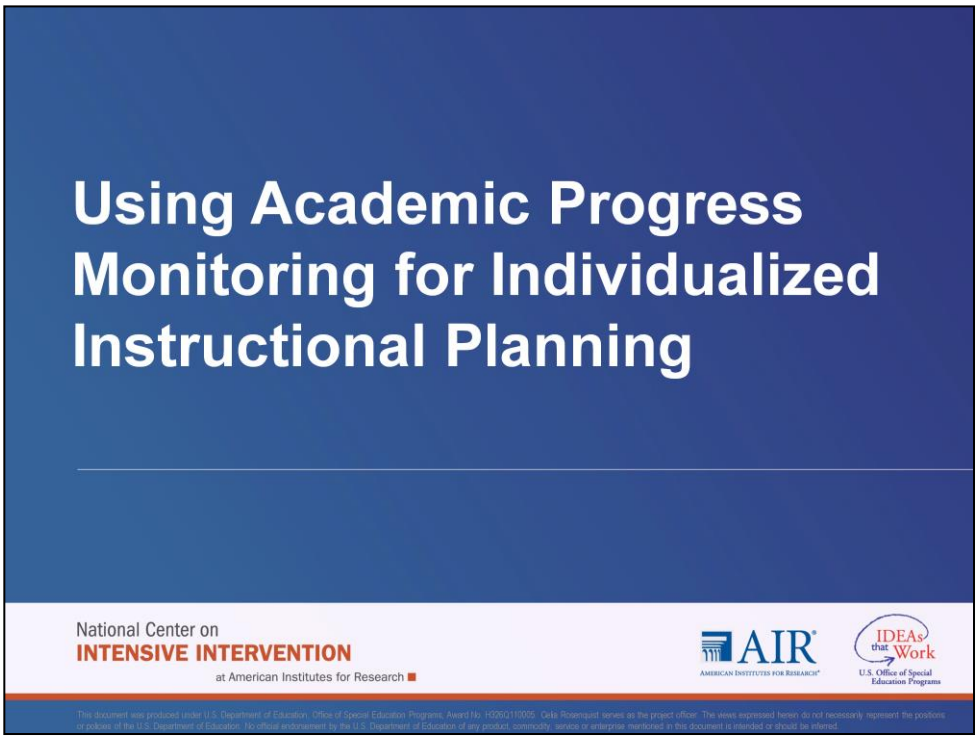


Introduction to the module

This module is part of a series of training modules developed by the National Center on Intensive Intervention (NCII) and is aimed at district or school teams involved in the initial planning for using data-based individualization (DBI) as a framework for providing intensive intervention in academics and behavior. This module is intended to follow the first module, *Introduction to Data-Based Individualization (DBI): Considerations for Implementation in Academics and Behavior.* The audience for this module may include school teams supporting academic intervention and progress monitoring, interventionists, special educators, school psychologists, counselors, and administrators, as appropriate. It is assumed that the audience already has some knowledge of progress monitoring. A separate module addresses behavioral progress monitoring and can be found on NCII's website at http://www.intensiveintervention.org. Subsequent modules will provide additional information about other components of the DBI process. More information about NCII's approach to intensive intervention can be found in *Data-Based Individualization: A Framework for Intensive Intervention* (National Center on Intensive Intervention, 2013).

Instructions for using the speaker notes

- Text formatted in standard font is intended to be read aloud or paraphrased by the facilitator.
- Text formatted in **bold** is excerpted directly from the presentation slides.
- Text formatted in *italics* is intended as directions or notes for the facilitator; italicized text is not meant to be read aloud.
- Text formatted in underline indicates an appropriate time to click to bring up the next stage of animation in an animated slide.

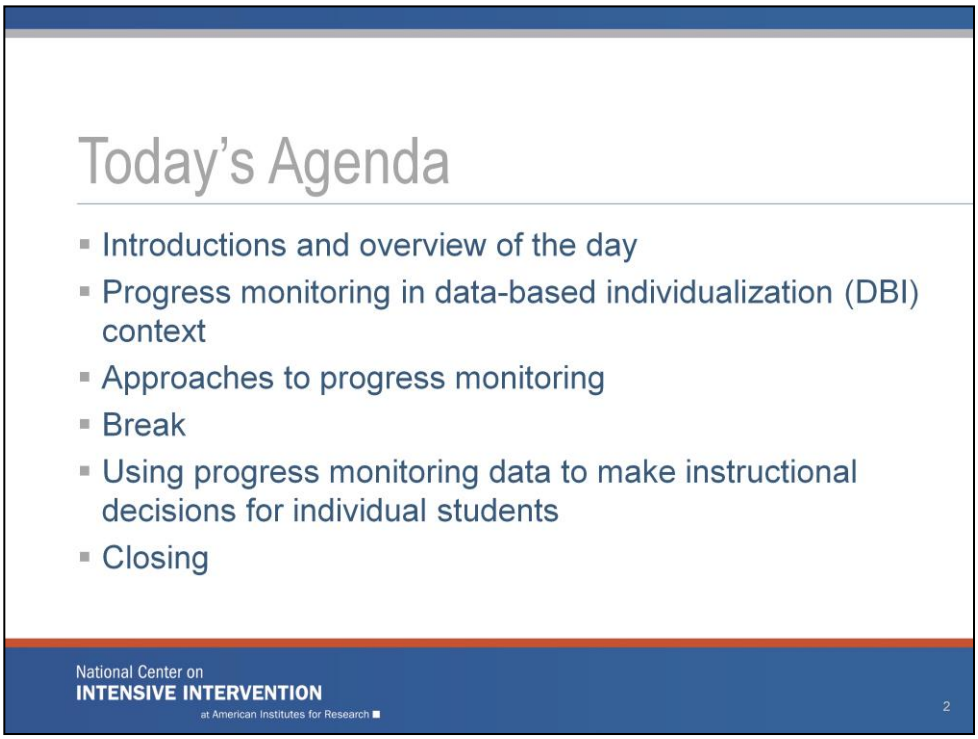
Speaker notes for title slide

Recommended presentation resources:

- *An Internet connection is preferred for live demonstration of the Tools Chart (slides 25–26); it is required for the activity on slide 27.*
- *Participants should have pen and paper for the activities (see slides 27 and 69).*
- *Printouts of "Handout 1: Academic Progress Monitoring Overview" as a summary and "Handout 2: Setting a Goal for Andrew" for the group activity (see slide 69).*

Welcome participants to the training. Introduce yourself (or selves) as the facilitator(s) and briefly cite your professional experience in regard to progress monitoring and intensive academic intervention.

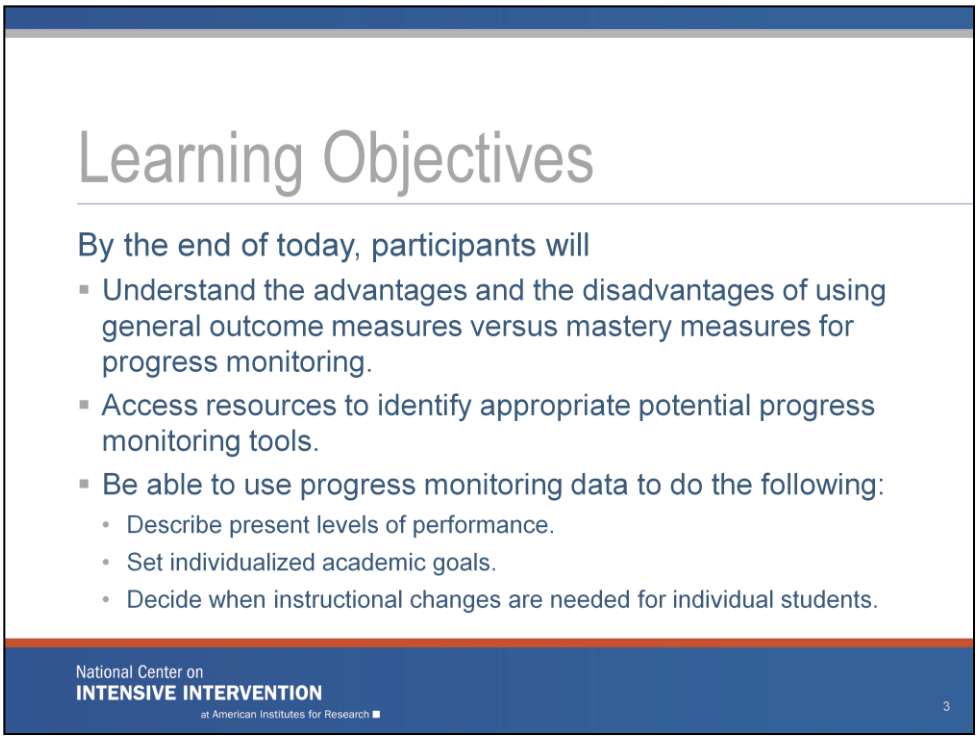
Today's presentation draws some materials from the National Center on Response to Intervention's (NCRTI) RTI Implementer Series Module 2: Progress Monitoring. *For a more complete introduction to progress monitoring, this module can be accessed online (National Center on Response to Intervention, 2012).*



Read slide.

The agenda may be changed to fit the time frame and the focus of the training.

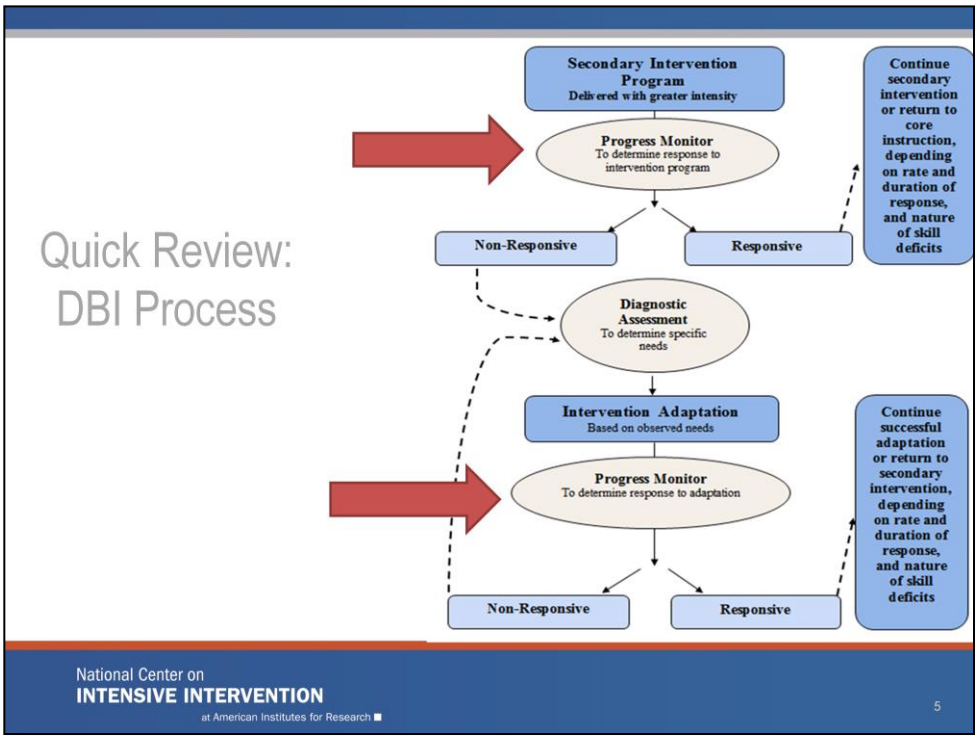
This module takes 2.5–3.5 hours to complete (including the slide presentation and the integrated activities).



The learning objectives for this training are as follows:

Read bulleted points on slide to participants.

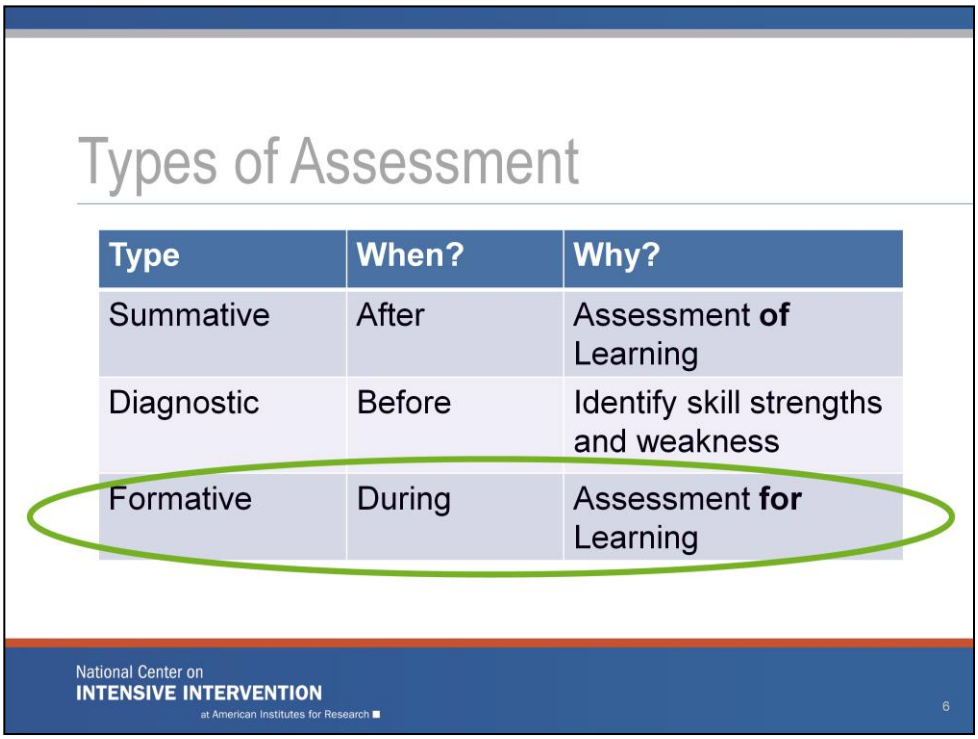
The purpose of this section is to review the key elements of progress monitoring (for some), explain how progress monitoring fits into the DBI process, and make sure we are all on the same page as we move on to implementation issues.



Animated slide—click where underlined text appears to bring up arrows.

In the past, you may have used progress monitoring data to make group intervention decisions, but today we are focusing how progress monitoring is used to inform DBI. The same progress monitoring data that tells us a student is not responding to core instruction may also tell us that secondary intervention is not sufficient to help the student reach his or her academic goal. After the intervention has been adapted, we continue progress monitoring to determine if the changes have been sufficient or if we need to make additional changes.

A more complete overview of the DBI process is available in the introductory module that is available on the NCII website.

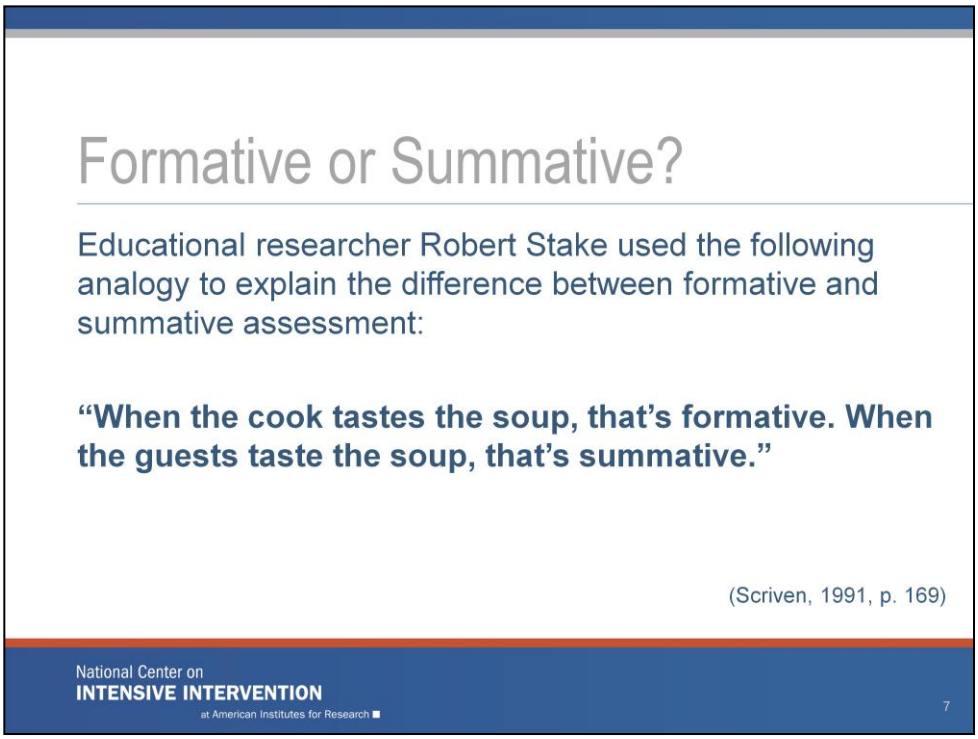


Animated slide—click on underlined text to circle Formative row.

Before we delve into progress monitoring assessments, it may be helpful to discuss the different kinds of assessments and how they are used.

- Summative assessments are typically administered after instruction and tell us what a student learned (e.g., end-of-chapter tests, high-stakes tests, final exams).
- Diagnostic assessments measure current knowledge and skills for the purpose of planning instruction (e.g., what to teach, selecting an intervention).
- Formative assessments are administered during instruction and tell us how well students are responding to instruction (e.g., mastery measures, general outcome measures).

Progress monitoring is a standardized method of formative assessment.


Formative or Summative?
Educational researcher Robert Stake used the following analogy to explain the difference between formative and summative assessment:
"When the cook tastes the soup, that's formative. When the guests taste the soup, that's summative."
(Scriven, 1991, p. 169)
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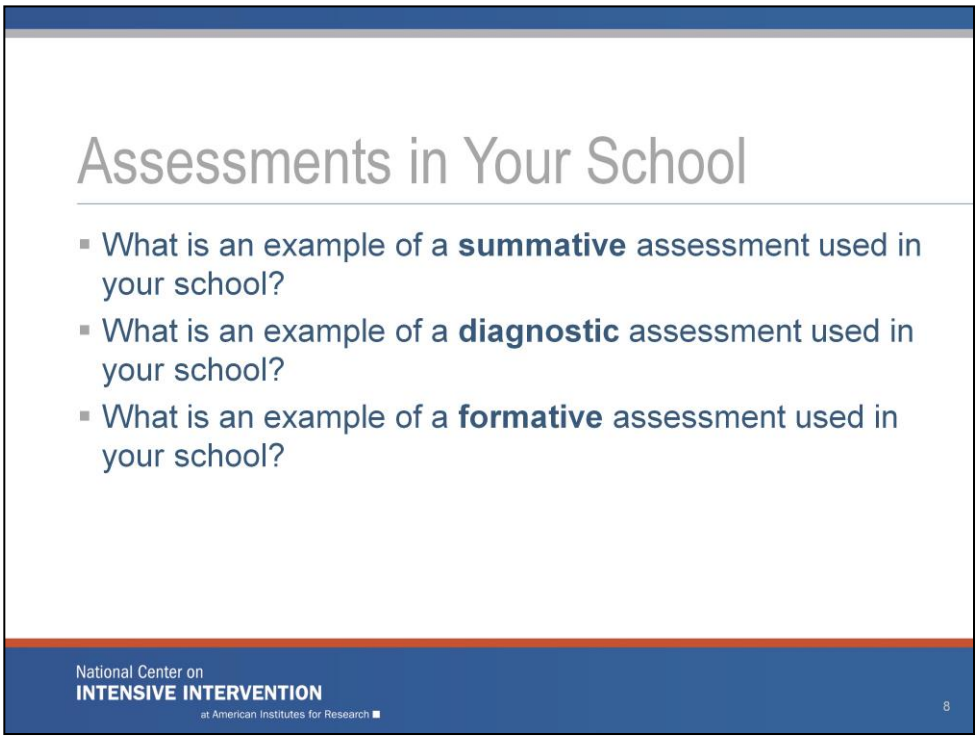
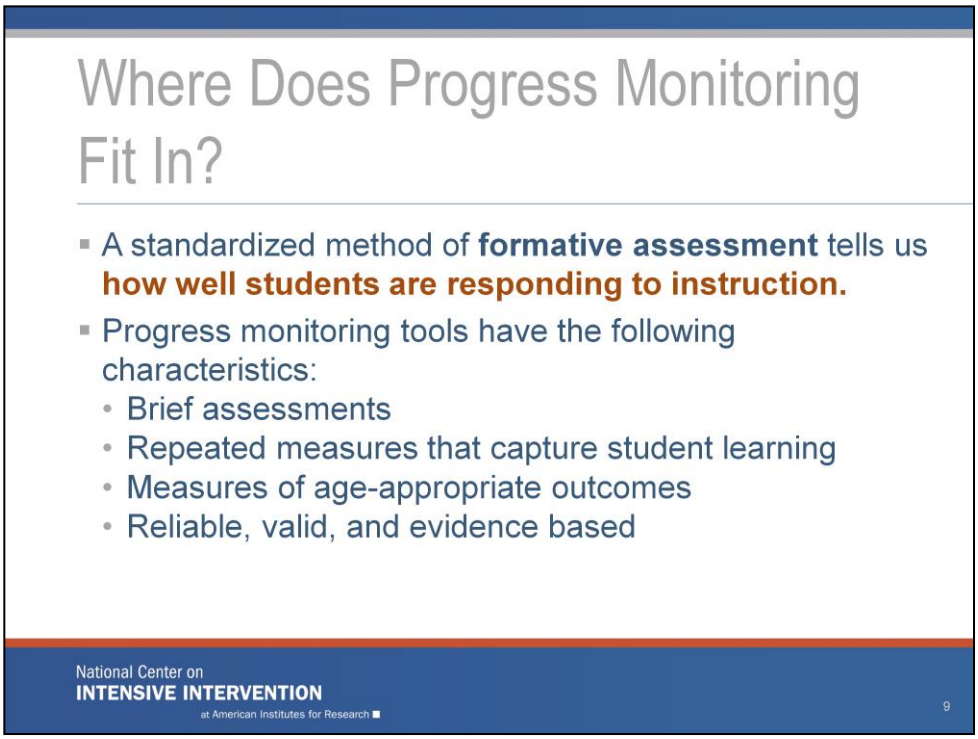
Read slide.



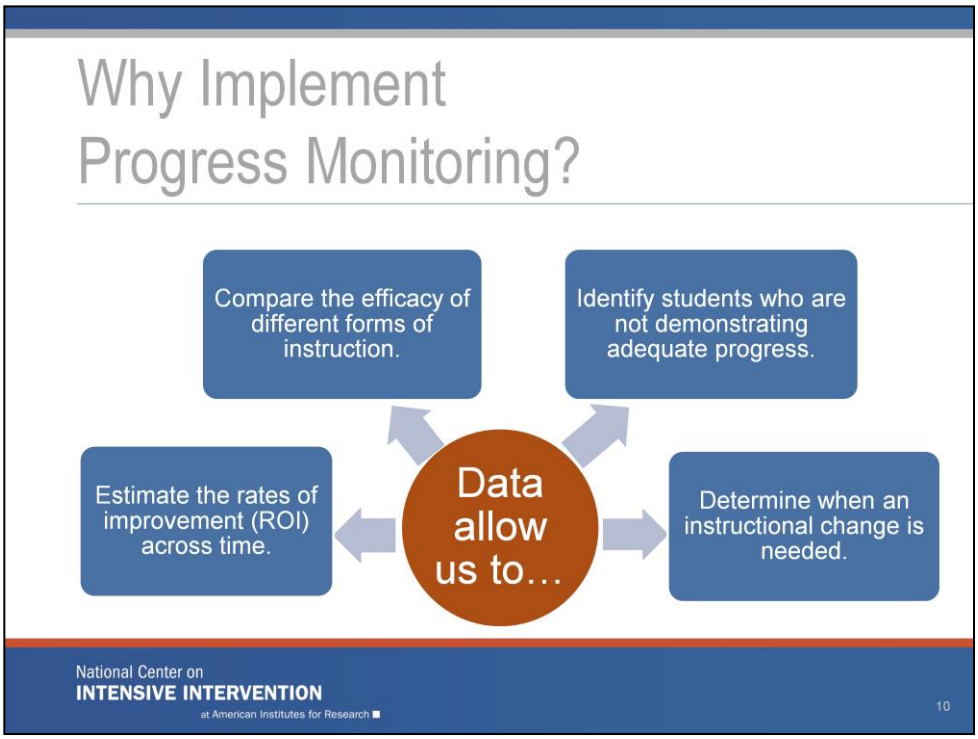
Possible examples:

- *Summative: state achievement tests, textbook unit tests, and final exams*
- *Diagnostic: informal diagnostic assessments such as miscue or error analysis, decoding surveys, phonics inventories, or questioning on comprehension or problem-solving process; formal, standardized diagnostic tests such as Key Math*
- *Formative: Oral Reading Fluency (ORF)/Passage Reading Fluency (PRF), math computation/calculation fluency (common tools: Dynamic Indicators of Basic Early Literacy Skills [DIBELS], AIMSweb, STAR)*

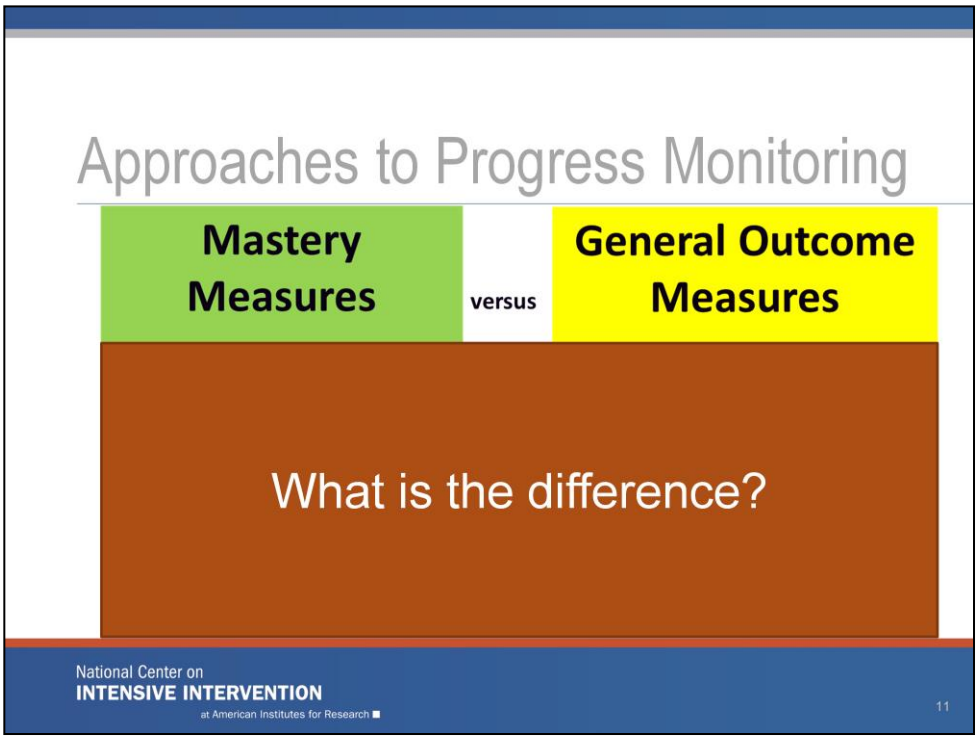


Read slide.

Later in the presentation, we will talk more about these characteristics and how we can review evidence to select appropriate tools.



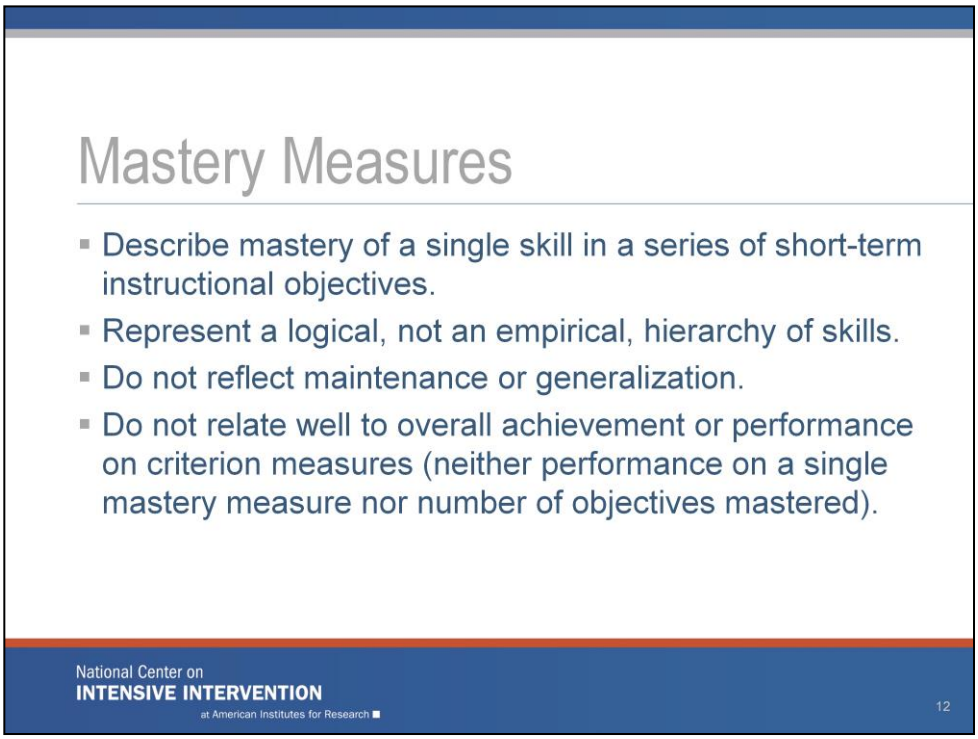
You probably already know a lot about using progress monitoring data to place students in intervention groups or decide which interventions work best for your groups. Today we will focus on using progress monitoring data to track an individual student's long-term growth as part of DBI.



