

# Graphing and Analyzing Academic Progress Monitoring Data: A Note-Taking Guide

## Module Overview

This module focuses on using academic progress monitoring data for decision making. It is intended to help educators learn how to set goals, collect data, and make decisions using academic progress monitoring data. This module builds on two previous modules—*What Is Progress Monitoring?* and *How Do I Select an Academic Progress Monitoring Measure?*—and provides a deeper focus on academic progress monitoring.

## Learning Outcomes

At the end of this course, you will be able to do the following:

- Develop a progress monitoring plan with a baseline, a goal, and a data collection schedule.
- Describe common academic goal-setting strategies.
- Describe approaches to analyzing progress monitoring data.

## Using the Note-Taking Guide

As you engage in the module, **take notes on the key themes and answer the summary questions** at the end of each section. After you complete the module, check your reflections against the provided responses at the end of this document.



## Section 1: What Is Progress Monitoring?

This section focuses on defining progress monitoring and reviewing information from the module titled *How Do I Select an Academic Progress Monitoring Measure?* It describes key characteristics of progress monitoring measures, the ways in which progress monitoring differs from other types of assessment, and how progress monitoring fits within the data-based individualization (DBI) process. Use this space to define key terms, jot down notes, and reflect in ways that best support your learning.

### Notes

| Key themes                                                                         | Notes |
|------------------------------------------------------------------------------------|-------|
| Review of progress monitoring, its importance, and its role within the DBI process |       |
| Getting started with progress monitoring                                           |       |

### Summary Questions

| Question                                                                            | Response |
|-------------------------------------------------------------------------------------|----------|
| Why is progress monitoring important for students receiving intensive intervention? |          |
| What are the key steps to get started with progress monitoring?                     |          |



## Section 2: Developing a Progress Monitoring Plan

This section focuses on how to develop a progress monitoring plan once the target behavior and progress monitoring measure have been identified. It discusses how to set, graph, and write goals.

### Notes

| Key themes                                             | Notes |
|--------------------------------------------------------|-------|
| Progress monitoring plan                               |       |
| Steps for setting academic goals                       |       |
| Establishing a baseline                                |       |
| Types of goal-setting strategies                       |       |
| Option 1: Benchmarks                                   |       |
| Option 2: National norms for rate of improvement (ROI) |       |
| Option 3: Intra-individual framework                   |       |



| Key themes                  | Notes |
|-----------------------------|-------|
| Ways to graph and set goals |       |
| Writing a measurable goal   |       |

## Summary Questions

| Question                                                                                  | Response |
|-------------------------------------------------------------------------------------------|----------|
| What are the main components of a progress monitoring plan?                               |          |
| What are the three validated goal-setting strategies that use general outcome measures?   |          |
| What are some considerations when selecting a goal-setting strategy?                      |          |
| What are the critical features of a goal?                                                 |          |
| What resources are available for developing a progress monitoring plan and setting goals? |          |



## Section 3: Collecting and Graphing Progress Monitoring Data

This section focuses on how to collect and graph progress monitoring data to make decisions about student progress.

### Notes

| Key themes                            | Notes |
|---------------------------------------|-------|
| Frequency of data collection          |       |
| Fidelity of assessment and data entry |       |
| Graphing progress monitoring data     |       |

### Summary Questions

| Questions                                                                    | Responses |
|------------------------------------------------------------------------------|-----------|
| What three areas should teachers consider to ensure quality data collection? |           |
| What are the key components of a progress monitoring graph?                  |           |
| What resources could help you graph progress monitoring data?                |           |



## Section 4: Using Academic Progress Monitoring Data for Decision Making

This section discusses how to use academic progress monitoring data to make decisions about instructional changes. It focuses on the different methods of analyzing graphed data and things to consider when making decisions.

### Notes

| Key themes                                                  | Notes |
|-------------------------------------------------------------|-------|
| Analyzing graphed data                                      |       |
| Four-point analysis                                         |       |
| Trend line analysis                                         |       |
| Establishing a clear process for determining responsiveness |       |
| Decision-making considerations                              |       |
| Engaging students in feedback and goal setting              |       |



## Summary Questions

| Questions                                                                                                                   | Responses |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|
| What are some considerations for using the two common decision rules to analyze graphed progress monitoring data?           |           |
| Why should teachers establish a regular process for analyzing progress monitoring data?                                     |           |
| When analyzing graphed progress monitoring data, what are some things the graph can tell you about your student's progress? |           |



## Sample Responses

This section presents sample responses to the questions provided after each section. You may use these responses and compare them with your responses.

