RESOURCES FOR THIS SESSION

KEY ELEMENTS IN EVIDENCE-BASED INTERVENTIONS

JUNE 2024

SESSION OBJECTIVES

- Establish a rationale for standardized, evidence-based interventions.

- Define the dimensions of an intervention program.

- Practice using a rubric to evaluate an intervention.
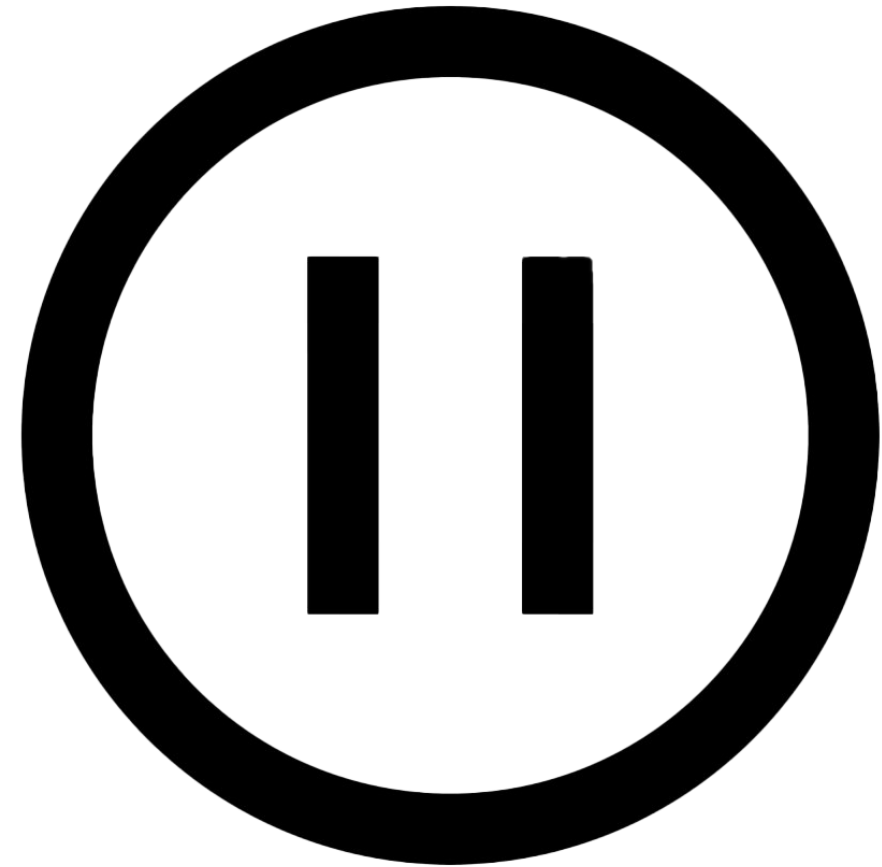
ACKNOWLEDGMENTS

The content for this session was developed based on the work of:

- The *Taxonomy of Intervention Intensity (Fuchs, Fuchs, & Malone, 2017)*

- National Center for Intensive Intervention (NCII)

- Dr. Kim St. Martin, MiMTSSTAC

PRE-CORRECT

- Preparation

- Knowledge

- Skills

- Capacity

LEVEL SETTING

What three words come to mind when you hear the word "intervention"?

