on individual students.
- Tier 3 becomes confusing; teams are unable to articulate the difference from Tier 2.



Stumbling Blocks in Implementation

- “In a perfect world, student support teams at the targeted level of MTSS (i.e., Tier 2) would reflect on data for small groups of students receiving the same intervention to determine the groups’ responsiveness. More often than not, however, teams review data on individual students to identify strategies for individualized needs. For many schools, individualizing supports at Tier 2 is not feasible given the sheer volume of students in need of/being referred for support” (Marx & Goodman, 2019).

In *Essentials of Intensive Intervention* edited by Rebecca Zumeta Edmonds, Allison Gruner Gandhi, and Louis Danielson



Teaming Structures Across the Tiers

	Schoolwide (Core/Tier 1)	Targeted (Tier 2)	Intensive (Tier 3)	Individualized Education Program (IEP) Team
Key Questions	Is the core programming meeting the academic or behavioral needs of most students (e.g., 80% of students)?	Are the targeted supports meeting the academic or behavioral needs of students receiving targeted interventions?	Are the intensive supports meeting the academic or behavioral needs of students with intensive needs?	Are the special education supports and services appropriate and meeting academic or behavioral needs of students with IEPs?
Relevance to Data-Based Individualization	X	X	✓	✓
Team Membership	School/building leadership team, with subcommittees focused on academics and behavior (as needed)	Grade-level or problem-solving teams with representatives from school leadership team subcommittees (as needed)	Student-level team with representatives from problem-solving teams, and personnel with content and data analysis expertise	Similar to intensive support team, with additional members required by IDEA for a multidisciplinary team
Roles and Responsibilities	Develop plan, support implementation, and monitor the effectiveness of Core/Tier 1 programming	Develop plan, support implementation, and monitor the effectiveness of Targeted/Tier 2 programming	Develop plan, support implementation, and monitor the effectiveness of Intensive/Tier 3 programming	Determine special education eligibility, develop an IEP aligned with an intensive support plan, monitor the effectiveness of Intensive programming, and evaluate progress toward IEP goals
Data Sources	Benchmark/universal screening assessments, district assessments, state assessments, discipline referrals	Benchmark/universal screening assessments, progress monitoring measures, behavior "point sheets," discipline referrals	Academic diagnostic assessments, functional behavior assessment, individual student data across academics and behavior (e.g., work samples, anecdotal or observational data)	Use data from Tiers 1–3 with requirements for special education eligibility and programming (e.g., psychoeducational assessments, speech/language assessments, medical assessments and diagnoses)
Frequency of Data Collection/Data Review	Academics and behavior: Three times per year	Academics: One or more times per month Behavior: One or more times per week	Academics: One or more times per week Behavior: One or more times per day	Progress may use data collected in various tiers of support or may be specific to IEP goals; IEP must be reviewed at least annually





Intensive Intervention

Supporting Individual Students
Effectively



Distinctions Between Tier II and Tier III

	Targeted (Tier II)	Intensive (Tier III)
INSTRUCTION		
Duration and timeframe		
Group size		
Progress Monitoring		
Population served		

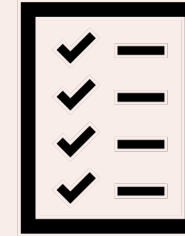


Elements of Validated Interventions



Evidence-based

What



**Implemented
With Fidelity**

How



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**

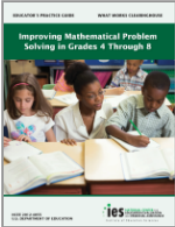
- Were the outcomes of interest relevant to our students?

- **Effect Size**

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




What if a validated intervention doesn't exist?



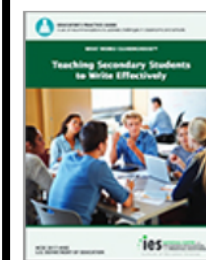
Improving Mathematical Problem Solving in Grades 4 Through 8

Released: October 2018 *
Revised



Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade

Released: July 2016* Revised



Teaching Secondary Students to Write Effectively

Released: November 2016

1 Teach students academic language skills, including the use of inferential and narrative language, and vocabulary knowledge.



MINIMAL
EVIDENCE

▼ Show More

2 Develop awareness of the segments of sounds in speech and how they link to letters.



STRONG
EVIDENCE

▼ Show More

3 Teach students to decode words, analyze word parts, and write and recognize words.



STRONG
EVIDENCE

▼ Show More

4 Ensure that each student reads connected text every day to support reading accuracy, fluency, and comprehension.



MODERATE
EVIDENCE

▼ Show More



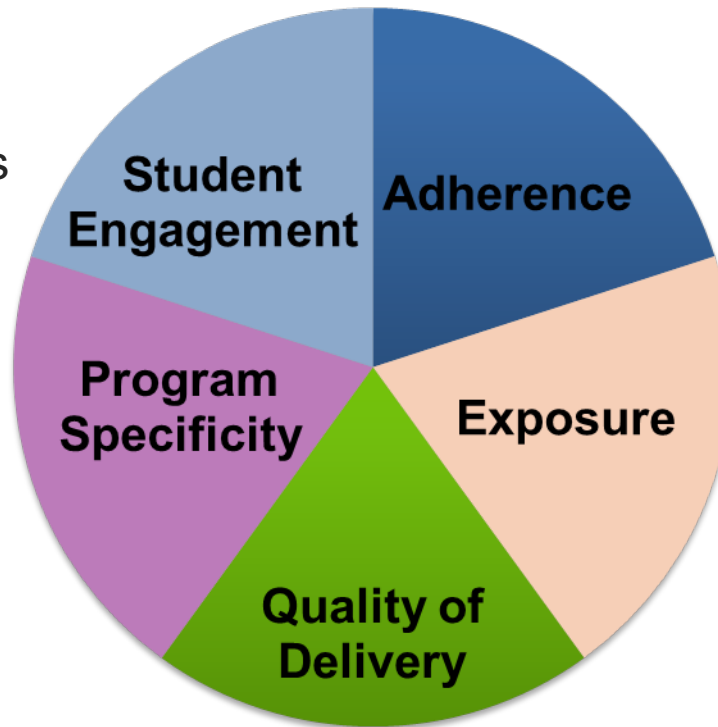
Implement With and Monitor Fidelity

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?



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?

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



Chat: 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)

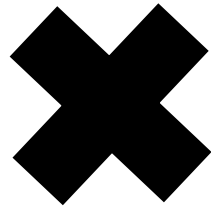


Success Equation (No Matter the Tier!)



Evidence

- Validated for a specific population
- Incorporates executive functioning and behavioral supports
- Targeted to need



Implementation

- Specified group size or instructional delivery
- Specified time and duration
- Fidelity monitoring



Impact

Strong effects

Before Intensifying, Check...



