

Session Outcomes

By the end of this session, participants will be able to:

- Select or design valid progress monitoring tools.
- · Describe three validated goal setting strategies.
- Identify the key components of a progress monitoring plan.
- Describe approaches to analyzing progress monitoring data.

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2

Why Use Progress Monitoring? Compare the efficacy of different forms of instruction. Identify students who are not demonstrating adequate progress. Estimate the rates of improvement (ROI) across time. Data allow us to... Determine when an instructional change is needed.

	me as progress monitoring.
Monitoring	Progress
Progress	Monitoring
Can occur daily	Standardized delivery
Occurs during instruction	Requires valid and reliable
Provides data for immediate,	tools
real-time instructional decisions	 Frequency depends on
Aligns with HLPs (, e.g.,	intensity of instruction
interpreting student thinking)	 Requires ongoing data (i.e., 4-
Often informal, unstandardized	data points) for valid
Used for ALL students	interpretation
 Uses formative assessments, 	 Used for entitlement decisions
questioning, providing	 Requires graphed data
feedback, and similar	 Used for students verified as a
strategies.	risk (~20-25%)

Critical Features of Progress Monitoring

5

Critical Features of Progress Monitoring

Progress monitoring is repeated measurement of student performance over the course of intervention to index/quantify responsiveness to intervention and to thus determine, on an ongoing basis, when adjustments to the program are needed to improve responsiveness.

(National Center on Intervention Interventions, 2017)

Progress Monitoring Tools Progress Monitoring Process

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Critical Feature 1: Progress Monitoring Tools

CRITERIA 1. have sufficient number of **alternate forms** of equal and controlled difficulty to allow for progress monitoring at recommended intervals based on intervention level;

- · Tier II: At least 9 alternate forms
- · Tier III: At least 20 alternate forms

CRITERIA 2. specify minimum acceptable growth;

CRITERIA 3. provide **benchmarks** for minimum acceptable endof-year performance; and

CRITERIA 4. have available **reliability and validity** information for the performance-level score and staff is able to articulate the supporting evidence.

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7

Critical Feature 2: Progress Monitoring Process

CRITERIA 1. progress monitoring occurs **at least monthly** for students receiving Tier II and **at least weekly** for students receiving Tier III.

CRITERIA 2: $\ensuremath{\mathbf{procedures}}$ are in place to ensure implementation accuracy.

- · Identifying students
- Goal settings
- · Data collection and entry
- · Data decision making

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8

DEC Recommendations for Curriculum, Assessment and Program Evaluation (2007)

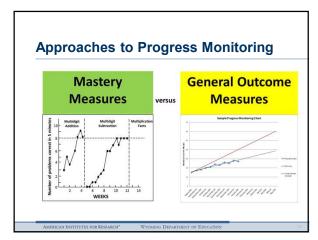
EC Assessment Teams have 2 assessments for monitoring progress:

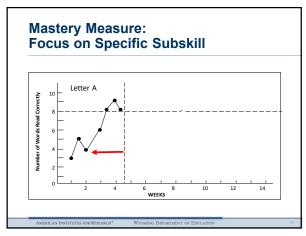
Critical Skills Mastery Approach (e.g., Curriculum Based Assessment [not the same as CBM]) --mastery of individual skills at single points in time of individual skills.

General Outcome Measurement Approach—(e.g, IGDIs — Individual Growth and Development Individual Growth and Development Indicators)—vocabulary growth trajectory based on many points in time many points in time.

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Mastery Measure: Focus on Series of Short-term Instructional Objectives 1. Letter A 2. Letter S 3. Letter T 4. Letter M 5. Letter B 6. Letter D 7. Letter N 8. Letter P 9. Letter D 10. Letter E

Mastery Measure: Monitor Progress of Each Objective

13

THINK-PAIR-SHARE Advantages of Mastery Measures

What do you see as advantages of data from mastery measures?