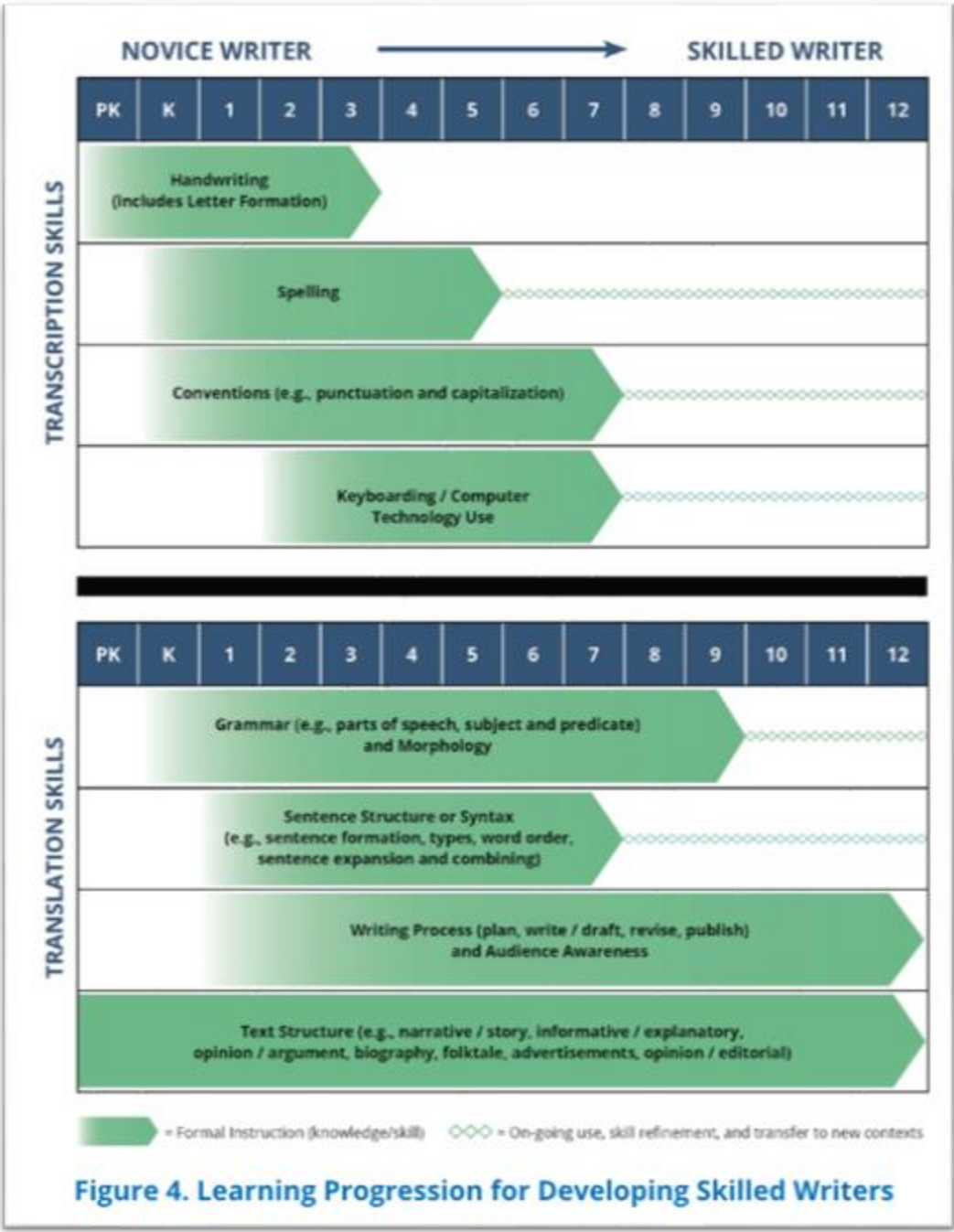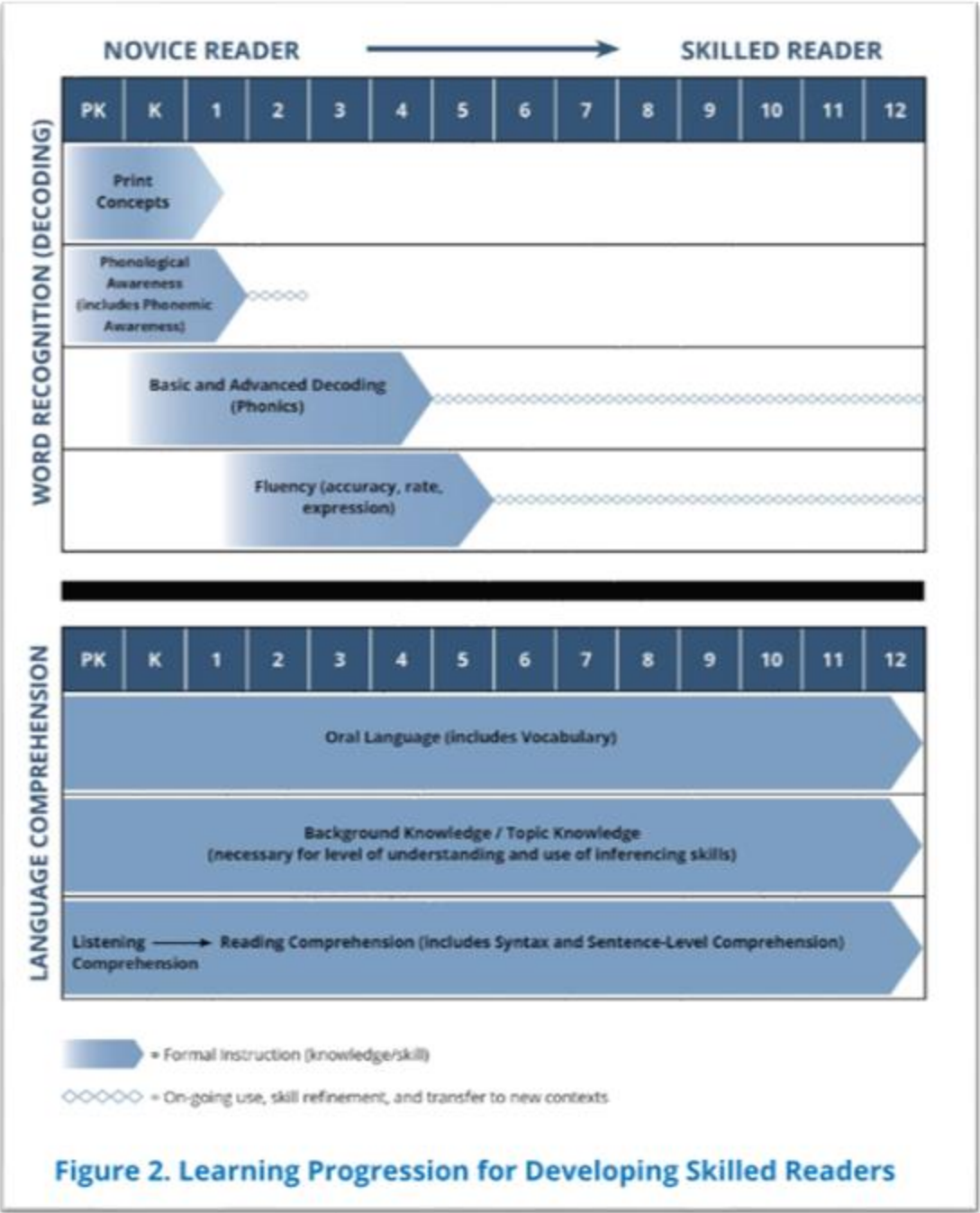# ESTABLISH A RATIONALE FOR STANDARDIZED, EVIDENCE-BASED INTERVENTIONS