- Did at least/approximately 80% of students respond to the intervention? If not, consider a change to the group intervention first.
- The student's secondary (Tier 2) program is an appropriate match for his or her needs.
- Was the intervention delivered with fidelity? The program has been delivered for a sufficient amount of time to determine response.
- The program has been delivered as planned—for example, if the intervention is supposed to take place for 30 minutes three times per week, did that *actually* happen?



Why Might We Need to Intensify?



Validated programs are not universally effective programs; 3 to 5 percent of students need more help (Fuchs et al., 2008; NCII, 2013).



Students with intensive needs often require 10–30 times as much practice as their peers to learn new information (Gersten et al., 2008).



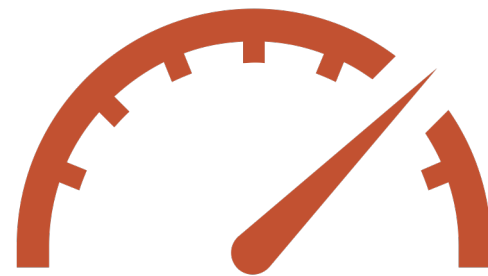
What Is Tier III; Intensive Intervention?

Intensive intervention addresses *severe and persistent* learning and behavioral difficulties.

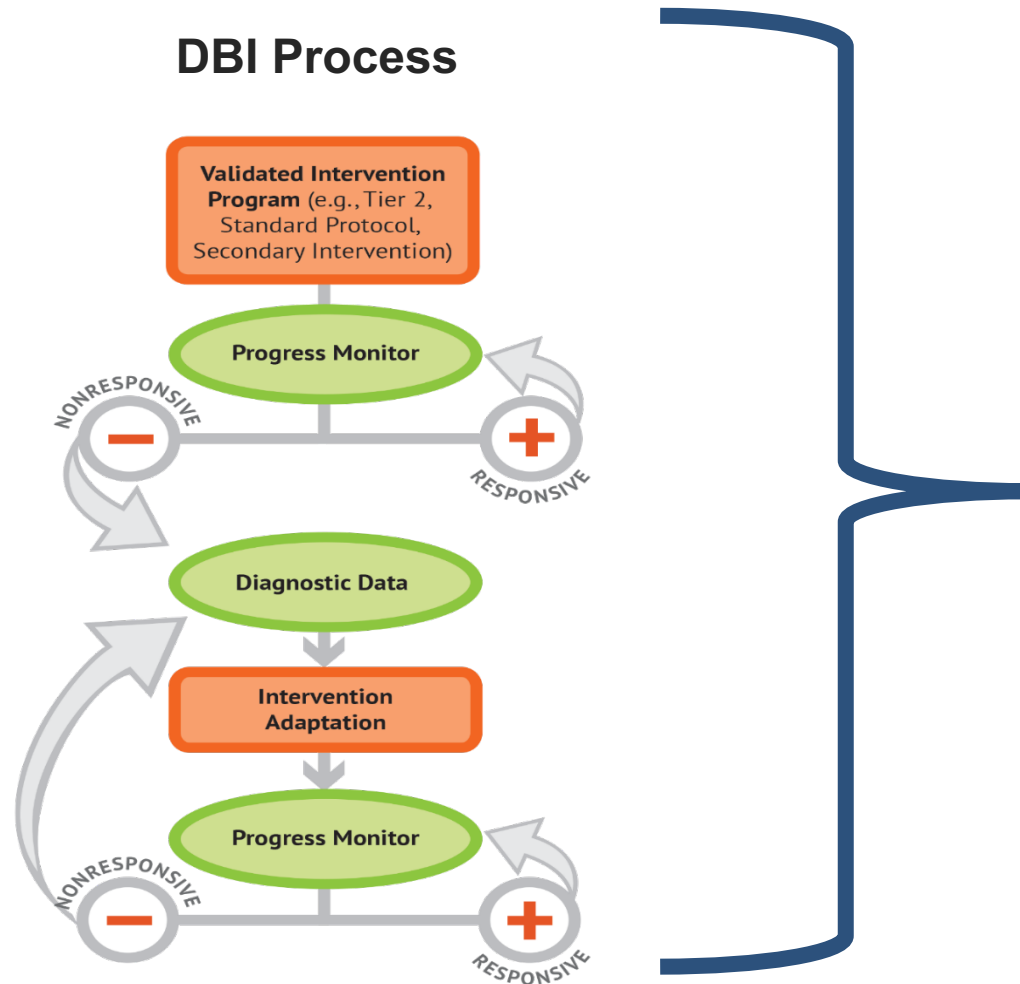
Driven by *data*



Characterized
by *increased intensity*
and *individualization*



One Approach: Data-Based Individualization (DBI)



- Is a process for delivering intensive intervention that often starts with Tier II
- Origins in experimental teaching
- Is not a one-time fix
- Integrates data-based decision making across academics and social behavior