Reported Advantages

- Skill and program specific
- Data can assist in making changes to target skill instruction
- Provide data about IF a child can learn a skill

Helps assess IF a student CAN learn a skill at proficient rate.

14

THINK-PAIR-SHARE Limitations of Mastery Measures

What do you see as potential limitations of data from mastery measures?

Reported Limitations

- Data do not reflect skill maintenance or generalization.
- Number of objectives mastered does not relate well to performance on criterion measures.
- Measurement methods are often designed by teachers, with unknown reliability and validity.
- Scores cannot be compared longitudinally.

General Outcome Measure (GOM)

Reflects overall competence in the yearlong curriculum

Describes individual children's growth and development over time (both "current status" and "rate of development")

Provides a decision making model for designing and evaluating interventions

Is used for individual children and for groups of children

16

17

Advantages of GOMs

- 1. Focus is on repeated measures of performance
- 2. Makes no assumptions about instructional hierarchy for determining measurement
- 3. Curriculum independent
- 4. Incorporates automatic tests of retention and generalization
- 5. Often aligns with screener tool

Helps assess IF a student APPLY a learned skill.

Progress Monitoring Tools

- How do you select a progress monitoring tool?
- · Are some tools better than others?
- · What tools are best for different grades/ages/domains?
- Do you have to use published tools?
- · Others?

*Wyoming Department of Education and NCII do not endorse products. Tools Chart reviews are informational, not recommendations, and any measures mentioned in this presentation are for illustrative purposes only.

19

Common Early Literacy Measures

Age/ Grades Measures PreK Picture Naming (Oral Language) Rhyming (Phonological Awareness) Sound Identification (Alphabet Knowledge) • 'Which One Doesn't Belong?' (Comprehension) Alliteration (Phonological Awareness) · Letter Naming Fluency (LNF; rapid naming, early ready exposure) Letter Sound Fluency (LSF; phonics) Phoneme Segmentation Fluency (PSF; phonological awareness)

20

Resources for Preschool Behavior Progress Monitoring Tools

Free:

- Behavior Assessment: Conduct an A-B-C Analysis
- Behavior Assessment: Duration and Latency Recording
- Behavior Assessment: Frequency and Interval Recording

Purchase:

- Social Skills Improvement System (SSIS)
- BASC™-2 Progress Monitor (BASC™-2)
- IGDIs

Scoring Pre-Literacy Measures

- If the student fails to say the correct response after 3 seconds, place/mark it as incorrect and move on.
- Put a slash (/) through letters named incorrectly. Scoring is correct or incorrect.

Focus is on proficiency not just mastery.

22

Why Does Fluency with Connected Text Matter? Percentile Minutes Per Words Read Per

A student at the 10th percentile reads about 60,000 words a year in 5th grade

A student at the 50th percentile reads about 900,000 words a year in 5th grade

Average students receive about 15 times as much practice in a year

98	65.0	67.3	4,358,000	4,733,000
90	21.2	33.4	1,823,000	2,357,000
80	14.2	24.6	1,146,000	1,697,000
70	9.6	16.9	622,000	1,168,000
60	6.5	13.1	432,000	722,000
50	4.6	9.2	282,000	601,000
40	3.2	6.2	200,000	421,000
30	1.8	4.3	106,000	251,000
20	0.7	2.4	21,000	134,000
10	0.1	1.0	8,000	51,000
2	0	0	0	8,000

Books Text Books Text

(Anderson, R. C., 1992)

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23

Considerations When Selecting or Evaluating a Tool

- Skills to be measured—age and grade appropriate
- Cost and training requirements
- Administration and scoring time
- · Data management
- Technical rigor (consider population)

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Critical Feature 2: Progress Monitoring Process

CRITERIA 1. progress monitoring occurs at least monthly for students receiving Tier II and at least weekly for students receiving Tier III.

What does the research say?

- As the number of data points increases, the effects of measurement error on the trend line decreases.
- Christ & Silberglitt (2007) recommended six to nine data points.