| Section                                                 | Summary questions                                                                       | Sample responses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Section 1: What Is Progress Monitoring?</b>          | Why is progress monitoring important for students receiving intensive intervention?     | <ul style="list-style-type: none"> <li>Progress monitoring is important for students receiving intensive intervention because it allows teachers to quantify student responsiveness to instruction, identify students who are not making adequate progress, and determine when instructional adaptations are needed.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                         | What are the key steps to get started with progress monitoring?                         | <ul style="list-style-type: none"> <li>Key steps include identifying the target behavior, selecting the progress monitoring tool, and establishing a progress monitoring plan.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Section 2: Developing a Progress Monitoring Plan</b> | What are the main components of a progress monitoring plan?                             | <ul style="list-style-type: none"> <li>A progress monitoring plan should document the following details: the person responsible for data collection, the progress monitoring tool selected, the overall timeline for data collection, the frequency of data collection, the student's baseline data, and the student's goal.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                         | What are the three validated goal-setting strategies that use general outcome measures? | <ul style="list-style-type: none"> <li>The three validated goal-setting strategies that use general outcome measures are benchmarks, national norms for the weekly rate of improvement, and the intra-individual framework.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                         | What are some considerations when selecting a goal-setting strategy?                    | <ul style="list-style-type: none"> <li>When selecting a strategy, consider if the goal is realistic yet ambitious, based on the student's skills and grade level.</li> <li>Benchmarks are easy to use and efficient, but they may not be suitable for students whose skills are far below grade level.</li> <li>A rate of improvement using national norms provides a mechanism for writing an ambitious, yet realistic goal based on the student's initial performance, but it may maintain achievement gaps in some cases.</li> <li>The intra-individual framework requires more data and uses calculations that may be difficult to understand. It is the least ambitious goal-setting strategy and is unlikely to be necessary for students performing at or near grade level.</li> </ul> |



| Section                                                                       | Summary questions                                                                                                 | Sample responses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                               | What are the critical features of a goal?                                                                         | <ul style="list-style-type: none"> <li>A goal should include the condition or context in which the skill will be performed, the target of the goal, and the level of proficiency or timeline.</li> </ul>                                                                                                                                                                                                                                                                                                    |
|                                                                               | What resources are available for developing a progress monitoring plan and setting goals?                         | <ul style="list-style-type: none"> <li><a href="#">Intervention Planning Document</a></li> <li><a href="#">Overview of Academic Goal-Setting Strategies</a></li> <li><a href="#">Academic Progress Monitoring Tools Chart</a></li> <li><a href="#">Strategies for Setting High-Quality Academic Individualized Education Program Goals</a></li> <li><a href="#">Ensuring Fidelity of Assessment and Data Entry Procedures</a></li> <li><a href="#">Student Progress Monitoring Graphing Tool</a></li> </ul> |
| <b>Section 3: Collecting and Graphing Progress Monitoring Data</b>            | What three areas should teachers consider to ensure quality data collection?                                      | <ul style="list-style-type: none"> <li>To ensure quality data collection, it is important to maintain consistent administration and accurate scoring and to avoid data entry errors.</li> </ul>                                                                                                                                                                                                                                                                                                             |
|                                                                               | What are the key components of a progress monitoring graph?                                                       | <ul style="list-style-type: none"> <li>A progress monitoring graph has the following key components: a baseline, a goal, a goal line, student data points, a trend line, and phase lines indicating intervention changes.</li> </ul>                                                                                                                                                                                                                                                                        |
|                                                                               | What resources could help you graph progress monitoring data?                                                     | <ul style="list-style-type: none"> <li>The National Center on Intensive Intervention's (NCII) <a href="#">Student Progress Monitoring Graphing Tool</a> could help you graph progress monitoring data. You can also purchase data systems with progress monitoring tools, which often provide enhanced graphing and goal-setting capacity.</li> </ul>                                                                                                                                                       |
| <b>Section 4: Using Academic Progress Monitoring Data for Decision Making</b> | What are some considerations for using the two common decision rules to analyze graphed progress monitoring data? | <ul style="list-style-type: none"> <li>The four-point rule requires at least 3 weeks of intervention and six data points.</li> <li>The trend line analysis rule requires more data points (at least eight) but is more sensitive.</li> </ul>                                                                                                                                                                                                                                                                |
|                                                                               | Why should teachers establish a regular process for analyzing progress monitoring data?                           | <ul style="list-style-type: none"> <li>Establishing a regular process for analyzing graphed progress monitoring data is critical for determining student responsiveness and knowing if and/or when instructional adaptations are needed.</li> </ul>                                                                                                                                                                                                                                                         |



| Section | Summary questions                                                                                                           | Sample responses                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | When analyzing graphed progress monitoring data, what are some things the graph can tell you about your student's progress? | <ul style="list-style-type: none"><li>Visually analyzing the graph can indicate issues with progress monitoring measures, inconsistent administration, student motivation and engagement, or the effectiveness of instructional changes, among other things.</li><li>Comparing the student's trend line to their goal line can show if the student is on track to meet their goal or if an instructional change is needed.</li></ul> |

This resource was produced under U.S. Department of Education, Office of Special Education Programs, Award No. H326Q210001. Celia Rosenquist serves as the project officer. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service, or enterprise mentioned in this document is intended or should be inferred.