Systematizing DBI

Applying the Taxonomy of
Intervention Intensity



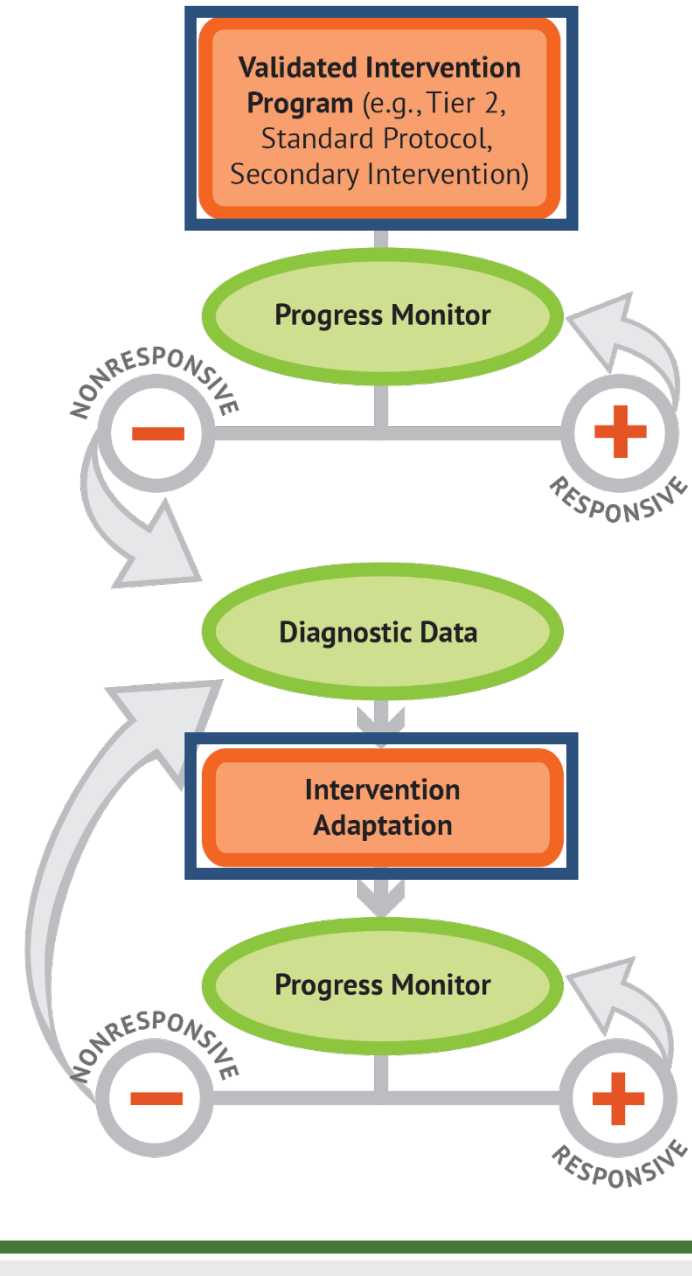
The Taxonomy of Intensive Intervention

- A system for describing an intervention in terms of **seven dimensions along which intensity can vary**.
- This helps special educators and interventionists **identify best-match intervention platforms...**
- ...and **formulate adjustments** to boost student progress based on responsiveness.



When to Use the Taxonomy within the DBI Process

- Designing, selecting, or evaluating an intervention.
- Systematically intensifying and individualizing interventions.



Rate the Intervention by Taxonomy Domain

Shout out to MI!

Ratings:

0 (fails to address)


1 (minimally addresses)

2 (moderately addresses)

3 (addresses standard well)

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**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 not 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.

WANT TO LEARN MORE?

Visit us at www.intensiveintervention.org.





Taxonomy of Intervention Intensity

The *Taxonomy of Intervention Intensity* (Fuchs, Fuchs, & Malone, 2017) can be used to select or evaluate an intervention platform used as the [validated intervention platform](#) or the foundation of Tier 3/Intensive Intervention. It can also be used to guide [intervention adaptation](#) should data indicate a need.

Overview of Applying the Taxonomy

The taxonomy can be applied:

Within Tier 2 and/or 3 When...	Within Special Education When...
Selecting a new intervention program or practice (at Tier 2)	Selecting a new intervention program or practice for a student with a disability
Reviewing an intervention program or practice currently being implemented (at Tier 2)	Reviewing an intervention program or practice currently being implemented with a student with a disability
Making systematic intervention adaptations as a part of Tier 3/intensive intervention	Making systematic intervention adaptations as a part of specially-designed instruction

The taxonomy should be used in tandem with a **data-driven process**, so educators know (1) if a student is responding to an intervention/practice and (2) when to make an instructional adaptation. Additional data that must be collected to support in effective decision-making is **fidelity data**.

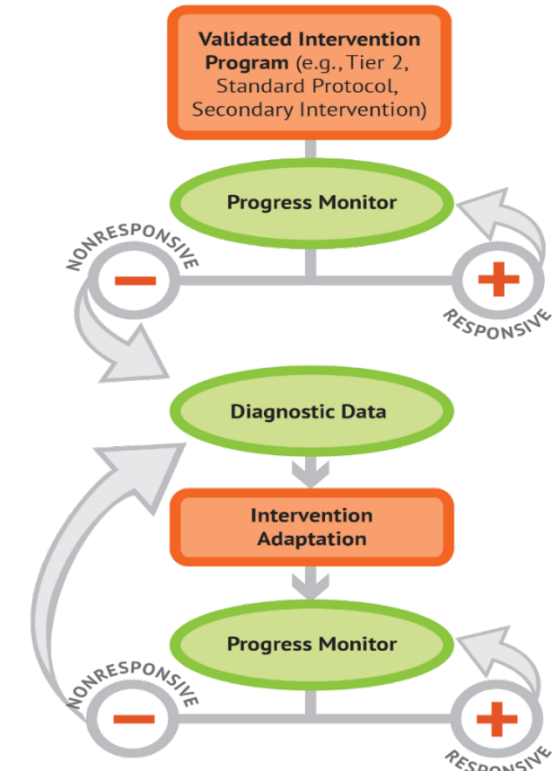
Activity Instructions

The next two pages provide tables with guiding questions across the taxonomy domains in both academics and behavior. You should rate (according to the scale provided) a new intervention and/or an intervention you're currently implementing. If you are not in a classroom, rate an intervention that you think you would be likely to implement. Based on the ratings, begin to brainstorm potential ways to intensify the intervention within each domain.

Monitor Progress and Fidelity

STEP 2: While implementing the intervention, collect progress monitoring data. With the team (or individually), evaluate the student's response to the validated intervention.

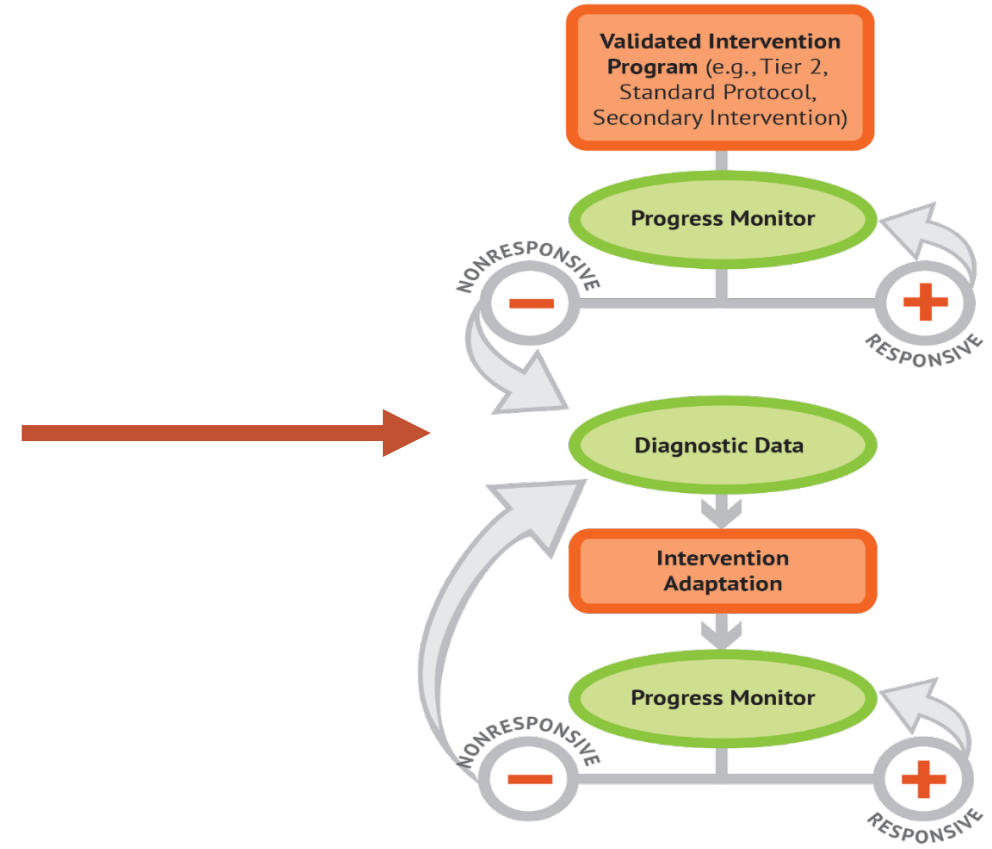
This also requires that there is a goal in place!