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26

Critical Feature 2: Progress Monitoring Process CRITERIA 2: procedures are in place to ensure implementation accuracy. Identifying Appropriate Students Data Collection and Entry Data Decision Making

Setting Goals Based on Logical Practices

Team members must know...

- · How the goal was set
- · Why the goal was set that way
- The **intensity** of the intervention provided to meet the goal

Knowing the goal helps educators chose an intervention that will help them reach the goal.

28

Step 1: Establish Baseline Score

Set using same tool that will be used for progress monitoring

Approaches:

- · Use benchmark score (preferred)
- Use the median scores of three probes or mean of three consecutive probes if between benchmarks

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29

Quick Mathematics Review: Mean and Median

Mean

- Arithmetic average
- Sum of all scores divided by number of scores

Median

- Middle number in an ordered list
- If you have an even number of scores, take the average of the two middle scores.

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Example: Finding the Baseline Score Using the Median Time 1 Time 2 Time 3 13 8 11

31

Example: Finding the Baseline Score Using Means When baseline assessments are conducted on different days (e.g., three data points over three weeks), we use the mean of the most recent three scores (we will use this method in today's examples). Early Numeracy Skill Baseline Mean = (3 + 3 + 6)/3 = 4

32

Step 2: Set Goal Three options for goal setting: 1. End or middle-of-year benchmarks 2. National norms for weekly rate of improvement (ROI) 3. Intra-individual framework (SROI)

Option 1: Using Benchmarks

End or middle-of-year benchmarking

- Identify appropriate grade-level benchmark
- Mark benchmark on student graph with an X
- · Draw goal line from baseline score to X

Note: Electronic data systems will draw the goal line once the goal is selected

34

Where do you find benchmarks?

Most published data systems provide the benchmarks within the system.

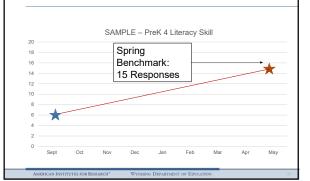
Local benchmarks can also be created using local norms.

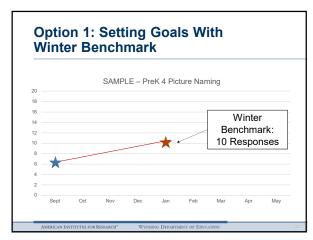
		Fall			Winter			Spring	
TIER	11/111	Cut	- 1	11/111	Cut	1	11/111	Cut	- 1
Picture Naming	1-5	6-10	11-15	1-5	6-10	11-15	1-5	6-10	11-15
Rhyming	1-6	7-11	12-15	1-5	6-10	11-15	1-7	8-12	13-15
Alliteration	n/a	n/a	n/a	1-5	6-10	11-15	1-5	6-10	11-15
Sound ID	1-6	7-11	12-15	1-5	6-10	11-15	1-9	10-13	14-15

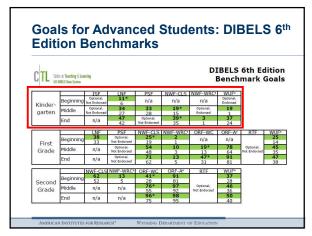
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35

Option 1: Setting Goals With End-of-Year Benchmark







When should I set goals using the benchmarks? Pros Easy to use Expects ambitious growth Aimed at putting students on track to close achievement gap Recommendation: Use age/grade level benchmarks if a student is close to age/grade level. For students in 2nd grade and below, benchmarks are preferred.

Option 2: Using Weekly Rates of Improvement (ROI) Standard Formula for Calculating Goal Using Rate of Improvement (ROI): ROI x # Weeks + Baseline Score = GOAL



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40

Where do you find ROI?

Most published data systems provide the ROI within the system.

ROI can be calculated by subtracting the fall benchmark from the end-of-year benchmark and dividing by the number of weeks minus one.

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41

When should I set goals using ROI?

Pros

Cons

Provides option for reasonable or ambitious goals when benchmark is inappropriate.