WHY BEGIN WITH A STANDARDIZED, EVIDENCE-BASED INTERVENTION?

✓ 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 inexpensive (although cost may vary).

DEFINITION OF AN INTERVENTION

LEARNING PROGRESSIONS

Figure 2. Learning Progression for Developing Skilled Readers

Figure 4. Learning Progression for Developing Skilled Writers

OHIO'S DEFINITION OF A READING INTERVENTION PROGRAM

- Systematic and targeted instructional materials used to teach language and literacy skills in small groups or individually at a particular grade level that match the specific individual needs of students, aligned with evidence-based practices for language and literacy instruction; these programs are systematic, involving carefully planned instructional sequences and progress monitoring.

- They include ways to intensify instruction to provide more instructional time, practice, and opportunities for individualized or specific feedback to students who are at risk so they will catch up to grade-level expectations at an accelerated rate.
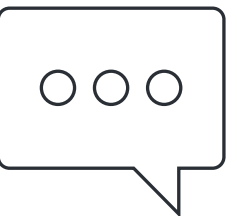
SUPPLEMENTS VS. INTERVENTIONS

SUPPLEMENTAL PROGRAMS

- **Supplemental programs** can be effective in supporting an identified gap in an otherwise strong core reading program (Tier 1).
- They provide additional instruction in one or two areas (e.g., phonemic awareness, fluency) and provide more instruction or practice in identified areas of need.
- For example, if the core program does not provide enough fluency in reading connected text, a supplemental program could be implemented to support the core.