What should happen if a student doesn't respond?

STEP 3: Team/teacher collects and analyzes informal diagnostic data and develops a hypothesis about why the student is not responding.

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.



Informal Diagnostic Tools

Literacy	Mathematics	Behavior
<p><i>Examples of Common Diagnostic Data Sources</i></p> <p>Running records</p> <p>Intervention- or curricula-specific diagnostic tools</p> <p>Word list reading (e.g., Dolch, Fry, curriculum sight word lists)</p> <p>Analysis of student work (e.g., classroom assignments, work samples, tests)</p> <p>Observation and anecdotal notes</p> <p>Student or family interviews or checklists about reading behaviors</p>	<p><i>Examples of Common Diagnostic Data Sources</i></p> <ul style="list-style-type: none"> Error analysis of math progress monitoring data Computation Error Analysis Practice Mathematics Assessment Supplement Analysis of student work (e.g., classroom assignments, work samples, tests) Intervention- or curricula-specific diagnostic tools Observation and anecdotal notes Student or family interviews or checklists about math behaviors 	<p><i>Examples of Common Diagnostic Data Sources</i></p> <p><i>Identifying Function</i></p> <p>1. Interview Protocols, Checklists, and Planning Tools</p> <ul style="list-style-type: none"> Common Problem Behaviors and Usual Suspects for Functional Antecedents and Consequence Functional Behavior Assessment Process Functional Assessment Interview Functional Assessment Checklist for Teachers and Staff (FACTS) Function-Based Intervention and Positive Behavior Support Plan Worksheet <p>2. Observational Tools and Collecting Anecdotal Evidence</p> <ul style="list-style-type: none"> Behavior Assessment: Duration and Latency Recording Behavior Assessment: Frequency and Interval Recording

Skill deficit

Removal from task

Avoidance behavior

Getting information from others, including parents and families, is essential as teams try to determine why a student is not responding.

Review Ratings

Which dimensions were rated lower?

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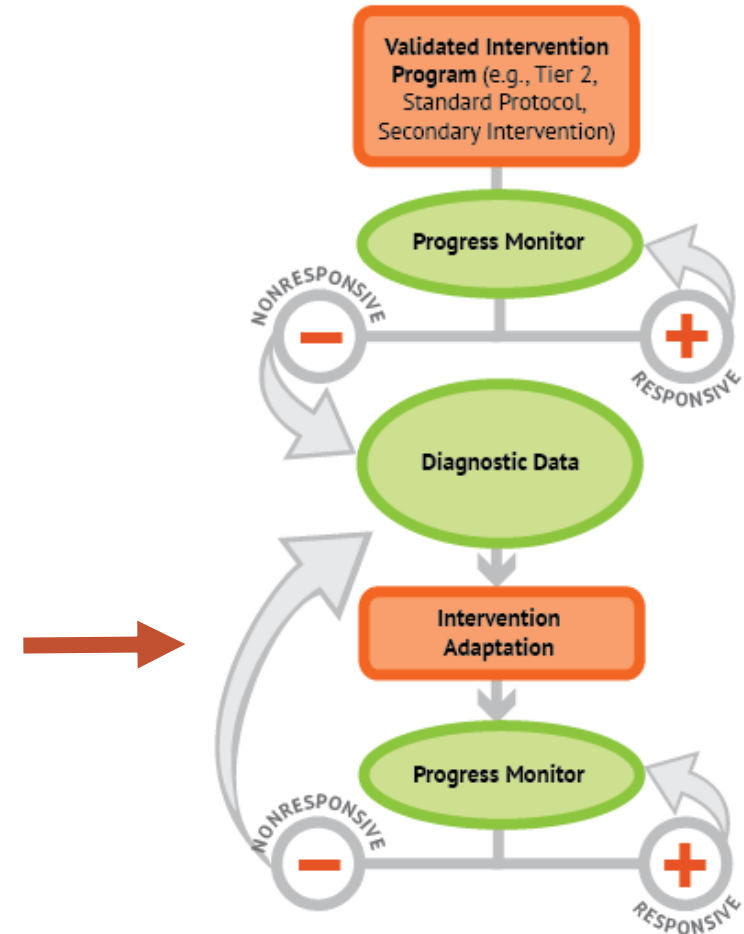
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*Fuchs, L.S. Fuchs, D. & Malone, A.S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

Intervention Adaptations

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



- **STEP 4:** Intensify and individualize the intervention to address the hypothesis or lower rated areas.



Tips for Successful Intensification!

- Select strategies that address the hypothesis and/or known areas of weakness in the validated intervention platform.

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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. 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 and the environment.
- ☐ Preteach content.
- ☐ Embed guided practice on target skills within core instruction and other environments.
- ☐ Embed explicit opportunities in other settings to maintain skills acquired in the intervention.
- ☐ Explicitly teach connections.
- ☐

Comprehensiveness or Elements of Explicit Instruction

- ☐ Use precise, simple language to teach key concepts or procedures.
- ☐ When introducing a concept, provide worked examples and show the steps in writing.
- ☐ Present a completed work example. Explain why a specific step is important and have the student complete that step and explain its significance.

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Intensification Strategy Checklist—1
September 2019



Tools for Intensifying Interventions

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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 parts referring to the same whole.

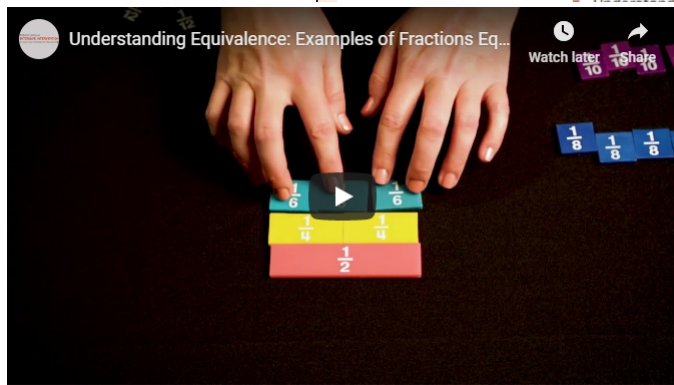
Use Tiles and Fraction Circles

Use fraction concepts (joining) with fraction tiles (or circles).
Create a visual representation of adding fractions along a number line that matches the visual.

Illustrated:

Provide learning opportunities (including use of manipulatives).

Use error correction and have the student repeat the activity.