Animated slide—click on underlined text to remove red box.

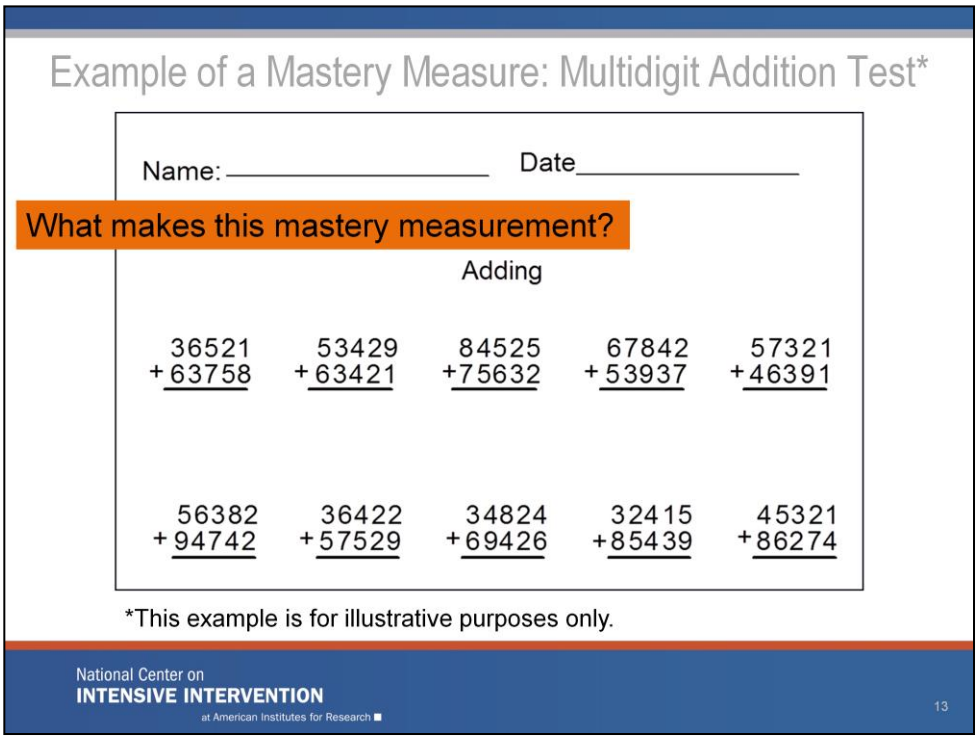
Mastery measures and general outcome measures are two common progress monitoring approaches. One key difference between mastery measures and general outcome measures (GOMs) is the comparability of data longitudinally, or the ability to look at data across time. With GOMs, you can compare the score a student received in May to a score he or she had in September. This cannot be done with mastery measures because each subskill is tracked separately. These subskills do not necessarily correlate well with overall achievement.

This slide is adapted from slide 41 of RTI implementer series module 2: Progress monitoring *(National Center on Response to Intervention, 2012).*



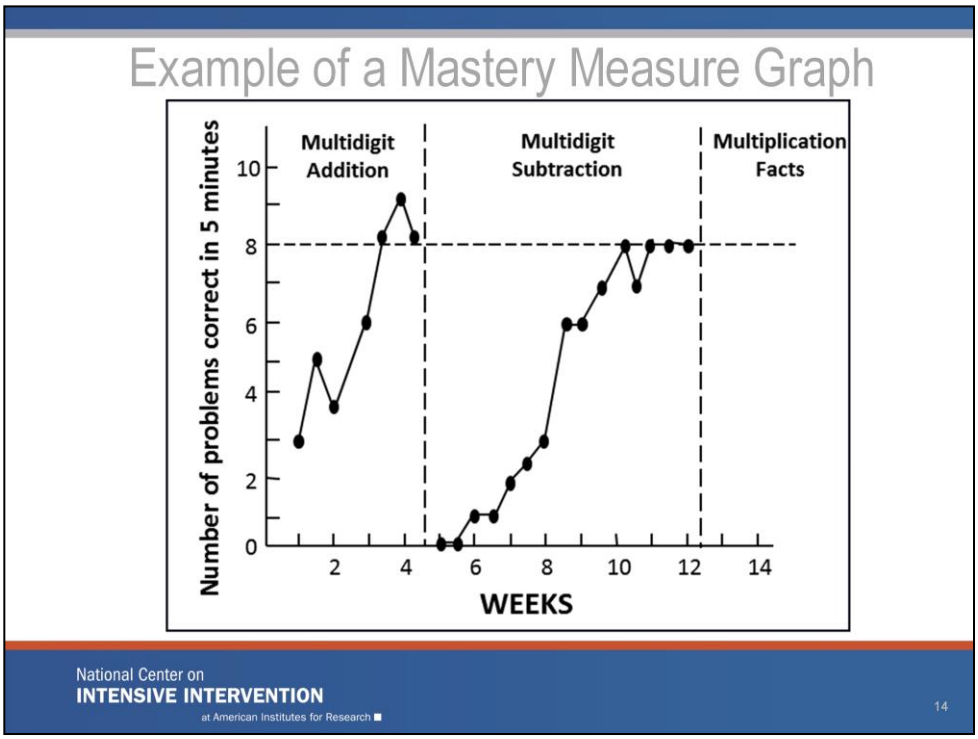
Mastery measures let us know if a student is learning the specific skill currently being taught.

Examples: single digit subtraction or multidigit addition with regrouping, taught and assessed in isolation

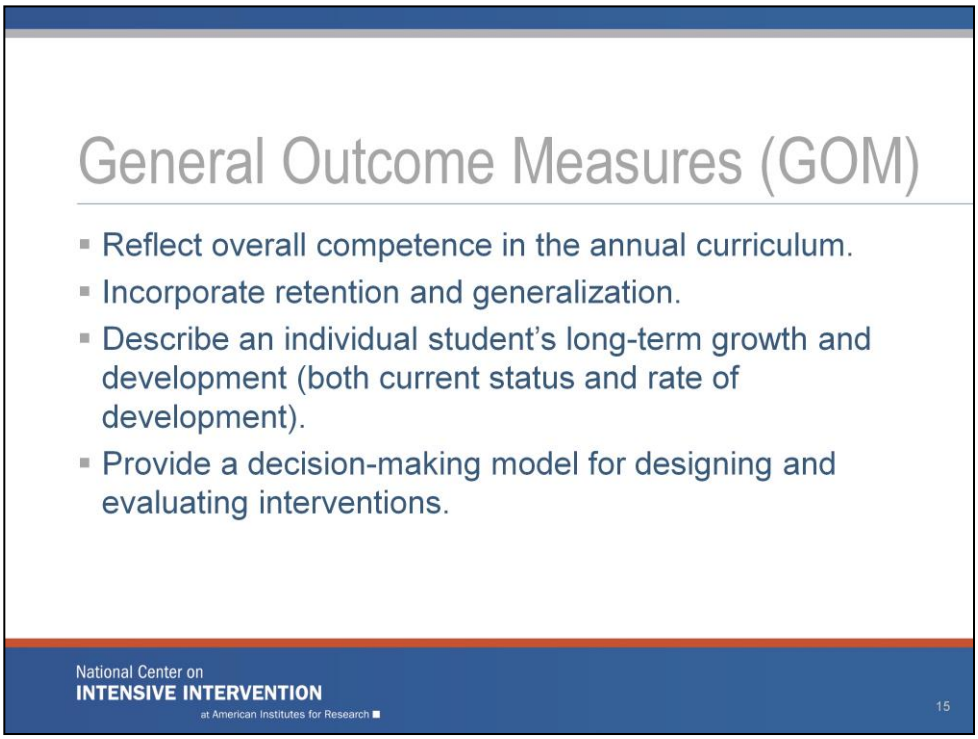


All of the problems are of the same type; mastery measures assess only one taught skill at a time.

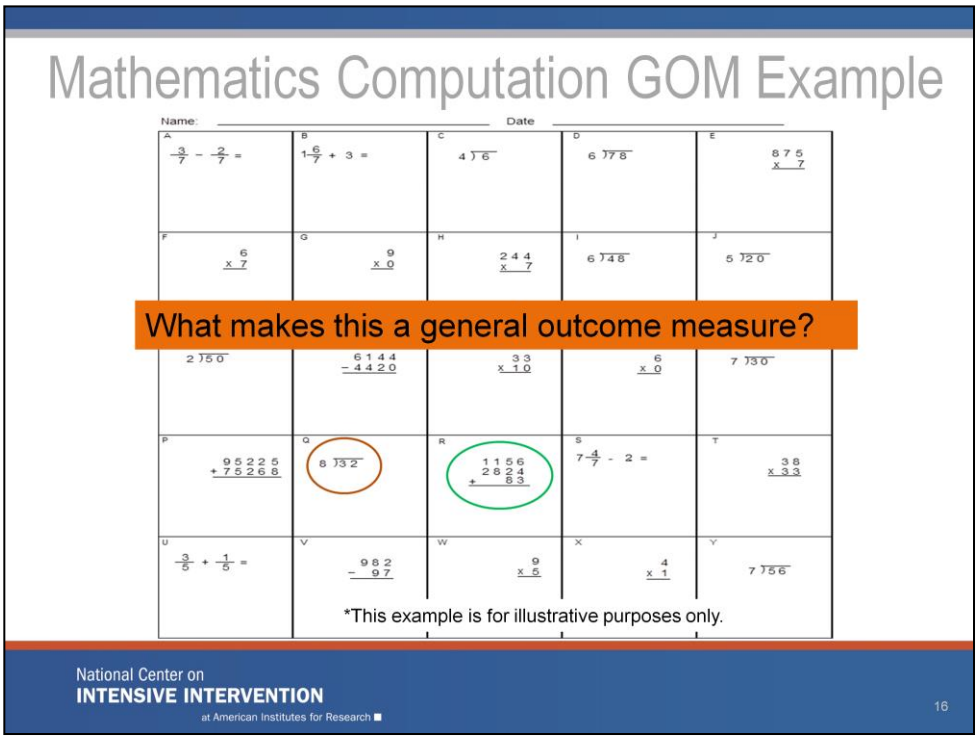
This slide is adapted from slide 43 of RTI implementer series module 2: Progress monitoring *(National Center on Response to Intervention, 2012).*



If you use mastery measures over a long period of time, you will be tracking different skills. You cannot compare the scores from multidigit subtraction to the scores from multidigit addition to see if a student is getting better in overall mathematics across time.

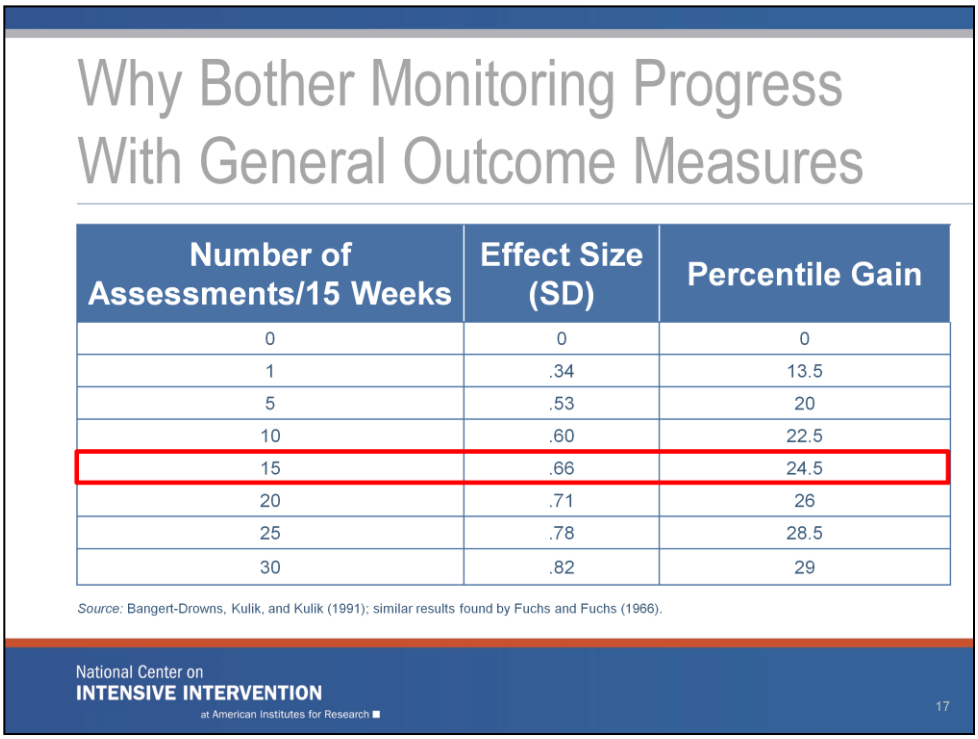


GOMs often address the problems associated with mastery measures. They are program independent and can be used with any instructional approach. GOMs can serve as both screening and progress monitoring measures. Many curriculum-based measures (CBMs) are types of GOMs.



A GOM reflects all skills in a yearlong curriculum, with random placement of problem types. By assessing all of the objectives in the curriculum, GOMs will be sensitive to growth as more skills are taught, regardless of the order in which they are taught. GOMs also allow teachers to determine if students are retaining taught skills and generalizing to skills that have not yet been taught.

This slide is adapted from slide 46 of RTI implementer series module 2: Progress monitoring *(National Center on Response to Intervention, 2012).*

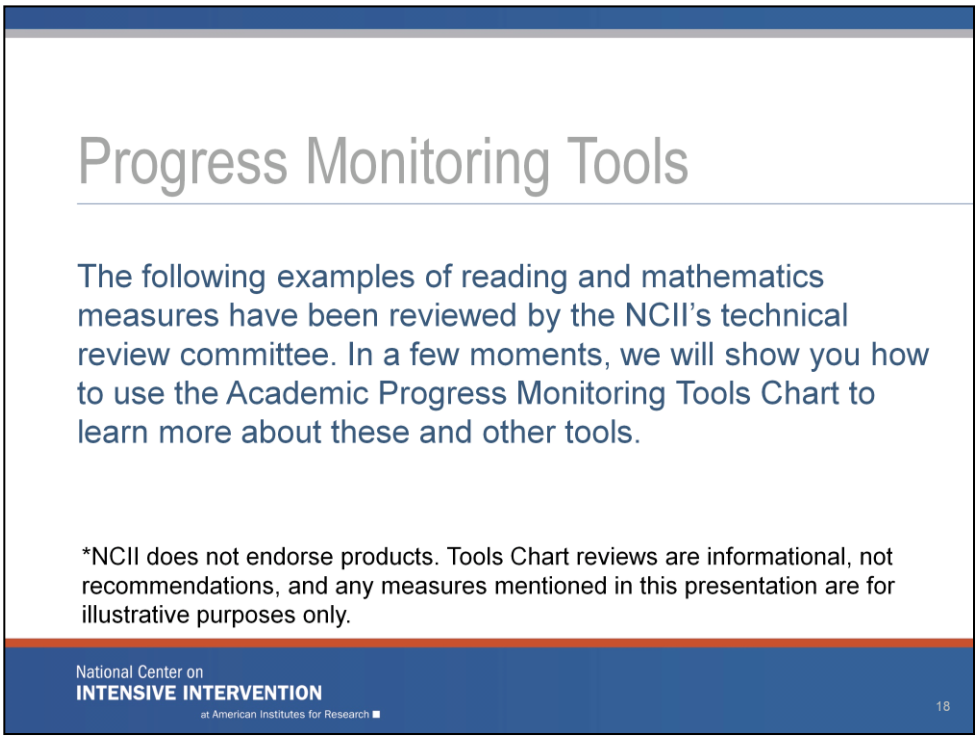


Animated slide—click on underlined text.

In this study by Bangert-Drowns, Kulik, and Kulik (1991), how frequently general outcome data were collected had a direct impact on student performance. Taking weekly data balances benefit with feasibility. Although collecting data twice a week was associated with slightly stronger student gains, we have to consider school resources and feasibility given the diminishing returns obtained from collecting data two or more times per week.

Note: For more information, see the following resources:

- *Bangert-Drowns, Kulik, and Kulik (1991).*
- *Fuchs and Fuchs (1986).*


Progress Monitoring Tools
The following examples of reading and mathematics measures have been reviewed by the NCII's technical review committee. In a few moments, we will show you how to use the Academic Progress Monitoring Tools Chart to learn more about these and other tools.
*NCII does not endorse products. Tools Chart reviews are informational, not recommendations, and any measures mentioned in this presentation are for illustrative purposes only.
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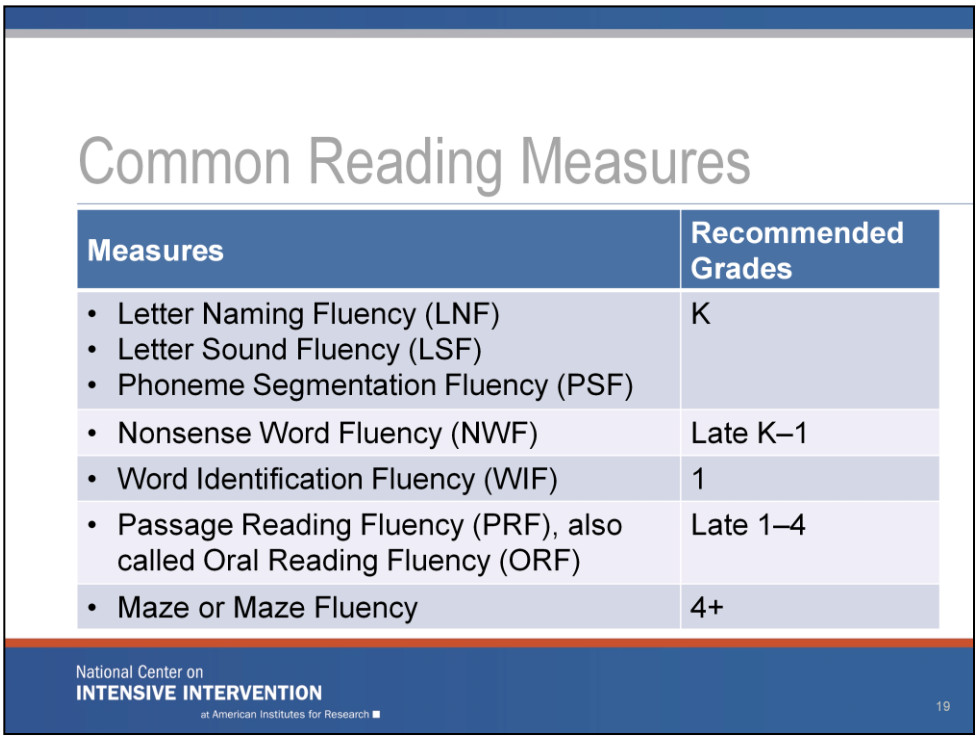
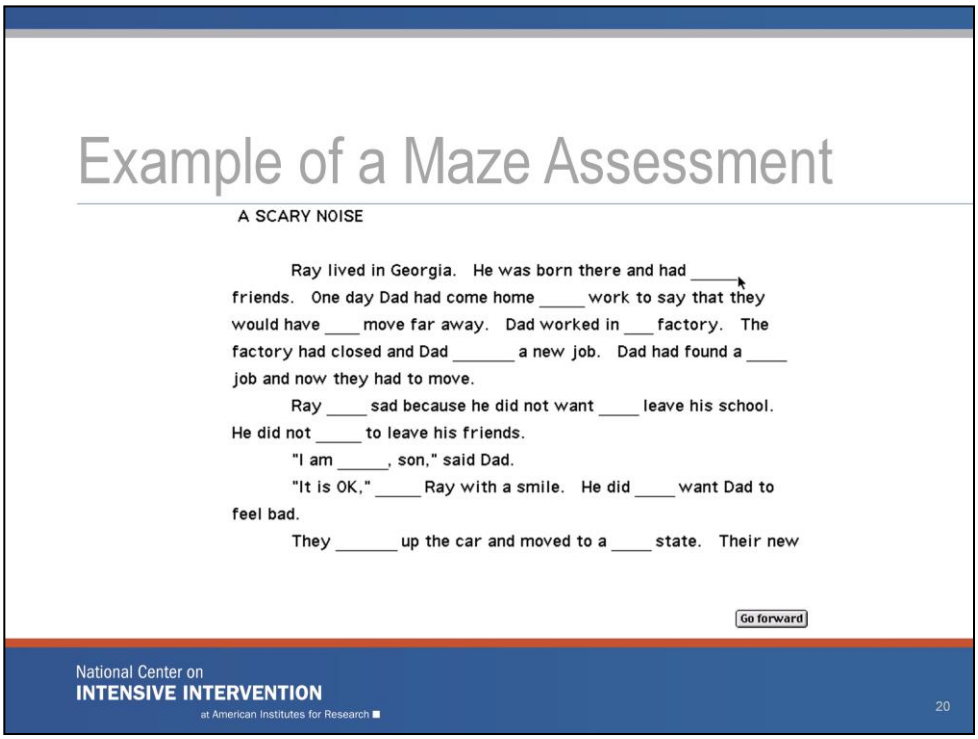
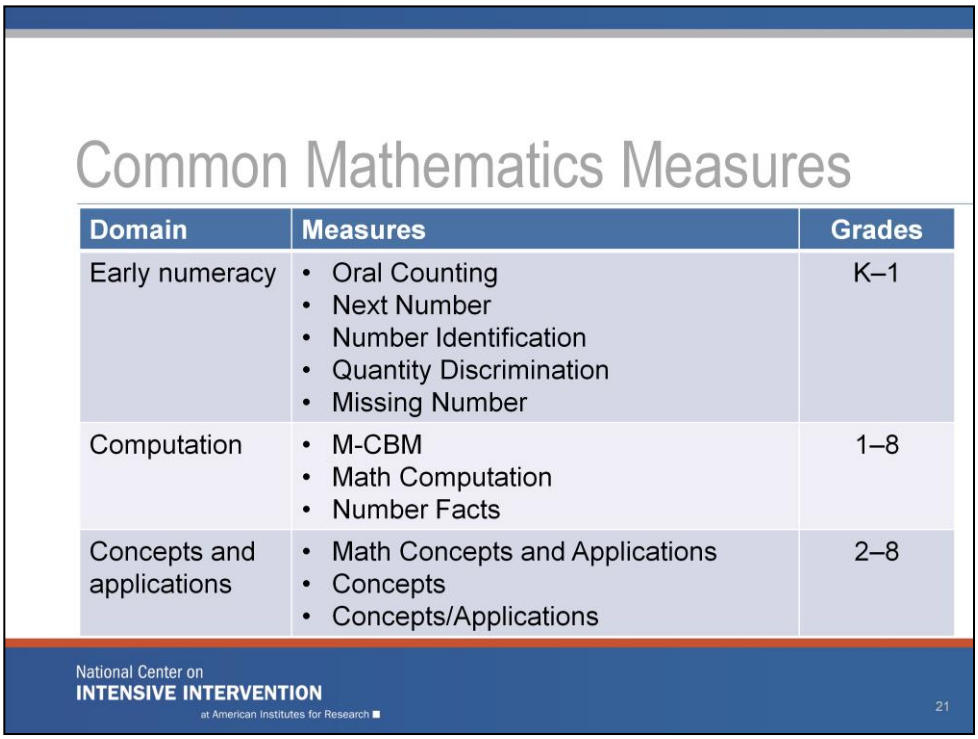
Read slide.



For more information on selecting appropriate reading measures by grade, please see the NCRTI Screening Brief Predicting students at risk for reading and mathematics difficulties (*National Center on Response to Intervention, 2013).*



This sample maze assessment was taken from the PowerPoint Introduction to Using CBM for Progress Monitoring in Reading *(Stecker, Sáenz, & Lemons, 2007).*

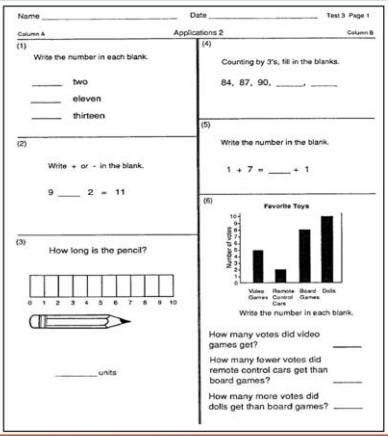


Review slide.

Note: Similar names for measures within a domain reflect the names of different products (by different manufacturers)

Note: Math-Curriculum Based Measurement (M-CBM) by AIMSweb has been discontinued and is no long available for purchase

Example of Mathematics Concepts and Applications



Name _____ Date _____ Test 3 Page 1

Applications 2

Column A

(1) Write the number in each blank.

_____ two
_____ eleven
_____ thirteen

(2) Write + or - in the blank.

9 ___ 2 = 11

(3) How long is the pencil?

0 1 2 3 4 5 6 7 8 9 10

_____ units

Column B

(4) Counting by 3's, fill in the blanks.

84, 87, 90, _____, _____

(5) Write the number in the blank.

1 + 7 = ___ + 1

(6) Favorite Toys

Number of votes

Video Games, Remote Control Cars, Board Games, Dolls

Write the number in each blank.

How many votes did video games get? _____

How many fewer votes did remote control cars get than board games? _____

How many more votes did dolls get than board games? _____

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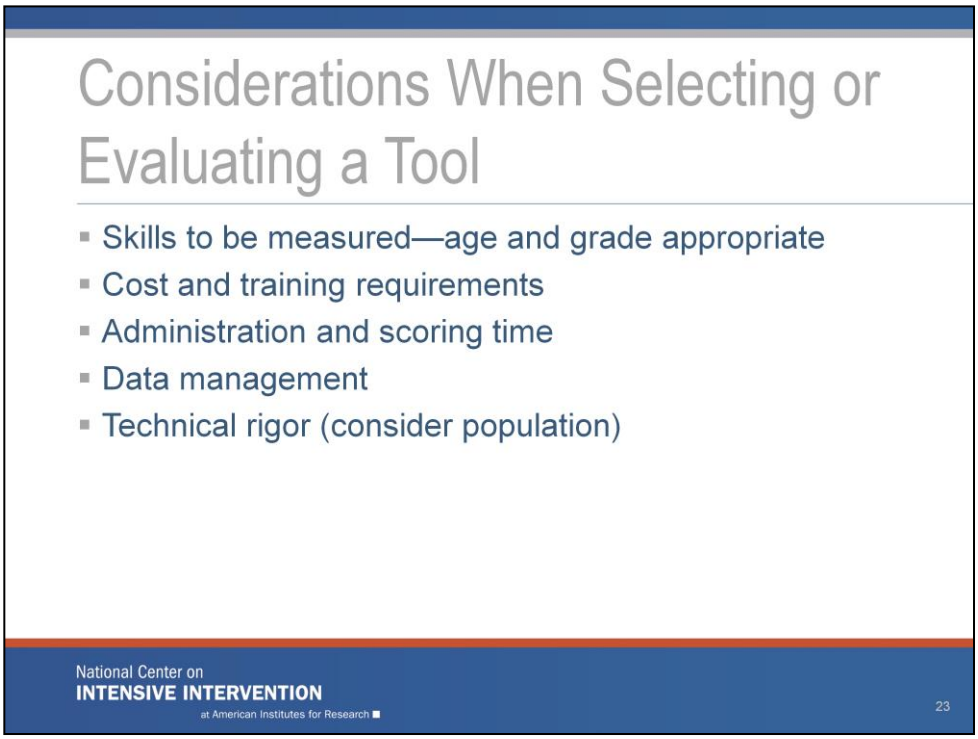
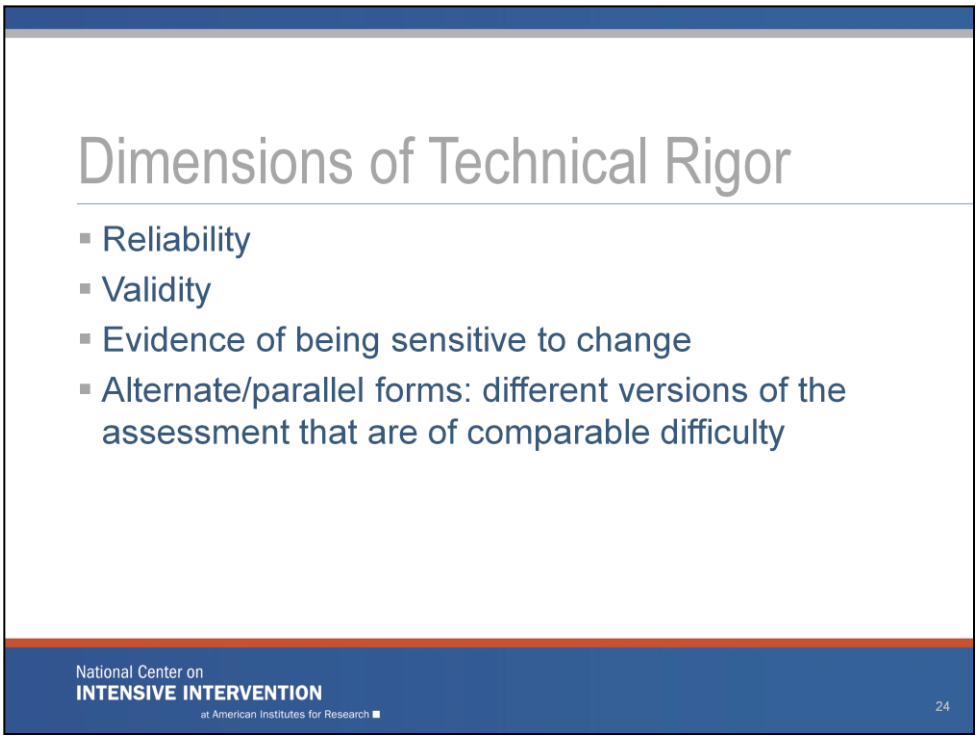
This sample mathematics applications assessment was taken from Introduction to Using CBM for Progress Monitoring in Reading *(Stecker, Sáenz, & Lemons, 2007).*

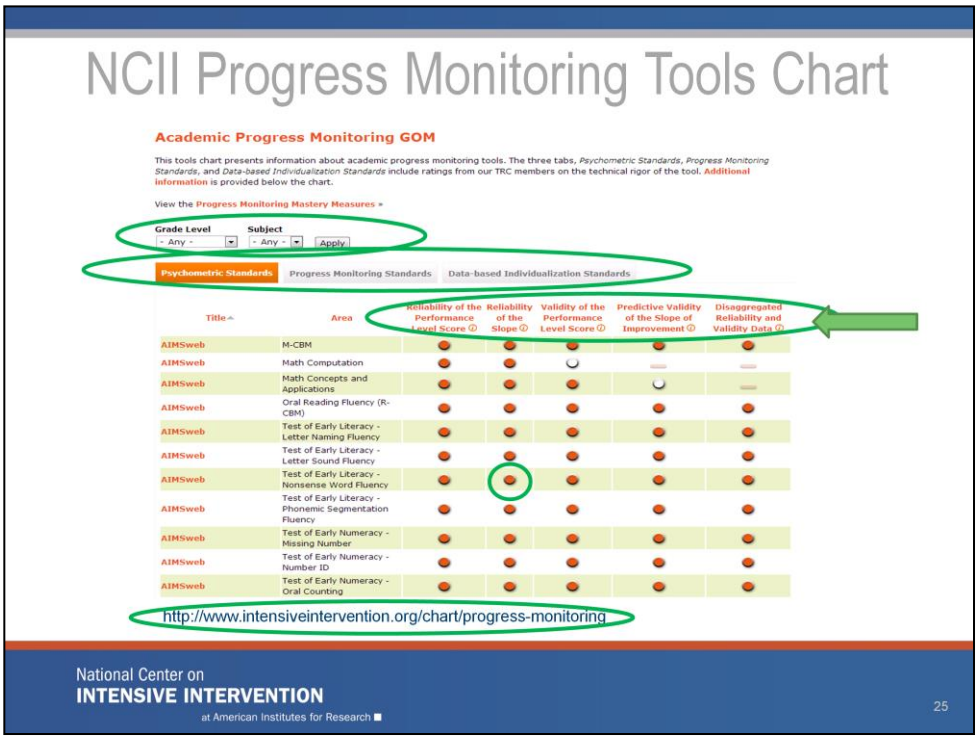


Technical rigor is measured against a specified population (e.g., by grade), sometimes by subgroup. Technical rigor incorporates several dimensions, which we will discuss next.