INTERVENTION PROGRAMS

- **Intervention programs** are designed to provide more explicit, systematic instruction to accelerate learning for children who demonstrate reading difficulty (Tiers 2/3).
- In general, intervention programs focus on more than one area (e.g., phonics, fluency, and comprehension). A program may also focus explicitly and exclusively on one essential reading area (e.g., phonemic awareness).
- Intervention programs are specialized, intense, and typically delivered in small group settings.

Note: A supplemental or intervention program may be designed for a specific grade (e.g., kindergarten) or span across several grades (e.g., K/1 or 1/2).

(Simmons et al., 2010)

VALIDATED INTERVENTION PROGRAMS: COMPONENTS TO CONSIDER

Effect size

Opportunities to respond

Group size

Evidence-based programs

Alignment with grade level standards

Explicit instruction and modeling

Connection to Tier 1 instruction

Frequency and duration of intervention

Concrete learning opportunities

Break tasks into smaller steps

APPLY THE FAIR TEST

Is the intervention **feasible** to implement?

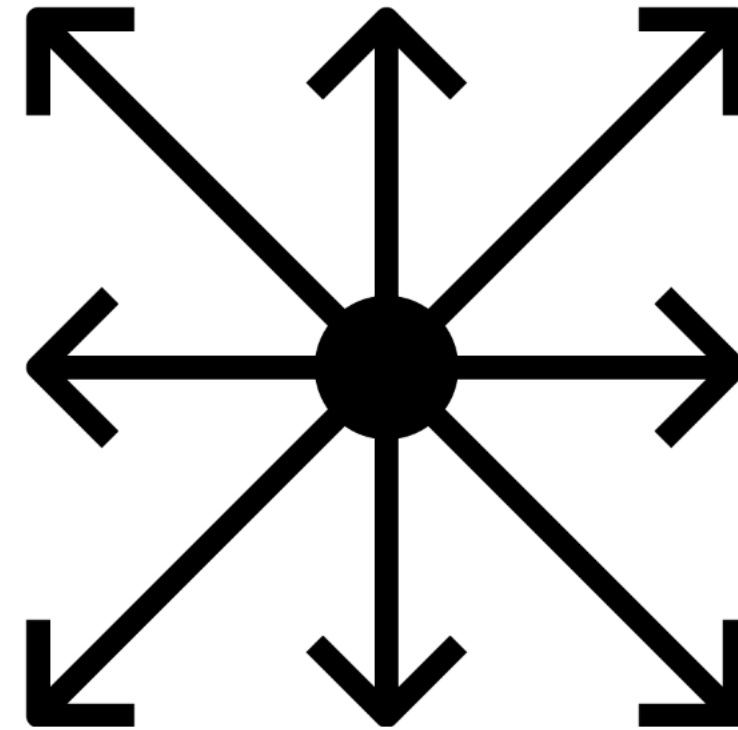Is the intervention **acceptable** to families/professionals?

Will the intervention be effective in producing positive **impact?**

Is the intervention **relevant** for your identified context?

DIMENSIONS OF AN INTERVENTION

INTERVENTION DIMENSIONS

- Strength
- Dosage
- Alignment
- Attention to transfer
- Comprehensiveness
- Behavioral support
- Individualization

STRENGTH

How well the intervention works for students with intensive intervention needs

(Standardized Effect Sizes).

Look for interventions that report sizes specifically for students who require intensive intervention (**students who score in the 20ᵗʰ percentile or below**)

We can't intensify strength (the evidence for an intervention), we consider strength during the review and selection phase.

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 (for group design studies)

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

I DO – STRENGTH

There is **evidence** that the 40-lesson Word Connections program improves reading outcomes for students in 3rd to 5th grades. Specifically, we have tested the program with students identified as with or at-risk for reading disability – performing below the 25th percentile on standardized tests of word reading efficiency. To date, our team has conducted **three empirical studies** reporting positive effects from this program (see references on p. 11). Students who participated in the intervention showed greater gains in word reading and decoding, reading comprehension, spelling, and accurate reading of both isolated affixes and multisyllabic words. The Toste et al. (2019) study published in the **Journal of Learning Disabilities** was reviewed by the What Works Clearinghouse (WWC) in December 2021. The study **met WWC standards without reservations** and the program was reported to show promising evidence of effectiveness. You can view the WWC review at https://ies.ed.gov/ncee/wwc/study/89568 (Toste, 2023, p. 2).

