



THE IRIS CENTER

CASE STUDY UNIT



RTI: PROGRESS MONITORING

Created by

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For an Instructor’s Guide to this case study unit, please email your full name, title, and institutional affiliation to the IRIS Center at iris@vanderbilt.edu.

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**RTI: PROGRESS MONITORING
CASE STUDY SET • INTRODUCTION**

This case study set is intended to be a supplement to the IRIS Center’s RTI Module series, providing additional opportunities to practice the application of basic progress monitoring concepts within the response to intervention (RTI) approach. There are two prerequisites for using this case study set. The first is a basic understanding of the RTI approach. If you are unfamiliar with RTI, we recommend that you view the IRIS Module:

 *RTI (Part 1): An Overview*

The second prerequisite is an understanding of progress monitoring within the RTI approach. You can learn more about progress monitoring by viewing the IRIS Modules:

 *RTI (Part 2): Assessment*

 *RTI (Part 4): Putting It All Together*

 *Classroom Assessment (Part 1): An Introduction to Monitoring Academic Achievement in the Classroom*

 *Classroom Assessment (Part 2): Evaluating Reading Progress*

★ KEY IDEAS

- Response to intervention is an instructional approach that serves two primary purposes:
 - o It provides early intervening services to struggling students as a means through which to improve their skills.
 - o It can be used to identify students who have learning disabilities.
- RTI typically addresses student needs through multiple tiers of increasingly intensive instructional interventions.
- Whether it is used for early intervening or for the identification of students with learning disabilities, RTI *always* incorporates the following elements:
 - o High-quality instruction (i.e., instruction based on research-validated practices)
 - o Frequent progress monitoring
 - o Increasingly intense levels of intervention
 - o Data-based decision making
- RTI has many potential benefits, including that:
 - o It provides early instructional intervention to those who need it.
 - o It requires that teachers rely on assessment data to support their instructional decisions.
 - o It reduces inappropriate special education referrals and placements.

**RTI: PROGRESS MONITORING
CASE STUDY SET • INTRODUCTION**

- o It accommodates multiple levels of intervention.
 - o It increases the use of research-validated instructional practices in the general education classroom.
- RTI consists of the components outlined in the table below.

UNIVERSAL SCREENING	All students are given a brief screening measure. This assessment is given one to three times per year (i.e., fall, winter, and spring). Students at risk for academic failure are identified.
TIER 1	Students receive high-quality instruction (i.e., through validated practices) in the general education setting. Teachers frequently (e.g., every one to two weeks) monitor the progress of struggling students who have been identified through the universal screening process. (Note: In some approaches, universal screening is considered to be part of Tier 1.)
TIER 2	Students who are not making adequate progress receive different or additional support from either the classroom teacher or another educational professional. Teachers continue to frequently monitor student progress.
TIER 3	Students whose progress is still insufficient in Tier 2 receive even more intensive and individualized instruction. Depending on a state's or district's policies, this instruction may be provided through general or special education.

RTI: PROGRESS MONITORING
LEVEL A – CASE 1

BACKGROUND

Student: Savannah

Age: 6

Grade: 1

SCENARIO

Savannah is a first-grade student at Rosa Parks Elementary School. When her teacher, Ms. Hudson, administered the fall universal screening measure, Savannah's score fell below the established beginning-of-the-year benchmark. Because Savannah's score indicated that she may be struggling in reading, Ms. Hudson monitors her reading performance for seven weeks using the *Vanderbilt Word Identification Fluency* probe. The seven-week goal (benchmark) at Savannah's school is 15 words per minute (wpm). Savannah's scores are below that number.

SAVANNAH'S PROGRESS MONITORING SCORES	
Week 1	4
Week 2	9
Week 3	7
Week 4	9
Week 5	7
Week 6	10
Week 7	12

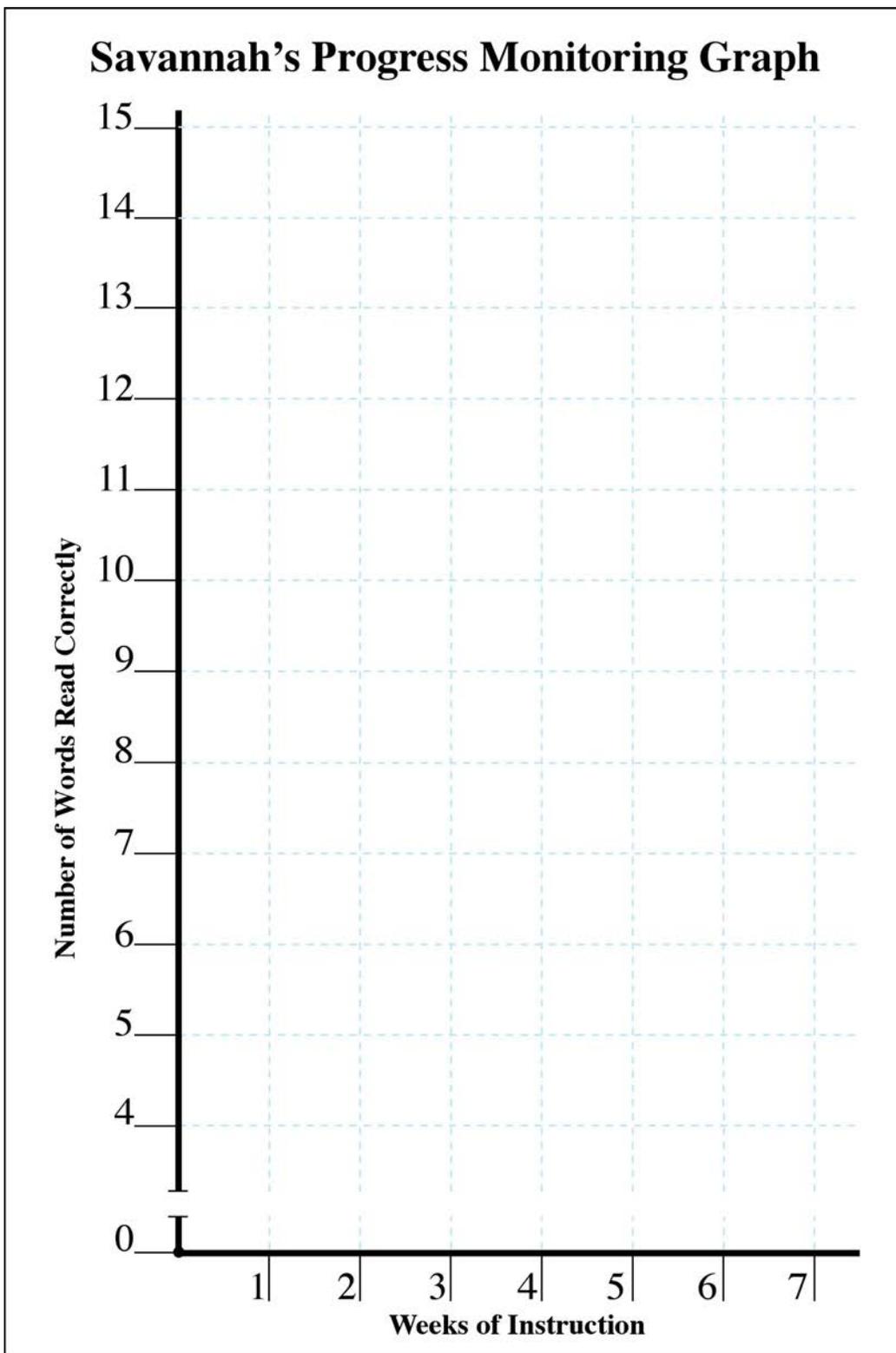
POSSIBLE ACTIVITIES

- Progress monitoring overview
- Graphing
- Goal setting and assessing student performance



ASSIGNMENT

1. Review the introduction to this case study set and each of the STAR sheets on the possible activities listed above.
2. Graph Savannah's scores for the seven weeks using the graph paper on the following page.
3. Indicate the seven-week goal on the graph and draw a goal line.