Explanations for dimensions of technical rigor:

- Reliability: Are scores accurate and consistent?
- Validity: Does the assessment measure the underlying construct (the targeted skill)?
- Sensitive to change: The extent to which a measure reveals long-term improvement, when improvement actually occurs.
- Alternate forms: Are the different versions of the assessment of comparable difficulty?

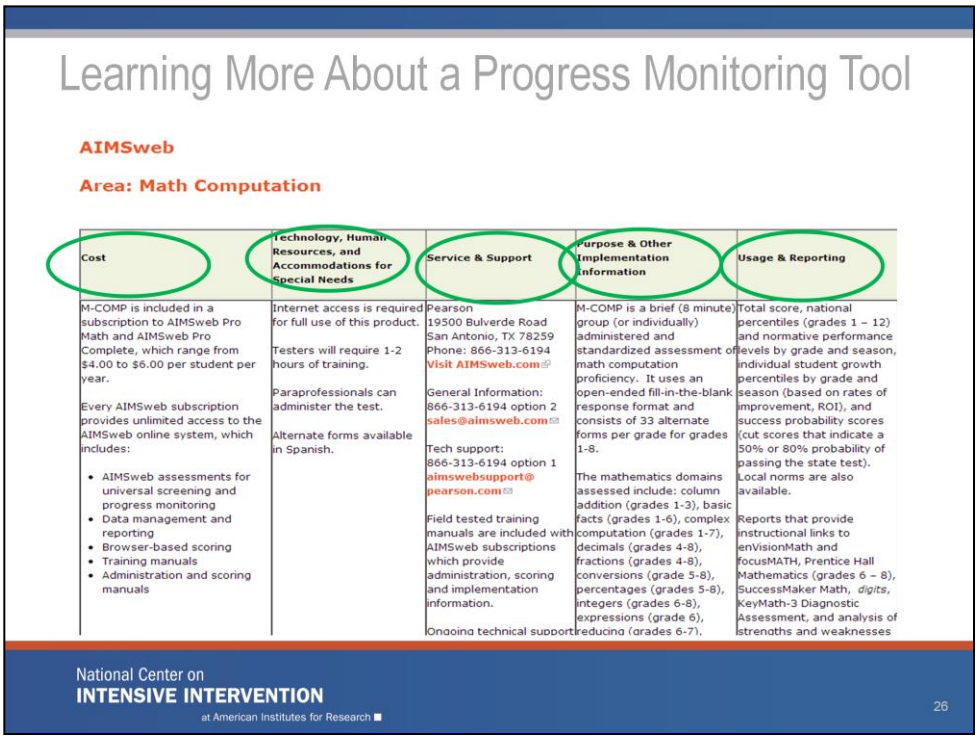


If possible, switch to a live demonstration for the next two slides, using the tools chart at http://www.intensiveintervention.org/chart/progress-monitoring. Show how to bring up additional information by clicking on different chart components. If using these animated slides, click at underlined text.

NCII has developed Academic Progress Monitoring Tools Charts that can be accessed through NCII's website. Although NCII has made a tools chart for both mastery measures and GOMs, we will be focusing on GOMs today.

The tools may be sorted by grade level and subject. The ratings reflect three sets of standards: (1) psychometric standards, (2) progress monitoring standards, and (3) DBI standards. Click one of these tabs to see that set of standards. The bubbles on the tools chart are indicators of the technical rigor of the tools and may be filled completely, partially, or not at all. By clicking on a column title, you can sort tools by their evidence for that standard. Clicking on the info button (circled "i") after each standard will bring up information on the standard and what the bubble ratings mean for that standard. Clicking on an evidence bubble for a tool will bring up the supporting information for the tool's rating on that standard.

Many progress monitoring tools are available, but not all are listed on the chart. Only tools that have been submitted by the tool vendor appear on the chart. When selecting a tool, it is important to consider both the technical rigor of the tool and your needs and priorities. The tools chart does not recommend tools; it provides users with a consumer report on available tools, similar to what you may find when searching for a car.



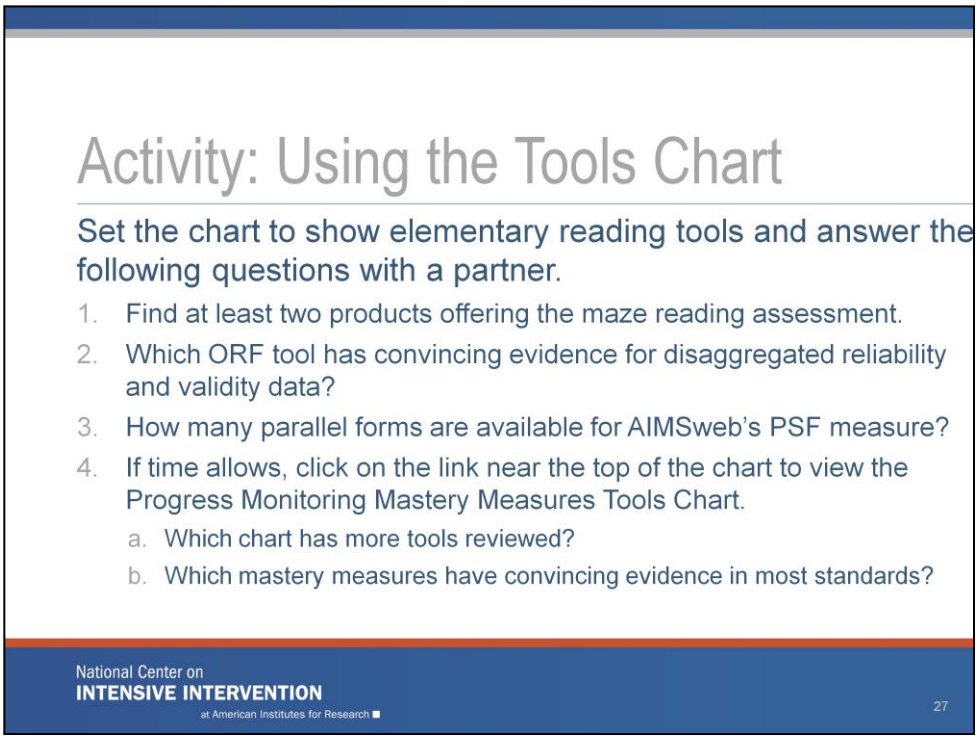
Animated slide—click on underlined column headers below to bring up each circle.

Clicking on the name of an intervention will bring up a page like this.

The first part of the page provides a summary table with information on the following:

- Cost of the tool
- Resources needed to use the tool
- Service and support
- Purpose and content of assessments
- Data and reports

Scrolling further down this page will bring you to the evidence for all of the technical standards.

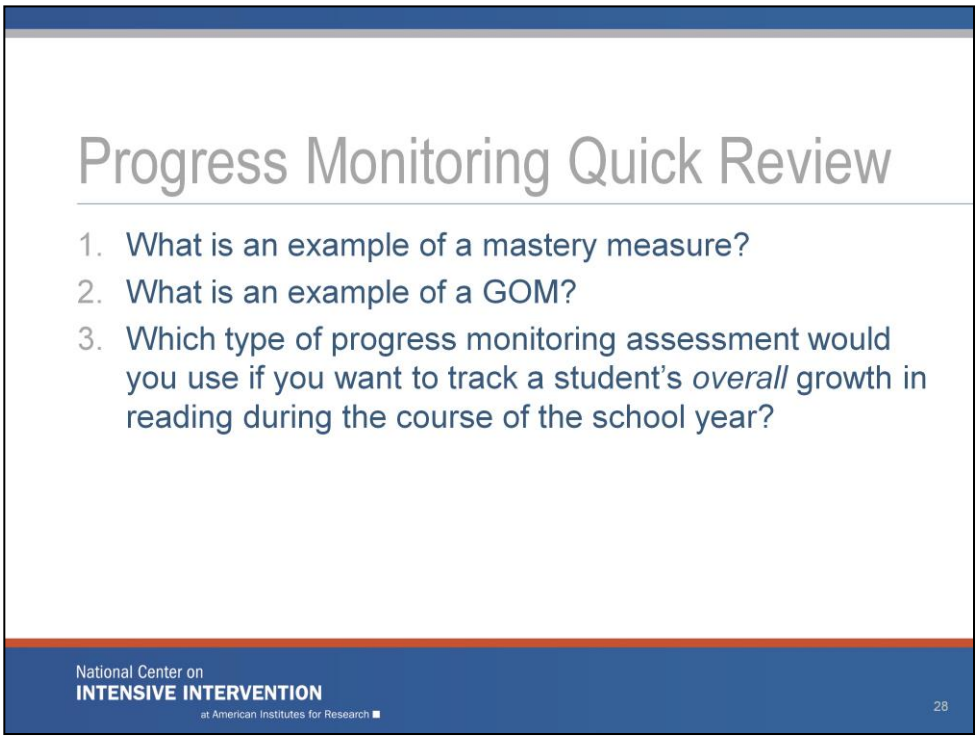


Work in pairs or small groups to answer these questions using the tool chart.

Note: The Mastery Measures Tools Chart is available at http://www.intensiveintervention.org/chart/progress-monitoring-mm.

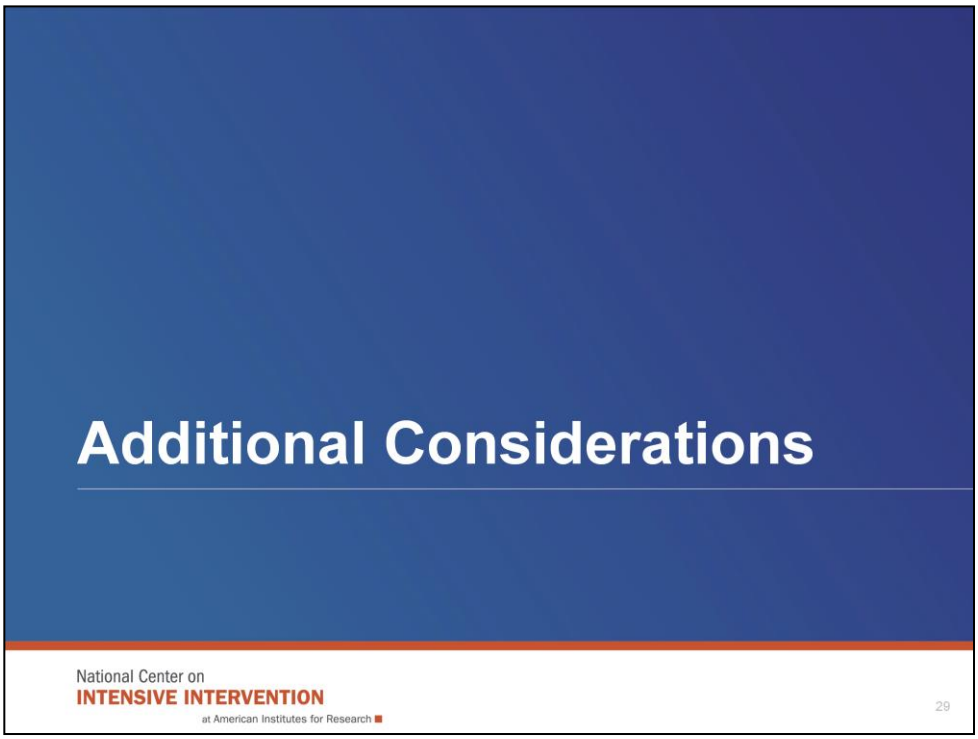
Answers:

1. *CBM-R, Edcheckup, YearlyProgressPro*
2. *CBM-R (under DBI standards tab)*
3. *30 for K and 1 (under progress monitoring standards, click bubble under Alternate Forms, see section 2, Number of alternate forms of equal and controlled difficulty)*
4. *(a) There are many more GOMs compared to mastery measures. (b) None of the reading mastery measures have convincing evidence in any standard. Both mathematics tools have convincing evidence in all of the psychometric and progress monitoring standards. Accelerated Math has convincing evidence in three of the four DBI standards, whereas MathFacts in a Flash does not have convincing evidence for any.*

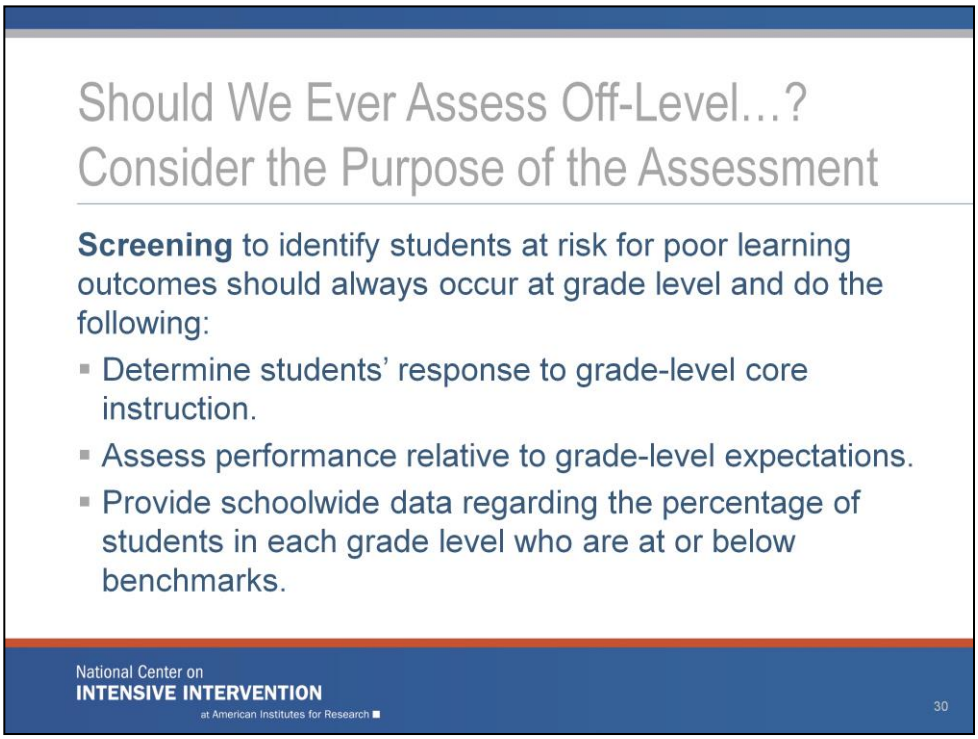


Sample answers:

1. *Single digit subtraction, multidigit addition with regrouping, word lists with consonant-vowel-consonant words or words starting with C*
2. *DIBELS ORF, AIMSweb PSF, LNF, mathematics computation or concepts and applications*
3. *GOM*



Now we will discuss additional considerations for progress monitoring for individual students with certain characteristics.


Should We Ever Assess Off-Level…? Consider the Purpose of the Assessment
Screening to identify students at risk for poor learning outcomes should always occur at grade level and do the following:
Determine students' response to grade-level core instruction.
Assess performance relative to grade-level expectations.
Provide schoolwide data regarding the percentage of students in each grade level who are at or below benchmarks.
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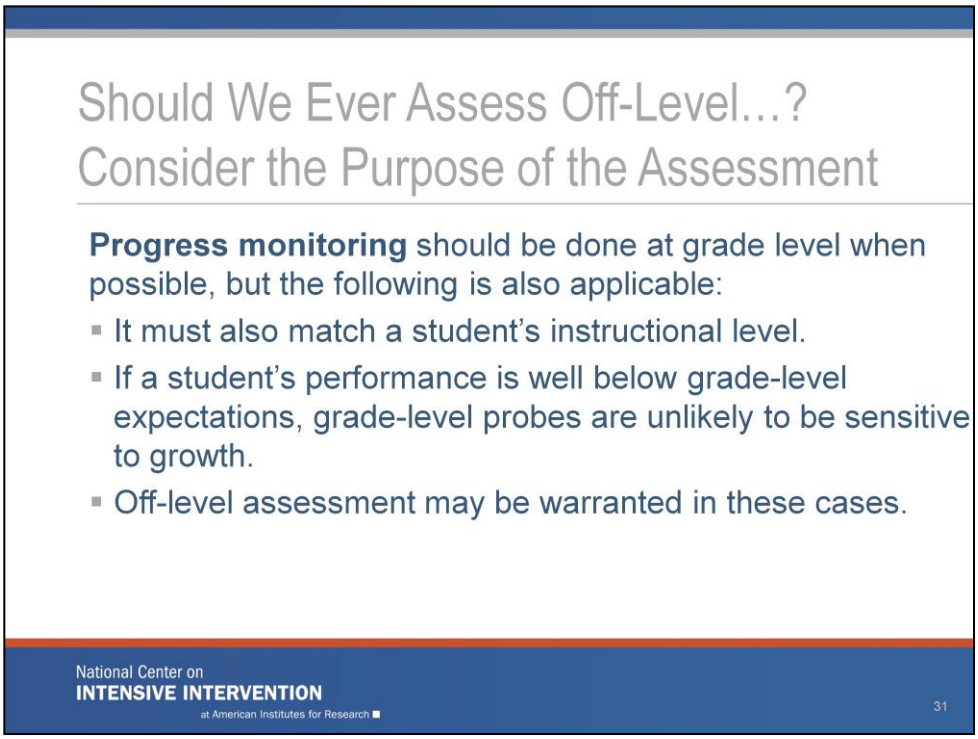
Read slide.


Should We Ever Assess Off-Level…?
Consider the Purpose of the Assessment
Progress monitoring should be done at grade level when possible, but the following is also applicable:
It must also match a student's instructional level.
If a student's performance is well below grade-level expectations, grade-level probes are unlikely to be sensitive to growth.
Off-level assessment may be warranted in these cases.
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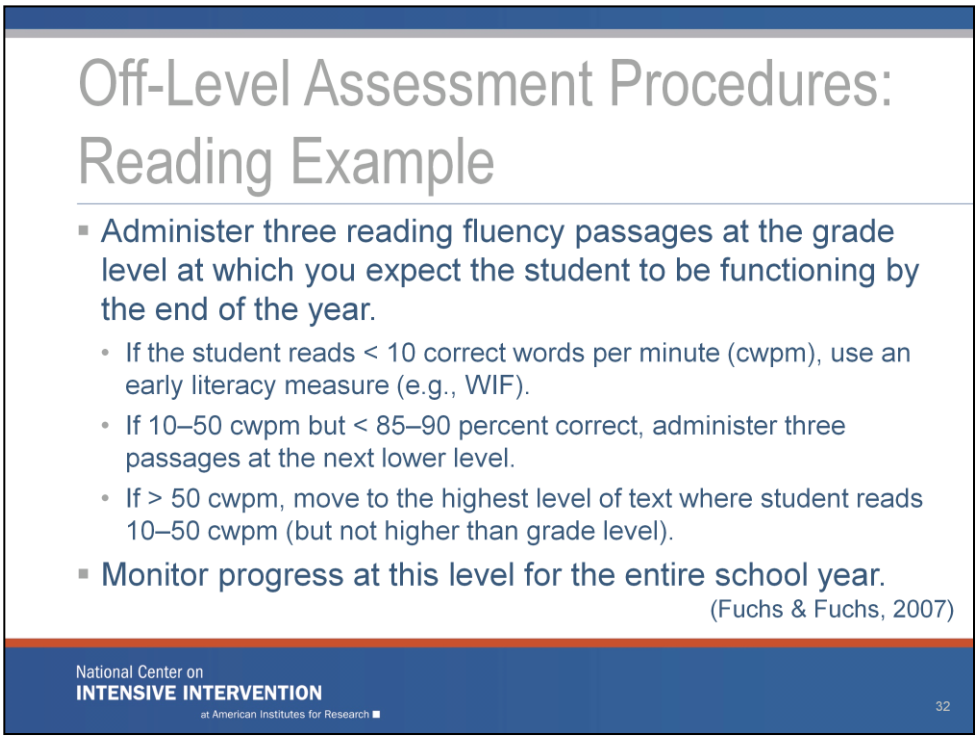
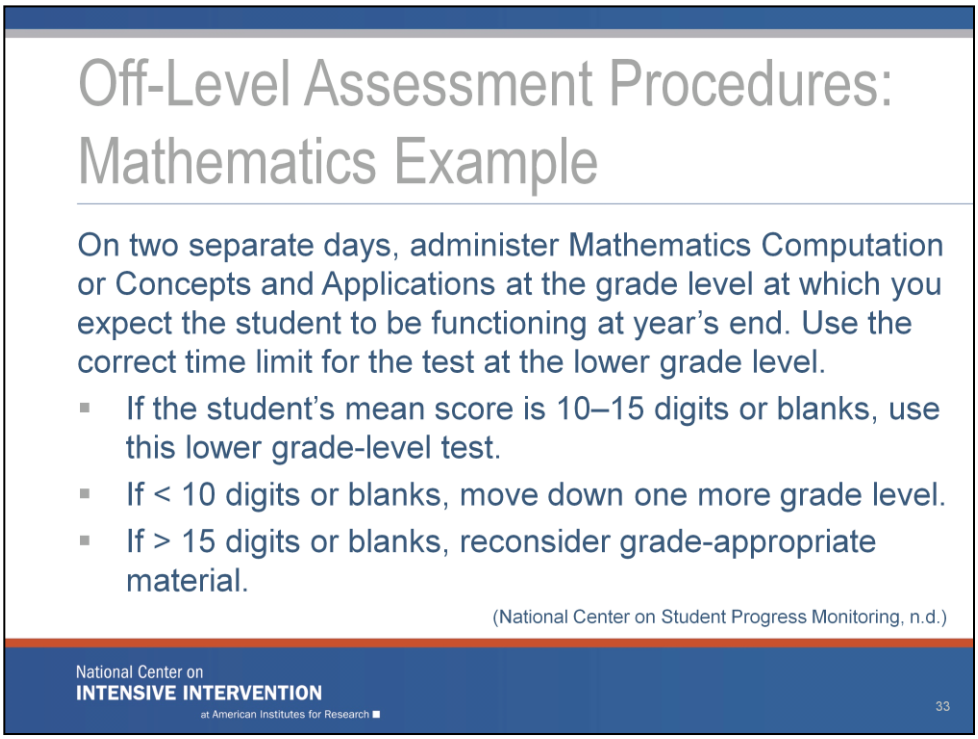
Read slide.

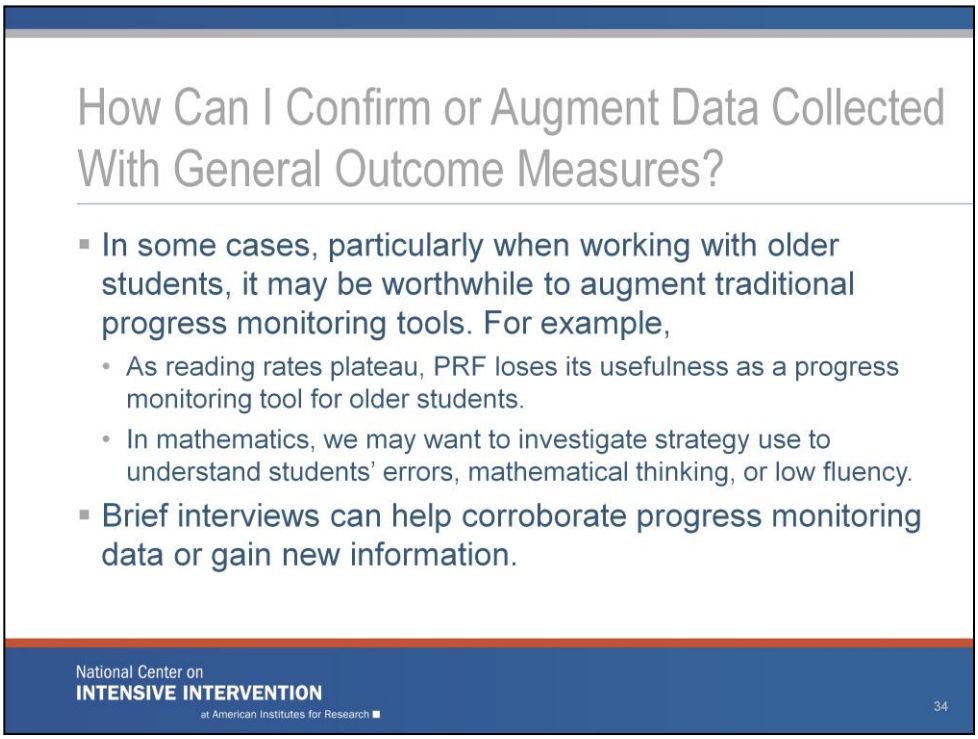


Vendors may provide product-specific instructions for determining the appropriate level of assessment. These instructions are taken from Using CBM for progress monitoring in reading *(Fuchs & Fuchs, 2007).*

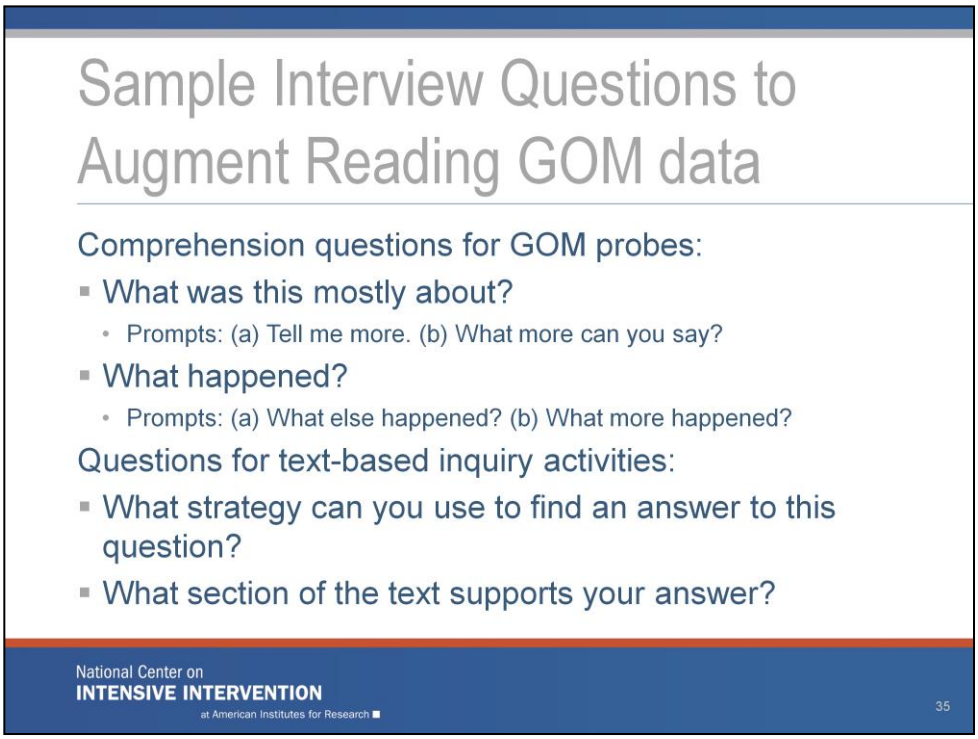


Note: Participants may ask if this can occur on a single day. Ideally, assessment will occur over two separate days to get a better picture of the student's average performance (e.g., a student may perform worse than usual on a given day as a result of factors other than the student's mathematics skills).