STRENGTH RATING

	0 Fails to Address Standard	1 Addresses Standard Minimally	2 Addresses Standard Moderately	3 Addresses Standard Well
Strength	No validated studies • No effect size can be determined • Reported effect size is ≤ 0	0.2 < Effect Size < 0.34 (researcher-designed measure)	Effect size 0.35 - 0.55 (researcher designed measure) OR Effect size 0.20-0.3 (standardized measure)	Effect Size > 0.55 (researcher-designed measure) OR Effect Size > 0.3 (standardized measure)

Ohio

DOSAGE
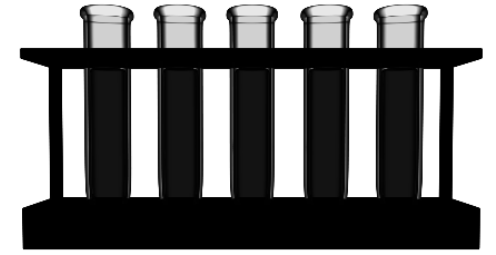
The **number of opportunities a student has to respond** and receive corrective feedback during the intervention's lessons.

If this information is not provided in the manual, review selected lessons from the intervention.

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

I DO – DOSAGE

| Skill	Response Opportunities	Feedback
• Prefix dis-	• Lesson 1 pp. 29-38 • Approx.7-10	• Suggestions for how and when

DOSAGE RATING

	0 Fails to Address Standard	1 Addresses Standard Minimally	2 Addresses Standard Moderately	⭐ 3 Addresses Standard Well
Dosage	Same as Tier I (opportunities to respond and receive corrective feedback are similar to Tier 1)	Slightly more than Tier 1 (e.g., 2-3x More opportunities to respond and receive corrective feedback)	Same as Tier 2 (e.g., 4-5x more opportunities to respond and receive corrective feedback)	Substantially more than Tier 2 (>5x more opportunities to respond and receive corrective feedback)

ALIGNMENT
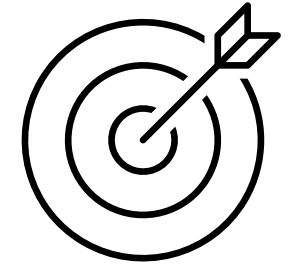
- The extent to which the program:

  - Addresses the student's **full set of academic needs**.

  - **Does not** address skills the student has already mastered.

  - Also incorporates a focus on **grade-appropriate curricular standards**.

WE DO – ALIGNMENT

This multisyllabic word reading program was developed for **students in third grade and above** who are experiencing challenges with word reading. The program is **meant for students who are proficient decoders of most vowel patterns in monosyllabic words**. If students are not proficient in monosyllabic word reading, their intervention should first focus on development of these foundational decoding skills in order to support instruction focused on reading more complex, multisyllabic words.

Word Connections is focused on **promoting automaticity with reading "big words."** This approach to multisyllabic word reading integrates multiple opportunities for students to manipulate and read words, rather than focus on rule-based instruction. Instruction moves from part to whole— introducing **morphemes first in isolation, then reading in words, and finally in connected text.**

(Toste, 2023, p. 3).

WE DO – ALIGNMENT (CONT.)