RTI: PROGRESS MONITORING
LEVEL A – CASE 2

BACKGROUND

Student: Grayson

Age: 7

Grade: 2

SCENARIO

Grayson is a second-grade student at Mayflower Elementary School. When Grayson's teacher, Ms. Doran, administered the universal screening measure, his score did not meet the benchmark. Because of this, Ms. Doran monitored Grayson's progress in reading over the next eight weeks. At the end of that period, the school assessment team met to discuss Grayson's data. He was referred for Tier 2 instruction. Another eight weeks have passed since Grayson started Tier 2 instruction.

POSSIBLE ACTIVITIES

- Progress monitoring overview
- Graphing
- Goal setting and assessing student performance



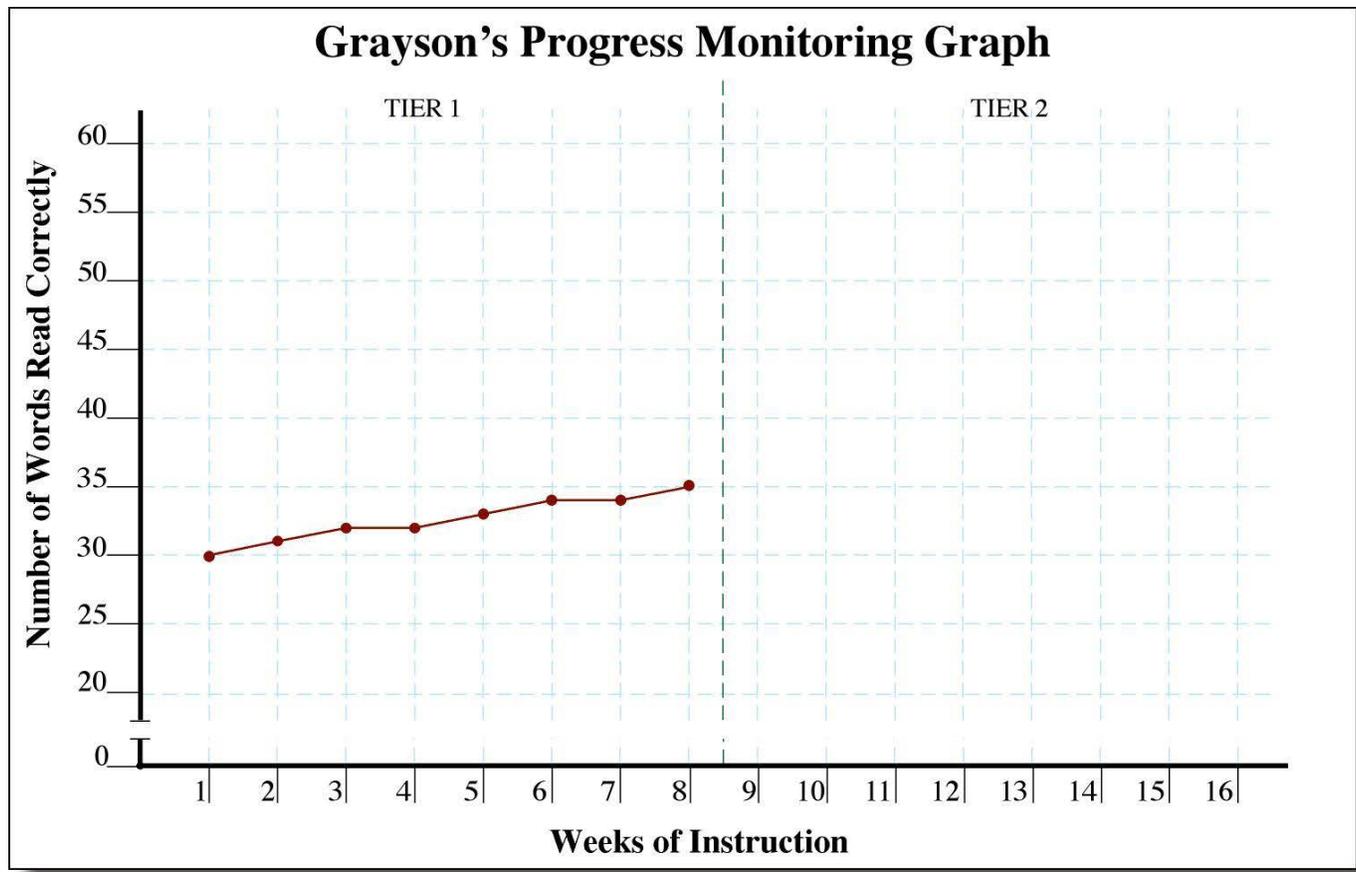
ASSIGNMENT

1. Review the introduction to this case study set and each of the STAR sheets on the possible activities listed above.
2. Grayson's short-term goal for week 16 is 50 wpm. Using this information, create a goal line. (*Remember: The goal line is established using Tier 1 data points.*) Note that this step is usually completed after the third data point is collected.

GRAYSON'S PROGRESS MONITORING SCORES	
Week 9	36
Week 10	37
Week 11	39
Week 12	40
Week 13	41
Week 14	43

3. Using the graph on the next page, plot Grayson's eight data points for Tier 2.

RTI: PROGRESS MONITORING
LEVEL A – CASE 2



RTI: PROGRESS MONITORING
LEVEL B – CASE 1

BACKGROUND

Student: Sam
Age: 8
Grade: 3

SCENARIO

Sam is a third-grade student in Mrs. Lemler's class. As the middle of the year approaches, Mrs. Lemler conducts the second universal screening measure with all of her students. To do so, Mrs. Lemler uses the *Vanderbilt Passage Reading Fluency* (PRF) probe. Below are the rules she followed to score Sam's probe, as well as her teacher form with notations indicating Sam's performance on the probe.

SCORING RULES FOR PRF MEASURE

- Words read correctly are scored as correct.
- Words that are mispronounced, omitted, substituted, or reversed are counted as errors.
- Repetitions and insertions are ignored.
- If the student self-corrects within three seconds, the word is counted as correct.
- If the student hesitates for longer than three seconds, the word is provided by the teacher and is counted as an error.

(Adapted from *Using CBM for Progress Monitoring in Reading*, by L. S. Fuchs and D. Fuchs, 2008.)

Once there was a walled city known for its beautiful	10
horses. The citizens were so proud of these horses that they <i>skipped</i>	21
passed a law that allowed only the most beautiful horses into <i>into - repeat</i>	32
the city. All others had to stay outside. One of these was a	45
pony named Fritz.	48
Fritz was not ^{<i>very</i>} beautiful. He had a long, tangled mane,	58
whiskers on his muzzle , and short legs . But Fritz was very	69
gentle and kind. He was sure-footed and always willing	79
to work.	81

(Adapted from *Peer assisted learning strategies: Reading methods for grades 2–6*, by D. Fuchs, L. S. Fuchs, D. C. Simmons, & P. G. Mathes, 2008).

**RTI: PROGRESS MONITORING
LEVEL B – CASE 1**

POSSIBLE ACTIVITIES

- Progress monitoring overview
- Administering and scoring probes
- Graphing
- Goal setting and assessing student performance

 ASSIGNMENT

1. Review the introduction to this case study set and each of the STAR sheets on the possible activities listed above.
2. Score Sam's probe (test) shown above.
3. The middle-of-year benchmark for this measure is 55 wpm. Describe Sam's score in relation to this benchmark.

**RTI: PROGRESS MONITORING
LEVEL B – CASE 2****BACKGROUND**

Student: Samaria

Age: 9

Grade: 3

SCENARIO

Samaria, a third-grade student, has been struggling with reading for many years. She recently transferred to a school that is implementing the RTI approach. After Samaria scored below the benchmark on the universal screening, her teacher, Mr. Braun, monitors her progress for 10 weeks. Her progress monitoring data in hand, the school support team recommends Tier 2 instruction, which Samaria goes on to receive for 12 weeks. The team meets again to determine how she is responding to Tier 2. Afterward, Mr. Braun plans to meet with Samaria's parents to discuss her performance and the support team's recommendation.

