



CASE STUDY UNIT

RTI: Data-Based Decision Making

Created by

Janice Brown, PhD, Vanderbilt University
Kim Skow, Vanderbilt University

iris.peabody.vanderbilt.edu or iriscenter.com

Serving: Higher Education Faculty • PD Providers • Practicing Educators

Supporting the preparation of effective educators to improve outcomes for all students, especially struggling learners and those with disabilities

Contents:	Page
Credits	ii
Standards	iii
Introduction	iv
STAR Sheets	
Data-Based Decision Making Overview	1
Determining Performance Level	4
Determining Rate of Growth	7
Using the Dual-Discrepancy Approach	10
Making Tier Placement Decisions	13
Communicating with Parents	17
Case Studies	
Level A, Case 1	19
Level A, Case 2	20
Level B, Case 1	21
Level B, Case 2	23
Level B, Case 3	25
Level C, Case 1	27

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

RTI: Data-Based Decision Making

To Cite This
Case Study Unit

Brown, J., Skow, K., & the IRIS Center. (2009). *RTI: Data-based decision making*. Retrieved from https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_case_studies/ics_rtidm.pdf

Content
Contributors

Janice Brown
Kim Skow
2009

Case Study
Developers

Janice Brown
Kim Skow

Editor

Jason Miller

Reviewers

Pamela Stecker
Pam Fernstrom
Kim Paulsen

Graphics

IRIS Center

Licensure and Content Standards

This IRIS Case Study aligns with the following licensure and program standards and topic areas.

Council for the Accreditation of Educator Preparation (CAEP)

CAEP standards for the accreditation of educators are designed to improve the quality and effectiveness not only of new instructional practitioners but also the evidence-base used to assess those qualities in the classroom.

- Standard 1: Content and Pedagogical Knowledge

Council for Exceptional Children (CEC)

CEC standards encompass a wide range of ethics, standards, and practices created to help guide those who have taken on the crucial role of educating students with disabilities.

- Standard 4: Assessment

Interstate Teacher Assessment and Support Consortium (InTASC)

InTASC Model Core Teaching Standards are designed to help teachers of all grade levels and content areas to prepare their students either for college or for employment following graduation.

- Standard 7: Planning for Instruction
- Standard 10: Leadership and Collaborations

National Council for Accreditation of Teacher Education (NCATE)

NCATE standards are intended to serve as professional guidelines for educators. They also overview the “organizational structures, policies, and procedures” necessary to support them.

- Standard 1: Candidate Knowledge, Skills, and Professional Dispositions

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*

Key Ideas

- Response to intervention is an instructional approach that serves two primary purposes:
 - It provides early intervening services to struggling students as a means through which to improve their skills.
 - 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:
 - High-quality instruction (i.e., instruction based on research-validated practices)
 - Frequent progress monitoring
 - Increasingly intense levels of intervention
 - Data-based decision making
- RTI has many potential benefits, including that:
 - It provides early instructional intervention to those who need it.
 - It requires that teachers rely on assessment data to support their instructional decisions.
 - It reduces inappropriate special education referrals and placements.
 - It accommodates multiple levels of intervention.
 - 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 response to Tier 2 instruction 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.



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.

RTI: Data-Based Decision Making Data-Based Decision Making Overview

About the Strategy

Data-based decision making in RTI is the process of collecting data and using it to make instructional decisions, such as which students are struggling with reading and which tier of instruction would best meet those students' academic needs.

What the Research and Resources Say

- By monitoring the progress of all the students in a classroom, teachers can make instructional changes to improve their students' academic growth, including among those who are struggling with reading. (Fuchs & Fuchs, n.d.)
- By examining an individual student's progress monitoring data, educators can determine whether that student is responding adequately to the instruction he or she is receiving, and make appropriate instructional decisions accordingly. (Johnson, Mellard, Fuchs, & McKnight, 2006)
- A minimum of five data points is required to assess a student's response to instruction. (Fuchs & Fuchs, 2007; Stecker, 2007)
- By collecting progress monitoring data, educators can determine which intervention or types of instruction work best for all students in the class. (Johnson, Mellard, Fuchs, & McKnight, 2006)

Connection to RTI

Data-based decision making is a central concept in RTI. School personnel collect screening and progress monitoring data and then base their instructional decisions on these data. The table below summarizes these decisions.