Maintains achievement gaps if not ambitious ROI (may need higher than normal ROI to reach next benchmark)

May be reasonable for children who can learn at the typical rate Valuable for SLD Identification

Requires calculation (tools are available)

Recommendation: Use ROI if a student can learn at a typical rate but the grade benchmark is too high.

SPED Alternative Goal Setting – Using Intra-Individual Framework

Often used for students performing far below grade level or with very low skills, where typical growth rates are not appropriate.

Use three most recent data points to calculate baseline score.

Calculate student's ROI (SROI) based on at least eight data points.

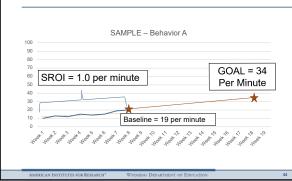
SROI × 1.5 × # Weeks

+ Student's Baseline Score (mean of 3 most recent scores)

GOAL

43

SPED Alternative Goal Setting – Using Intra-Individual Framework



44

SPED Alternative Goal Setting – Using Intra-Individual Framework

Why 1.5?

- We know the current SROI is not sufficient to close the achievement gap; we want to increase growth at least by half (x 1.5).
- A more ambitious goal may be set if appropriate (e.g., if after several weeks of progress monitoring, the current SROI exceeds the goal SROI).
- · Never lower the goal! Change the intervention!

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When should I use intra-individual goals? Pros Provides individualized goals for students (e.g., cognitive disabilities) where ROIs are not appropriate Based on student's previous performance Recommendation: Use when data or prior experience suggest other approaches unlikely to be appropriate or realistic. Revisit data frequently, increasing goal if possible.

46

Write measurable progress monitoring goals Component May include... Examples Condition Material/Tool When given 30 pictures in one Difficulty level Setting When provided a verbal prompt.. Timing Level of prompt Target Observable Student will name 15 pictures ... Behavior behavior Target goal Student will match 10 letters... correctly within 3 seconds of Level of Accuracy Proficiency/ Timeline presentation. Timeline Number of trials 100% accuracy on three consecutive probes.

47

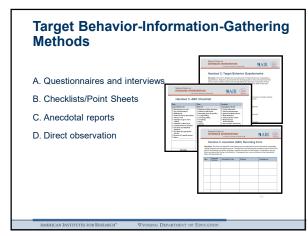
Behavioral Progress Monitoring and Goal Setting MINISTER FOR RESEARCH WYOMENG DEPARTMENT OF EDUCATION 44

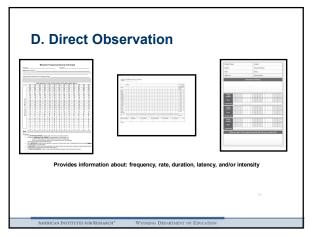
Academic and Behavioral Progress		
Monitoring		
Similarities: - Answering the same question—is what we're doing working? - Need to have baseline data		
Differences:		
There aren't benchmarks or specified rates of improvement in behavior	-	
Recommendation: Collect data first so you know where to focus.		
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Planning Progress Monitoring Selecting target behaviors is part of planning for behavioral		
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Planning Progress Monitoring Selecting target behaviors is part of planning for behavioral progress monitoring. Plan for data collection Select target behavior(s) to monitor Choose method for monitoring that behavior		
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Planning Progress Monitoring Selecting target behaviors is part of planning for behavioral progress monitoring. Plan for data collection Select target behavior(s) to monitor Choose method for monitoring that behavior Create plan for collecting data (e.g., schedule, who will		
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Planning Progress Monitoring Selecting target behaviors is part of planning for behavioral progress monitoring. Plan for data collection Select target behavior(s) to monitor Choose method for monitoring that behavior Create plan for collecting data (e.g., schedule, who will collect) Collect data		

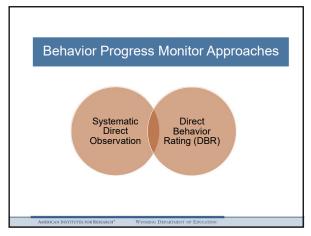
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Steps for Selecting Target Behaviors

Identify the target behavior(s) of concern
 Prioritize the target behavior(s)
 Define the target behavior(s)







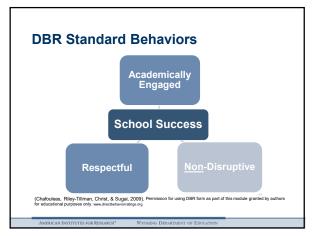
Why Direct Behavior Rating?