POSSIBLE ACTIVITIES

- Progress monitoring overview
- Graphing
- Goal setting and assessing student response
- Communicating with parents

**ASSIGNMENT**

1. Review the introduction to this case study set and each of the STAR sheets on the possible activities listed above.
2. Graph Samaria's last six data points for weeks 17–22: 55, 60, 63, 62, 66, and 67.
3. Assess Samaria's performance in relation to her goal line. Describe two points that you would make when meeting with her parents about her reading performance.

RTI: PROGRESS MONITORING
LEVEL C – CASE 1

BACKGROUND

Student: Alejandro

Age: 7

Grade: 2

SCENARIO

Alejandro is a second-grade student in Ms. Willaby's class. Because Alejandro scored below the benchmark on the universal screening, Ms. Willaby has been monitoring his reading performance using the *Vanderbilt Passage Reading Fluency* probe for the last six weeks. At this point, Ms. Willaby has collected six weeks of progress monitoring data and has just administered the last probe. Once she has scored it and graphed all seven weeks of data, she will need to determine whether Alejandro is making adequate progress in the general education classroom (i.e., Tier 1 instruction). In addition, she has scheduled a meeting with Alejandro's parents to discuss his progress and would like to illustrate his performance with his progress monitoring graph.

A snowstorm can be exciting. But too much snow can cause	11
trouble. I learned this in a way I will never forget.	22
My name is John Hearon. I'm a bus driver. At five o'clock one	35
morning I turned my bus onto Highway 66. It was snowing. But I was	49
used to driving in all kinds of weather. Maybe this storm wouldn't last	62
long.	63

(Adapted from *Using CBM for Progress Monitoring in Reading*, by L. S. Fuchs and D. Fuchs, 2008.)

SCORING RULES FOR PRF MEASURE

- Words read correctly are scored as correct.
- Words that are mispronounced, omitted, substituted, or reversed are counted as errors.
- Repetitions and insertions are ignored.
- If the student self-corrects within three seconds, the word is counted correct.
- If the student hesitates for longer than three seconds the word is provided by the teacher and is counted as an error.

(Adapted from *Using CBM for Progress Monitoring in Reading*, by L. S. Fuchs and D. Fuchs, 2008.)

**RTI: PROGRESS MONITORING
LEVEL C – CASE 1**

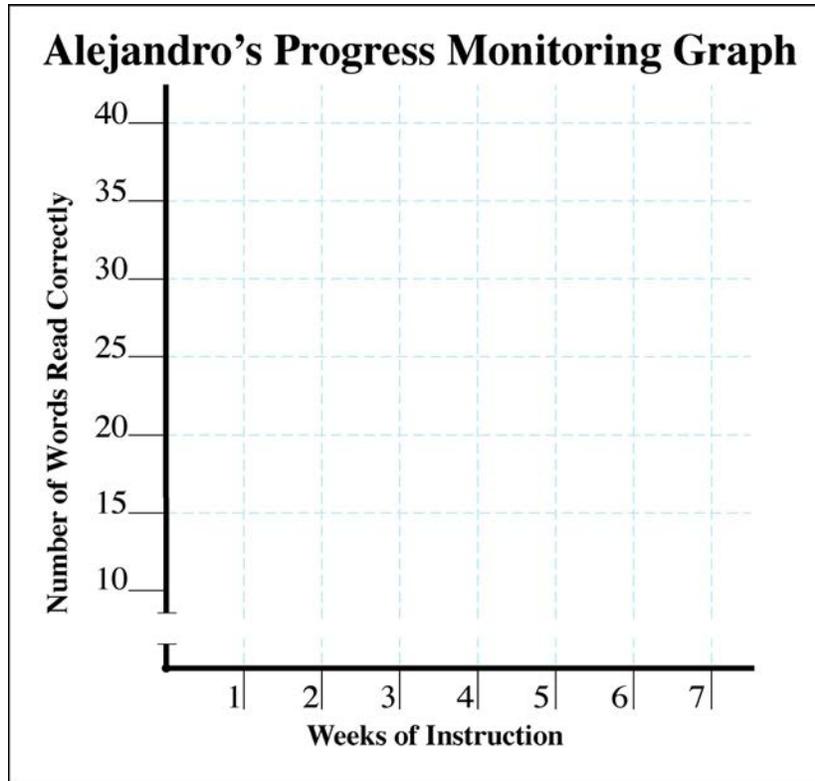
ALEJANDRO'S PROGRESS MONITORING SCORES	
Week 1	23
Week 2	21
Week 3	22
Week 4	24
Week 5	25
Week 6	26
Week 7	

 **ASSIGNMENT**

Using the information above, help Ms. Willaby complete the following progress monitoring steps.

1. Score the last probe.
2. Graph all seven data points using the graph paper on the following page.
3. The week 7 benchmark for this measure is 37 words read correctly in one minute. Plot this benchmark and create a goal line for Alejandro on the graph.
4. Decide whether Alejandro is meeting the established goal (i.e., responding adequately to the general education instruction). Explain your rationale.
5. Describe what you would discuss with Alejandro's parents. List three points that Ms. Willaby should bring up.

**RTI: PROGRESS MONITORING
LEVEL C – CASE 1**



**RTI: PROGRESS MONITORING
PROGRESS MONITORING OVERVIEW****★ WHAT A STAR SHEET IS...**

A STAR (Strategies And Resources) Sheet provides well-researched strategies or information that can help solve the case studies in this unit.

WHAT IT IS...

Progress monitoring, a type of formative assessment (i.e., frequent evaluation), is often used to evaluate student learning. Though there are a number of methods for monitoring a student's progress, the most widely used is *curriculum-based measurement* (CBM), the type that will be discussed in this case study set.

Progress monitoring:

- Consists of the frequent administration—for example, once per week—of brief probes or tests (e.g., one-minute reading passages) that give teachers immediate feedback on the skills currently being taught
- Uses probes (i.e., tests) that measure the critical skills that the student must master by the end of the year
- Allows teachers to assess student learning soon after instruction and to implement instructional changes based on these data

WHAT THE RESEARCH AND RESOURCES SAY...

More than 30 years of research have proven the benefits of monitoring a student's progress in reading:

- Students of teachers who use progress monitoring achieve higher grades than do those whose teachers do not. (Fuchs, Butterworth, & Fuchs, 1989)
- Students are more aware of their performance and view themselves as more responsible for their learning when they graph their progress monitoring data. (Davis, Fuchs, Fuchs, & Whinnery, 1995)
- Students learn more when teachers implement progress monitoring. (Safer & Fleischman, 2005)
- By monitoring students' progress, teachers can make instructional changes to improve the academic growth of all students, including those who are struggling with reading. (Fuchs & Fuchs, 2007)
- Progress monitoring data are strongly predictive of student achievement on state and local standardized achievement tests. (Good, Simmons, & Kame'enui, 2001)

STEPS FOR IMPLEMENTATION

1. Select appropriate probes (i.e., tests) for the student's grade and skill level.
2. Administer and score the probes at regular intervals (i.e., weekly, bi-weekly, or monthly).
3. Graph the scores.
4. Set goals.
5. Make instructional decisions based on the progress monitoring data.
6. Communicate progress with the student, parents, and other education professionals.

**RTI: PROGRESS MONITORING
PROGRESS MONITORING OVERVIEW****CONNECTION TO RTI**

Frequent progress monitoring is a key component of each RTI tier (or level).

- **Tier 1:** Progress monitoring probes may be used for the universal screening measure, which identifies students who might be struggling academically. Progress monitoring is then used to monitor said students for five to eight weeks to determine whether they would benefit from Tier 2 instruction, a more intense and targeted level of instruction.
- **Tier 2:** Progress monitoring is used to determine whether a student is responding adequately to the intervention.
- **Tier 3:** In a three-tiered model, when Tier 3 is special education, progress monitoring is used to determine whether a student is meeting IEP goals and whether the teacher needs to make instructional changes. Progress monitoring data can also be used to help determine whether the student could be successful in Tier 1 or Tier 2.