WORD CONNECTIONS — A Multisyllabic Word Reading Program

SCOPE & SEQUENCE UNIT 1

Lesson	Warm-Up	Affix Bank	Spotlight Words	Word Play	Speedy Read	Text
1	Short Vowels	Prefixes: dis- / un- / sub-	honest, continue, able, merge, human	Build-A-Word	CVC / Digraphs	Sentence Reading
2	Long Vowels (VCe)	Suffixes: -s(es) / -ing / -ed	match, color, attach, tick, smell	Build-A-Word	Vowel teams [long a and i]	Sentence Reading
3	Long Vowels (Digraphs)	Suffixes: -s(es) / -ing / -ed	harvest, allow, chop, read, land	Build-A-Word	Vowel teams [long e and o]	Sentence Reading
4	Long Vowels (Digraphs)	Combined: dis- / un- / sub- -s(es) / -ing / -ed	play, taste, side, button, total	Build-A-Word	Vowel teams [long u]	Sentence Reading
5	R-Controlled	Prefixes: in- / de- / non-	active, sense, part, stop, direct	Build-A-Word	R-controlled [ar and or]	Sentence Reading
6	R-Controlled	Suffixes: -ly / -er / -y	mother, kind, cruel, jump, scoot	Word Train	R-controlled [er, ur, and ir]	Maze Sentences
7	Diphthongs	Combined: in- / de- / non- -ly / -er / -y	form, consistent, injure, stick, harsh	Word Train	Diphthongs	Maze Sentences
8	Diphthongs	Review Lessons 1-7	decide, swim, bug, valid, borrow	Word Train	Diphthongs	Maze Sentences
9	Flexing	Prefixes: pre- / re- / mis-	place, paid, write, arrange, count	Word Train	Open syllables	Maze Sentences
10	Flexing	Suffixes: -tion / -sion / -tive / -sive	act, pass, suggest, confess, intense	Word Train	Closed syllables	Maze Sentences

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(Toste, 2023, p. 12).

ALIGNMENT RATING

	0 Fails to Address Standard	1 Addresses Standard Minimally	2 Addresses Standard Moderately	⭐ 3 Addresses Standard Well
Alignment	Does not align to students' or student's needs	Only address some of a students' or student's deficits, overemphasizes already mastered skills, and is not aligned to grade-level standards	Addresses most students' or student deficits, does not overemphasize already mastered skills, and aligns to curriculum standards	Addresses all of students' or student's deficits, does not overemphasize already mastered skills, and aligns to curriculum standards

ATTENTION TO TRANSFER
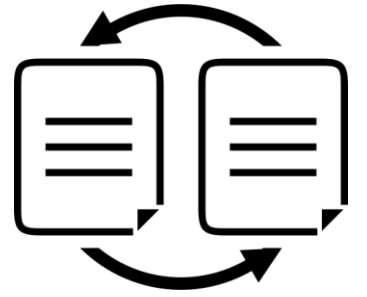
The extent to which an intervention is designed to help students:

- Transfer the skills they learn to **other formats and contexts**.

- **Realize connections** between mastered and related skills.

generalization

WE DO – TRANSFER

Let's read today's passage together. This will help us practice reading big words, but we'll also learn some interesting facts!

Today's passage is called (state passage name). There are a few important words we want to pay attention to while we read.

You all did a great job reading! I want to ask you a couple of questions about this passage. Ask comprehension questions related to content of the passage and/or word analysis.

I notice some of our spotlight words in this passage. Who can quickly scan the text and tell me a spotlight word from today's lesson that they see?

(Toste, 2023, p. 198).

TRANSFER RATING

	0 Fails to Address Standard	1 Addresses Standard Minimally	2 Addresses Standard Moderately	3 Addresses Standard Well
Transfer	Does not promote transfer	Promotes transfer in only one (1) of the following ways: • Promotes self-regulation and goal setting • Cumulative review • Varied contexts	Promotes transfer in 2-3 of the following ways: • Promotes self-regulation and goal setting • Cumulative review • Varied contexts	Promotes transfer in all of the following ways: • Promotes self-regulation and goal setting • Cumulative review • Varied contexts • Empirical evidence of transfer

COMPREHENSIVENESS

The number of **explicit instruction principles** the intervention incorporates.

- Examine sample lessons and note the use of explicit instruction principles.

COMPREHENSIVENESS: EXPLICIT INSTRUCTION

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.

WE DO COMPREHENSIVENESS

Review Lesson 4

Which principles of explicit instruction occur in the lesson?