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Words With

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Self-Management

Terminology and Definitions

Self-Management: Students are taught self-management strategies as a 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.

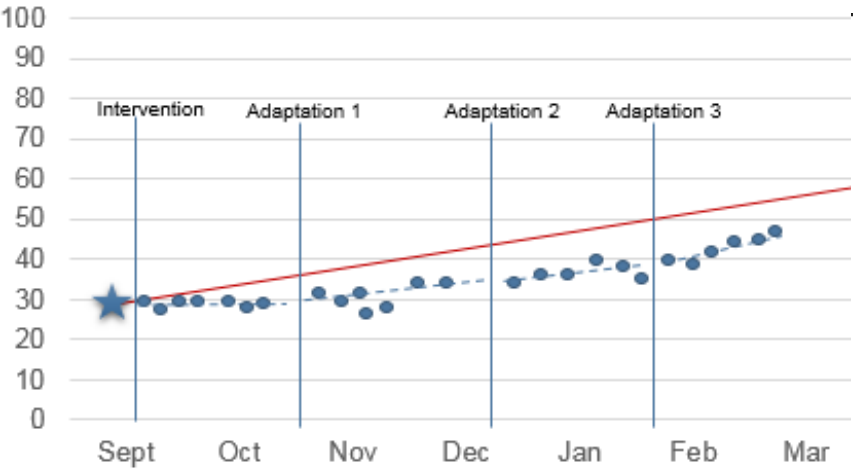
Prior to implementing a self-management system, it is important to use data to determine

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)



Continue to Monitor Progress and Fidelity

2nd Grade: Passage Reading Fluency



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Student Plan for Intensive Intervention and Progress Monitoring

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

Data Log:

Purpose: Individualize and monitor implementation of the intervention.

Teacher: _____

Student: _____

Week of: _____

Daily: _____

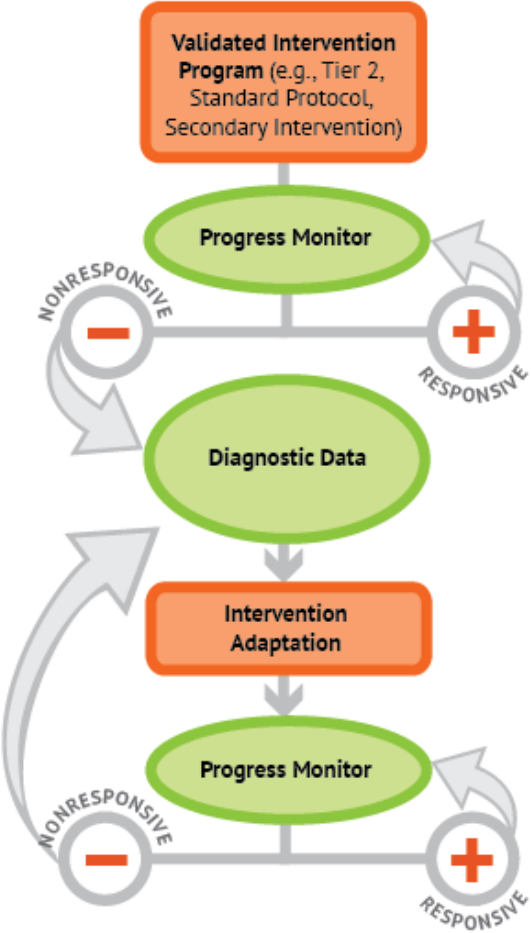
Please fill in the following information for each day of the intervention, rate the extent of student engagement, and rate the plan implementation.

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	<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	<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	<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	<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	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3			

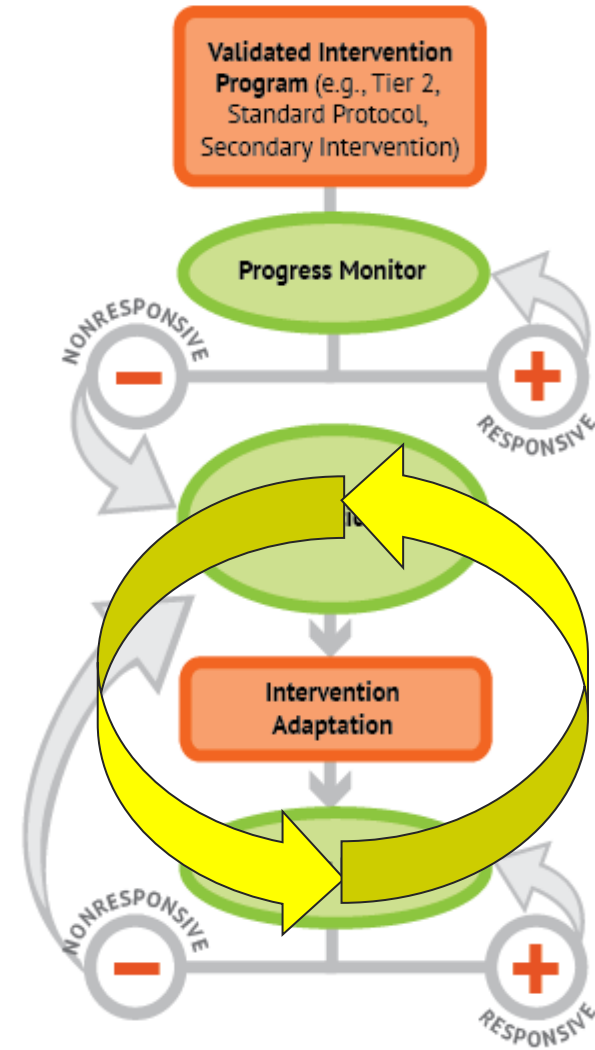
Please note any relevant information to explain the above ratings.

- Does the plan specify a method for progress monitoring?
☐ Yes ☐ No ☐ N/A
- Does the plan identify the person(s) responsible for collecting 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?
☐ Yes ☐ No ☐ N/A

- **STEP 5:** Monitor the student's response to the adaptation (4-6 data points)



DBI is an ongoing process for some students.





Why might we encourage this process for our students with severe and/or persistent academic or behavioral needs?



A Deeper Dive into the Taxonomy Dimensions



Dimensions of the Taxonomy of Intervention Intensity

- ✓ Does evidence suggest that 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 needed to be successful (*behavioral support*)? Can the intervention be easily integrated into academic instruction (*academic support*)?
- ✓ Can the intervention be individualized with a data-based process to meet student needs (*individualization*)?



Strength



- How well does the intervention work for students with intensive intervention needs (**students below the 20th percentile**)?
- Considerations:
 1. Has this intervention been **evaluated** empirically using scientifically sound, rigorous methodology?
 2. What were the effects of the study?
 - For *group design studies*: What is the reported standardized mean **effect size** for this intervention, and what does it look like for students with intensive needs (<20th percentile)?
 - For *single-case design studies*: Is it identified as a promising or effective program by a reputable source (e.g., NCII Tools Charts, WWC)?