KEEP IN MIND

- Probes can be administered quickly.
- Each probe includes sample items reflecting the critical skills in the reading curriculum across the year.
- Each probe consists of different items or passages of equal difficulty (i.e., equivalent alternate versions).
- Teachers can track their students' growth throughout the year and make appropriate instructional changes as needed.
- Progress monitoring can be implemented with the entire class or with select students.
- Teachers can also use progress monitoring to evaluate the effectiveness of their current instructional methods. Students who receive high-quality instruction typically demonstrate increased reading performance levels and rates of growth across the year.
- Some sources of progress monitoring probes offer non-English language versions for linguistically diverse students and large-print versions for students with visual disabilities.
- Most commercially available probes include evaluation criteria (i.e., recommended rates of growth for each measure and by grade level).
- The National Center on Student Progress Monitoring has reviewed a variety of commercially available progress monitoring tools (<http://www.studentprogress.org/chart/chart.asp>).

If you would like more information on progress monitoring, please view the IRIS Modules:

 *Classroom Assessment (Part 1): An Introduction to Monitoring Academic Achievement in the Classroom*

 *Classroom Assessment (Part 2): Evaluating Reading Progress*

RTI: PROGRESS MONITORING PROGRESS MONITORING OVERVIEW

EXAMPLES OF PROGRESS MONITORING PROBES

The table below contains examples of the Vanderbilt University probes for different grade levels.

GRADE	TYPE OF PROBE
KINDERGARTEN	<i>Letter Sound Fluency</i> : The student is given a sheet of randomized letters and asked to say as many sounds corresponding to the letters as possible in one minute. This test must be administered to each student individually.
FIRST GRADE	<i>Word Identification Fluency</i> : The student is asked to read aloud as many words as possible in one minute. Words are randomly selected from a list of the 500 most frequent sight words. This test must be administered to each student individually.
MID-FIRST GRADE THROUGH SIXTH GRADE	<i>Passage Reading Fluency</i> : The student reads a passage aloud for one minute. The passage's difficulty is based on the student's expected end-of-year reading competence. The score is the number of words he or she read correctly per minute. This test must be administered to each student individually.
FOURTH GRADE THROUGH SIXTH GRADE	<i>Maze Fluency</i> : The student reads a passage silently for two-and-a-half minutes. In the passage, every seventh word has been deleted and three possible choices offered. The student circles the word that best fits the meaning of the phrase or sentence in the passage. The student's score is the number of correct replacements he or she makes. This test can be administered to a group of students.

RESOURCES

Davis, L. B., Fuchs, L. S., Fuchs, D., & Whinnery, K. (1995). "Will CBM help me learn?" Students' perception of the benefits of curriculum-based measurement. *Education and Treatment of Children*, 18(1), 19–32.

Fuchs, L., & Fuchs, D. (2007). *What is scientifically-based research on progress monitoring?* Retrieved on August 22, 2008, from http://writingroadmap.ctb.com/media/mktg/ypp/other_media/Progress_Monitoring_Research.pdf

Fuchs, L. S., Butterworth, J. R., & Fuchs, D. (1989). Effects of ongoing curriculum-based measurement on student awareness of goals and progress. *Education and Treatment of Children*, 12, 63–72.

Good, R. H., III, Simmons, D. C., & Kameenue, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high stakes outcomes. *Scientific Studies of Reading*, 5, 257–288.

McLane, K. (n.d.). *What is student progress monitoring and how will it help me?* Retrieved on August 22, 2008, from <http://www.studentprogress.org/admin1.asp>

**RTI: PROGRESS MONITORING
PROGRESS MONITORING OVERVIEW**

RESOURCES (CONT.)

Safer, N., & Fleischman, S. (2005). Research matters: How student progress monitoring improves instruction. *Educational Leadership*, 62(5), 81–83.

National Center on Progress Monitoring. <http://www.studentprogress.org/>

Vanderbilt University probes. Available through Vanderbilt at Peabody, Box 228, 230 Appleton Place, Nashville, TN, 37203-5721. Attention: Flora Murray. (615) 343-4782.

RTI: PROGRESS MONITORING ADMINISTERING AND SCORING PROBES

★ WHAT A STAR SHEET IS...

A STAR (Strategies And Resources) Sheet provides well-researched strategies or information that can help solve the case studies in this unit.

WHAT IT IS...

Administering a probe consists of the procedures a teacher follows when he or she asks a student to respond to the measure, including the directions the teacher gives to the student and the actions the teacher takes (e.g., timing the student's responses). **Scoring** a probe involves determining how many correct answers the student gave.

WHAT THE RESEARCH AND RESOURCES SAY...

- Student performance on progress monitoring probes is strongly correlated to national standardized tests. Rather than waiting until the end of the year to review the test results and determine whether their teaching methods are effective, teachers can track their students' growth throughout the year. (Deno, 2003; Ardoin et al., 2004)
- One must exercise caution when using progress monitoring with English learners (ELs). Low progress monitoring scores may indicate problems with language acquisition rather than difficulties with reading. (Klingner, Artiles, & Méndez Barletta, 2006)
- The way in which teachers administer and score progress monitoring probes is important because incorrect administration can lead to incorrect and misleading conclusions. In order to keep the probes reliable, teachers must give the same directions each time they administer them. In order to maintain the validity of the measure, it must be scored as its creators intended. By doing so, teachers can measure students' reading growth relative to other students. (Shinn & Shinn, 2002)

KEEP IN MIND

- Commercially available probes include detailed administration and scoring procedures.
- The probes themselves, their administration, and their scoring are standardized to produce reliable and valid scores.
- Teachers must follow the administration and scoring procedures outlined for the specific probe they are administering. Some training may be required if probes are to be administered and scored in a reliable fashion.

TIPS FOR IMPLEMENTATION

- Before a teacher can administer and score reading probes, he or she must first gather the appropriate materials. These include a stopwatch that displays seconds, a pen or pencil, a student form, a teacher form, and graphing materials or computer software to plot scores.

RTI: PROGRESS MONITORING ADMINISTERING AND SCORING PROBES

- A teacher should collect all of the probes to be used throughout the school year as soon as the reading level of his or her students is determined.
- A teacher should schedule administration of progress monitoring probes as a regular part of the students' routine.
- Many commercially available probes offer software to administer and score the probes.
- To check administration and scoring reliability, teachers can occasionally trade-off administering and scoring probes for each other's students.

EXAMPLES OF PROBES

- In general, the type of probe a teacher administers is related to the student's grade level.
- Different reading skills are assessed with grade-level probes. Below are some examples of Vanderbilt University probes.