- · Valid and reliable
- Feasible
- · Provides:
- A teacher's perception of student behavior, and
- · A proxy of the child's actual behavior.

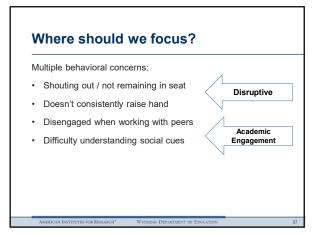
Source: https://intensiveintervention.org/resource/direct-behavior-rating-overvier

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55



56



Definition: Academic engagement

Active or passive participation in the classroom activity

Examples include pre-writing, raising hand, answering a question, talking about a lesson, listening to the teacher, appropriate play, and looking at instructional material.

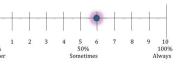
58

Academic Engagement Example

Academically Engaged

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

% of Total Time



Interpretation: The teacher estimated that the student displayed academically engaged behavior during 60 percent of the time in general education setting (or small group).

59

Definition: Disruptive behavior

A student action that interrupts regular school or classroom activity

Examples include out of seat, playing with objects, acting aggressively, and talking/yelling about things that are unrelated to classroom instruction.

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

Disruptive Example Disruptive Place a mark along the line that best reflects the percentage of total time the student was disruptive during small-group science today. **Interpretation:** The teacher estimated that the student displayed disruptive behavior during 30 percent of smallgroup science instruction today.

61

Definition: Respectful

Respectful behavior is defined as compliant and polite behavior in response to adult directions and/or peer interactions.

- Examples include following teacher directions, prosocial interactions with peers, positive response to adult requests, and verbal or physical disruption without a negative tone or connotation.
- Non-examples include refusing to follow teacher directions, talking back, ignoring, inappropriate gestures, inappropriate language and/or social interactions with adults or peers, and disruption with a negative tone/connotation.

62

Respectful Example Respectful Place a mark along the line that best reflects the percentage of total time the student was respectful during language arts today. % of Total Time 2 3 Interpretation: The teacher estimated that the student

displayed respectful behavior for 80 percent of wholeclass language arts today.

Slide adapted from Chafouleas (2011) with permission

		BR) Form - Fill-in Behaviors
Date:	Student:	Activity Description:
24 1 W 111 F	Rater:	
behavior. Note that the life desired, an addition	ne percentages do not need to total I all behavior may be defined and rate Behavior:	
% of Total Tim	0 1 2 3 0% Never	4 5 6 7 8 9 10 50% 100% Sometimes Always

Begin Data Collection Before Intervention Five or more data points recommended to: Pilot test the tool. Capture current performance level as measured by this tool. Revisit tool and anchors if: Data do not seem accurate (inconsistent with other data on the target behavior). Tool seems unlikely to be sensitive to change in the target behavior.

Managing Data for Evaluation

- Graphing data will allow for visual analysis to support evaluation.
- The DBR Graphing Template will automatically create a graph of the DBR data you enter.
- Questions to consider include
- Who will be responsible for inputting / graphing the data?
- How often will the data be reviewed?
- By whom will the data be reviewed?

67

Developing Intervention Goals

The piloting of the DBR tool will provide information that can be useful for establishing evaluation rules.

- The school team and teacher must define responsiveness up front to assist with evaluation.
- Because the process is individualized, it is difficult to give firm rules on what constitutes responsiveness—this will vary based on the target behavior and current levels of performance.
- Make goals ambitious, but feasible to obtain.