How important are effect sizes?

- Effect sizes are not always available
- When available, effect sizes must be interpreted with caution
- Effect sizes can be impacted by:
 - Study conditions
 - Content studied
 - Type of student

Resources to Evaluate Strength

FILTER RESULTS		Subject		Grade					
		<input type="checkbox"/> Reading	<input type="checkbox"/> Math	<input type="checkbox"/> Writing	<input type="checkbox"/> Pre-K	<input type="checkbox"/> Elementary	<input type="checkbox"/> Middle School	<input type="checkbox"/> High School	Apply
Hide/Show Advanced Filters		Clear Filters							
Reset Chart	Compare Tools	Prev Tab		Next Tab		Study Quality		Study Results	Intensity
All	Title	Study	Study Type	Participants	Design	Fidelity of Impl.	Measures (Targeted)		
<input type="checkbox"/>	Academy of MATH	Torlaković (2011)	Group Design	●	●	○	●	●	
<input type="checkbox"/>	Academy of READING	Fiedorowicz & Trites (1987)	Group Design	●	●	○	●	●	
<input type="checkbox"/>	Academy of READING	Torlaković (2011)	Group Design	●	●	○	●	●	
<input type="checkbox"/>	Achieve Intervention	Tracey & Young (2004)	Group Design	○	○	○	○	○	
<input type="checkbox"/>	Burst:Reading	Dubal, Hamly, Pavlov, Richards, Yambo, et al. (2012)	Group Design	○	○	○	●	●	
<input type="checkbox"/>	Burst:Reading	Pappas, York, Wang, & Richards (2015)	Group Design	●	○	●	●	●	●
<input type="checkbox"/>	Cover Copy Compare	Becker, McLaughlin, Weber, & Gower (2000)	Single-Subject Design	○	○	○	○	○	—

Academic Intervention Tools Chart

<https://charts.intensiveintervention.org/chart/instructional-intervention-tools>

Behavior Intervention Tools Chart

<https://charts.intensiveintervention.org/chart/behavioral-intervention-chart>

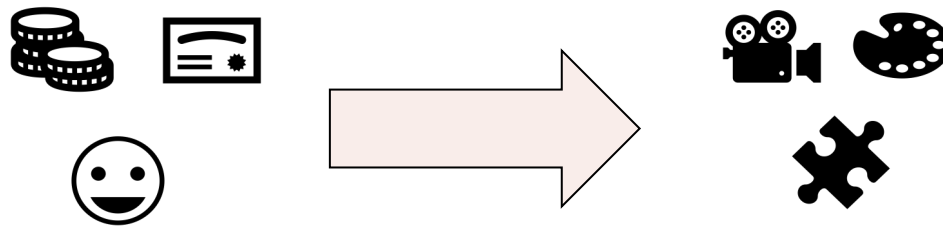
What Works Clearinghouse

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



Dosage


- For ***academics***, we consider the number of opportunities that a student must respond and receive corrective feedback.
- For ***behavior***, we consider the number of opportunities a student must (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.



Variables That Impact Dosage

- Number of sessions (frequency of sessions)
- Duration of sessions
- Student-teacher ratio
- Number of practice problems provided



Not just more 
but how it is used

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

<https://intensiveintervention.org/resource/strategies-scheduling-how-find-time-intensify-and-individualize-intervention>



Alignment

A hammer is an effective tool, but not with a screw...



Alignment: Academics

To what extent does the intervention

- address the full set of a specific student's academic deficits,
- not address skills the student has already mastered, and
- incorporate a focus on grade level 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.

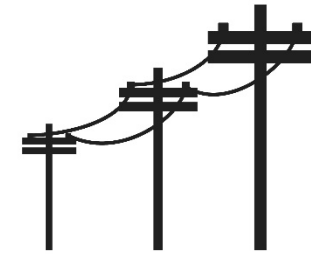


Attention to Transfer Academics

To what extent is an intervention *systematically designed* to

- help students transfer skills they learn to **other formats and contexts**,
- help students realize the **connection between mastered and related skills**, and
- **demonstrate efficacy on standardized measures or measures of generalization?**

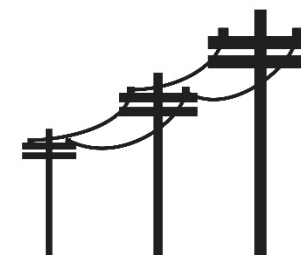
“generalization”



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 contexts/situations.
- The program reinforces the use of skills across contexts/situations.

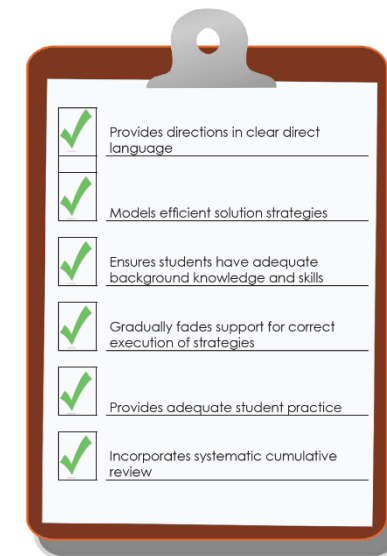
“generalization”



Comprehensiveness: Academics

Reflects the number of explicit instruction principles that 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 that students have the necessary background knowledge and skills to succeed with these strategies.
4. Gradually fades support for students' correct execution of these strategies.
5. Provides practice so that students use the strategies to generate many correct responses.
6. Incorporates systematic cumulative review.



Comprehensiveness: Behavior

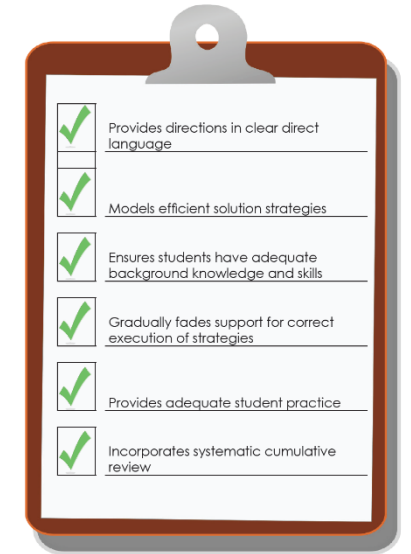
The extent to which the intervention includes a plan for

- 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.



Comprehensiveness = Explicit Instruction

- Explicit instruction is “a way of teaching where the teacher selects an important objective, models the skills being taught, and provides scaffolded practice to help a student achieve mastery” (Kearns, 2018).
- Explicit instruction has long been the gold standard when intervening with students with and at risk for learning disabilities (Ciullo, Sabrina Lo, Wanzek, & Reed, 2016; Scammacca, Roberts, Vaughn, & Stuebing, 2015).