<p>Student Form: WIF</p> <table border="0"> <tbody> <tr><td>any</td><td>want</td></tr> <tr><td>as</td><td>always</td></tr> <tr><td>ate</td><td>go</td></tr> <tr><td>on</td><td>until</td></tr> <tr><td>said</td><td>see</td></tr> <tr><td>into</td><td>and</td></tr> <tr><td>could</td><td>room</td></tr> <tr><td>then</td><td>far</td></tr> <tr><td>new</td><td>form</td></tr> <tr><td>back</td><td>become</td></tr> <tr><td>such</td><td>going</td></tr> <tr><td>this</td><td>himself</td></tr> <tr><td>same</td><td>some</td></tr> <tr><td>find</td><td>kite</td></tr> <tr><td>went</td><td>war</td></tr> <tr><td>be</td><td>live</td></tr> <tr><td></td><td>I'm</td></tr> </tbody> </table>	any	want	as	always	ate	go	on	until	said	see	into	and	could	room	then	far	new	form	back	become	such	going	this	himself	same	some	find	kite	went	war	be	live		I'm	<p><i>Student Form: Passage Reading Fluency</i> A New Baby</p> <p>Mom was going to have a baby. Another one! That is all we need thought Samantha who was ten years old. Samantha had two little brothers.</p> <p>They were brats. Now Mom was going to have another one. Samantha wanted to cry.</p> <p>"I will need your help," said Mom. "I hope you will keep an eye on the boys while I am gone. You are my big girl."</p> <p>Samantha told Mom she would help. She did not want to, though. The boys were too messy. They left toys everywhere. They were too loud, too.</p> <p>Samantha did not want another baby brother. Two were enough.</p> <p>Dad took Samantha and her brothers to the hospital. They went to Mom's room. Mom did not feel good. She had not had the baby. The doctors said it would be later that night. "I want to wait here with you," said Samantha. "Thank you, Samantha. But you need to go home. You will get too sleepy. Go home with Grandma. I will see you in the morning," said Mom.</p> <p>That night Samantha was sad. She knew that when the new baby came home that Mom would not have time for her. Mom would spend all of her time with the new baby.</p>	<p><i>Maze Fluency Probe 5</i> Summer Camp</p> <p>Stuart had nice parents. They did not embarrass him in [glad/ front/ yellow] of his friends. His father did [not/ ant/ soft] yell at him during his baseball [center/ games/ lines], and his mother never kissed him [in/ to/ put] front of his friends. He generally [liked/ flow/ jeep] his parents, except for the fact [shoe/ went/ that] they were sending him to summer [bus/ dump/ camp] this year.</p> <p>Stuart did not want [to/ with/ cow] go to summer camp. The thought [and/ be/ of] it made him picture himself hot [coat/ rest/ and] thirsty, hiking up a dusty trail. [Bit/ He/ Go] knew that summer camp food had [of/ to/ my] be bad news, too. Besides, summer [camp/ free/ dog] was for people with nothing else [fad/ to/ sew] do. He had plenty of things planned [for/ much/ very] his summer at home.</p> <p>"Summer camp [will/ yes/ belt] be good for you," said Mother. "[Feel/ And/ Lot] I don't want to hear another [catch/ phone/ word] about it!" Stuart moped around the [beat/ opens/ house] until it was time to go. Mother [had/ with/ boy] packed his trunk full of clothes. [and/ sort/ time] she and Dad took Stuart to a [real/ glob/ the] bus station. Stuart tried hard not [to/ sun/ we] cry when he hugged them goodbye. [Yet/ He/ Sat] ran onto the bus and buried [beam/ his/ neat] head in his hands. After a [while/ tall/ hate], he looked out the window.</p>
any	want																																			
as	always																																			
ate	go																																			
on	until																																			
said	see																																			
into	and																																			
could	room																																			
then	far																																			
new	form																																			
back	become																																			
such	going																																			
this	himself																																			
same	some																																			
find	kite																																			
went	war																																			
be	live																																			
	I'm																																			
<p>Word Identification Fluency first grade</p>	<p>Passage Reading Fluency mid-first–sixth grade</p>	<p>Maze Fluency fourth–sixth grade</p>																																		

(Adapted from *Using CBM for Progress Monitoring in Reading*, by L. S. Fuchs and D. Fuchs, 2008.)

EXAMPLE OF HOW TO IMPLEMENT

The administration and scoring rules for each probe differ slightly. The literature that accompanies commercially available probes includes administration and scoring instructions. In general, most probes are administered for one to three minutes and are scored by counting the number of words or letters identified correctly. Below are examples of the administration and scoring of the *Vanderbilt Passage Reading Fluency* probe.

RTI: PROGRESS MONITORING ADMINISTERING AND SCORING PROBES

Administration

Teacher: I want you to read this story to me. You'll have one minute to read. When I say "begin," start reading aloud at the top of the page. Do your best reading. If you have trouble with a word, I'll tell it to you. Do you have any questions?

(Student reads, teacher keeps time and marks the teacher form for scoring.)

It was Saturday morning and Ellie wanted to go see a movie.	12
She asked her father if he would take her downtown. "Sure," said Dad.	25
"I have to go in to work anyway. It will be right on my way."	40
Ellie called her friends Beth, Katie, and Laura to see whether	51
they could go. They said yes. They went to Ellie's house. There they	64
all got into Dad's car. Then Dad drove r the movies.	75

(Adapted from Using CBM for Progress Monitoring in Reading, by L. S. Fuchs and D. Fuchs, 2008.)

Scoring

To compute the number of words a student reads correctly, teachers use the following scoring rules:

- Words read correctly are scored as correct.
- A number is counted as a word.
- Words that are mispronounced, omitted, substituted, or reversed (including proper names) are counted as errors.
- Repetitions and insertions are ignored.
- If the student self-corrects within three seconds, the word is counted correct.
- If the student hesitates for longer than three seconds, the word is provided by the teacher and counted as an error.

RTI: PROGRESS MONITORING ADMINISTERING AND SCORING PROBES

"her" omitted, 1 point lost

"downtown" self-corrected, no points lost

Indicates the number of words from the beginning of the passage to the end of the line.

It was Saturday morning and Ellie wanted to go see a movie.	12
She asked her father if he would take her downtown. "Sure," said Dad.	25
"I have to go in to work anyway. It will be right on my way."	40
Ellie called her friends Beth, Katie, and Laura to see whether	51
they could go. They said yes. They went to Ellie's house. Then they	64
all got into Dad's car. Then Dad drove to the movies.	73

"all" inserted, no points lost

"whether" student hesitated, teacher provided word, 1 point lost

Score = 71 (out of a possible score of 73 words read correctly)

RESOURCES

Ardoin, S. P., Witt, J. C., Suldo, J. C., Connell, J. E., Koenig, J. L., Resetar, J. L., Slider, N. J., & Williams, K. L. (2004). Examining the incremental benefits of administering a maze and three versus one curriculum-based measurement reading probes when conducting universal screening. *School Psychology Review*, 33, 218–233.

Deno, S. L. (2003). Developments in curriculum-based measurement. *The Journal of Special Education*, 37(3), 184–192.

Fuchs, L. S., & Fuchs, D. (2008). *Using CBM for progress monitoring in reading*. Retrieved on 26 January, 2009, from <http://www.studentprogress.org/library/Training/CBM%20Reading/UsingCBMReading.pdf>

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HTTP://IRIS.PEABODY.



RTI: PROGRESS MONITORING GRAPHING

★ WHAT A STAR SHEET IS...

A STAR (Strategies And Resources) Sheet provides well-researched strategies or information that can help solve the case studies in this unit.

WHAT IT IS...

Graphing is a method of recording a student's scores for each probe and is an integral part of progress monitoring.

WHAT THE RESEARCH AND RESOURCES SAY...

- Students are more aware of their performance, view themselves as more responsible for their learning, and are more motivated to learn when they graph their own progress monitoring data. (Davis, Fuchs, Fuchs, & Whinnery, 1995; McLane, "Integrating"; McLane, "Fact Sheet")
- Students who graph their own data are motivated to improve their academic performance. (Safer & Fleischman, 2005)
- Teachers are able to make quicker instructional decisions by looking at a student's graph than they are when they rely on a list of scores. (Fuchs and Fuchs, 2008)
- A graph of progress monitoring data is a great tool for communicating with a family or other professionals about a student's performance. (McLane, "What Is?"; McLane, "Fact Sheet")

KEEP IN MIND

Graphing a student's progress monitoring data is beneficial for both teachers and students.