As in reading, vendors may provide product-specific instructions for determining the appropriate level of assessment. These instructions are taken from Introduction to using curriculum-based measurement for progress monitoring in math (*National Center on Student Progress Monitoring, n.d.).*



PRF is a type of ORF where students read connected text (e.g., passages). ORF is an umbrella term that encompasses PRF but may also refer to other tasks, such as word reading fluency. For the purpose of this presentation, we use PRF when referring to reading connected text.


Sample Interview Questions to Augment Reading GOM data
Comprehension questions for GOM probes:
What was this mostly about?
Prompts: (a) Tell me more. (b) What more can you say?
What happened?
Prompts: (a) What else happened? (b) What more happened?
Questions for text-based inquiry activities:
What strategy can you use to find an answer to this question?
What section of the text supports your answer?
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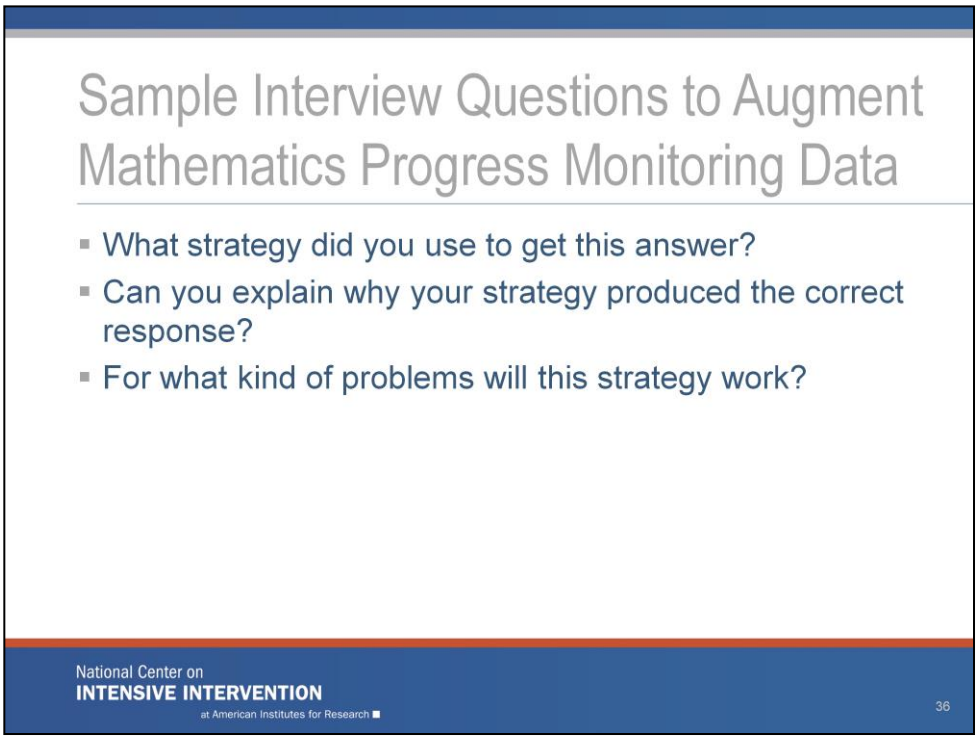
Read slide.


Sample Interview Questions to Augment Mathematics Progress Monitoring Data
What strategy did you use to get this answer?
Can you explain why your strategy produced the correct response?
For what kind of problems will this strategy work?
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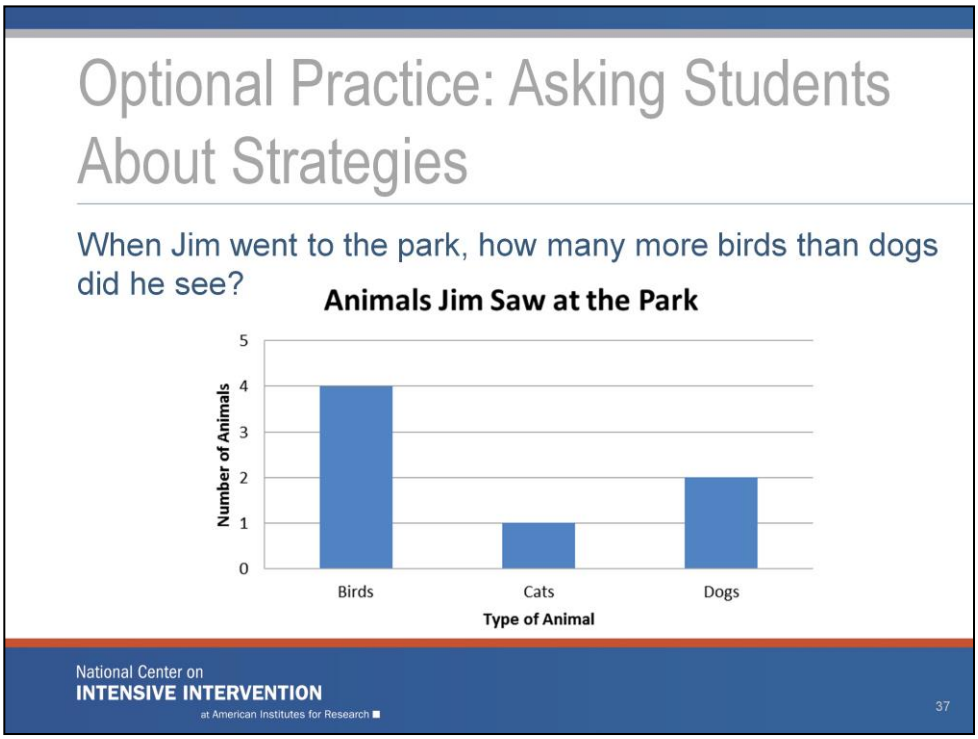
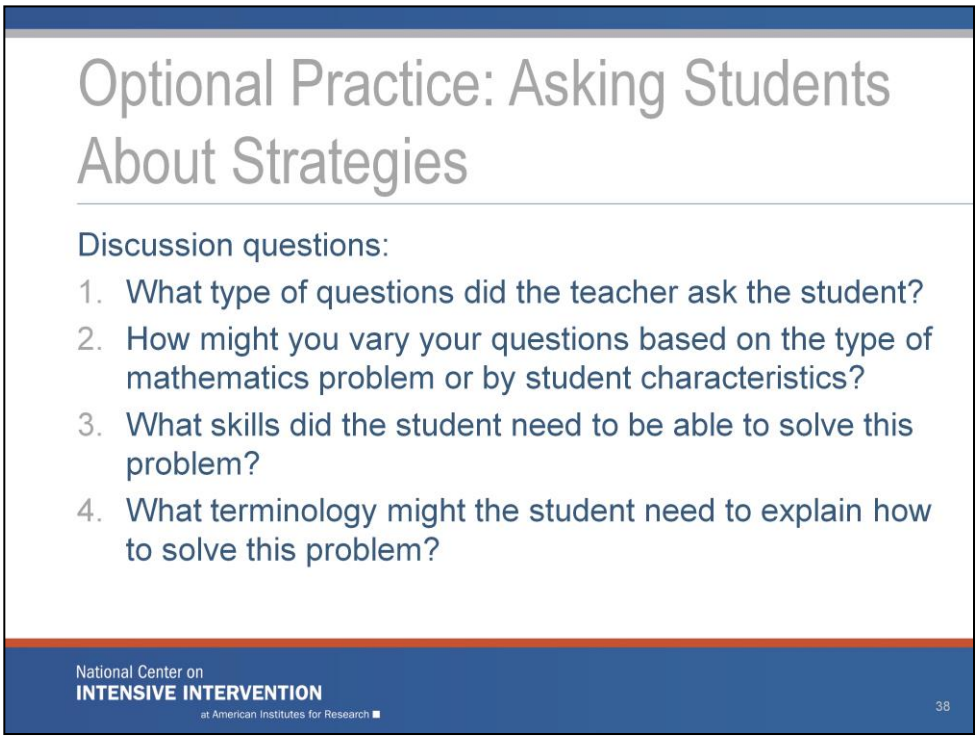
Read slide.



Directions:

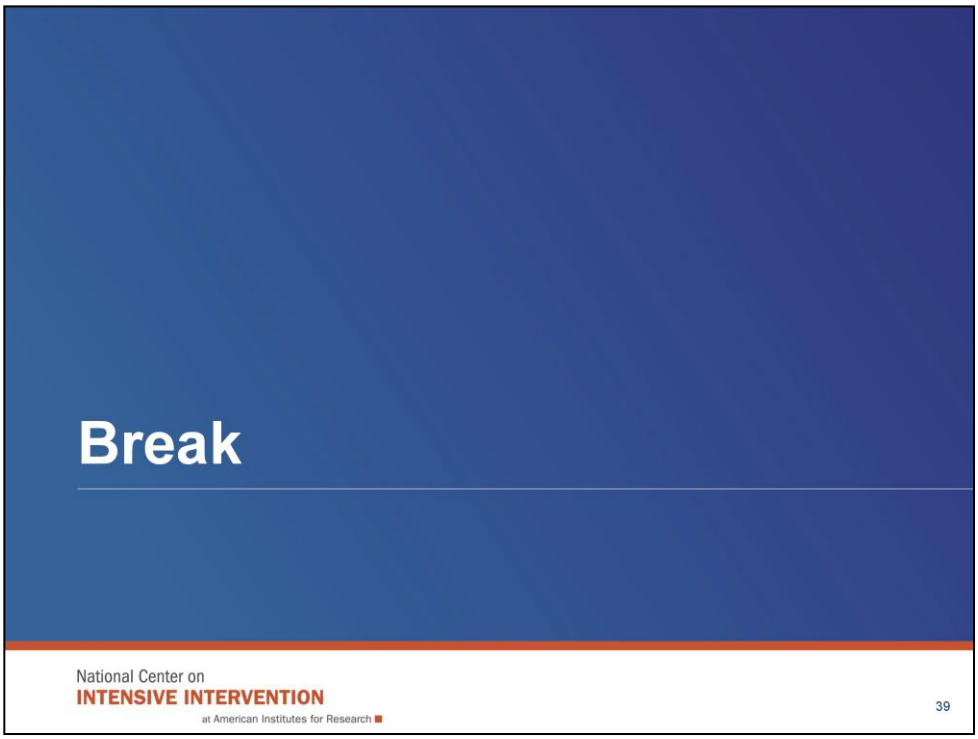
1. Find a partner or a small group.
2. Assign one person to be the teacher and another to be the student.
3. The teacher should try to find out how the student arrived at his or her answer to this worksheet problem.



Discuss these questions in your group. *If time allows, discuss as a large group.*

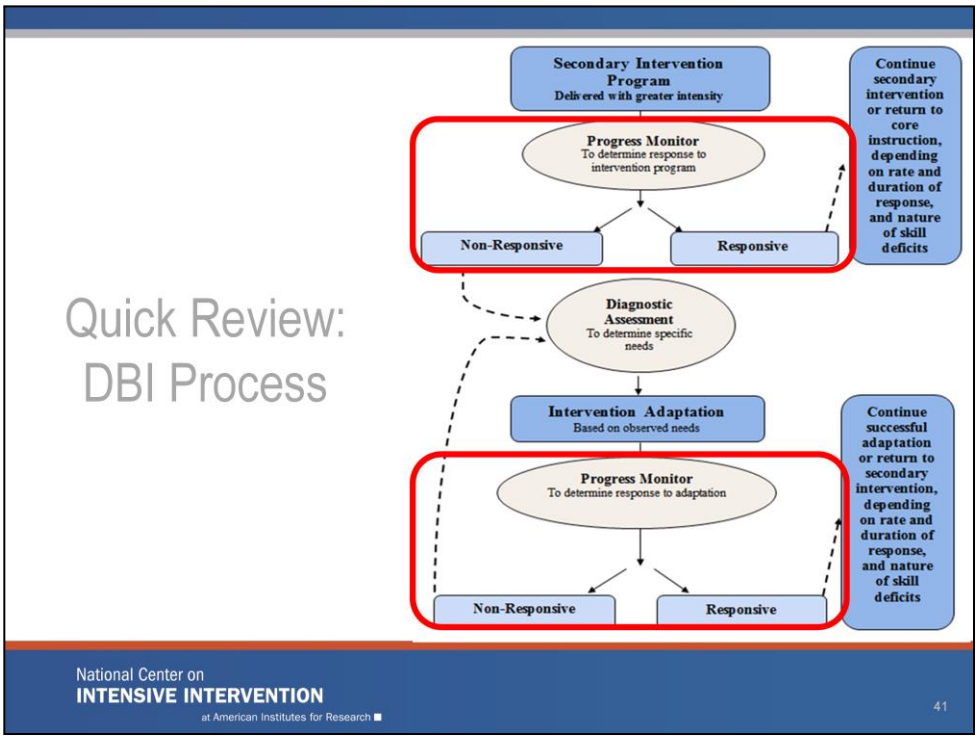
Sample answers:

1. *Examples could include the following:*
    - *What strategy did you use to solve this problem?*
    - *How did you find this answer?*
    - *How do you know this is the answer?*
    - *Why do you think this is right?*
2. *Some questions might include specific terminology for a certain type of problem or focus on a specific step in a problem-solving strategy. Complexity of the question content and language may vary based on student age and skills.*
3. *Possible skills needed/steps to perform:*
    - *Read problem.*
    - *Read graph labels.*
    - *Identify bar graph quantities.*
    - *Identify subtraction as the operation to answer the question.*
    - *Correctly set up the subtraction problem based on the information in the problem and the graph.*
    - *Correctly compute the subtraction problem.*
4. *Bar graph, number/amount/quantity, subtract, difference, more than, strategy*



Provide participants with a 10–15 minute break, depending on time.

Now we will discuss how academic progress monitoring fits into the DBI process and can be used to make instructional decision for students with intensive needs.



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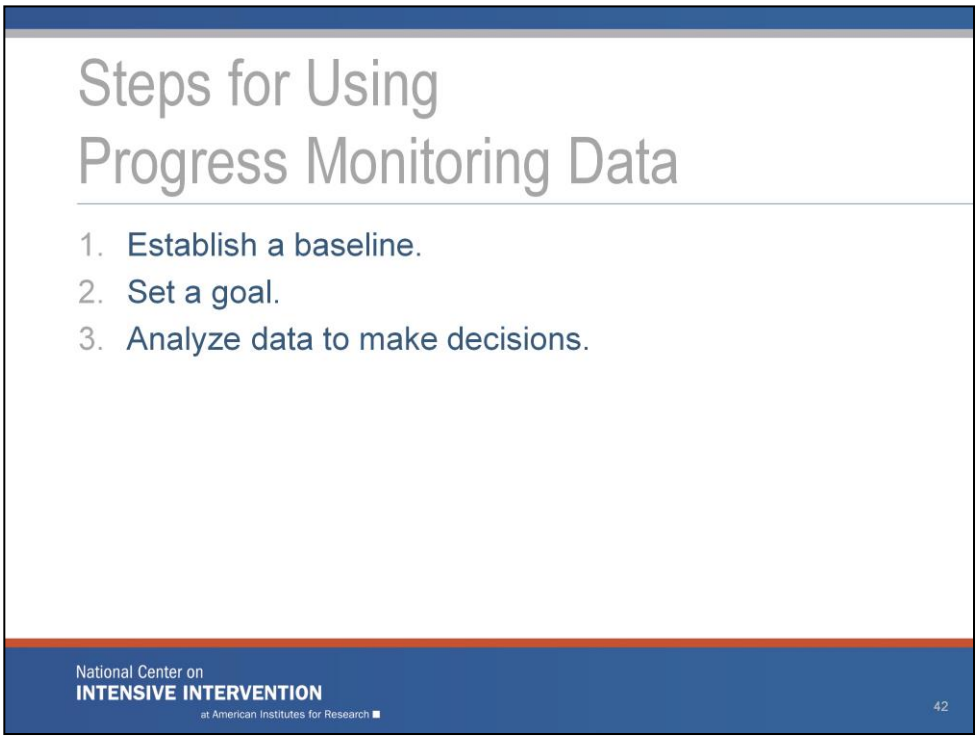
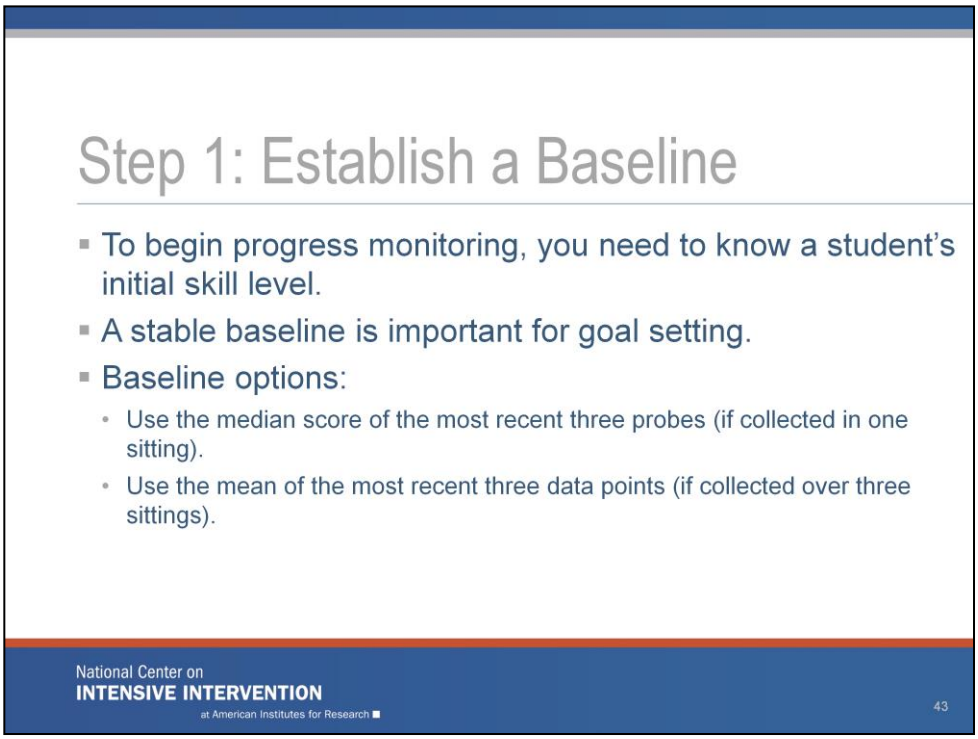
In the DBI process, we progress monitor to determine if a student is responsive or nonresponsive to the intervention so that we can decide if a change is needed. When we do make a change, we continue progress monitoring to see if a student's performance improves. A student's responsiveness is determined relative to his or her baseline performance and the goal we want him or her to achieve.



Provide audience with Handout 1: Academic Progress Monitoring Overview.

Before we can analyze data to make instructional decisions, we need to use the data we collect to establish a baseline and set a goal. This handout will allow you to reference information about each step as we work through examples.


Step 1: Establish a Baseline
To begin progress monitoring, you need to know a student's initial skill level.
A stable baseline is important for goal setting.
Baseline options:
Use the median score of the most recent three probes (if collected in one sitting).
Use the mean of the most recent three data points (if collected over three sittings).
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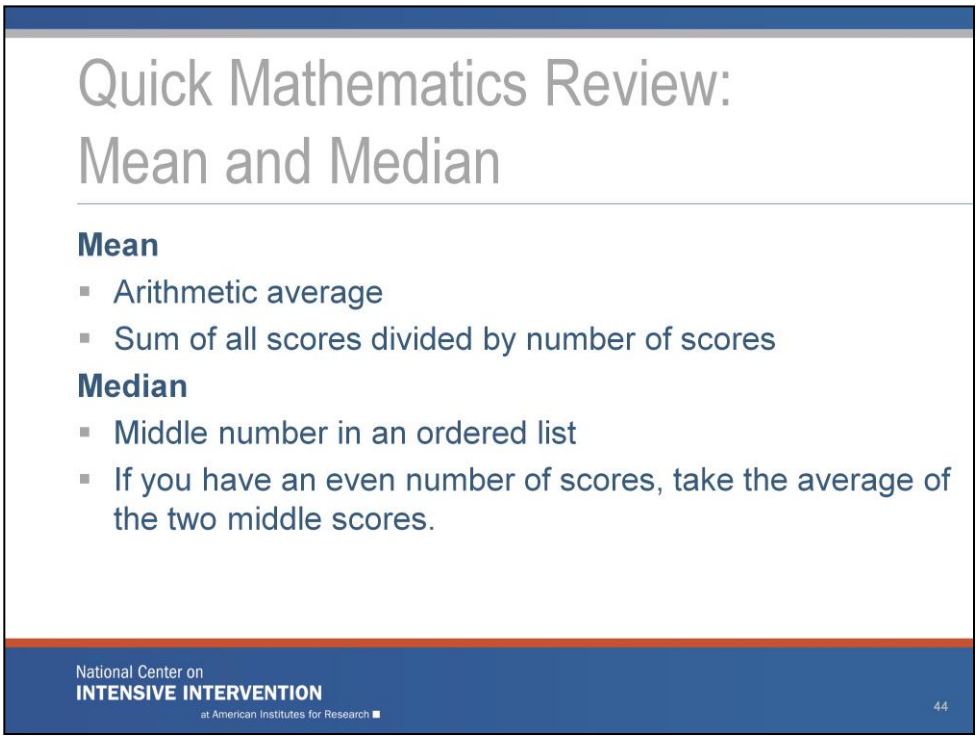
Read slide.


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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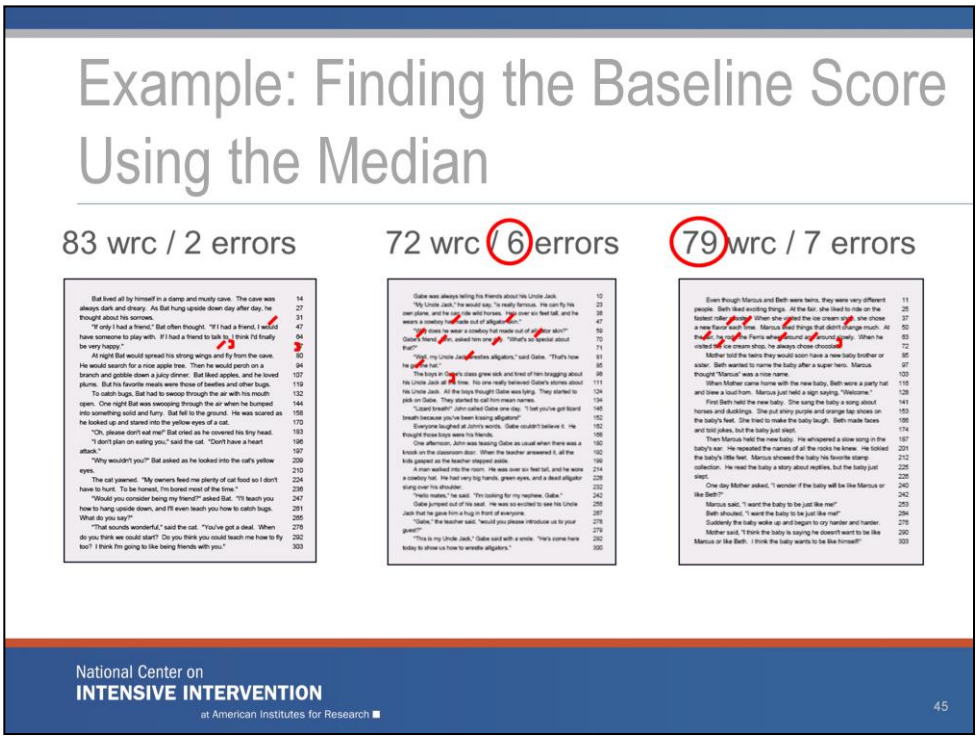
Read slide.

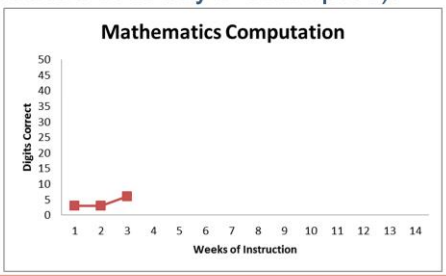


The median is used when multiple scores are collected in a single sitting, such as when three PRF passages are read. For this PRF assessment, scores are presented as words read correct (wrc) divided by errors. We take the median of both words read correctly and errors in this example. Using the median helps to reduce the influence of outliers, or extreme scores.

This slide is adapted from slide 83 of RTI implementer series module 2: Progress monitoring *(National Center on Response to Intervention, 2012).*

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).