Learn More About Explicit Instruction


**MODULE 4:
INSTRUCTIONAL
DELIVERY**

**INTENSIVE
INTERVENTION IN
MATHEMATICS
COURSE CONTENT**

Free course content to support preservice and inservice professional learning. Discusses:

- modeling and practice within explicit instruction,
- types of mathematical representations, and
- importance of using formal mathematics language.

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research



FEATURES OF EXPLICIT INSTRUCTION COURSE CONTENT

FOUR MODULES OF FREE COURSE CONTENT FOR PRE-SERVICE AND IN-SERVICE PROFESSIONAL LEARNING. INCLUDES VIDEO LECTURES, ACTIVITIES & MORE.

NCII, through a collaboration with the University of Connecticut and the National Center on Leadership in Intensive Intervention and with support from the CEEDAR Center, developed content focused on enhancing educators' skills in using explicit instruction.

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research

<https://intensiveintervention.org/intensive-intervention-features-explicit-instruction>



View module: <https://intensiveintervention.org/intensive-intervention-features-explicit-instruction>

View module: <https://intensiveintervention.org/instructional-delivery-math-course>



Behavioral Support in Academic Interventions

Behavioral support refers to the extent to which interventions incorporate

- a) methods to **promote self-regulation and executive function** and
- b) behavioral principles to **minimize non-productive behavior**.



Academic Support for Behavior Intervention

- 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 to Learn More and Intensify Behavior Support

Select an Area to Explore

ANTECEDENT
MODIFICATION

SELF-
MANAGEMENT

REINFORCEMENT

Need Help
Determining
What to
Target?

Diagnostic
Assessment >

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)

BEHAVIOR SUPPORT FOR INTENSIVE INTERVENTION

EIGHT MODULES OF FREE COURSE CONTENT FOR PRE-SERVICE AND IN-SERVICE PROFESSIONAL LEARNING. INCLUDES VIDEO LECTURES, ACTIVITIES & MORE.

NCII, through a collaboration with the University of Connecticut and the National Center on Leadership in Intensive Intervention and with support from the CEEEDAR Center and PBIS Center, developed content focused on enhancing and developing educators' knowledge of behavioral theory and skills in designing and delivering effective behavioral supports for students with intensive needs.

National Center on
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<https://intensiveintervention.org/intensive-intervention-behavior-course>

<https://intensiveintervention.org/intervention-resources/behavior-strategies-support-intensifying-interventions>

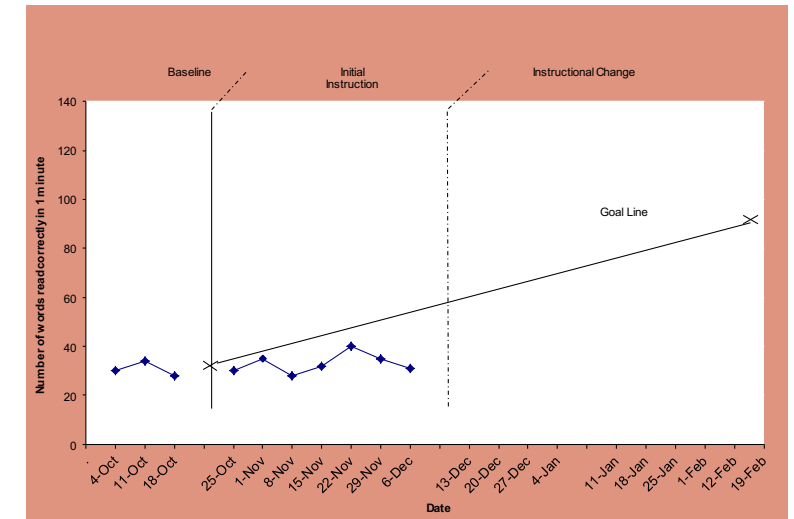
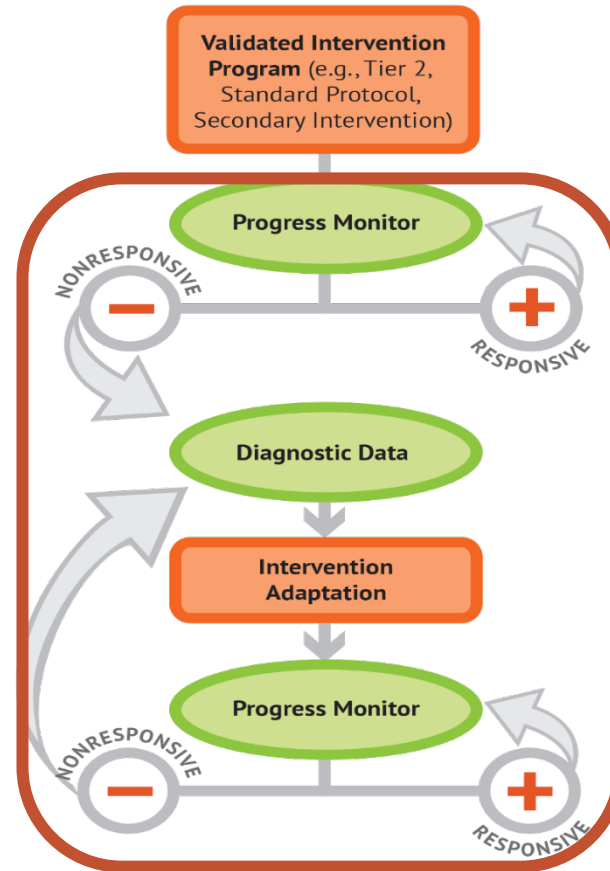
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INTENSIVE INTERVENTION

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The Final Dimension: Using the Taxonomy for Individualization

A validated, data-based **process for individualizing intervention**, in which the special educator or interventionist systematically adjusts the intervention over time, in response to **ongoing progress-monitoring data**, to address the student's complex learning needs.