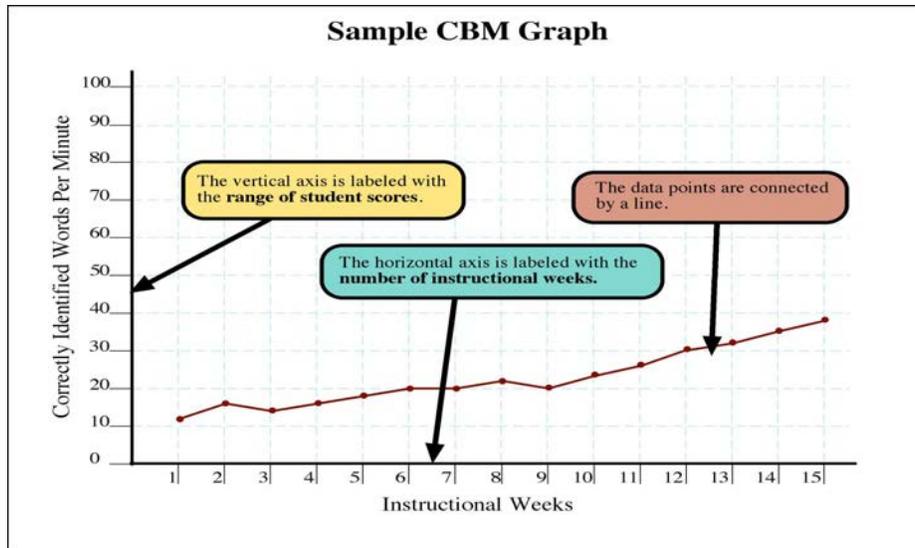
BENEFITS FOR TEACHERS	BENEFITS FOR STUDENTS
<ul style="list-style-type: none"> • Allows teachers to monitor a student's progress • Offers the teacher a means to evaluate the effectiveness of the instructional program • Provides the teacher with a visual aid with which to effectively communicate with students as well as parents and other professionals 	<ul style="list-style-type: none"> • Gives students a visual representation of their progress • Shows students (through specific feedback) that their hard work pays off • Allows students to set appropriate goals for themselves

TIPS FOR IMPLEMENTATION

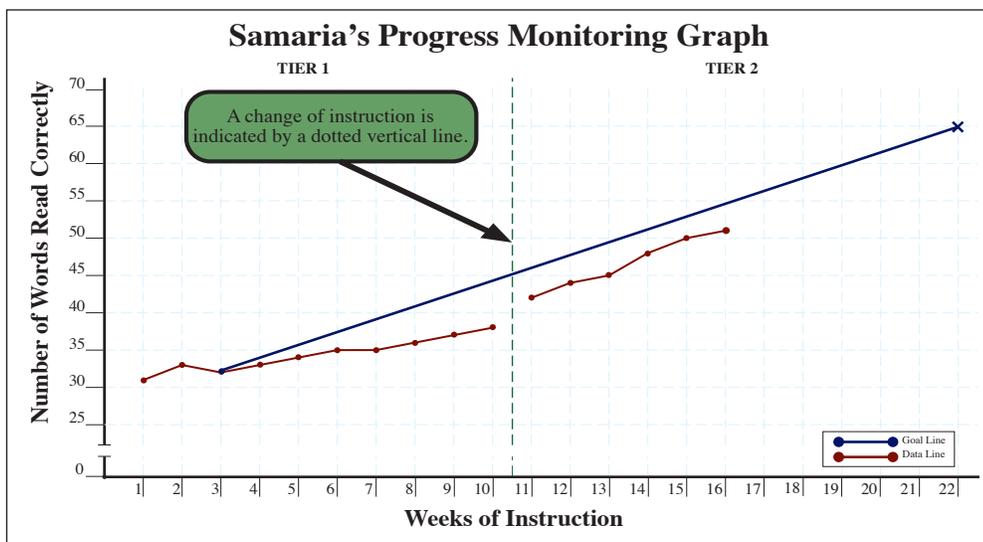
- Although teachers can create their own progress monitoring probes and graphs, many teachers and schools elect instead to purchase them. Progress monitoring graphing software graphs student data and helps interpret that data for teachers. However, it is important for teachers to be able to read a graph and plot the data, especially if the teacher wants to encourage his or her students to graph their own data using graph paper or a teacher-created graph.

RTI: PROGRESS MONITORING
GRAPHING

- Every time a progress monitoring probe is administered and scored, it is recorded on a progress monitoring graph. The vertical axis (y-axis) represents the range of possible scores a student can obtain on the progress monitoring probe (e.g., number of words read correctly). The horizontal axis (x-axis) represents the number of weeks of instruction.



- A line can be drawn to connect each data point so that a student’s progress can be easily viewed over time.
- A dotted vertical line is drawn whenever a change in instruction occurs, indicating when the new instruction began. As further data is collected they are plotted on the same graph, allowing a comparison of the student’s performance with the different instructional approaches. For example, a dotted vertical line is drawn when a student begins Tier 2 instruction.



RTI: PROGRESS MONITORING GRAPHING

- The range of scores varies for each type of measure. Therefore, when creating graphs for students to use, teachers need to know the probe's range of possible scores. For example, the chart below lists the range of scores for each Vanderbilt University measure.

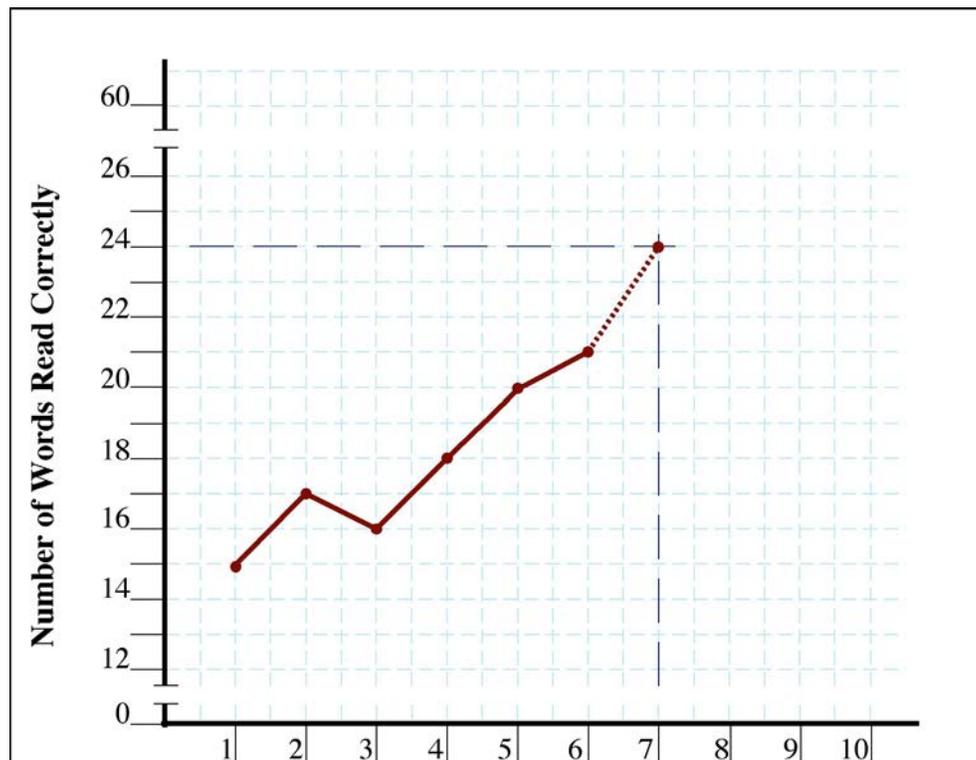
RANGE OF SCORES FOR VANDERBILT UNIVERSITY PROBES	
Letter Sound Fluency	0–100
Word Identification Fluency	0–100
Passage Reading Fluency	0–200

- Because progress monitoring data are collected frequently, it may be helpful to establish a routine time to collect and graph it so as to limit the disruptions to other scheduled activities.

EXAMPLE OF HOW TO GRAPH DATA

Scenario: During week 7, Alex scored 23 on the *Vanderbilt University Maze Fluency* probe.

- Step 1. Locate week 7 on the x-axis.
- Step 2. Locate 24 on the y-axis.
- Step 3. Place a mark where the two points intersect.
- Step 4. Draw a line from the last data point to the current data point.



**RTI: PROGRESS MONITORING
GRAPHING**

RESOURCES

Davis, L. B., Fuchs, L. S., Fuchs, D., & Whinnery, K. (1995). "Will CBM help me learn?" Students' perception of the benefits of curriculum-based measurement. *Education and Treatment of Children*, 18(1), 19–32.

McLane, K. (n.d.). *Fact sheet: Benefits of curriculum-based measurement*. Retrieved on 26 January, 2009, from <http://www.studentprogress.org/family/factsheet.asp>

McLane, K. (n.d.). *Integrating student progress monitoring into your classroom: The teacher's perspective*. Retrieved on 26 January, 2009, from http://www.studentprogress.org/Teacher_Perspective.asp

McLane, K. (n.d.). *What is curriculum-based measurement and what does it mean to my child?* Retrieved on 26 January, 2009, from <http://www.studentprogress.org/families.asp>

Safer, N., & Fleischman, S. (2005). Research matters/ How student progress monitoring improves instruction. *Educational Leadership*, 62(5), 81–83.