Baseline Mean =
(3 + 3 + 6)/3 = 4

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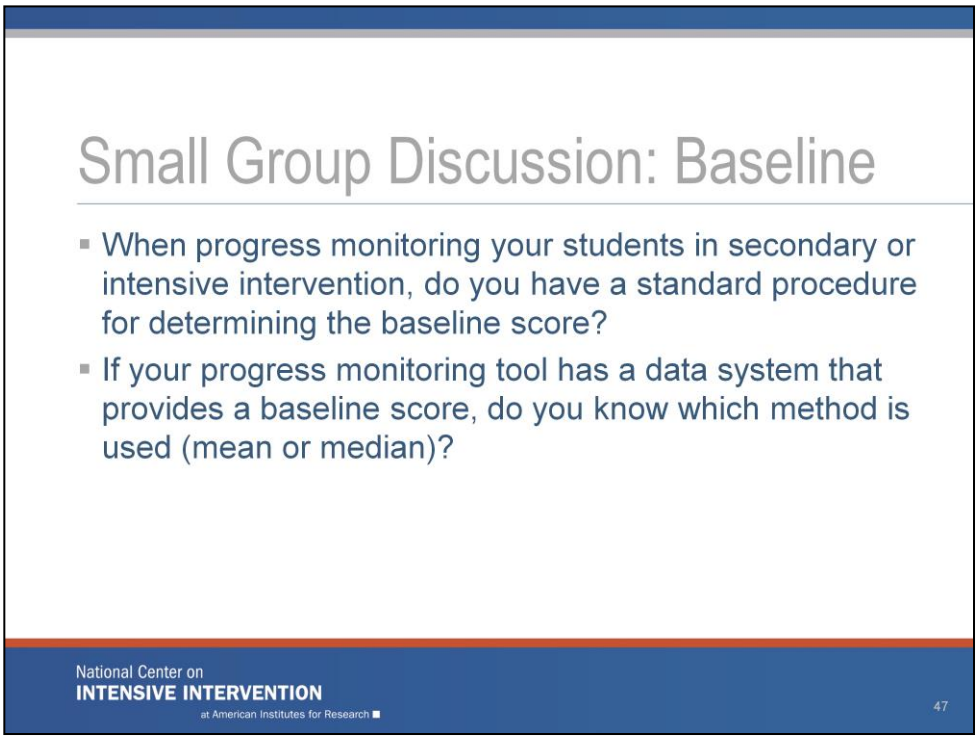
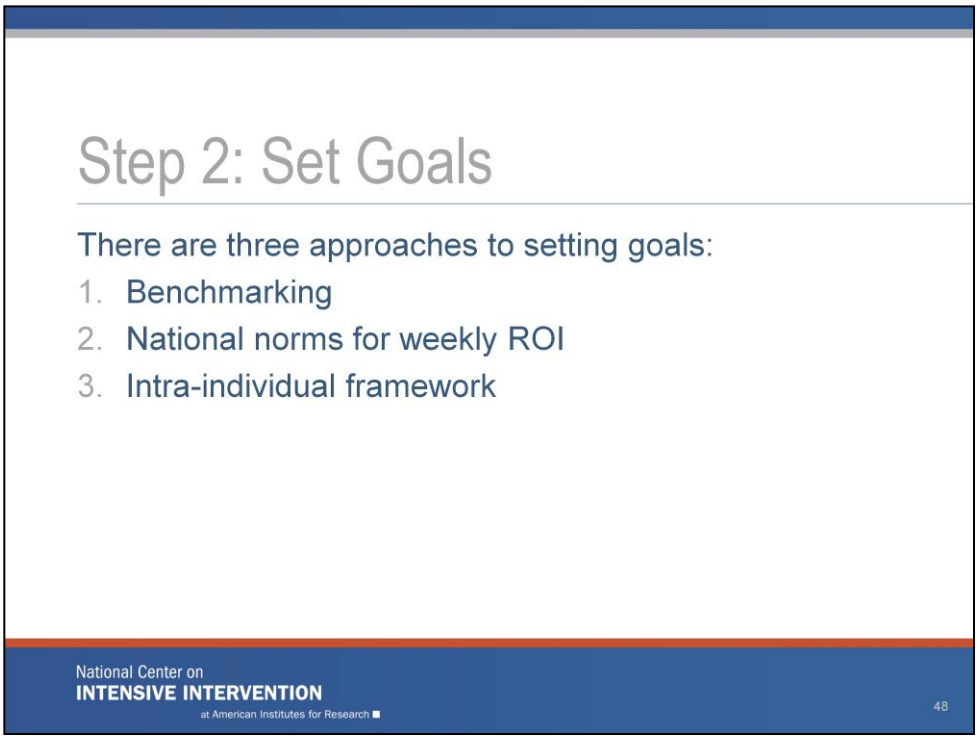
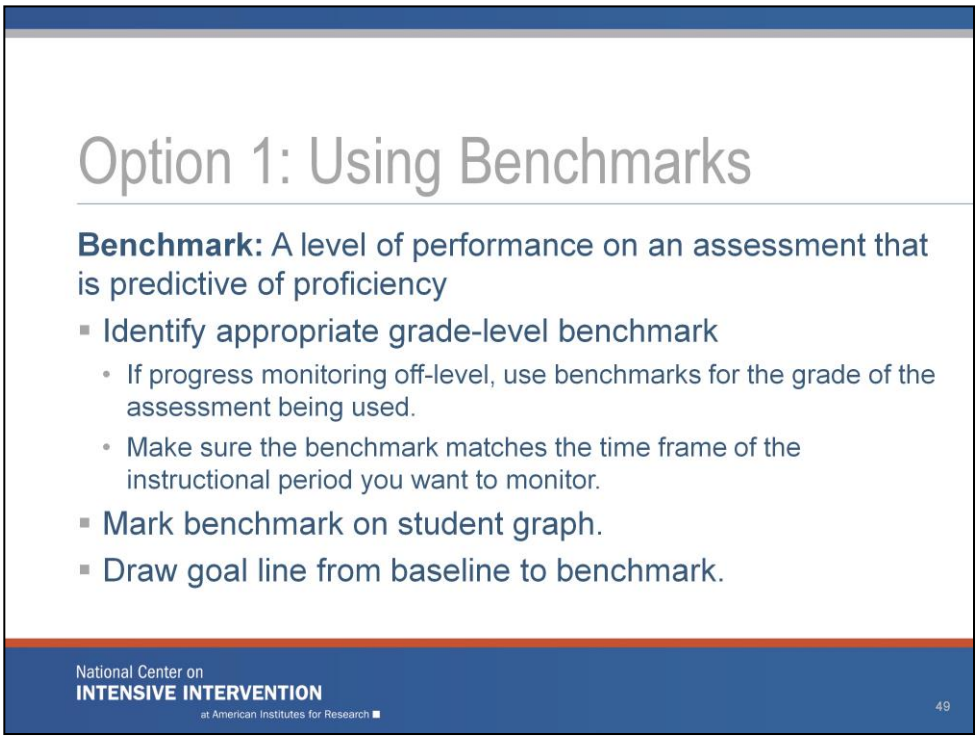


Give the audience time to discuss in small groups and then a chance to share or ask questions, as needed.



Options 1 and 2 may be a review for many of you. Many software programs use these or similar methods to set goals. Even if you use software to generate goals, it is useful to understand how they are calculated.


Option 1: Using Benchmarks
Benchmark: A level of performance on an assessment that is predictive of proficiency
Identify appropriate grade-level benchmark
If progress monitoring off-level, use benchmarks for the grade of the assessment being used.
Make sure the benchmark matches the time frame of the instructional period you want to monitor.
Mark benchmark on student graph.
Draw goal line from baseline to benchmark.
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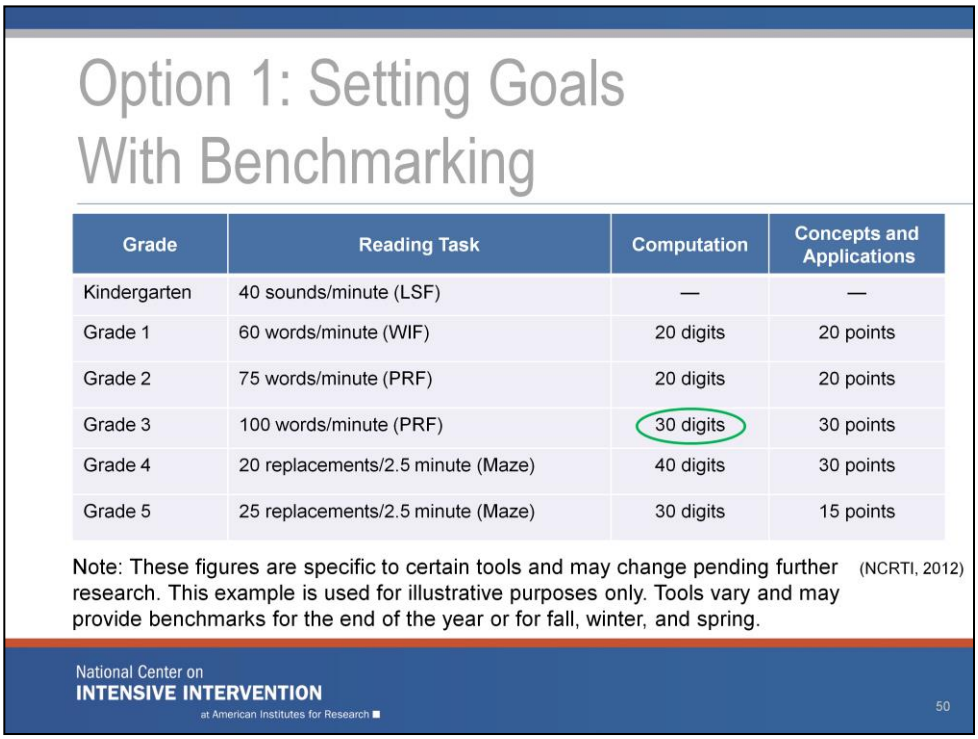
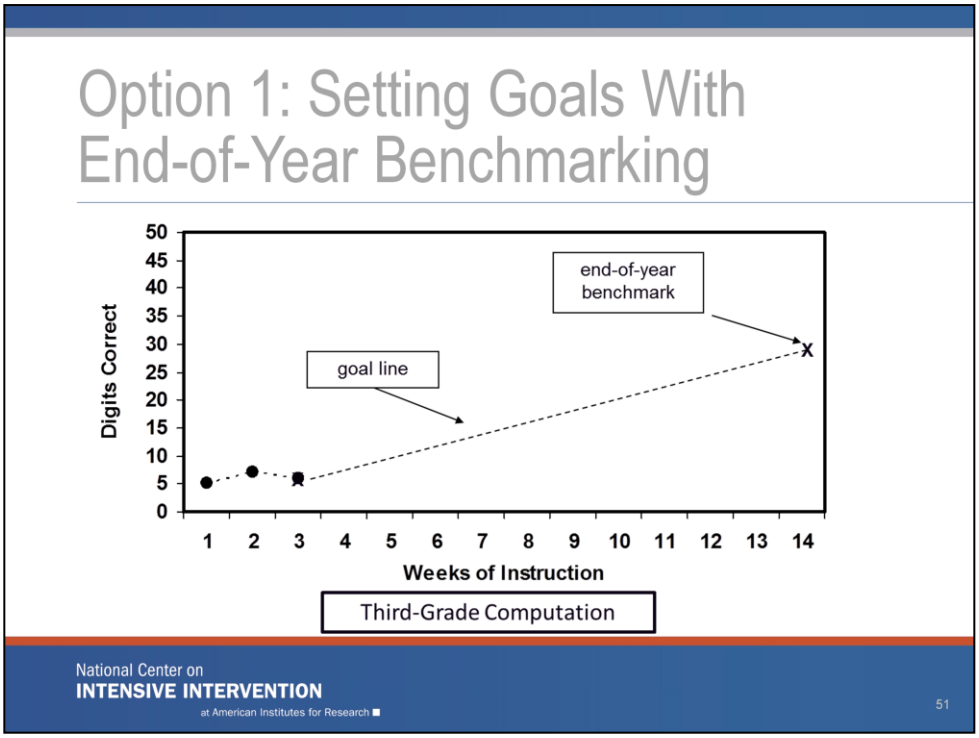
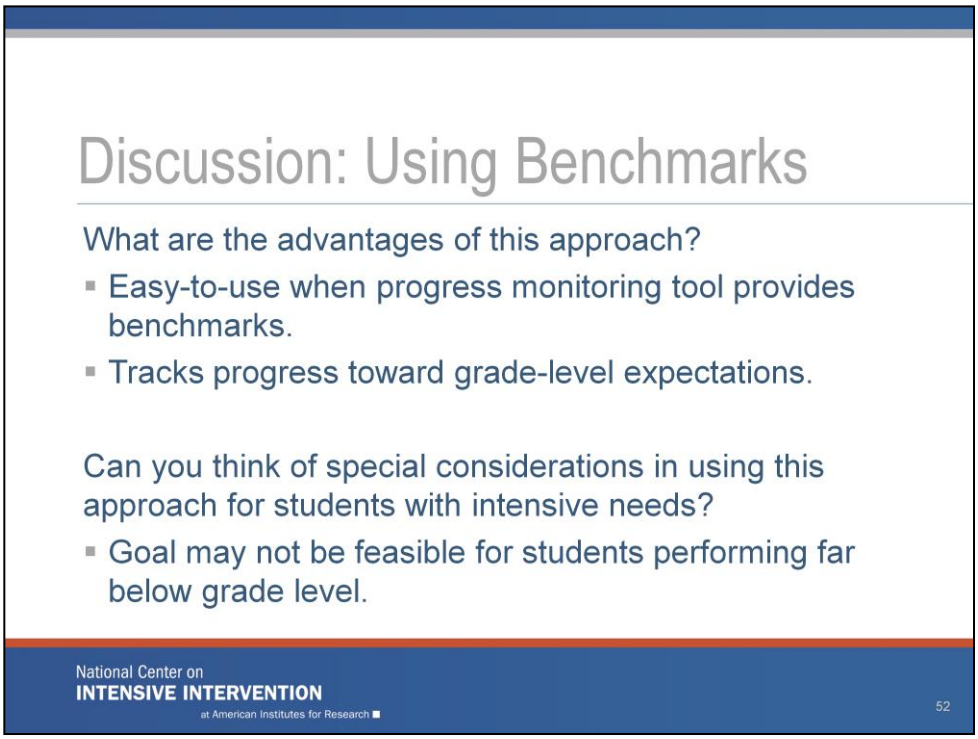


Here's a sample benchmark table. The reading tasks are from *Let's Set a Math Computation Goal for a 3rd Grader. Click to circle.*

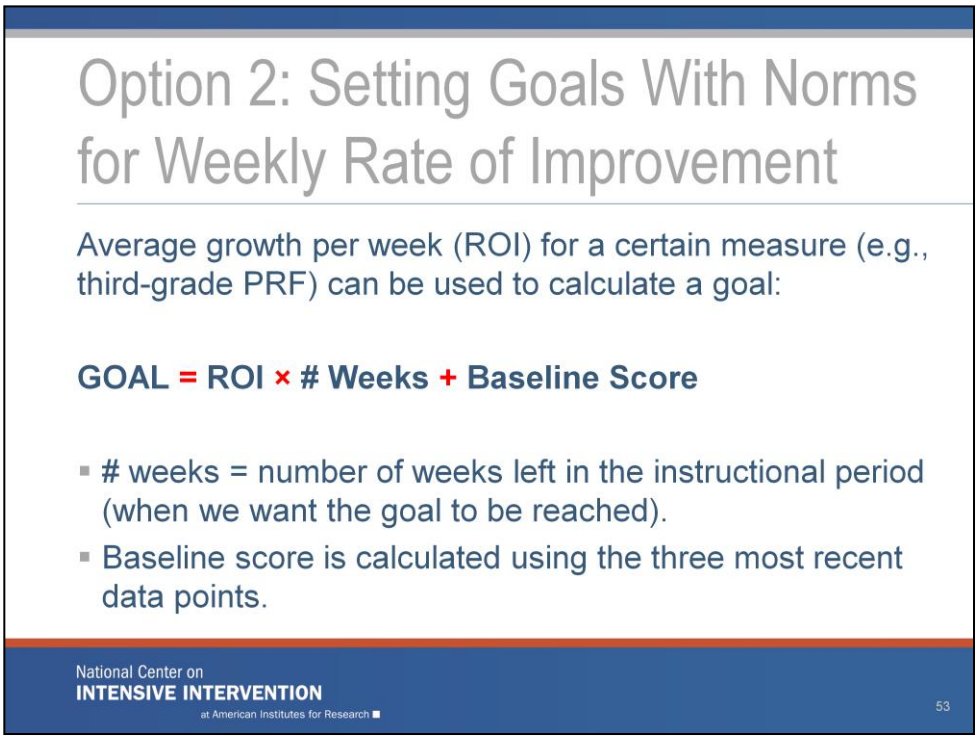
- *These end-of-year benchmarks are for reading assessments from Curriculum-Based Measurement in Reading and mathematics assessments from Monitoring Basic Skills Progress.*
- *This table is adapted from slide 91 of the RTI Implementer Series Module 2: Progress Monitoring PowerPoint (National Center on Response to Intervention, 2012).*



On this graph, the baseline score is marked with an X at the most recent baseline data point. Another X marks the benchmark of 30 digits. The goal line connects these two points.



Animated slide—click to bring up first set of bullets and then the second set.


Option 2: Setting Goals With Norms for Weekly Rate of Improvement
Average growth per week (ROI) for a certain measure (e.g., third-grade PRF) can be used to calculate a goal:
GOAL = ROI × # Weeks + Baseline Score
# weeks = number of weeks left in the instructional period (when we want the goal to be reached).
Baseline score is calculated using the three most recent data points.
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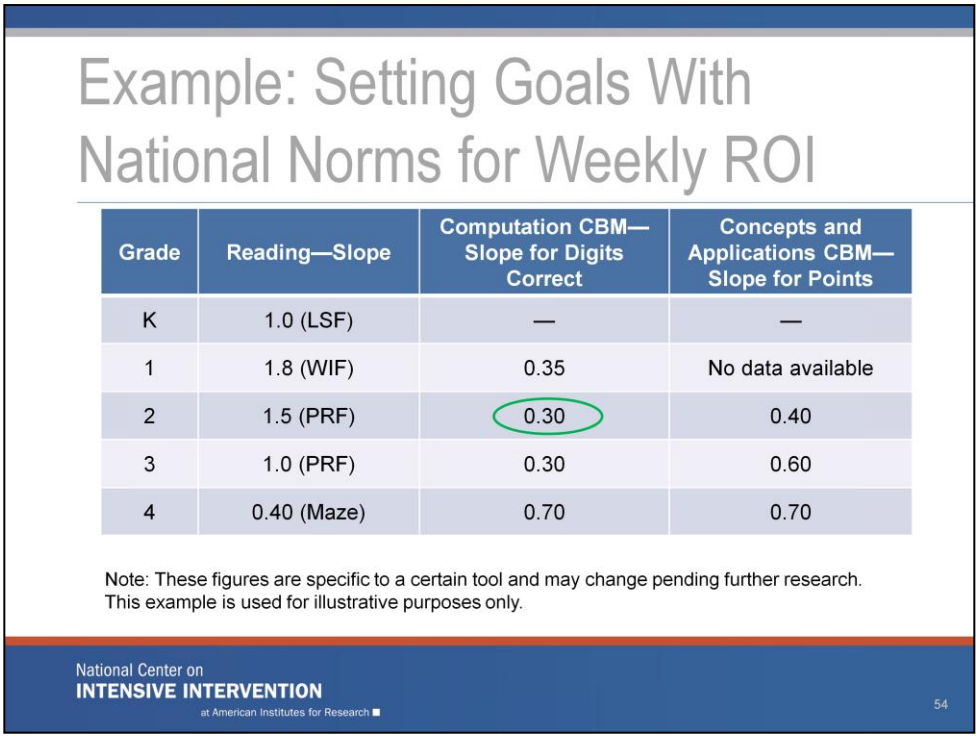
Read slide.



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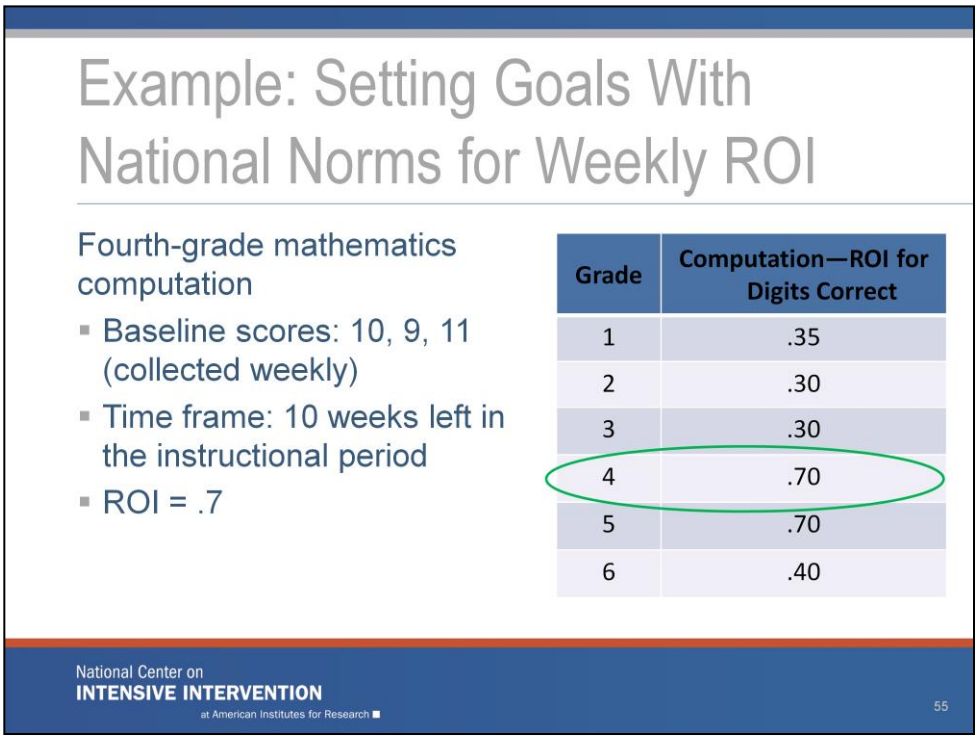
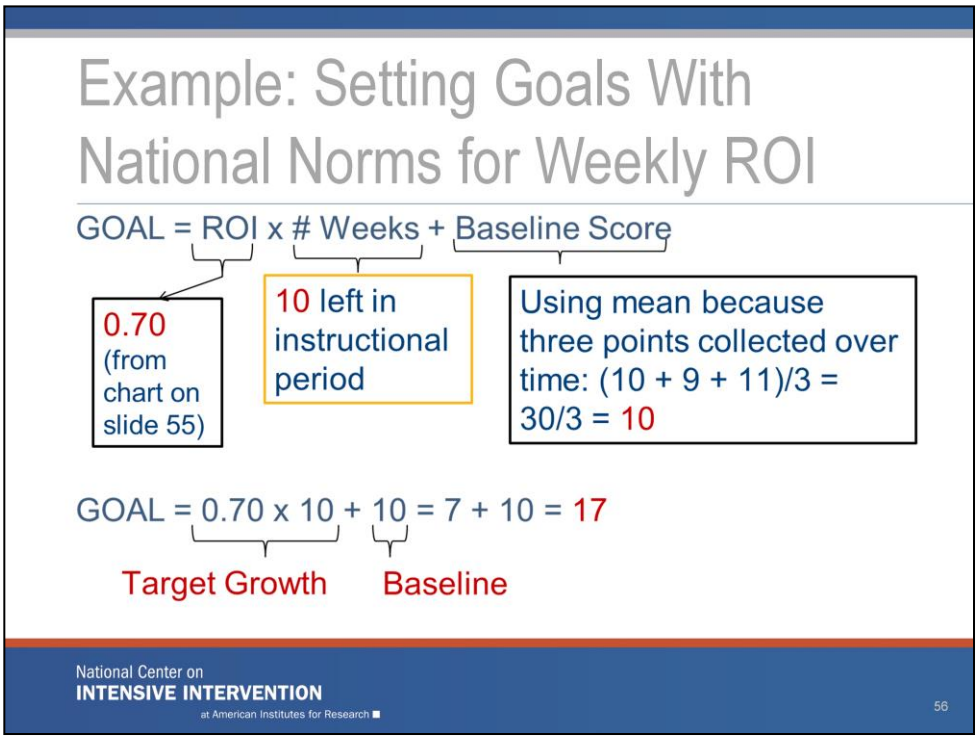
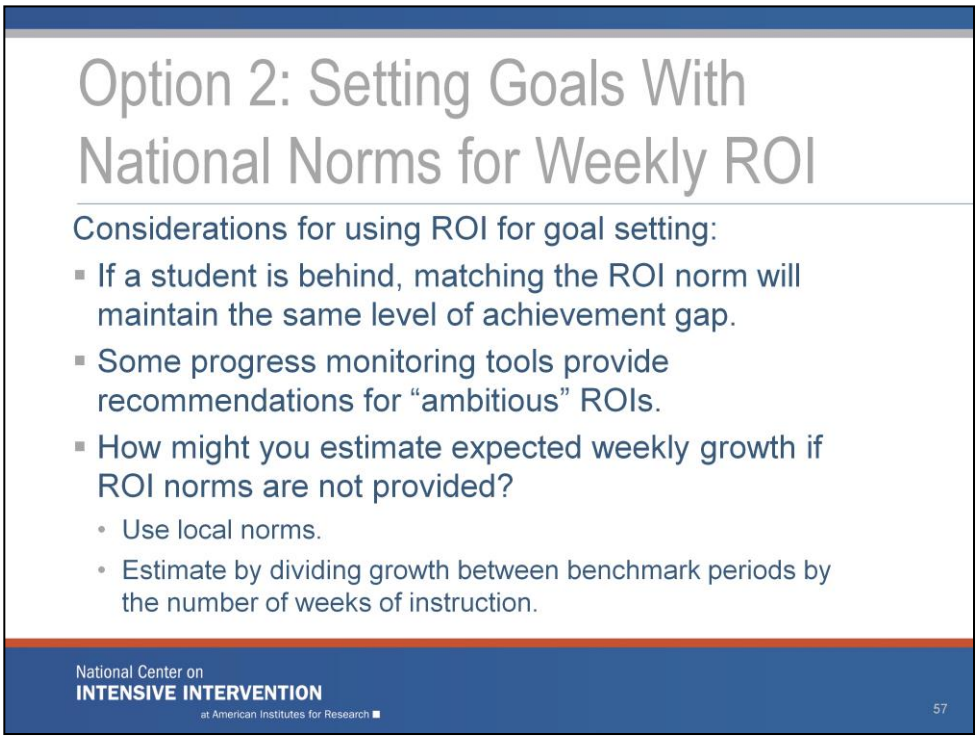
Here is an example growth chart for elementary reading and mathematics. If we monitor progress with second-grade math computation, we would use the chart to identify 0.30 correct digits per week as the typical growth rate.



Review slide. Sample workout on next slide.



Review slide.

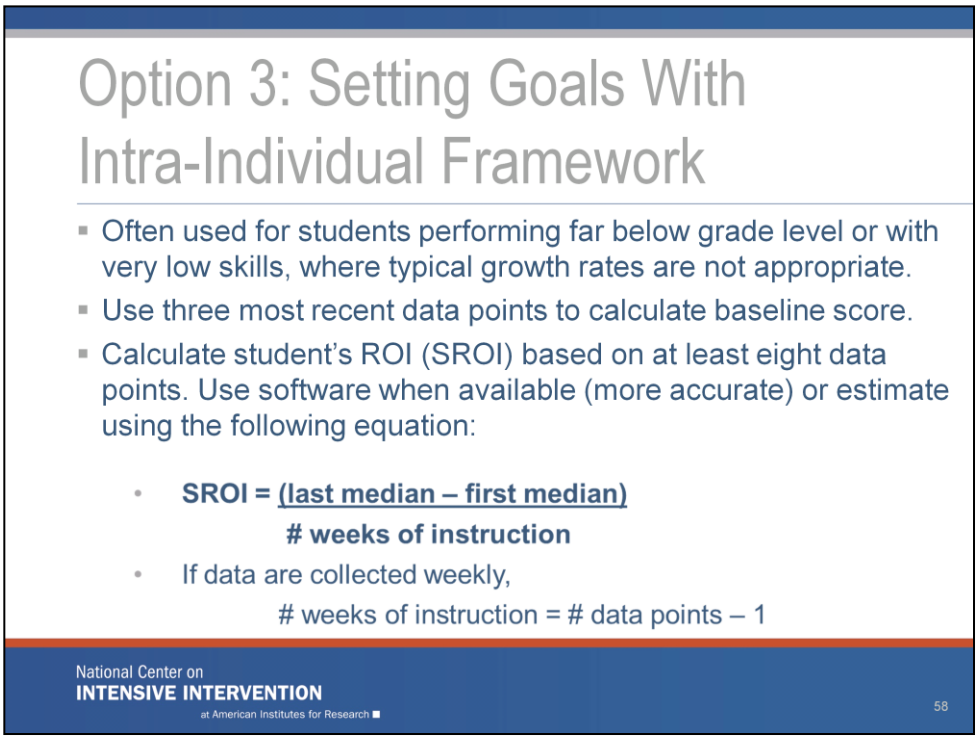


Additional explanations are provided below. Use as needed.

Norms are established based on what is considered good growth. Growth may vary based on the domain being assessed.

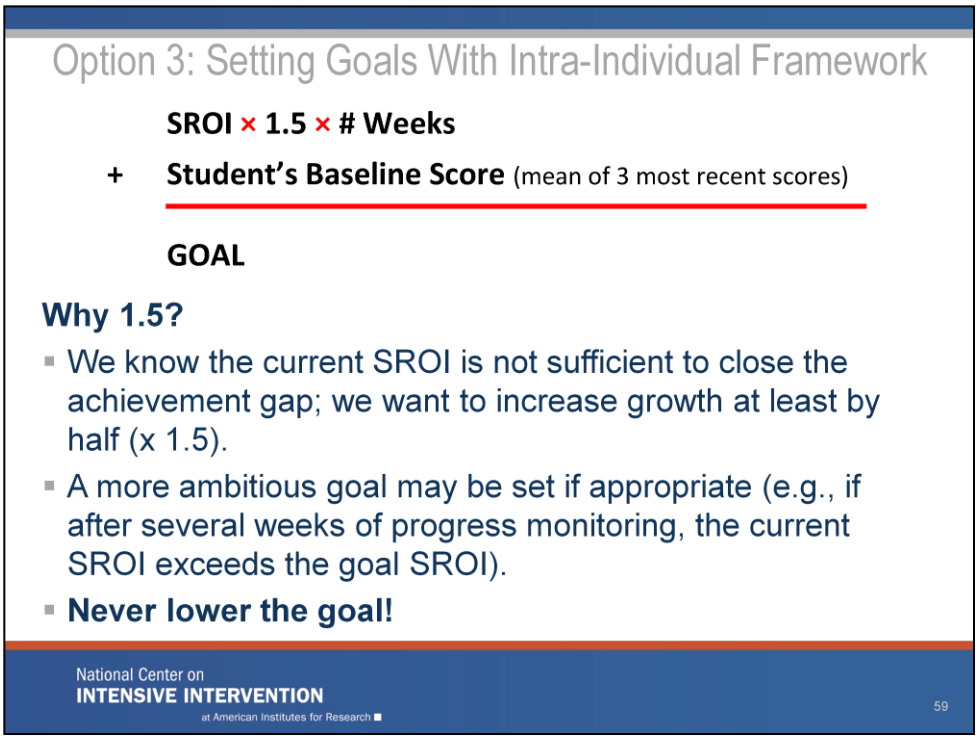
"Realistic" is often considered what students would make given decent instruction. "Ambitious" should, at a minimum, be more than the average growth, otherwise the performance gap will be maintained, not closed. Some progress monitoring tool publishers have recommendations for using the growth rates they provide. For example, AIMSweb recommends doubling the growth rate found at the percentile rank in which the student currently performs. Using the recommendations from AIMSweb, if a student's baseline is in the 10th to 25th percentile and the growth rate for students at that performance level is 0.6 wrc, then the ambitious growth rate would be 1.2 wrc. If 0.6 wrc were used, the student would be likely to maintain or increase the achievement gap. It is important to contact the publisher to clarify how to best use the growth rates it offers.