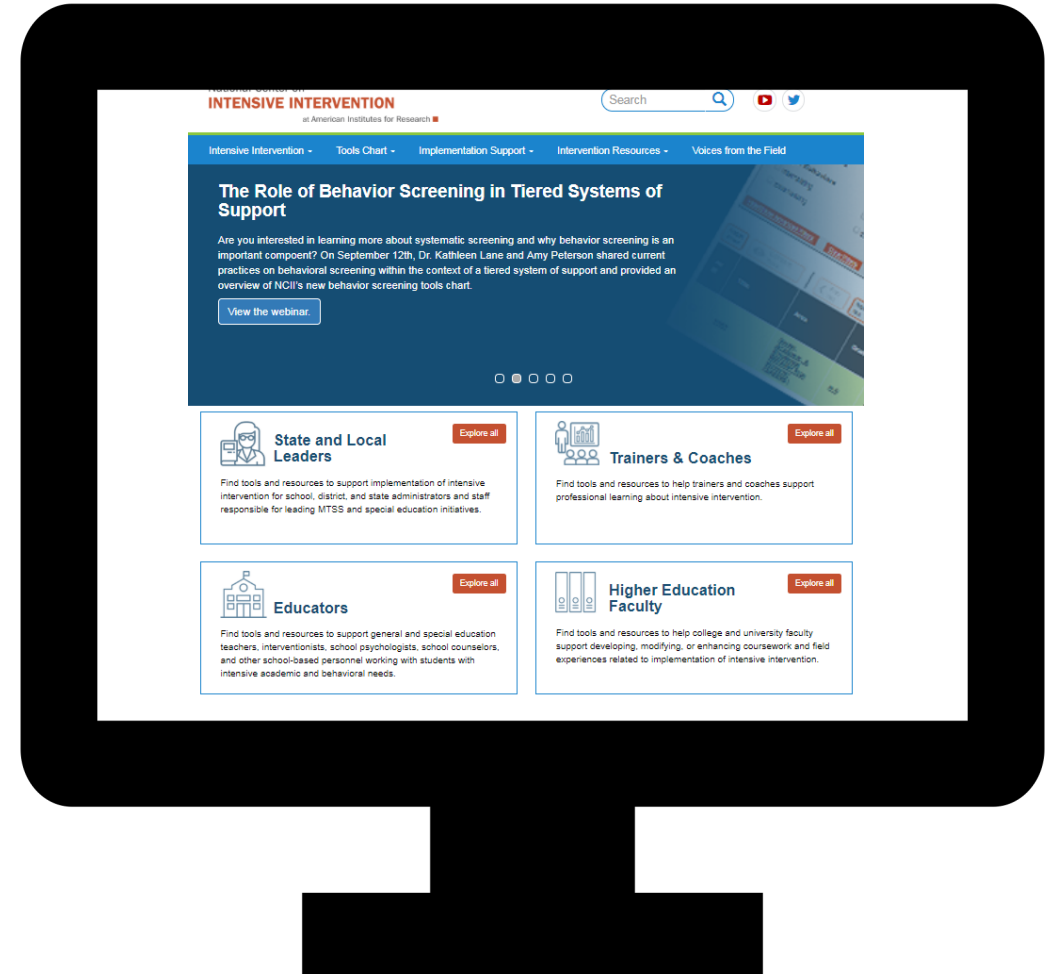


Closing



Resources to Learn More!

NCII's website
www.intensiveintervention.org
has a wealth of resources to
support this process!



Upcoming Webinar

Interested in learning more about academic goal setting? Join us on February 20, 2020 from 3-4 pm or share with your colleagues!

Strategies for Setting High-Quality Academic Individualized Education Program Goals



The 2017 Supreme Court decision *Endrew F. v. Douglas County School District* highlighted the importance of monitoring students' progress toward appropriately challenging individualized educational program (IEP) annual goals and making changes to students' educational programs when needed...**But what does that look like in practice?**

On February 20, 2020 from 3:00-4:00pm ET join Drs. Tessie Rose Bailey and Zach Weingarten from NCII and the PROGRESS Center, along with Thom Jones from the Wyoming Department of Education and Justine Essex from Freedom Elementary School in Cheyenne, Wyoming to learn more about how to set ambitious goals for students by selecting a valid, reliable progress monitoring measure, establishing baseline performance, choosing a strategy, and writing a measurable goal.

Register: <https://register.gotowebinar.com/register/6674818836973511171>

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research ■

PROGRESS Center
Promoting Rigorous Outcomes and Growth by
Redesigning Services for Students With Disabilities
at the American Institutes for Research ■



<https://register.gotowebinar.com/register/6674818836973511171>



NCII Wants Your Feedback On Our Website!

Have you used our website or online resources in the past year? If so, we invite you to complete a short survey by **February 18, 2020** to help us improve! You can access the survey by

- Clicking the link on our homepage <https://intensiveintervention.org/>
- Using the direct link <https://www.surveymonkey.com/r/LZJ5R6S>
- Scanning this QR code



Introducing the PROGRESS Center

The PROGRESS Center provides information, resources, tools, and technical assistance services to support local educators in developing and implementing high-quality educational programs that enable children with disabilities to make progress and meet challenging goals, consistent with *Endrew F. v. Douglas County School District* (2017).



HOW WILL WE HELP IMPROVE OUTCOMES FOR STUDENTS WITH DISABILITIES?



Share current research, policies, guidance, success stories, and experiences from students, parents, educators, and other stakeholders.



Partner with selected local educators to develop and implement high-quality educational programs.



Provide tools, resources, and training materials for ALL educators, leaders, and families.

Visit us at www.promotingPROGRESS.org to learn more!





Thank you!

 www.intensiveintervention.org

 ncii@air.org

 <https://twitter.com/TheNCII>

 https://www.youtube.com/channel/UC6W2pma8TiSZvY_GWROkTLA

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References

- Ciullo, S., Sabrina Lo, Y. L., Wanzek, J., & Reed, D. (2016). A synthesis of research on informational text reading interventions for elementary students with learning disabilities. *Journal of Learning Disabilities*, 49(3), 257–271.
- Deno, S., & Mirkin, P. (1977). *Data-based program modification: A manual*. Reston, VA: The Council for Exceptional Children.
- Fuchs, L. S., Fuchs, D., & Malone, A. S. (2017) The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.
- Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., and Tilly, W. D. (2008). *Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades: A practice guide*. (NCEE 2009-4045). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/rti_reading_pg_021809.pdf
- Hill, C. J., Bloom, H. S., Black, A. R., & Lipsey, M. W. (2008). Empirical benchmarks for interpreting effect sizes in research. *Child Development Perspectives*, 2(3), 172–177.



References

- Kearns, D. M. (2018). *Intensive intervention course content: Features of explicit instruction*. Washington, DC: U.S. Department of Education, Office of Special Education Programs, National Center on Intensive Intervention. Available at <https://intensiveintervention.org/intensive-intervention-features-explicit-instruction>
- Lyon, G. R. (1985). Neuropsychology and learning disabilities. *Neurology and Neurosurgery*, 5, 1–8.
- Mann, L. (1979). *On the trail of process*. New York, NY: Grune & Stratton.
- Pierangelo, R., & Giuliani, G. (2008). *Teaching students with learning disabilities: A step-by-step guide for educators*. Thousand Oaks, CA: Corwin Press.
- Scammacca, N. K., Roberts, G., Vaughn, S., & Stuebing, K. K. (2015). A meta-analysis of interventions for struggling readers in grades 4-12: 1980-2011. *Journal of Learning Disabilities*, 48(4), 369–390.
- Vaughn, S., Wexler, J., Roberts, G., Barth, A. A., Cirino, P. T., Romain, M. A., ... Denton, C. A. (2012). Effects of individualized and standardized interventions on middle school students with reading disabilities. *Exceptional Children*, 77(4), 391–407.



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