- ❑ Provides directions in simple, direct language
- ❑ Models efficient strategies
- ❑ Ensures sufficient background knowledge
- ❑ Gradually fades instructional support
- ❑ Provides Sufficient independent practice
- ❑ Incorporates systematic cumulative review

COMPREHENSIVENESS RATING

	0 Fails to Address Standard	1 Addresses Standard Minimally	2 Addresses Standard Moderately	3 Addresses Standard Well
Comprehensiveness	Does not incorporate any principles of explicit instruction	Incorporates 1-2 of the following principles of explicit instruction: • Provides directions in simple, direct language • Models efficient strategies • Ensures sufficient background knowledge • Gradually fades instructional support • Provides Sufficient independent practice • Incorporates systematic cumulative review	Incorporates 3-4 of the following principles of explicit instruction: • Provides directions in simple, direct language • Models efficient strategies • Ensures sufficient background knowledge • Gradually fades instructional support • Provides Sufficient independent practice • Incorporates systematic cumulative review	Incorporates 5-6 of the following principles of explicit instruction: • Provides directions in simple, direct language • Models efficient strategies • Ensures sufficient background knowledge • Gradually fades instructional support • Provides Sufficient independent practice • Incorporates systematic cumulative review

BEHAVIORAL SUPPORT

The extent to which interventions incorporate

- Methods to **promote self-regulation and executive function.**

- Behavioral principles to **minimize nonproductive behavior.**

BEHAVIORAL PRINCIPLES THAT MINIMIZE NON-PRODUCTIVE BEHAVIOR

- Clear rules/expectations

- Behavior contracts

- Reinforcement systems

- Checklists

- Timers

- Time management strategies

YOU DO – BEHAVIORAL SUPPORT

Review Lesson 4

What behavioral supports occur in the lesson?

- ❑ Clear rules/expectations
- ❑ Behavior contracts
- ❑ Reinforcement systems
- ❑ Checklists
- ❑ Timers
- ❑ Time management strategies

BEHAVIORAL SUPPORT RATING

|	0 Fails to Address Standard	1 Addresses Standard Minimally	2 Addresses Standard Moderately	3 Addresses Standard Well
Behavior Supports	Does not incorporate behavioral supports	Incorporates 1 of the following behavioral supports: • Strategies to develop perseverance with challenging academic content • Methods to promote attention, engagement, and other aspects of executive function • Behavioral principles that minimize noncompliant or disruptive behavior	Incorporates 2 of the following behavioral supports: • Strategies to develop perseverance with challenging academic content • Methods to promote attention, engagement, and other aspects of executive function • Behavioral principles that minimize noncompliant or disruptive behavior	Incorporates all of the following behavioral supports: • Strategies to develop perseverance with challenging academic content • Methods to promote attention, engagement, and other aspects of executive function • Behavioral principles that minimize noncompliant or disruptive behavior

OVERVIEW OF THE DIMENSIONS

Strength	Dosage	Alignment	Comprehensiveness	Attention to Transfer	Behavioral Support
Does the intervention produce meaningful effects on important student outcomes students who are at risk? Look at: • Effect sizes • ESSA Levels of Evidence To assess fit, look at: • Setting • Student Populations • Age(s)/grade level(s) of students	How much instruction needs to be delivered according to programmatic specifications? Look at: • Number of sessions/lessons • Length of sessions/lessons • Recommended frequency and duration • Number of opportunities to respond. Note: Dosage should increase as the intensity of the students' needs increase.	Will this intervention align with student needs that have been identified through assessment? Look at: • Screening data • Relevant diagnostic data • Scope and sequence/learning progression	To what extent does this intervention utilize principles of explicit instruction? Look for: • Clear and concise verbiage • Activating and building background knowledge • Sufficient teacher modeling • Ample practice opportunities • Gradual fading of scaffolds • Distributive and cumulative practice • Guidance for explicit affirmative feedback and informative feedback	To what degree does this intervention help students use what they are learning in varied contexts outside of the intervention? Look for: • ELA connections • Other core subject area connections	To what extent are strategies incorporated into the lessons to help students' engagement in the lessons? Look for: • Strategies for recruiting and sustaining interest • Strategies for sustaining effort and motivation • Strategies supporting self-regulation

