Module Home

**Outline­**

**Progress Monitoring**:

Mathematics

* Module Description: This resource introduces users to progress monitoring in mathematics, a type of formative assessment in which student learning is evaluated to provide useful feedback about performance to both learners and educators (est. completion time: 2 hours).
* Link: IRIS PD Certificate for this module
* Link: Play the Kahoot!
* Star Legacy Cycle
* Related to This module
	+ Link: Module Outline
	+ Link: Navigating an IRIS *STAR Legacy* Module
	+ Link: IRIS & Adult Learning Theory
	+ Link: Wraparound Content Map

Challenge

* Video: Ms. Wu has a problem, a *mathematics* problem....

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Initial Thoughts

* How can educators use assessment to guide instruction?
* How can educators determine whether students are making appropriate progress?

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Perspectives & Resources

* Module Objectives
* Identify the different types of classroom assessments
* Understand how progress monitoring, in particular general outcome measurement (GOM), can inform instruction
* Administer, score, and graph GOM measures
* Evaluate student data to make informed instructional decisions
* Use graphs to facilitate communication with students, parents, and other educators

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* Page 1: Formative Assessment
* Whether we are conscious of it or not…
* Educators can help them to do so by implementing *high-quality mathematics*….
	+ Link: high-quality mathematics instruction [definition]
	+ Type/Purpose/Definition/Examples [table]
		- Link: exit ticket [definition]
		- Note on diagnostic assessment
* Did You Know?
	+ Link: Every Student Succeeds Act (ESSA) [definition]
	+ Link: Individuals with Disabilities Education Act (IDEA) [definition]
* Diagnostic assessments
* Formative assessments
	+ More specifically, formative assessments... [bullet points]
	+ Research Shows
* Summative assessments

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* Page 2: Progress Monitoring
* Progress monitoring is a type of formative assessment that... [bullet points]
* For Your Information
	+ Link: Progress Monitoring: Reading [IRIS Module]
* In addition to those already mentioned, educators can use GOM data to… [bullet points]
	+ Link: maintenance [definition]
* Did You Know?
	+ Link: High-Quality Mathematics Instruction: What Teachers Should Know [IRIS Module]
* Audio: Lynn Fuchs talks more about the benefits of using progress monitoring probes...
* Audio: Jessica Sellers discusses how she used progress monitoring to evaluate...
* Research Shows
* Educators can use GOM data to… [bullet points]
	+ - Link: individualized education program (IEP) [definition]
		- Audio: Lynn Fuchs describes the importance of using CBM with at-risk...
* For Your Information
	+ Link: MTSS/RTI: Mathematics [IRIS Module]
	+ Link: meta-analysis [definition]
	+ Link: Intensive Intervention (Part 2): Collecting and Analyzing Data for Data-Based Individualization [IRIS Module]
* Regardless of whether GOM is used to track… [bullet points]

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* Page 3: Select a Measure
* The first step in the progress monitoring process is to select a measure....
* Regardless of who is making the choice... [bullet points]
* Click on the links below to see samples of each…
	+ Link: sample elementary computation probe
	+ Link: sample secondary computation probe
	+ Link: sample elementary concepts and applications probe
* For Your Information
	+ Link: standardized measures [definition]
	+ Link: National Center on Intensive Intervention (NCII) tools chart [web page]
	+ Link: Algebra Screening & Progress Monitoring [website]
* Audio: David Allsopp discusses the benefit of using diagnostic interviews to assess...
* If they do not, however, educators should… [numbered list]
	+ Link: median [definition]
	+ Digits/Blanks Correct/Rules for Selecting an Appropriate-Level Measure [table]
* Example

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* Page 4: Create a Graph
* Having selected a measure, the educator should next prepare to...
* Benefits for Educators/Benefits for Students [table]
* Sample GOM graph
* Educators can obtain blank GOM graphs in several ways [bullet points]
	+ For Your Information
		- Link: Student Progress Monitoring Tool for Data… [NCII resource, Excel]
* Audio: Lynn Fuchs describes the ways in which students can use CBM graphs.