In comparing local versus national norms, the benefits of local norms include correlations with state testing outcomes and comparisons within the district or state. Challenges with local norms include small sample size, norms being unavailable, and the potential to lead to lower expectations. For national norms, the benefits include a large sample size and established cut scores, but the challenges include inequities in school resources, which can lead to over- or underidentification.

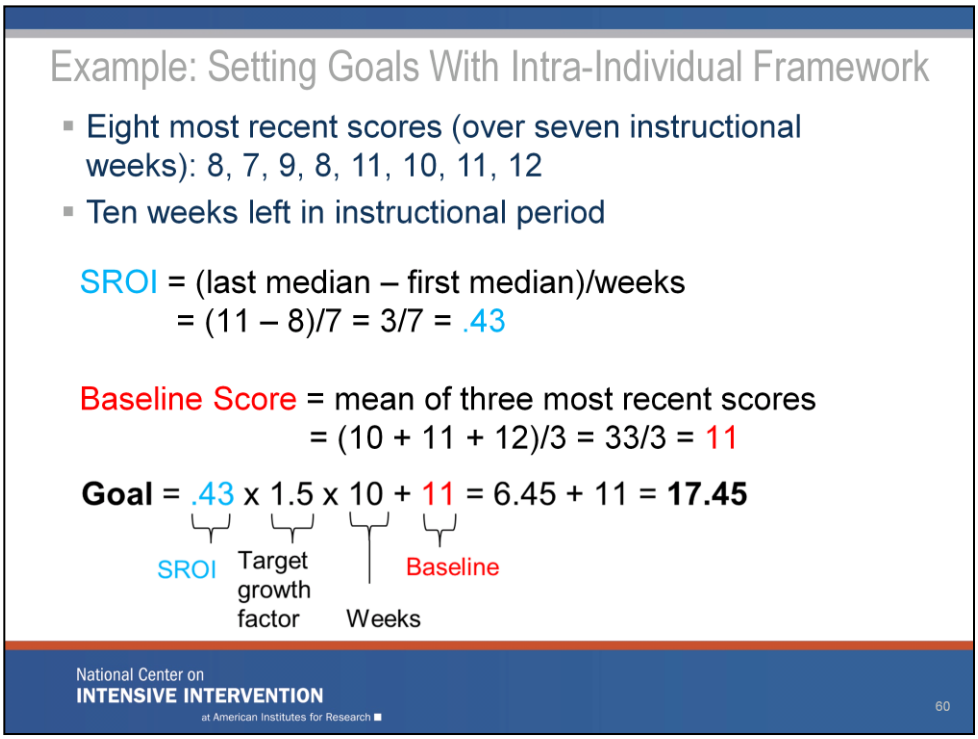


The third option, intra-individual framework, is often used for setting individualized education program (IEP) goals or for those students performing far below grade level. To use this option, identify the weekly rate of improvement for the target student under baseline conditions, using at least eight data points. Because the student's performance is being compared to his or her previous performance (not a national or local norm), enough data are needed to demonstrate the existing performance level or rate.

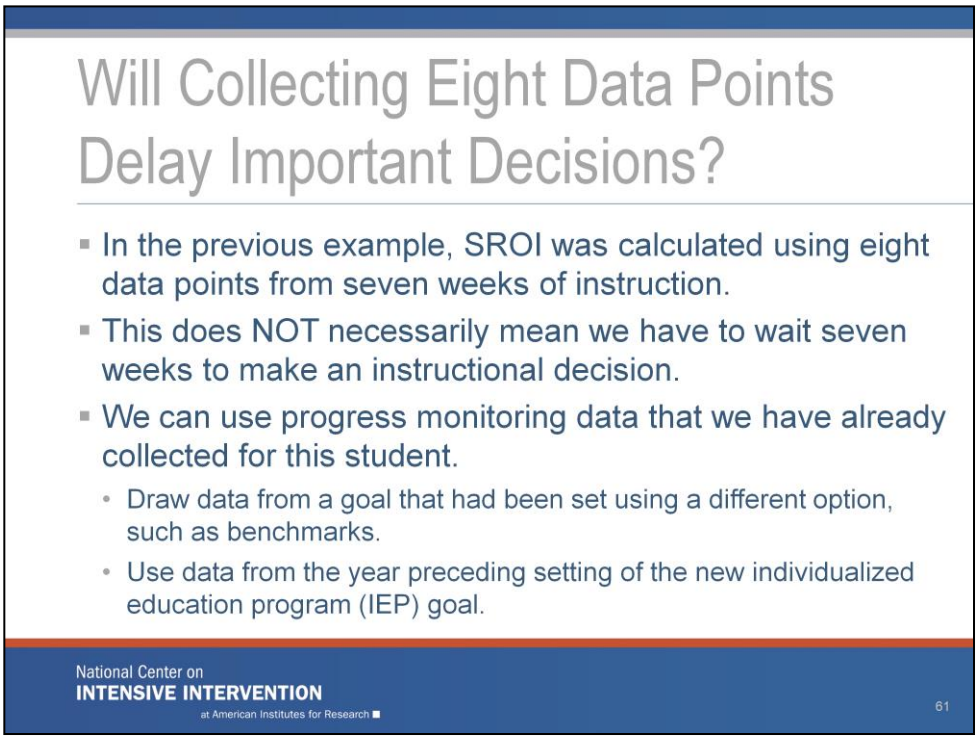
Software will provide a more accurate estimate of SROI. When software is not available, SROI can be estimated by hand. This formula represents just one of various approaches. When eight data points are available, the last median will be based on the last three scores, and the first median will be based on the first three scores.



Explanation of formula: SROI is multiplied by 1.5 and the number of weeks left in the instructional period. This product, representing target growth, is then added to the student's baseline score, based on the three most recent data points, to find the goal.



Review slide.


Will Collecting Eight Data Points Delay Important Decisions?
In the previous example, SROI was calculated using eight data points from seven weeks of instruction.
This does NOT necessarily mean we have to wait seven weeks to make an instructional decision.
We can use progress monitoring data that we have already collected for this student.
Draw data from a goal that had been set using a different option, such as benchmarks.
Use data from the year preceding setting of the new individualized education program (IEP) goal.
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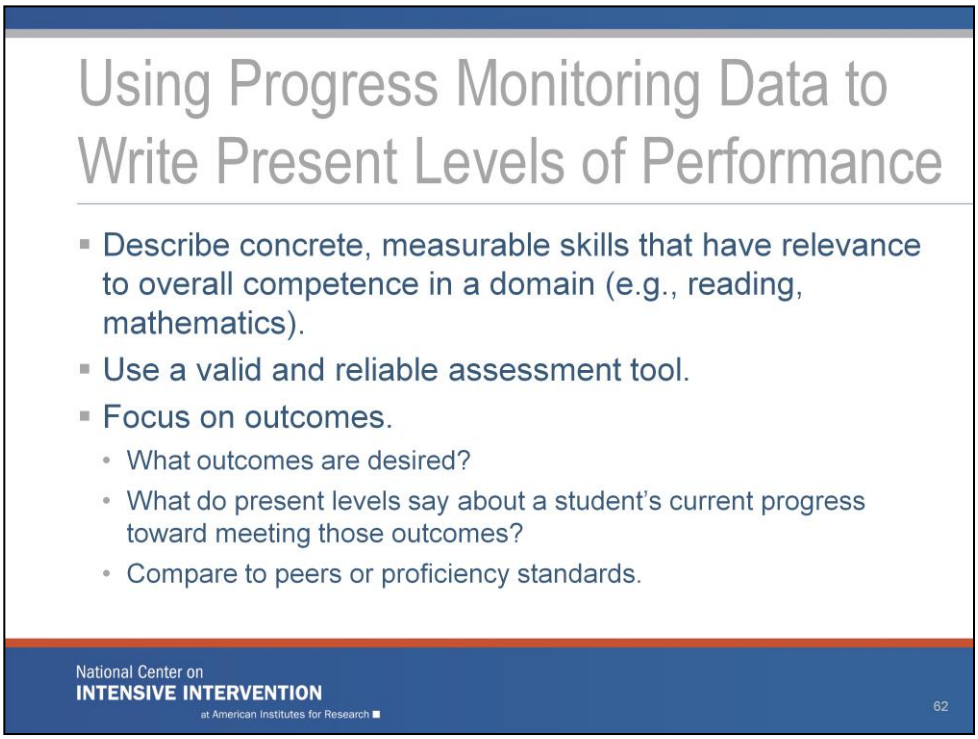
Read slide.


Using Progress Monitoring Data to Write Present Levels of Performance
Describe concrete, measurable skills that have relevance to overall competence in a domain (e.g., reading, mathematics).
Use a valid and reliable assessment tool.
Focus on outcomes.
What outcomes are desired?
What do present levels say about a student's current progress toward meeting those outcomes?
Compare to peers or proficiency standards.
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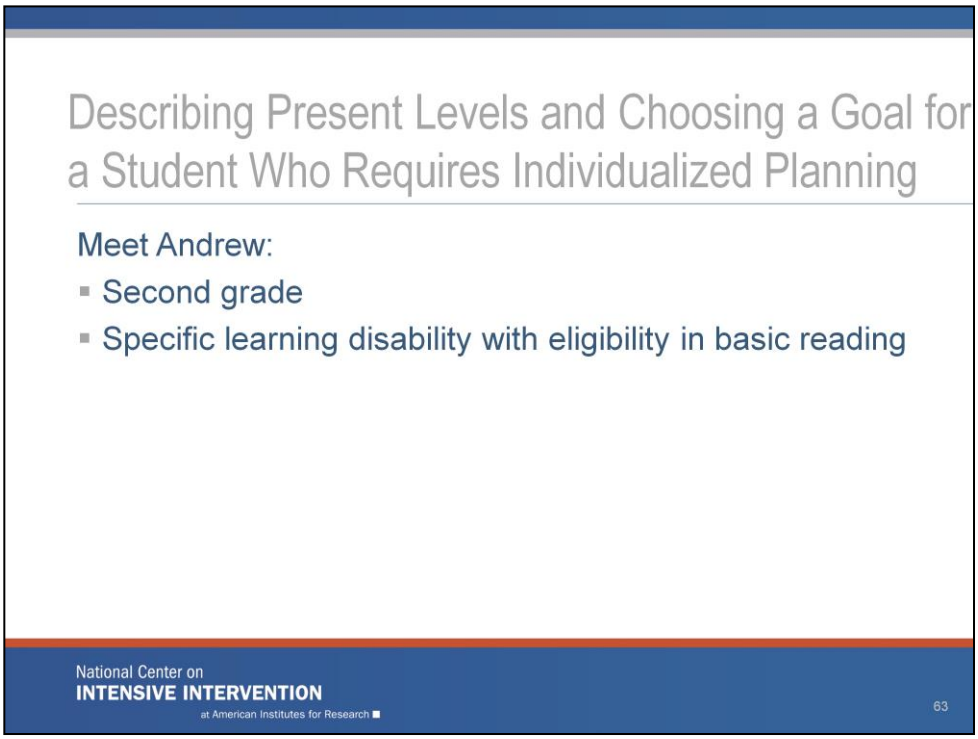
Read slide.


Describing Present Levels and Choosing a Goal for a Student Who Requires Individualized Planning
Meet Andrew:
Second grade
Specific learning disability with eligibility in basic reading
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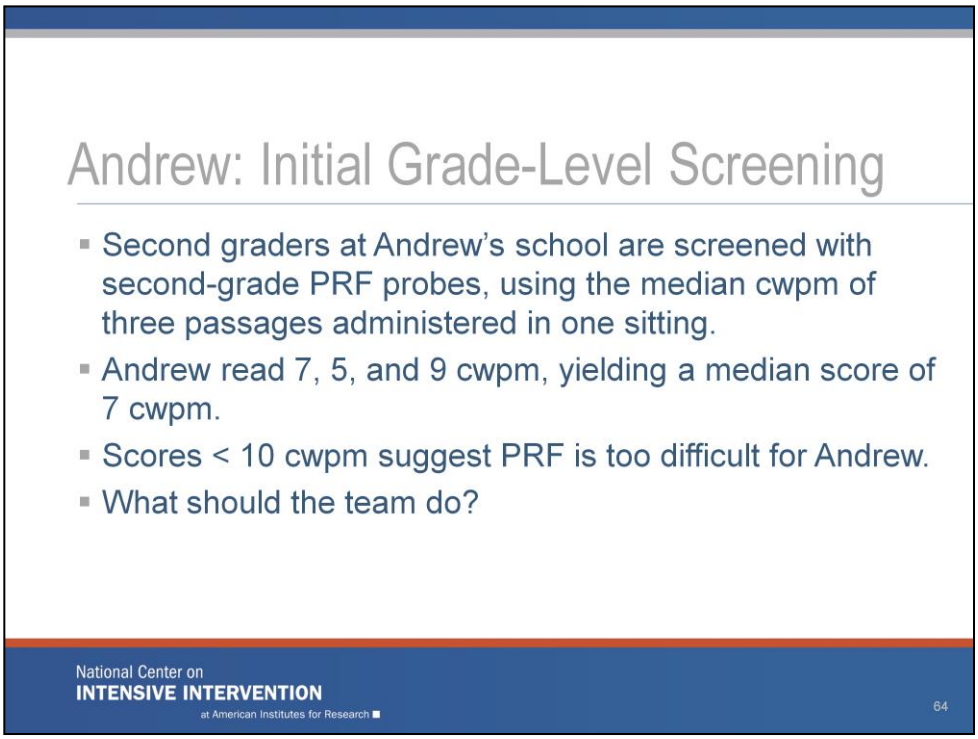
Read slide.


Andrew: Initial Grade-Level Screening
Second graders at Andrew's school are screened with second-grade PRF probes, using the median cwpm of three passages administered in one sitting.
Andrew read 7, 5, and 9 cwpm, yielding a median score of 7 cwpm.
Scores < 10 cwpm suggest PRF is too difficult for Andrew.
What should the team do?
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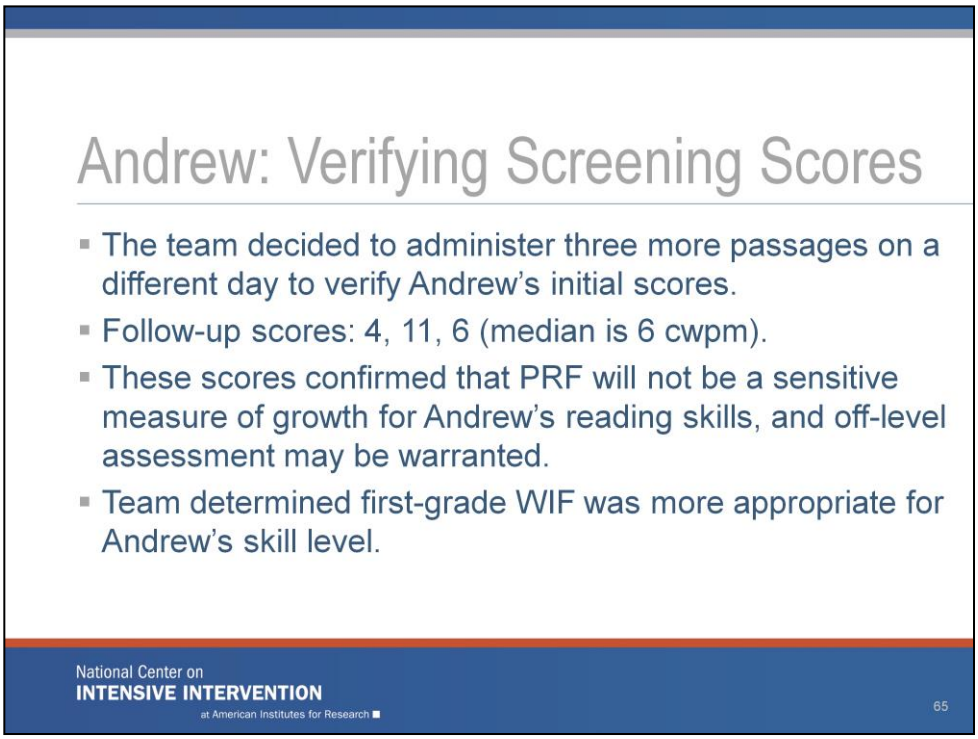
Read slide.


Andrew: Verifying Screening Scores
The team decided to administer three more passages on a different day to verify Andrew's initial scores.
Follow-up scores: 4, 11, 6 (median is 6 cwpm).
These scores confirmed that PRF will not be a sensitive measure of growth for Andrew's reading skills, and off-level assessment may be warranted.
Team determined first-grade WIF was more appropriate for Andrew's skill level.
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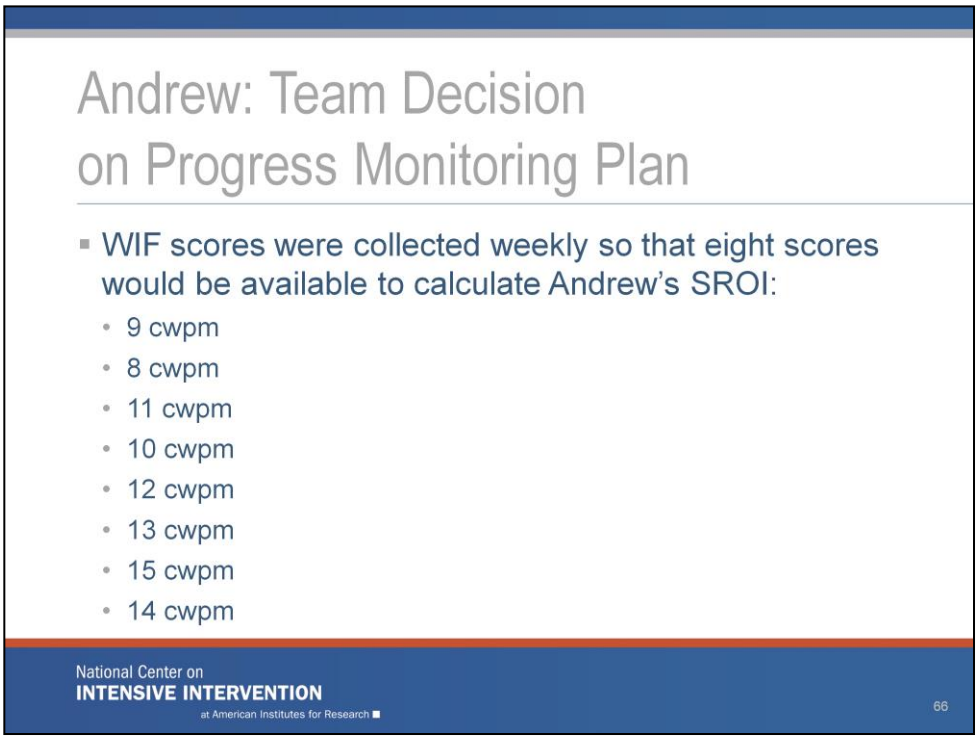

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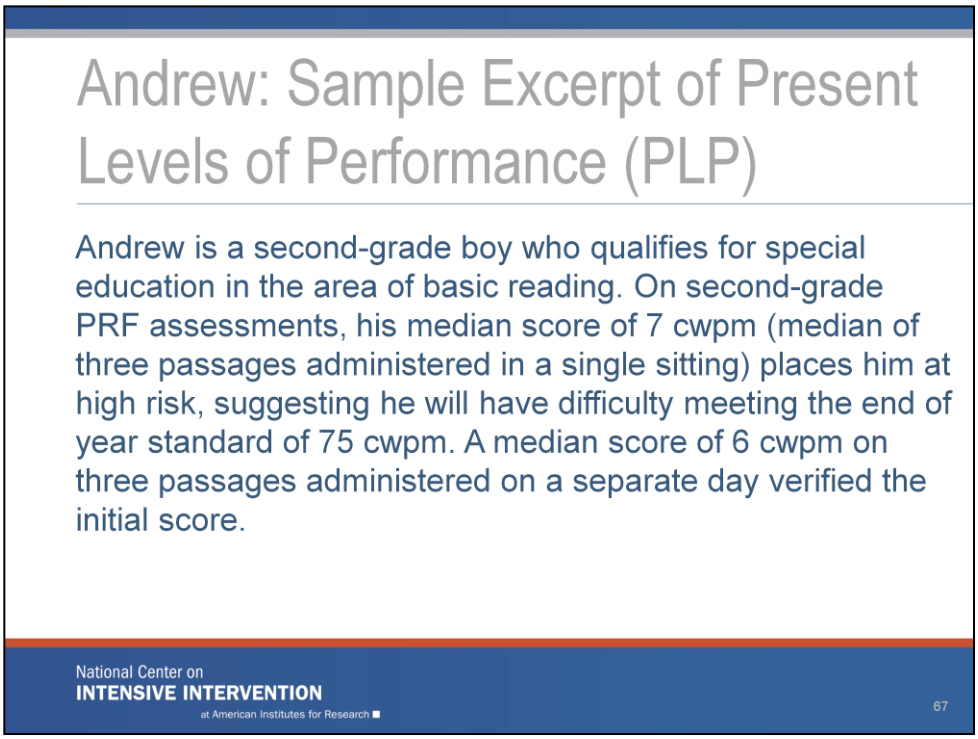
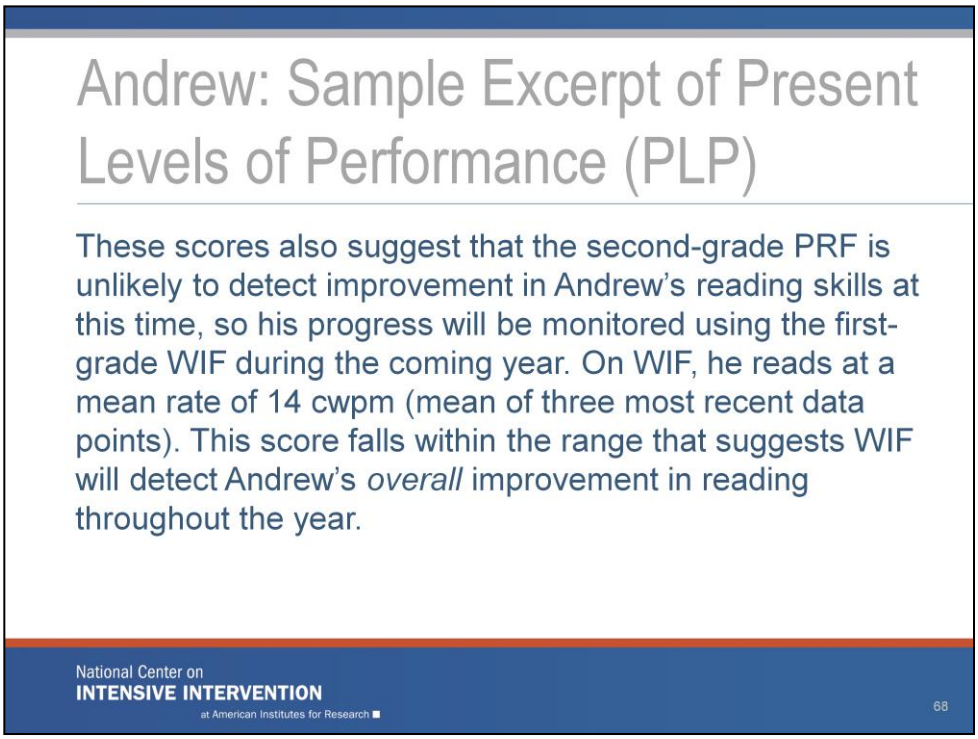


Note: This example is not a comprehensive PLP section; It is intended as an excerpt to illustrate how progress monitoring data may be reported in a PLP and linked to an IEP goal (see subsequent slides).


Andrew: Sample Excerpt of Present Levels of Performance (PLP)
These scores also suggest that the second-grade PRF is unlikely to detect improvement in Andrew's reading skills at this time, so his progress will be monitored using the first-grade WIF during the coming year. On WIF, he reads at a mean rate of 14 cwpm (mean of three most recent data points). This score falls within the range that suggests WIF will detect Andrew's *overall* improvement in reading throughout the year.
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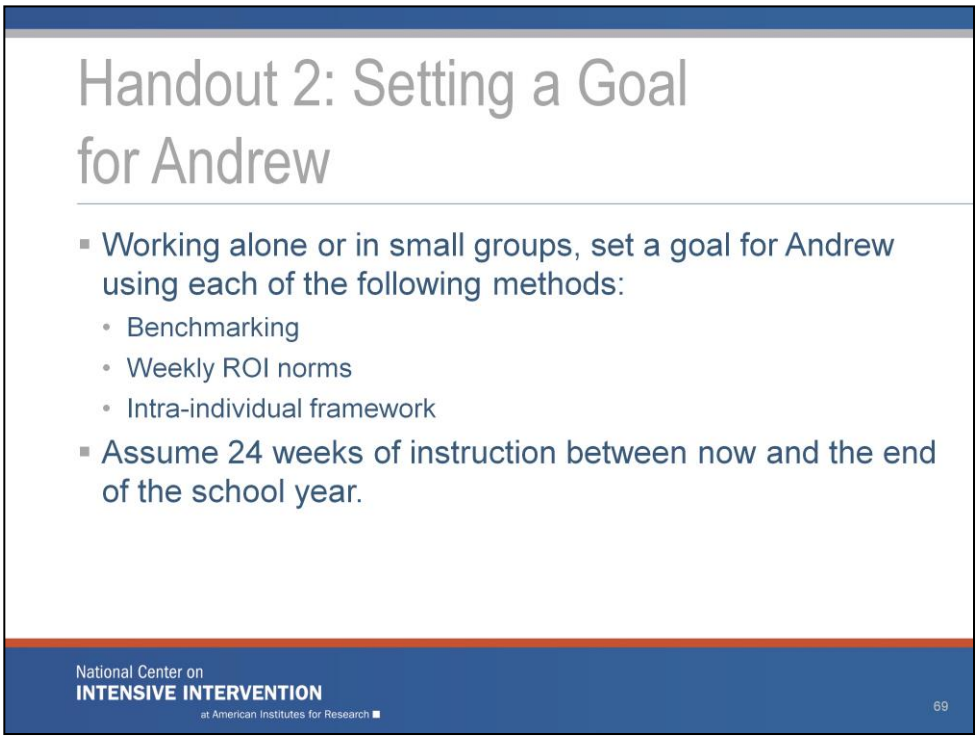
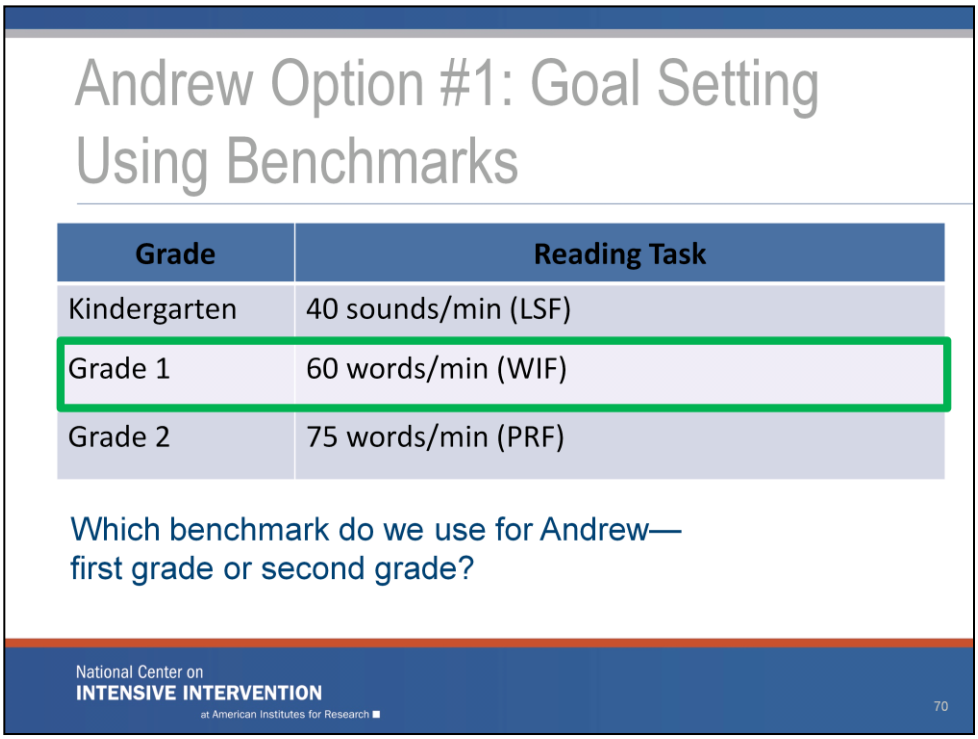
Read slide.