RTI: PROGRESS MONITORING GOAL SETTING AND ASSESSING STUDENT PERFORMANCE

★ WHAT A STAR SHEET IS...

A STAR (Strategies And Resources) Sheet provides well-researched strategies or information that can help solve the case studies in this unit.

Goal setting involves the teacher's determining an academic benchmark that the student should obtain by a certain time. This goal (or benchmark) is often established by the measure being used. **Assessing** student performance (i.e., response to instruction) involves reviewing a student's progress monitoring graph and evaluating his or her performance in relation to the established goal. Once a student's data have been graphed, teachers can use the relationship between the data points and the goal line to make instructional decisions.

WHAT THE RESEARCH AND RESOURCES SAY...

- For goal setting to be effective, a student must be aware of what kind of progress he or she is making toward meeting his or her goal. (Johnson & Graham, 1990)
- Goal setting and graphing progress monitoring data motivates students to improve their performance. (Pemberton, 2004)
- Progress monitoring can promote a student's success in obtaining goals. By recording the data and the goal on a graph, students have immediate feedback on their performance and how it compares to where they started and where they want to be. (Reid & Lienemen, 2006)
- In order to assess a student's performance, it is critical to be able to compare a student's current progress to his or her prior progress and to the expected performance level for the group. (Speece, n.d.)

TIPS FOR IMPLEMENTATION

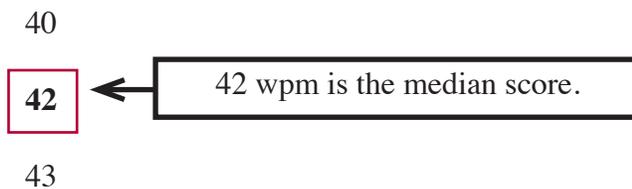
Goal setting

- It is crucial to identify both the expected end-of-the-year goal and the amount of growth expected in shorter periods of time (e.g., weekly goals).
- Commercially available progress monitoring measures have standardized end-of-year performance goals (benchmarks). The table below outlines such goals for the Vanderbilt University measures.

RTI: PROGRESS MONITORING GOAL SETTING AND ASSESSING STUDENT PERFORMANCE

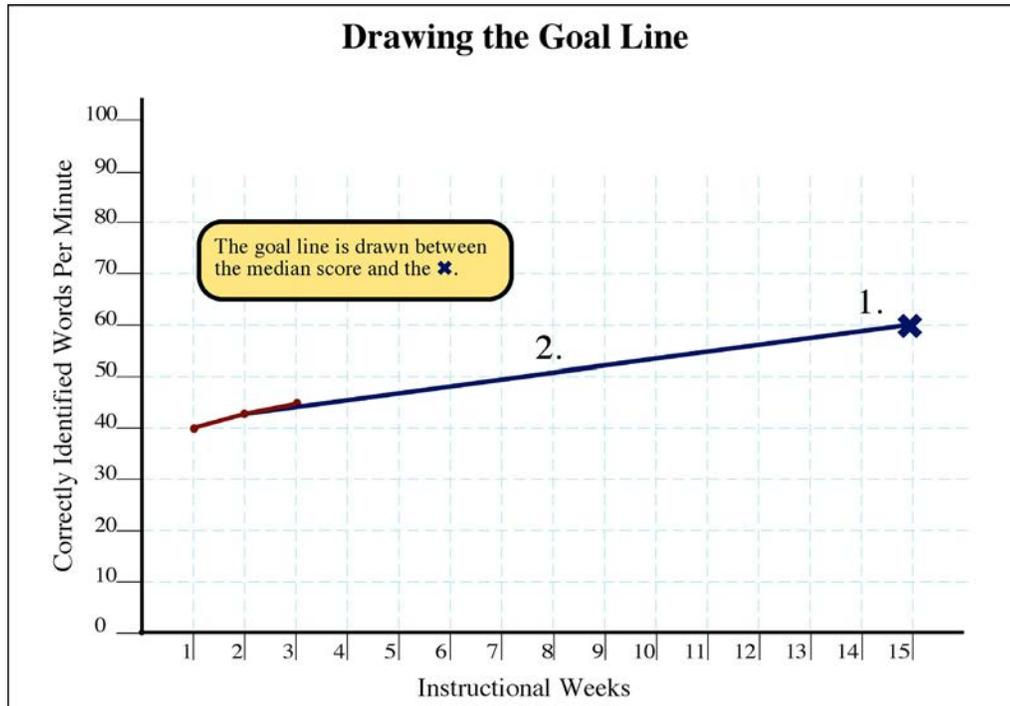
GRADE	MEASURE	END-OF-YEAR PERFORMANCE GOAL
Kindergarten	Letter Sound Fluency	40 letter sounds per minute
1st	Word Identification Fluency	60 words correct per minute
2nd	Passage Reading Fluency	75 words correct per minute
3rd	Passage Reading Fluency	100 words correct per minute
4th	Maze Fluency	20 correct replacements per 2.5 minutes
5th	Maze Fluency	25 correct replacements per 2.5 minutes
6th	Maze Fluency	30 correct replacements per 2.5 minutes

- Once the teacher has determined an academic goal that the student should obtain by the end of the year, he or she is ready to:
 1. Indicate the end-of-year goal or the short-term goal on the student's graph with an X. In the illustration below, the short-term goal is 60 words per minute (wpm).
 2. Determine the median (middle) of the first three scores. To do this, rank order the scores from lowest to highest. In the illustration below, the first three scores are *week 1 – 40 wpm*, *week 2 – 42 wpm*, and *week 3 – 43 wpm*.



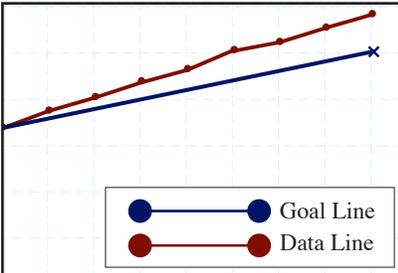
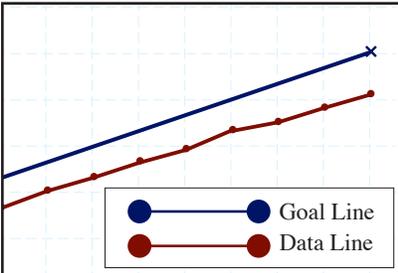
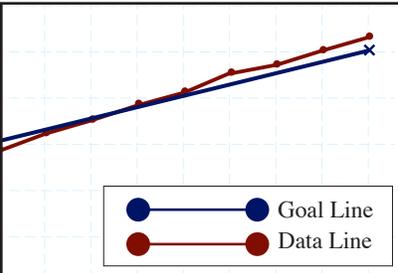
3. Regardless of at which week the median score occurs, locate the intersection of the median score, and the goal line will begin at this point. (Note: In the illustration below, the median happens to occur at week 2.)
4. Draw the goal line between the median of the first three scores and the short-term goal.

RTI: PROGRESS MONITORING
GOAL SETTING AND ASSESSING STUDENT PERFORMANCE



Assessing Student Performance

Once the goal line has been established, the teacher can assess a students’ progress for the remainder of the school year. After the administration and scoring of each probe, the score is added to the graph. The teacher can now use the four most recent data points to assess the student’s performance (the Four Point Rule) using the general guidelines below.