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* Page 5: Create a Goal Line
* To more quickly evaluate a student’s performance over time…
* Establish a Baseline
* Determine the Expected Goal
	+ Vanderbilt Progress Monitoring End-of-Year Performance Benchmarks [table]
* Draw the Goal Line
	+ Link: slope [definition]
	+ Link: rate of improvement (ROI) [definition]
* Example
	+ Sample goal line graph
* For Your Information
	+ Goal line graph
* Activity: Plot Lana’s goal line on the graph
* Determining Individualized Goals for Students
	+ Step/Actions/Example [table]
	+ Keep in Mind
		- Link: Monitoring Student Progress toward Meeting IEP Goals [Info Brief]
	+ Activity: Help Ms. Wu by calculating the information needed in each step of the...

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* Page 6: Administer, Score, and Graph
* After preparing a graph for each student, now the educator is ready to administer and...
* Administer Measures
	+ Link: fidelity of implementation [definition]
	+ Mathematics measures can be administered in a variety of ways… [bullet points]
	+ For Your Information
	+ Tips for Administering Probes
	+ Video: In the video below, an educator individually administers a number…
* Score Measures
	+ Elementary
		- Elementary computation probe scored by number of… [drop-down menu]
			* The following computation probe has been scored… [bullet points]
			* Sample elementary computation probe
	+ Secondary
		- Link: Secondary algebra probe scored by number of problems correct
		- Audio: Lynn Fuchs points out several issues that personnel should…
		- Audio: Brad Witzel discusses the reasoning behind giving partial credits…
* Graph Scores
	+ Sample GOM graph
	+ Activity: Now on the graph below, plot Raymond’s last six weeks of...

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* Page 7: Make Data-Based Instructional Decisions
* Once a student’s data have been plotted on the graph...
* Click here to learn more about the necessity of collecting enough... [drop-down menu]
	+ Sample graphs
* Four-Point Method
	+ Position of the Four Most Recent Data Points/Instructional Response [table]
* Trend Line Analysis
	+ Evaluating Student Performance Using a Trend Line Analysis: The… [Info Brief]
* For Your Information
	+ Link: High-Quality Mathematics Instruction: What Teachers Should Know [IRIS Module]
	+ Link: Vaughn Gross Center for Reading and Language Arts [website]
* High-Leverage Practices
	+ Link: TeachingWorks [website]
	+ Link: High-Leverage Practices for Students with Disabilities [website]
* Graphing Reflecting Instructional Change
	+ For Your Information
		- Activity: Ms. Wu is ready to evaluate her students’ performance and…

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* Page 8: Communicate Progress
* While continuing to evaluate student performance and make instructional adjustments...
	+ Students
	+ Parents
	+ Other Professionals
		- Link: individualized education program (IEP) team [definition]
* High-Leverage Practices
	+ Link: TeachingWorks [website]
	+ Link: High-Leverage Practices for Students with Disabilities [website]
* Research Shows
* Audio: Lynn Fuchs describes how teachers can communicate with others using CBM...
* Audio: Jessica Sellers describes how CBM graphs have helped her communicate...
* Activity: Describe three things Ms. Wu can tell Raymond’s parents about his...

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* Page 9: References & Additional Resources
* Suggested module citation
* References
* Additional Resources
* Page 10: Credits
* Content Experts
* Module Developers
* Module Production Team
* Media Production Team
* Media
* Expert Interviews

Wrap Up

* Summary of the module
* Steps/Keep in Mind [table]
* Revisit your Initial Thoughts responses

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Assessment

* Take some time now to answer the following questions.

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You Have Completed This Module

* Give Us Your Feedback
	+ Link: Module Feedback Form
* Professional Development Hours
	+ Link: IRIS PD Options
* Related Resources [links]