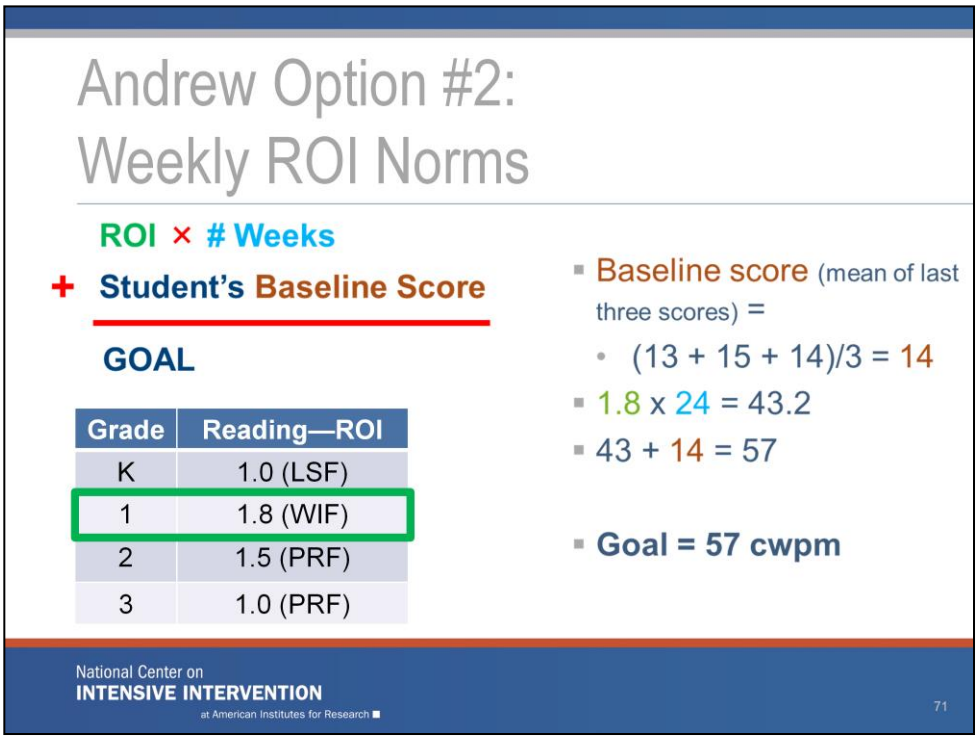


Provide audience with Handout 2. Give them time to work before bringing up solutions on the following slides.



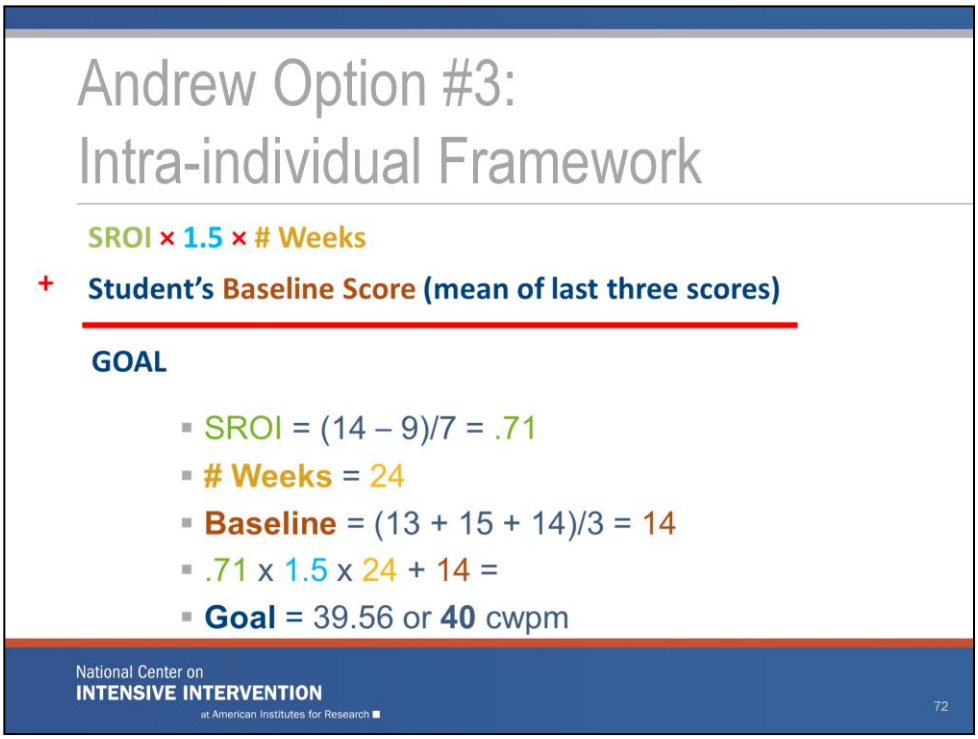
Click to bring up highlighted box after posing question.

Answer: We use the norms for the level of assessment where we are monitoring.



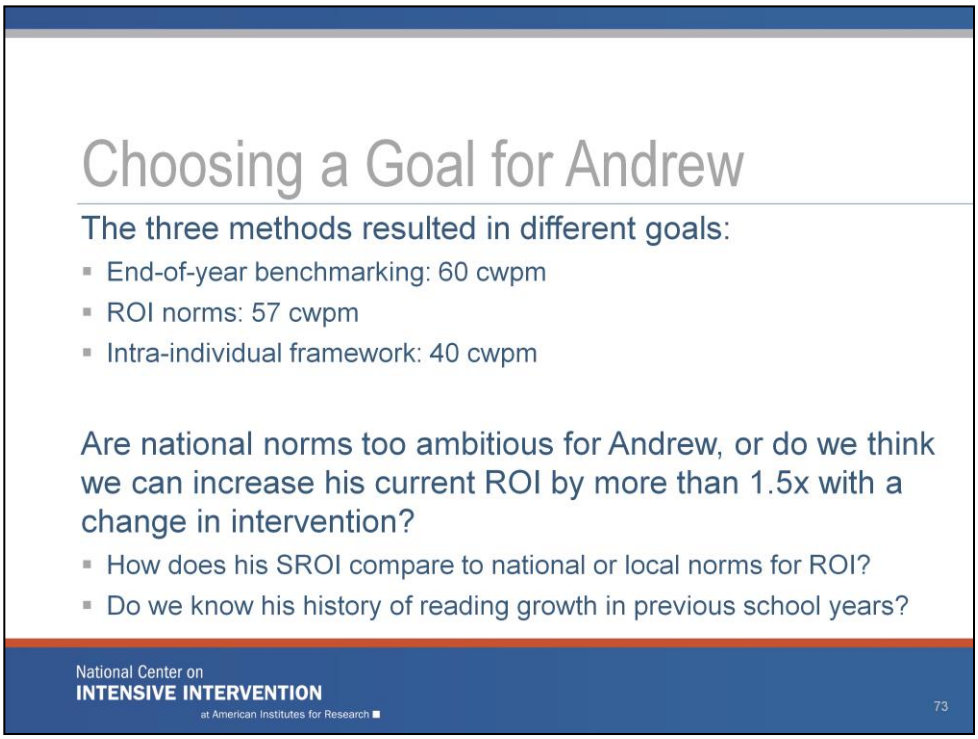
Animated slide—click on underlined text.

To review, this is the formula for calculating a goal based on ROI norms. First, we calculate Andrew's baseline score by taking the mean of his most recent three WIF scores. Looking at a table of Reading ROI norms by grade, we select the first-grade WIF measure because that is what we are using to monitor Andrew's progress. We multiply this ROI by the 24 remaining weeks of instruction. We round this product to 43 and add it to the baseline score to get our goal of 57 cwpm.



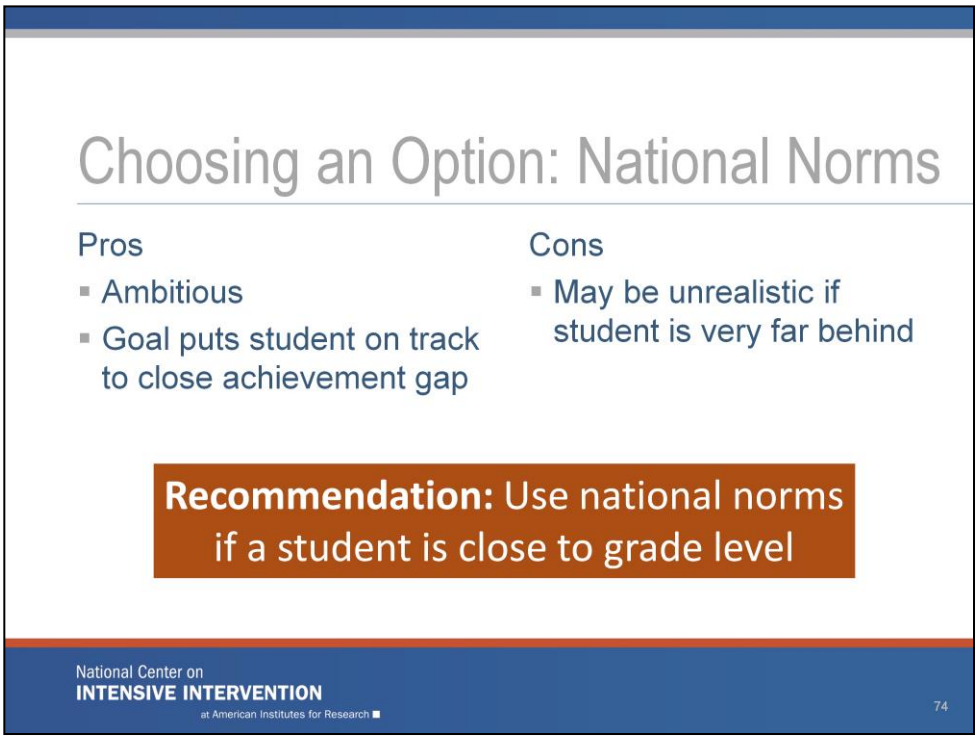
Animated slide—click on underlined text. Reminder: SROI = (third median – first median)/weeks of instruction

This is the formula for calculating Andrew's goal using the intra-individual framework. First, we need to calculate Andrew's SROI. We take the median of his last three scores, which is 14, and subtract the median of the first three scores, which is 9. We then divide by 7, the number of weeks of instruction during this baseline period, to find his SROI of .71. The # Weeks is the 24 weeks of instruction left in the school year. His baseline score is the mean of his most recent three scores. Now that we have all the needed pieces, we multiply his SROI by 1.5 and 24 weeks and then add his baseline score of 14. We round to find the goal, which is 40 cwpm.

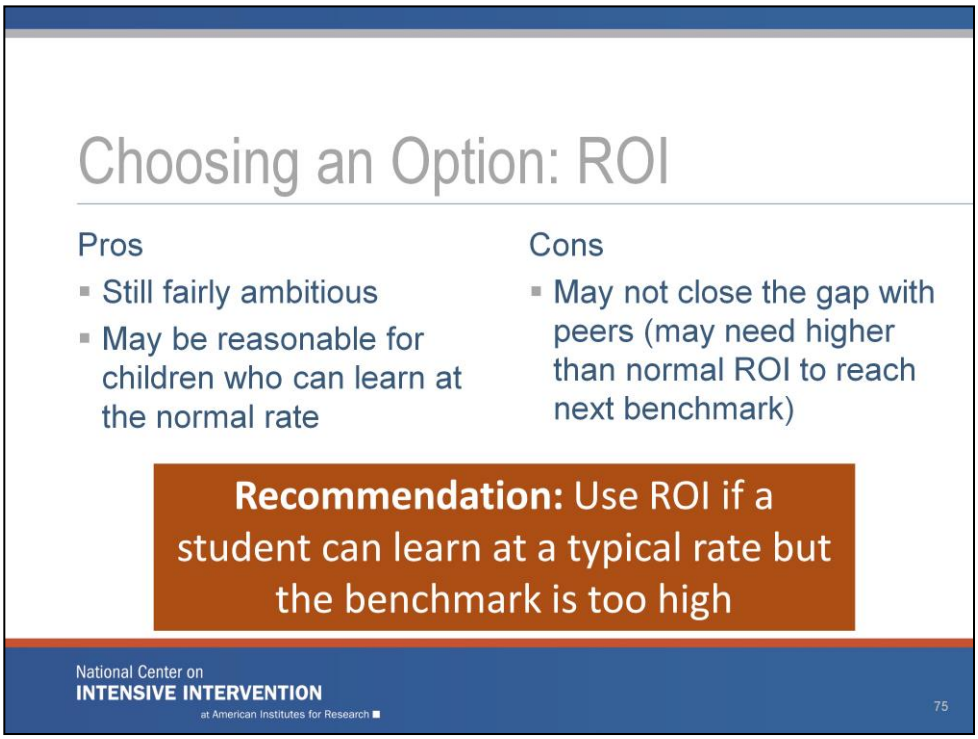


SROI = .71

National first-grade WIF ROI = 1.8



Animated slide—click to bring up box after reviewing pros and cons.



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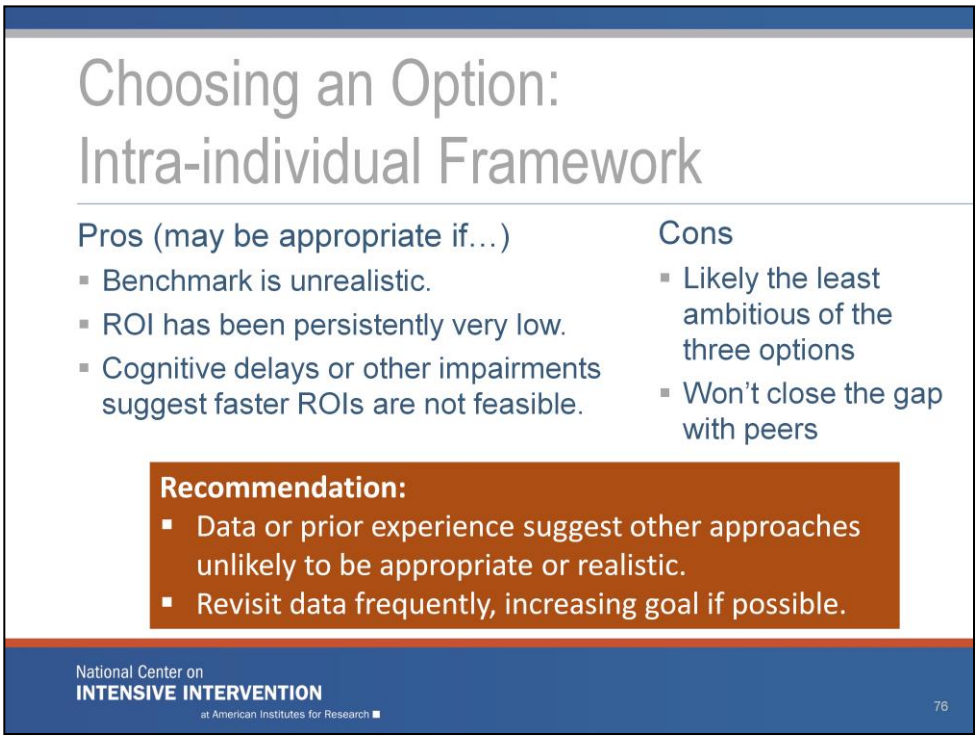

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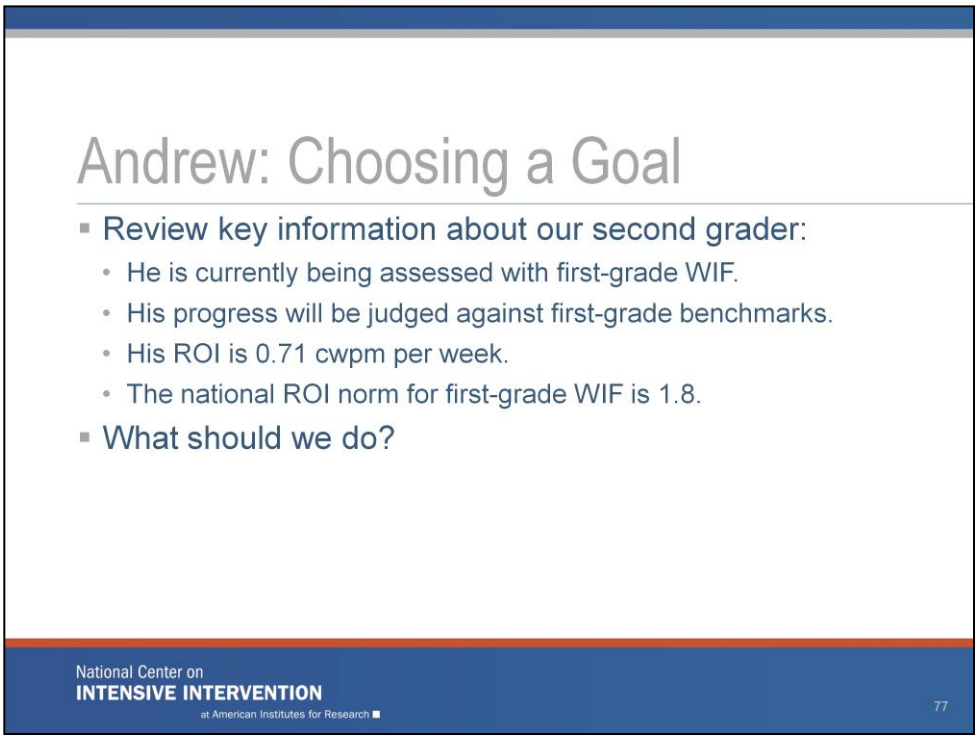
Andrew: Choosing a Goal
Review key information about our second grader:
He is currently being assessed with first-grade WIF.
His progress will be judged against first-grade benchmarks.
His ROI is 0.71 cwpm per week.
The national ROI norm for first-grade WIF is 1.8.
What should we do?
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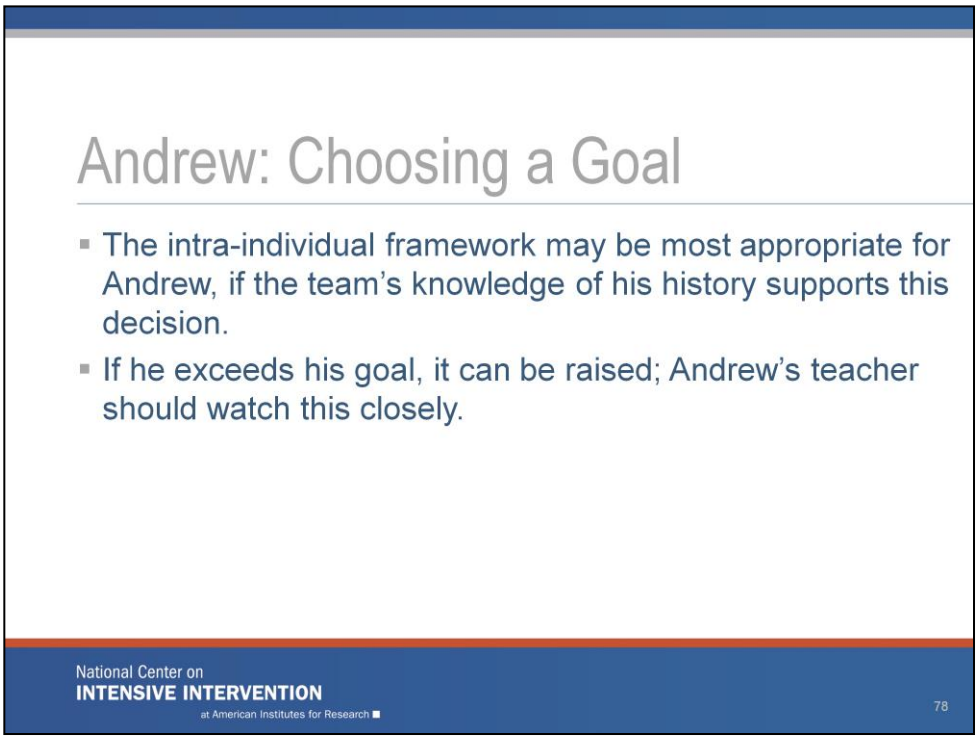
Read slide.


Andrew: Choosing a Goal
The intra-individual framework may be most appropriate for Andrew, if the team's knowledge of his history supports this decision.
If he exceeds his goal, it can be raised; Andrew's teacher should watch this closely.
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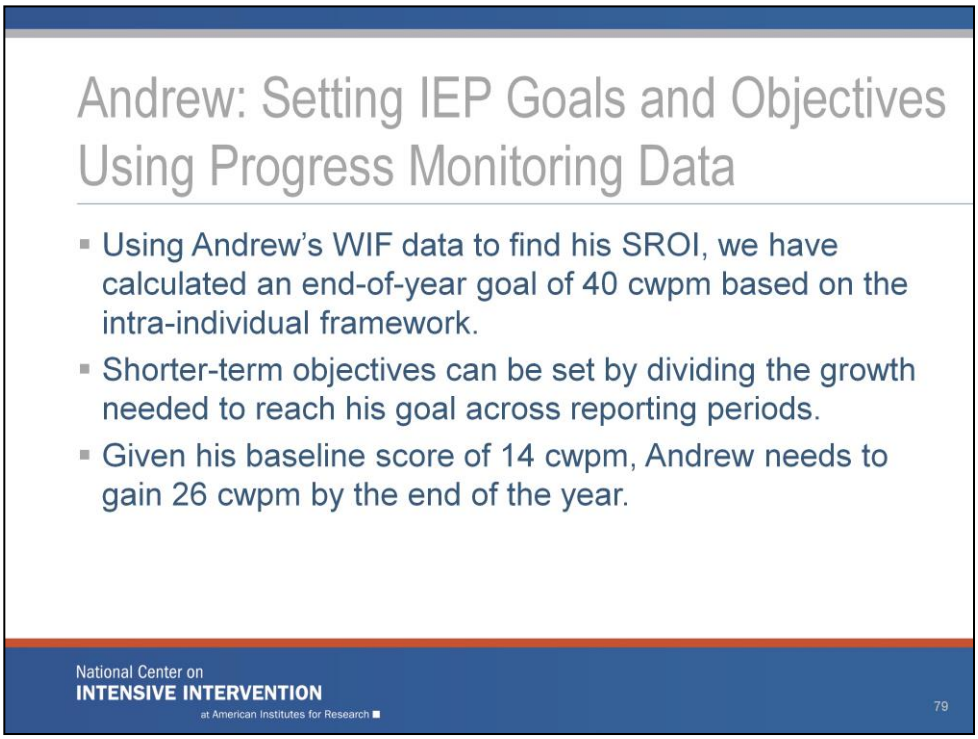
Andrew: Setting IEP Goals and Objectives Using Progress Monitoring Data
Using Andrew's WIF data to find his SROI, we have calculated an end-of-year goal of 40 cwpm based on the intra-individual framework.
Shorter-term objectives can be set by dividing the growth needed to reach his goal across reporting periods.
Given his baseline score of 14 cwpm, Andrew needs to gain 26 cwpm by the end of the year.
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Andrew: Setting IEP Goals and Objectives Using Progress Monitoring Data

If objectives are set for each of two grading periods before the final goal, Andrew needs to grow at least 8–9 cwpm per period to gain a total of 26 cwpm by the end of the year (26/3 = 8.67).

Time Frame	Target Score	Gain Needed
Objective 1	22 cwpm	8 cwpm (from baseline of 14 cwpm)
Objective 2	31 cwpm	9 cwpm
End of year	40 cwpm	9 cwpm

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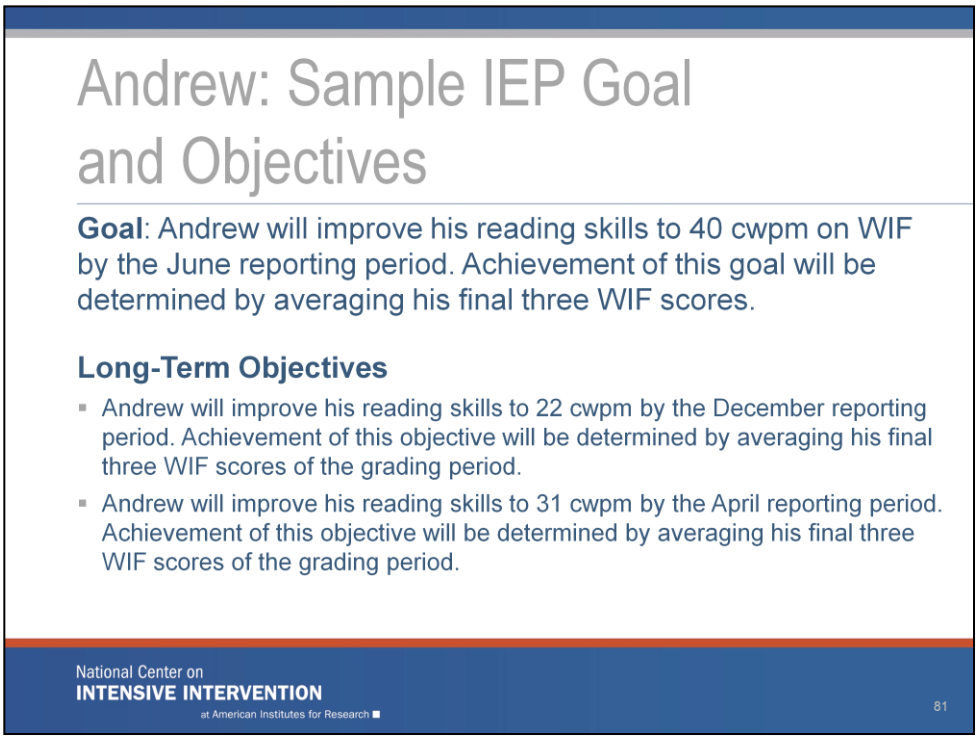
Andrew: Sample IEP Goal and Objectives
Goal: Andrew will improve his reading skills to 40 cwpm on WIF by the June reporting period. Achievement of this goal will be determined by averaging his final three WIF scores.
Long-Term Objectives
Andrew will improve his reading skills to 22 cwpm by the December reporting period. Achievement of this objective will be determined by averaging his final three WIF scores of the grading period.
Andrew will improve his reading skills to 31 cwpm by the April reporting period. Achievement of this objective will be determined by averaging his final three WIF scores of the grading period.
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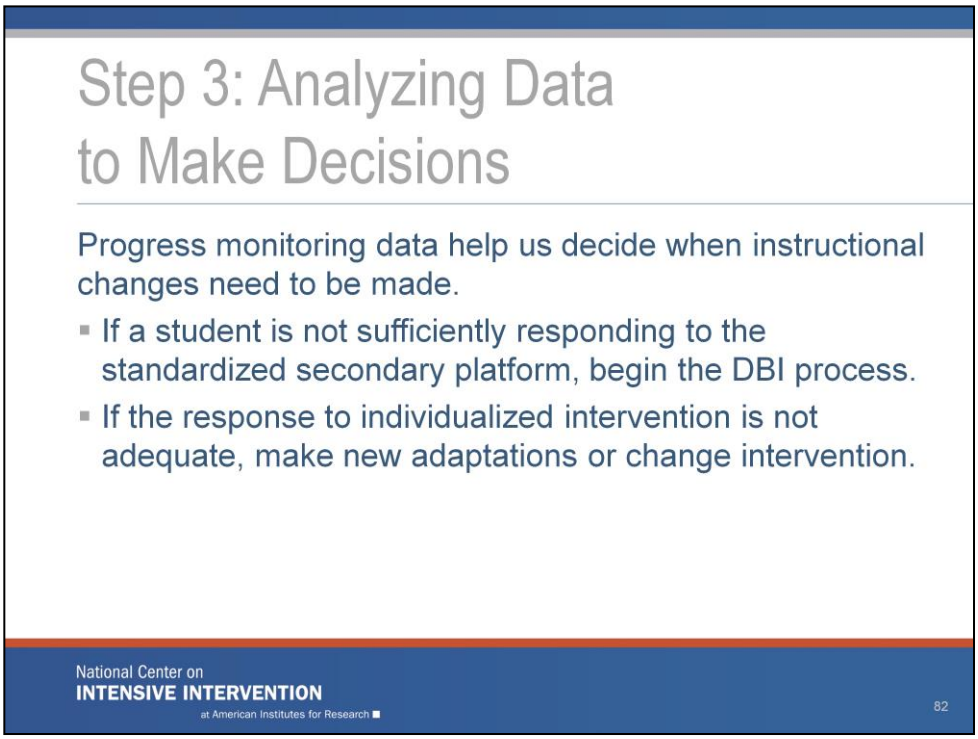
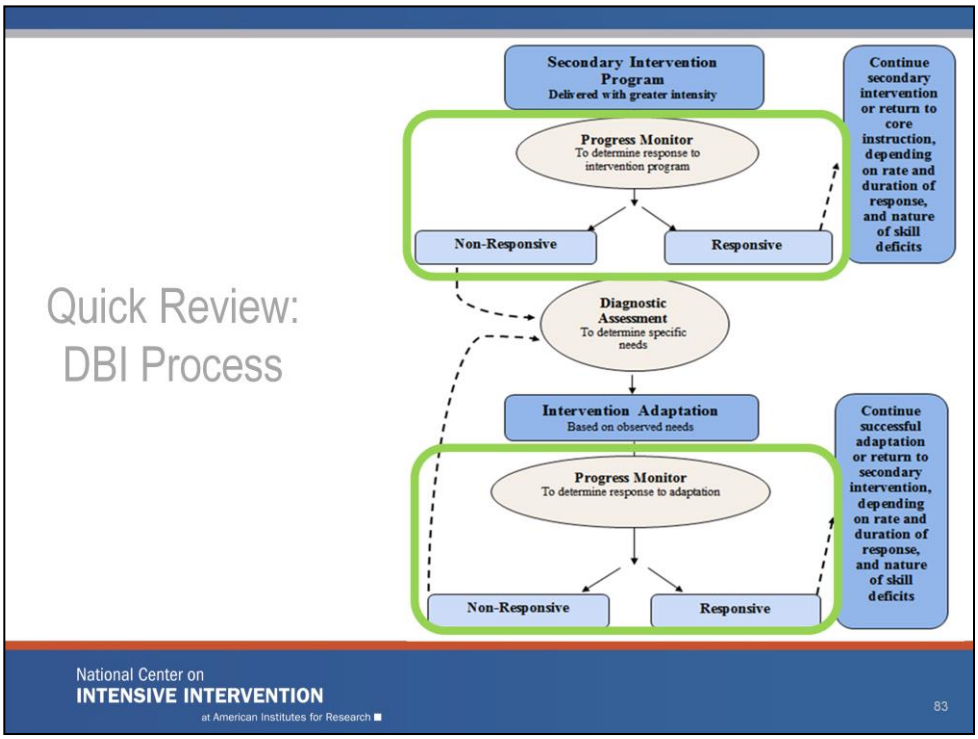
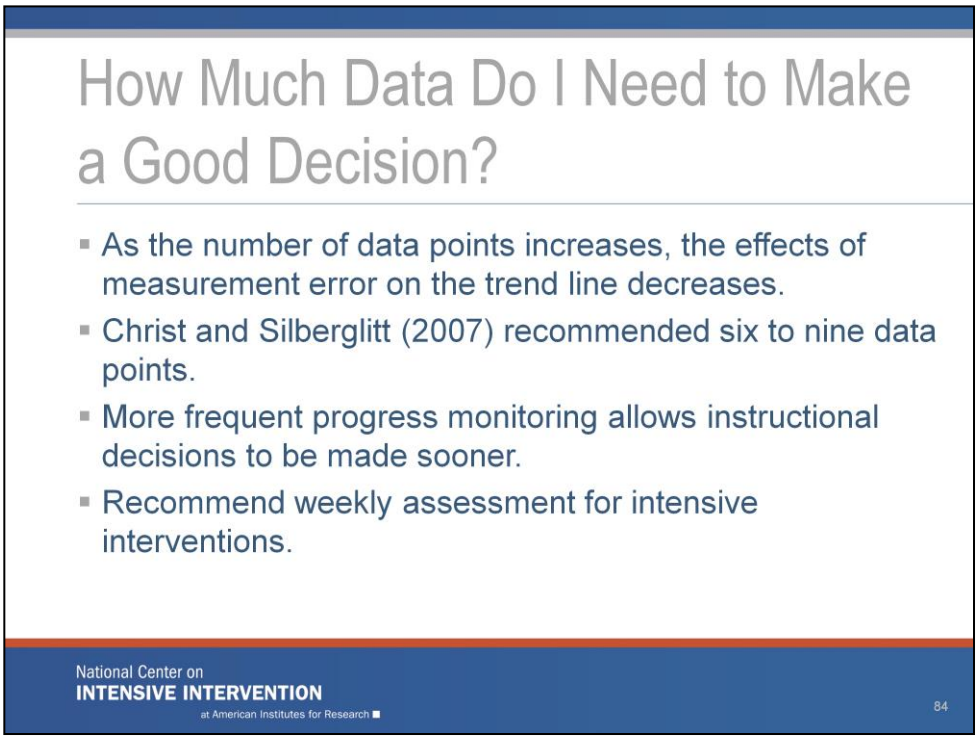


Progress monitoring data help us decide when a change needs to be made but not necessarily what changes should be made (use diagnostic assessment to identify instructional needs).