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.
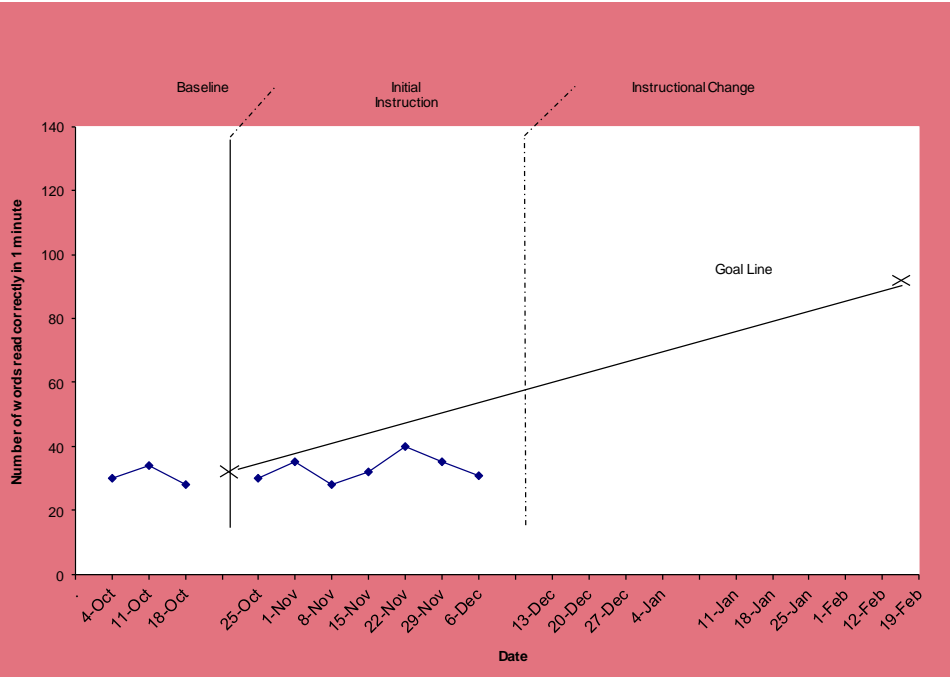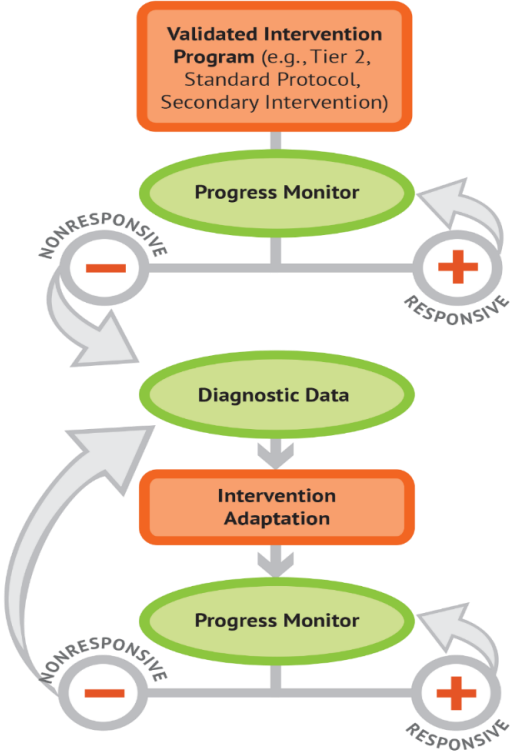
Note: This dimension is not rated.

LAUNCHING MATERIALS FOR INTERVENTION

❑ Anticipate barriers (schedules, training, capacity for delivering).

❑ Determine professional learning for staff who will use the materials.

❑ Determine how professional learning will support the skills needed to

deliver instruction effectively.

❑ Determine how the multidisciplinary team will support ongoing implementation and

intensification.

IMPLEMENTATION PITFALLS

Moving too quickly from materials selection to distribution without considering how the curriculum would impact staffing, schedules, instruction, and assessment can create anxiety and confusion.
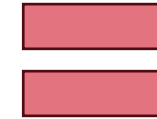
BUILDING A LITERACY SYSTEM

Systems and Structures

- Schedules
- Personnel
- Data Analysis
- Professional Learning
- Literacy Plan

✖
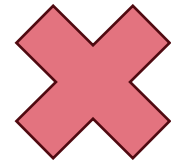
Instruction and Curriculum

- Instructional Routines
- HQIM
- Standards-Aligned Instruction
- Differentiated Instruction
- MTSS

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Literacy System

Ohio's Plan to Raise Literacy Achievement

REVIEW OF SESSION OBJECTIVES

- Establish a rationale for standardized, evidence-based interventions. ✓

- Define the dimensions of an intervention program. ✓

- Practice using a rubric to evaluate an intervention. ✓

THANK YOU

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