ABOVE THE GOAL LINE	BELOW THE GOAL LINE	AROUND THE GOAL LINE
<p>The student’s performance is exceeding expectations and a slightly more ambitious goal is needed.</p>	<p>The student is not meeting expectations. Something isn’t working and a different instructional approach should be implemented.</p>	<p>The student is on target to meet the year-end goal.</p>
 <p>This graph shows a red data line consistently above a blue goal line. The data line starts at the same point as the goal line but rises more steeply, ending at a higher value than the goal line at week 15. A legend at the bottom identifies the blue line as 'Goal Line' and the red line as 'Data Line'.</p>	 <p>This graph shows a red data line consistently below a blue goal line. The data line starts at the same point as the goal line but rises less steeply, ending at a lower value than the goal line at week 15. A legend at the bottom identifies the blue line as 'Goal Line' and the red line as 'Data Line'.</p>	 <p>This graph shows a red data line fluctuating around a blue goal line. The data line starts at the same point as the goal line and ends at the same point as the goal line at week 15, staying very close to the goal line throughout. A legend at the bottom identifies the blue line as 'Goal Line' and the red line as 'Data Line'.</p>

RTI: PROGRESS MONITORING GOAL SETTING AND ASSESSING STUDENT PERFORMANCE

KEEP IN MIND

- Each commercially available product recommends a standardized benchmark for each measure and for each grade level.
- Because goals that take a long time to accomplish may stifle motivation, it may be beneficial to string together a series of short-term goals as a means of working toward a longer-term one.

RESOURCES

Fuchs, L. S., & Fuchs, D. (2008). *Using CBM for progress monitoring in reading*. Retrieved on August 22, 2008, from http://www.studentprogress.org/summer_institute/rti/UsingCBMProgressMonitoringReading/UsingCBMPMReading_manual.pdf

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National Center on Progress Monitoring. (n.d.). *Common questions for progress monitoring*. Retrieved on January 26, 2009, from <http://www.studentprogress.org/progresmon.asp>

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Reid, R., & Lienemen, T. (2006). *Strategy instruction for children with learning disabilities: What it is and how to do it*. New York: Guilford.

Speece, D. (n.d.) *How progress monitoring assists decision making in a response-to-intervention framework*. Retrieved on August 22, 2008, from <http://www.studentprogress.org/library/articles.asp>



★ WHAT A STAR SHEET IS...

A STAR (Strategies And Resources) Sheet provides you with a description of a well-researched strategy that can help you solve the case studies in this unit.

WHAT IT IS...

Communicating with parents within the context of RTI involves keeping parents informed of their child's progress or response to instruction.

WHAT THE RESEARCH AND RESOURCES SAY...

- There is increasing evidence that family involvement is one of the most important—if not the most important—factors in ensuring a child's academic success. (National Coalition for Parent Involvement in Education, 2006)
- Communicating a student's progress to his or her parents promotes collaboration between the family and the school. (Pemberton, 2004)
- Teachers can more effectively describe a student's performance to his or her parents by using progress monitoring data. (Pemberton, 2004)

TIPS FOR IMPLEMENTATION

- Provide families with information about the core instruction and interventions being implemented.
- Meet with parents when major instructional changes are made or when a more intensive level of instruction (e.g., Tier 2) is recommended.
- When meeting with parents, focus on specific student needs and bring the student's progress monitoring graph to interpret for the parents. The graph can:
 - o Provide a point of reference for the discussion between the teacher and parents
 - o Present a more objective picture of the student's performance
- Offer translators (as needed) for written and verbal communication.

KEEP IN MIND

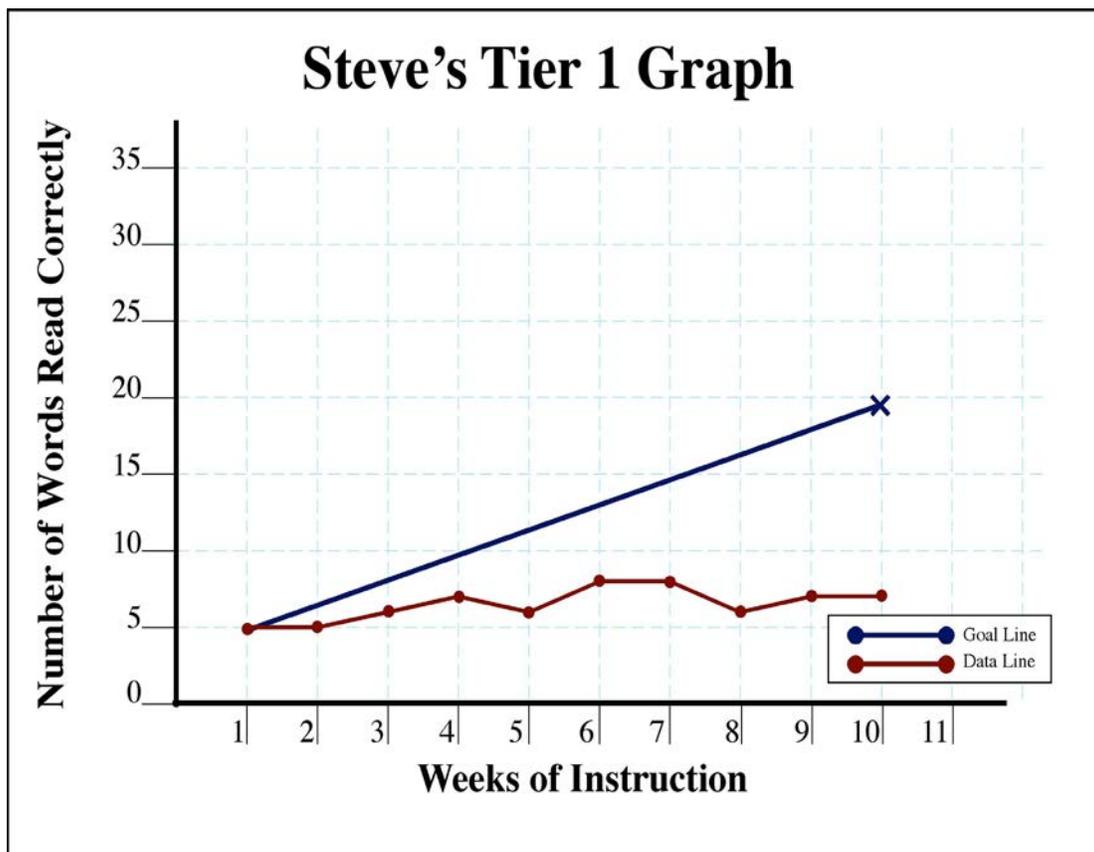
- Ideally, the school should establish communication with all parents at the beginning of the school year to explain the RTI process. If a child is identified as potentially struggling in reading, the teacher should indicate to the parents that their child's progress will be monitored.

**RTI: PROGRESS MONITORING
COMMUNICATING WITH PARENTS**

- During a parent-teacher meeting, parents are typically interested in three main issues that the teacher can illustrate using the student's progress monitoring graph:
 - o How their child is progressing compared to his or her past achievement
 - o How their child is progressing compared to other students
 - o What goals their child is expected to meet by the end of the school year

EXAMPLE

Below is Steve's Tier 1 progress monitoring graph. His teacher, Ms. Doss, has a meeting with Steve's parents to discuss his progress. The monologue that follows suggests what she might say in this meeting.



**RTI: PROGRESS MONITORING
COMMUNICATING WITH PARENTS**

“Hi Mr. and Mrs. Lancaster, it’s nice to see you again. Today, I want to discuss Steve’s reading progress, and I am going to use this graph to help us. The last time we met, we talked about the fact that Steve’s score on the universal screening indicated that he was struggling in reading. Since then, I have monitored Steve’s reading performance once a week using a one-minute reading passage. Each week’s score is indicated by a red dot on the graph. This blue line represents how many words Steve should be reading to be on grade level. As you can see, the line increases as the school year progresses because we expect that students will read more and more words each week. During the 10 weeks that I have monitored his performance, Steve has continued to read at the same level (about 5–7 words per minute) instead of the 10-week goal of 19 words per minute. In order for Steve to be reading at grade level by the end of the year, an instructional change may be needed.”

RESOURCES

National Coalition for Parent Involvement in Education. (2006). *A new wave of evidence: The impact of school, family and community connections on student achievement*. Retrieved August 18, 2007, from <http://www.ncpie.org/WhatsHappening/researchJanuary2006.html>

Pemberton, J. B. (2004). Communicating academic progress as an integral part of assessment. *Teaching Exceptional Children*, 35(4), 16–20.