Note: Informal academic diagnostic assessment will be addressed in a subsequent module.



Analyzing the data will help us determine if a student is responsive or not, which will tell us if we should continue with the current intervention or make a change.


How Much Data Do I Need to Make a Good Decision?
As the number of data points increases, the effects of measurement error on the trend line decreases.
Christ and Silberglitt (2007) recommended six to nine data points.
More frequent progress monitoring allows instructional decisions to be made sooner.
Recommend weekly assessment for intensive interventions.
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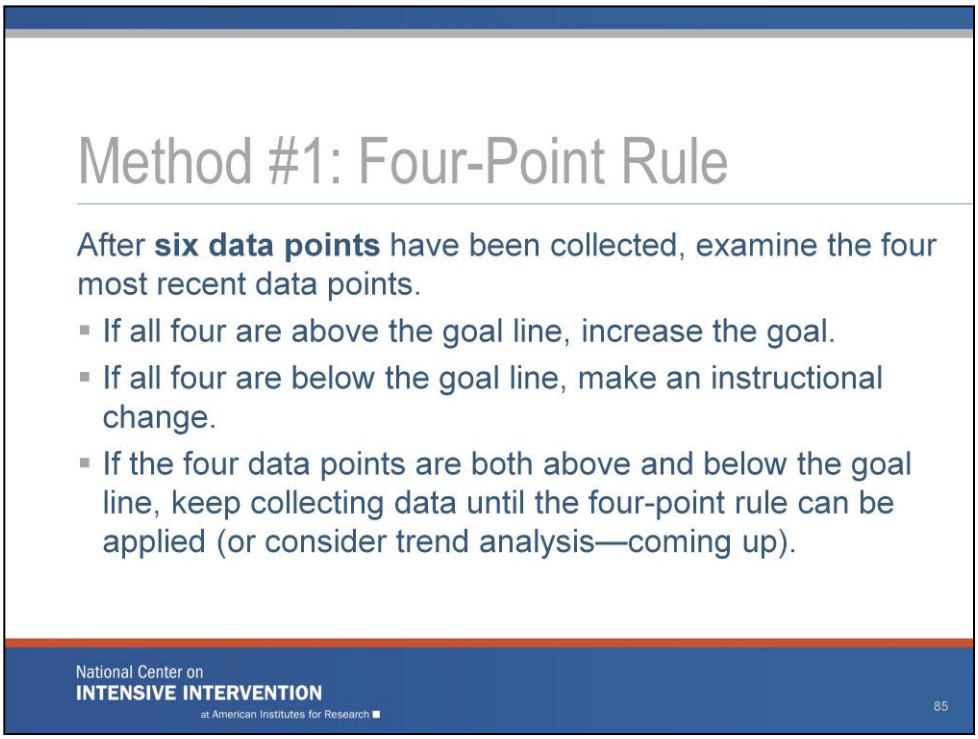
Method #1: Four-Point Rule
After six data points have been collected, examine the four most recent data points.
If all four are above the goal line, increase the goal.
If all four are below the goal line, make an instructional change.
If the four data points are both above and below the goal line, keep collecting data until the four-point rule can be applied (or consider trend analysis—coming up).
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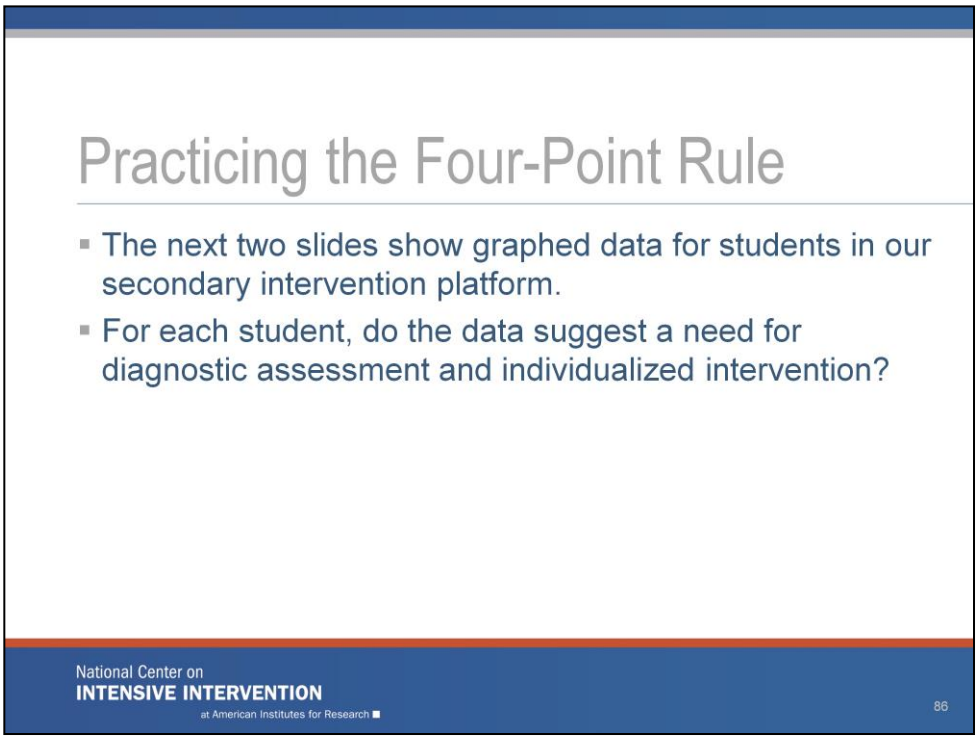
Practicing the Four-Point Rule
The next two slides show graphed data for students in our secondary intervention platform.
For each student, do the data suggest a need for diagnostic assessment and individualized intervention?
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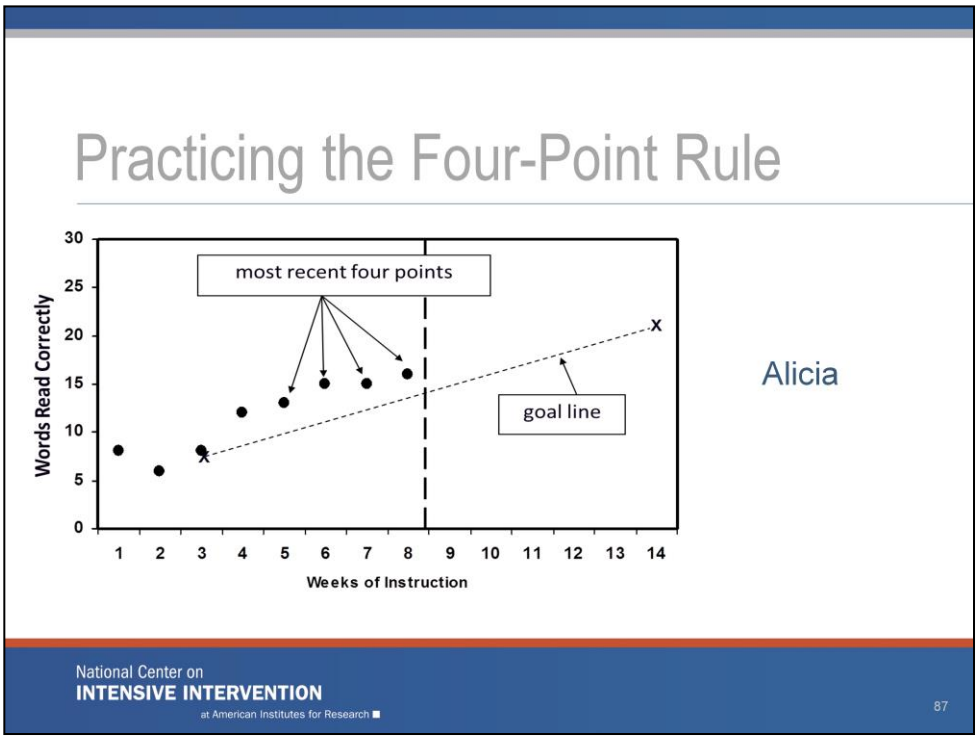
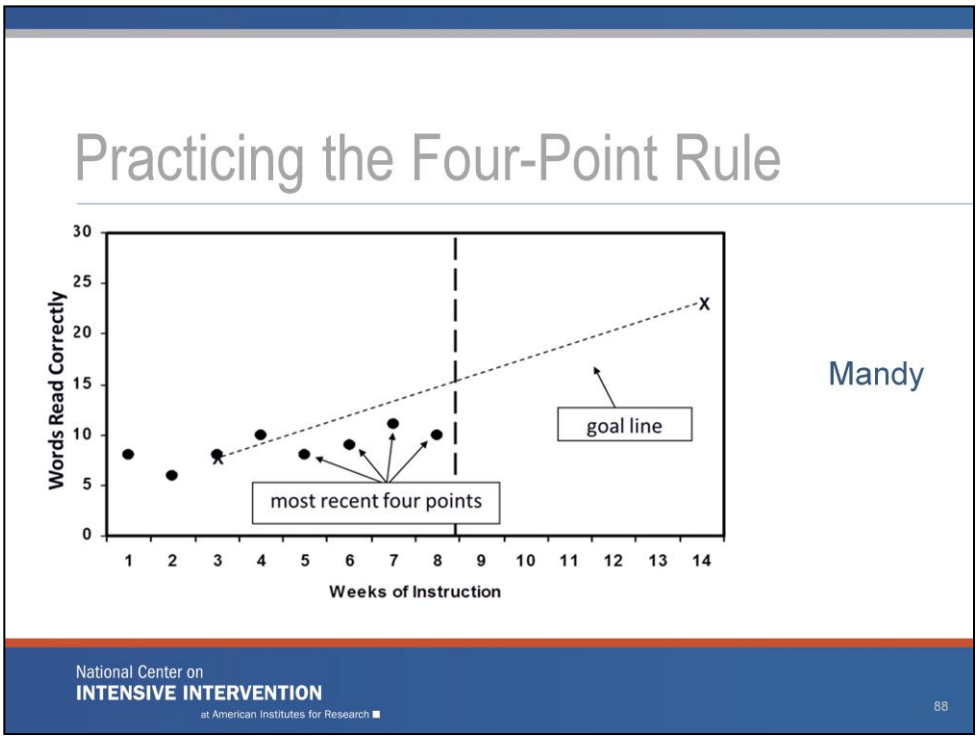
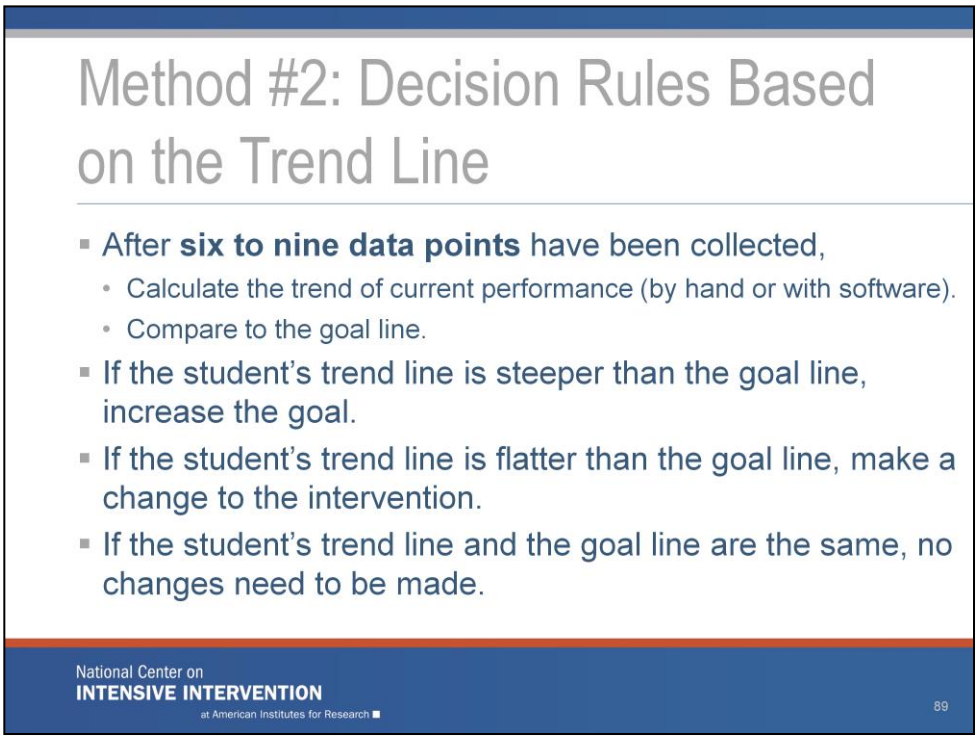


All of Alicia's most recent four data points were above the goal line. This suggests that we should increase her goal. If she reaches the grade-level benchmark, we may consider reducing the intensity of her supports.



Mandy's four most recent scores are below the goal line. Therefore, the teacher needs to change her instructional program. The end-of-year performance goal and goal line never decrease; they can increase only. The instructional program should be tailored to bring Mandy's scores up so they match or surpass the goal line.

Discussion: The advantage of the four-point rule is that it's easy to do because it doesn't require calculating a trend line. The disadvantage is that it is not very sensitive. An outlier score could delay making a decision by preventing four consecutive scores falling above or below the goal line.


Method #2: Decision Rules Based on the Trend Line
After six to nine data points have been collected,
Calculate the trend of current performance (by hand or with software).
Compare to the goal line.
If the student's trend line is steeper than the goal line, increase the goal.
If the student's trend line is flatter than the goal line, make a change to the intervention.
If the student's trend line and the goal line are the same, no changes need to be made.
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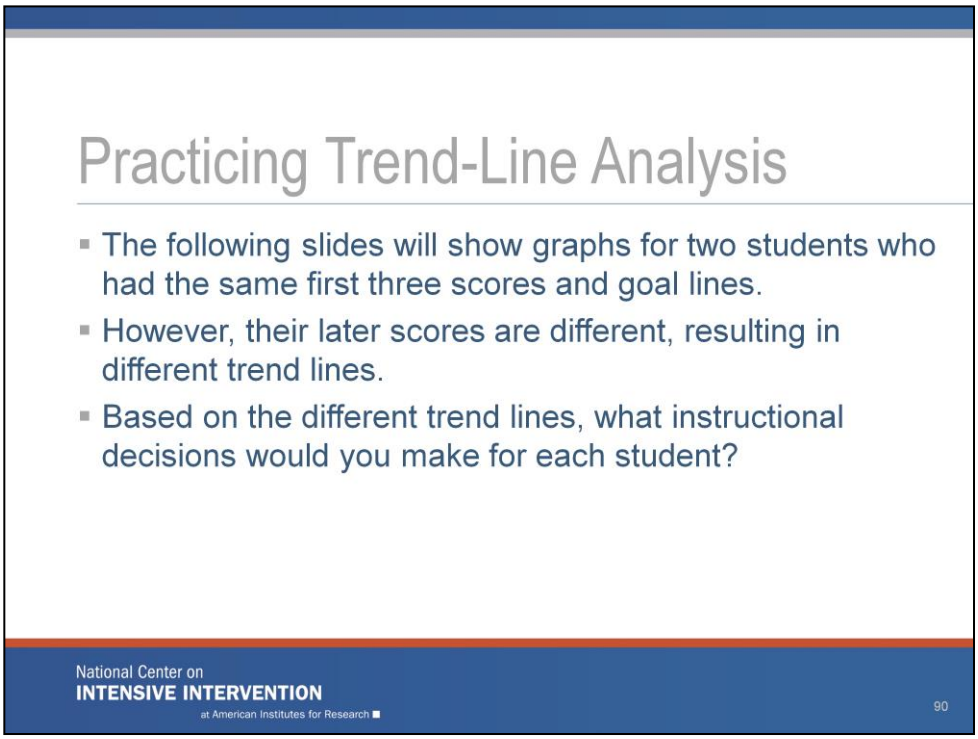
Practicing Trend-Line Analysis
The following slides will show graphs for two students who had the same first three scores and goal lines.
However, their later scores are different, resulting in different trend lines.
Based on the different trend lines, what instructional decisions would you make for each student?
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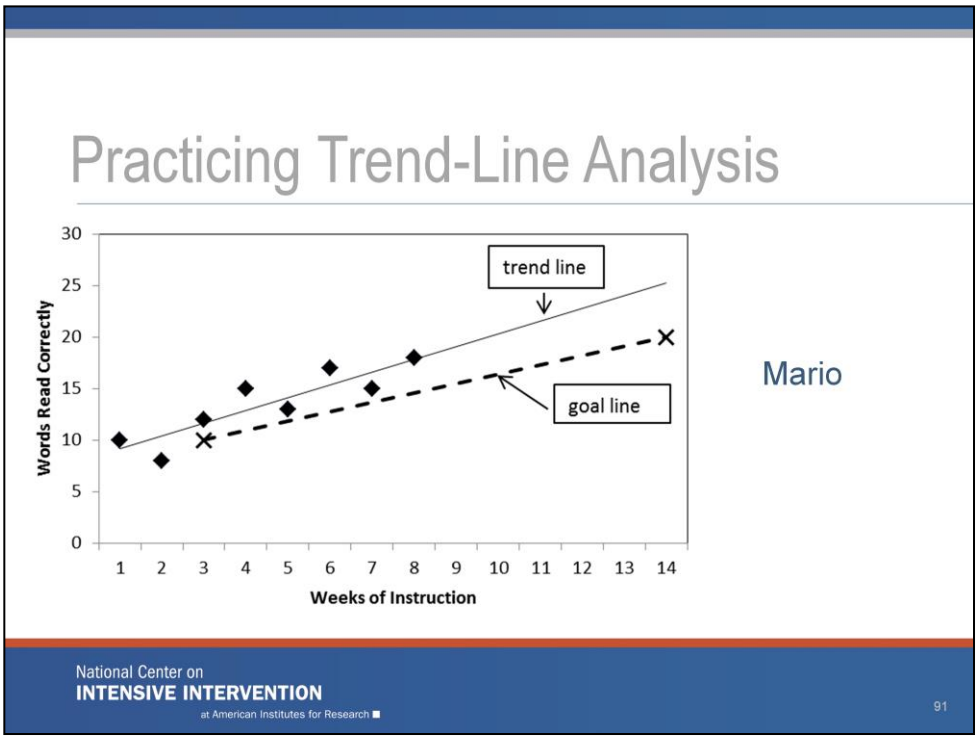
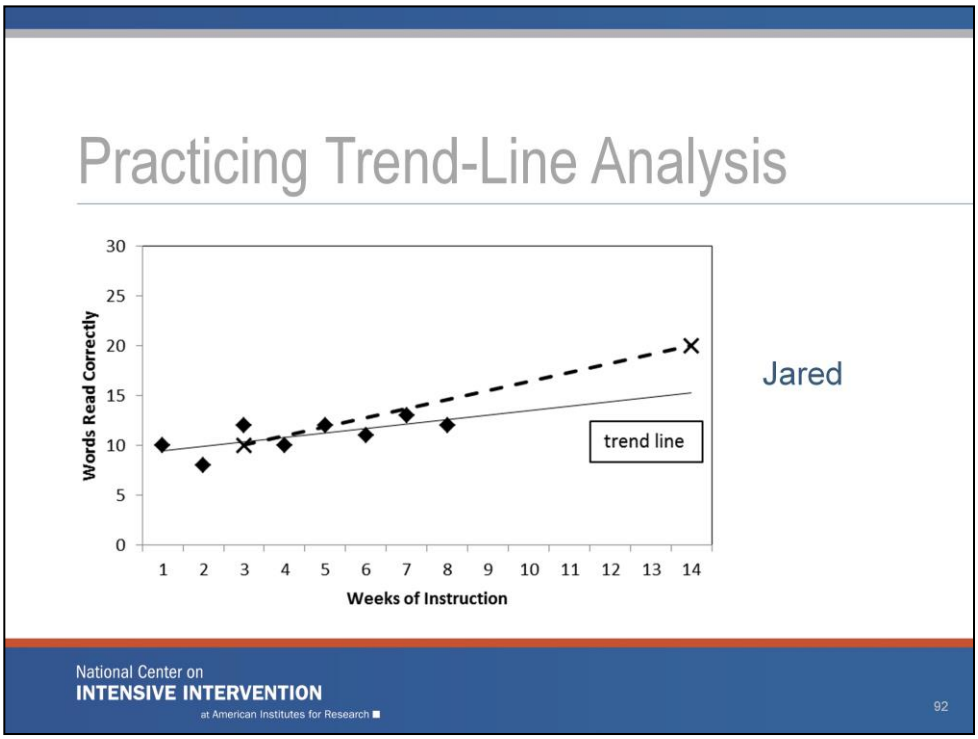
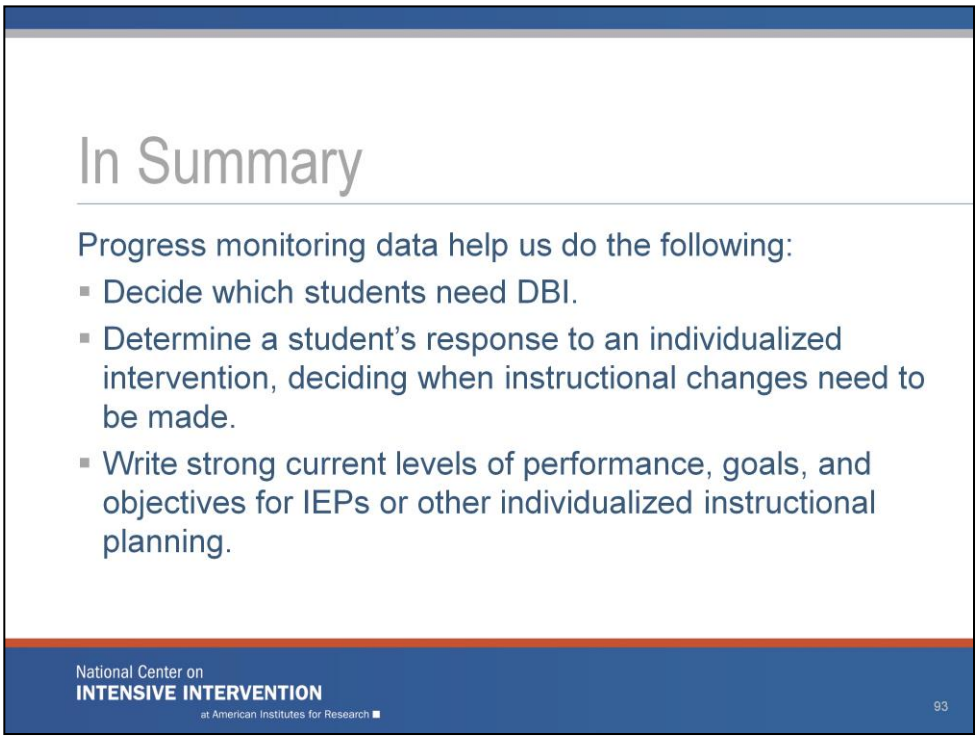


Mario's trend line is above the goal line. This suggests that we should increase his goal. If he reaches the grade-level benchmark, we may consider reducing the intensity of his supports.

Note: Trend lines are often calculated using software. For drawing trend lines by hand, please see the RTI Implementer Series Module 2: Progress Monitoring *(National Center on Response to Intervention, 2012).*



Jared's trend line is below and flatter than the goal line, so an instructional change is needed.


In Summary
Progress monitoring data help us do the following:
Decide which students need DBI.
Determine a student's response to an individualized intervention, deciding when instructional changes need to be made.
Write strong current levels of performance, goals, and objectives for IEPs or other individualized instructional planning.
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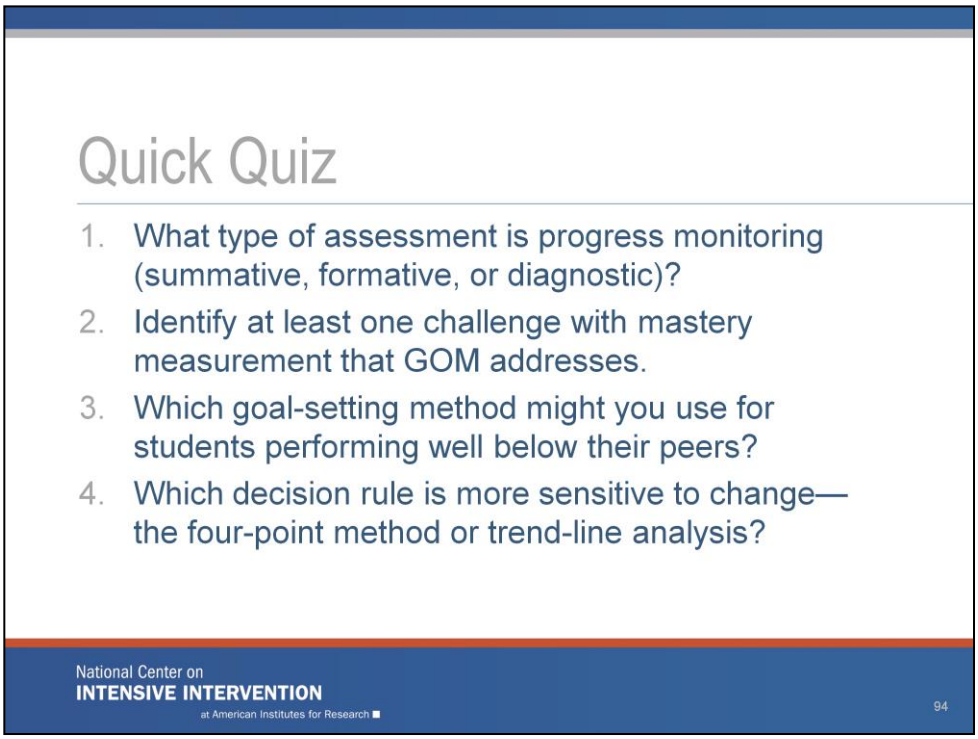

Give the audience time to think about questions and then review as a group.

Answers:

1. *Formative*
2. *Generalization, retention, comparing scores across time (across multiple skills)*
3. *Intra-individual framework*
4. *Trend line*

Disclaimer

This module was produced under the U.S. Department of Education, Office of Special Education Programs, Award No. H326Q110005. Celia Rosenquist serves as the project officer.

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