68

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Guidelines for Developing Intervention Goals

- Link intervention goals to DBR anchors.
- Specify an amount of time during which the intervention must be in place before reviewing progress.
- Goals should not be static—they can change and evolve over time depending on student responsiveness.

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Implementing DBR

Three steps for increasing the likelihood that the form will be applied consistently:

- Review the definitions and anchors to ensure consistent application.
- 2. Have the form ready to be completed.
- 3. Complete ratings immediately after a prespecified time period.

Slide adapted from Chafouleas (2011) with permission

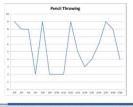
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70

Monitoring and Evaluating Progress

Requires examining the DBR or other progress monitoring data to determine if the student is responding to the intervention.

Requires managing and organizing data to support summary and analysis.





71

Goal Setting: Summary

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Writing a measurable IEP and progress monitoring goal. Component May include. Condition Material/Tool When given 30 pictures and 1 Grade level When given verbal prompts... Setting Timing Target Observable Student will name the pictures... Behavior behavior Student will ask for help within Target goal one minute... 95% accuracy With at least 80% accuracy (as Level of Accuracy Proficiency/ Timeline Timeline Number of trials measured by DBR academic engagement rating)

73

Making the IEP Feasible

With a Valid and Reliable Progress Monitoring Tool:

- Can set a measurable goal that is comparable to baseline performance.
- Data are collected frequently, allowing educators to determine student responsiveness more readily.
- Data are graphed, allowing educators and/or related service providers to provide visual data (evidence) for quarterly progress updates and annual goals.
- Allows flexibility if the needs change over time.

74

Should We Ever Set Goals Off-Level...? Consider the Purpose of the Assessment

Progress monitoring should be done at age/grade level when possible, but the following is also applicable:

It must also match a student's instructional level and expected outcome of intervention.

If a student's performance is well below expectations, age/grade-level probes are unlikely to be sensitive to growth.

Off-level assessment may be warranted in these cases.

Your Turn! Write a PM Goal for a Student

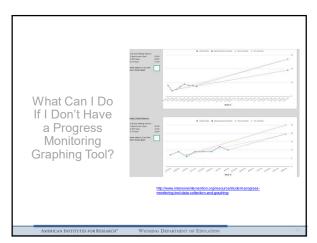
Be prepared to share in the chat.

Sample structure:

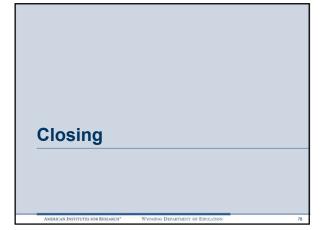
When given [grade level and tool], the student will [observable behavior and goal] [level of proficiency and timeframe].

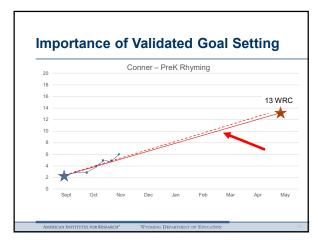
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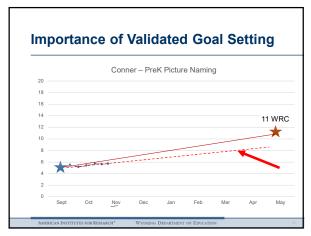
76



77







Next Steps What will you do as a result of what you learned today? Recommendation: 1. Review the appropriateness of your current goals. 2. Practice, practice, practice!

References	
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National Center on Intervention Interventions. (2017). NCII Glossary of Terms. http://www.intensiveintervention.org/ncii-glossary-terms.

Christ, T. J., & Silberglitt, B. (2007). Estimates of the standard error of measurement for curriculum-based measures of oral reading fluency. *School Psychology Review*, *36*, 130–146.

Fuchs, L. S., & Fuchs, D. (2002). Curriculum-based measurement: Describing competence, enhancing outcomes, evaluating treatment effects, and identifying treatment nonresponders. *Peabody Journal of Education*, 77, 64–84.

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83

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