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) and the data are used to make decisions about which students are potentially struggling with reading.
Tier 1	Teachers frequently (e.g., every one to two weeks) monitor the progress of struggling students who are identified through the universal screening process. Typically, teachers collect these data for five to ten weeks. The data are used to determine whether the students are responding adequately to Tier 1 instruction or would benefit from more targeted instruction (i.e., Tier 2).
Tier 2	Tier 2 instruction should be provided for a minimum of 10 weeks. Student progress continues to be monitored frequently (e.g., at least once per week). The data are used to assess the student's response to Tier 2 instruction. Based on those data, the school team may decide that the student: <ul style="list-style-type: none"> • Can succeed with Tier 1 instruction only • Would benefit from another round (e.g., 10 weeks) of Tier 2 instruction • Needs more intensive individualized instruction (i.e., Tier 3 intervention)

Tier 3	Depending on a state's or district's policies, this instruction may be provided through general education or special education. Progress monitoring data are used to determine whether a student is responding successfully to an instructional approach. The data can also be used to decide whether the student is meeting grade-level expectations and can succeed with less intensive instruction (e.g., Tier 1 or Tier 2).
---------------	---

Strategies to Implement

When using data to make instructional decisions, teachers will often find it beneficial to have guidelines. These should specify what procedures to use when collecting and evaluating assessment data. Factors to consider include:

- The measures to be used to monitor progress and the frequency with which these measures will be administered (e.g., the *Vanderbilt Word Identification Fluency* probe administered once per week).
- The method to be used to evaluate students' response to instruction (e.g., dual discrepancy)
- The criterion to be used to define "adequate" response to instruction (e.g., established benchmarks)
- The frequency of collecting progress monitoring data to document students' reading performance (e.g., every one to two weeks)
- The amount of data sufficient to allow reasonable certainty about instructional decisions. For example, a teacher needs at least five data points to determine whether a student is responding adequately to Tier 1 instruction
- The rules to determine the appropriate level of instructional intensity (i.e., tier placement) based on students' progress monitoring data
- The number of weeks targeted instruction will be delivered before response to that instruction is evaluated and a tier placement decision is made. For example, a round of Tier 2 might be implemented for 10 weeks.

Keep in Mind

Round of Intervention:

A set period of time, determined by the school or district, during which an intervention is implemented. Some students may receive more than one round of intervention.

- School personnel must understand the purpose and intent of data collection. This allows them to more effectively use the data to make various decisions at different times throughout the RTI process. Typically, a school team (e.g., a school support team) is created to interpret students' data and to make tier placement decisions. At least one member of the school team should have expertise related to interpreting data.
- Any time a decision is made regarding a student's instructional needs, parents should be involved in the process.
- The most effective methods of evaluating a student's response to instruction are examining the rate of growth, the performance level, or both.

Resources

- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2004). Identifying reading disabilities by responsiveness-to-instruction: Specifying measures and criteria. *Learning Disability Quarterly*, 27(4), 216–227.
- Fuchs, L. S., & Fuchs, D. (2007). A model for implementing responsiveness to intervention. *TEACHING Exceptional Children*, 39(5), 14–20.
- Fuchs, L. S., & Fuchs, D. (n.d.). *What is scientifically-based research on progress monitoring?* National Center on Student Progress Monitoring. Retrieved April 18, 2006, from http://www.studentprogress.org/library/What_Is_Scientificall_%20Based_Research.pdf
- Johnson, E., Mellard, D. F., Fuchs, D., & McKnight, M. A. (2006). *Responsiveness to intervention (RTI): How to do it*. Retrieved on October 6, 2008, from http://www.nrld.org/rti_manual/
- South Dakota Department of Education. (n.d.). *Parent involvement*. Retrieved on October 7, 2008, from <http://doe.sd.gov/oess/specialed/forms/Rtl/docs/parts/Parent%20Involvement.pdf>
- Stecker, P. M. (2007). Tertiary intervention: Using progress monitoring with intensive services. *TEACHING Exceptional Children*, 39(5), 50–57.

RTI: Data-Based Decision Making Determining Performance Level

About the Strategy

Performance level is an indication of a student's reading skills, often denoted by a score on a given test or probe. It is usually represented on the vertical axis (the y-axis) on a graph of the student's scores.

What the Research and Resources Say

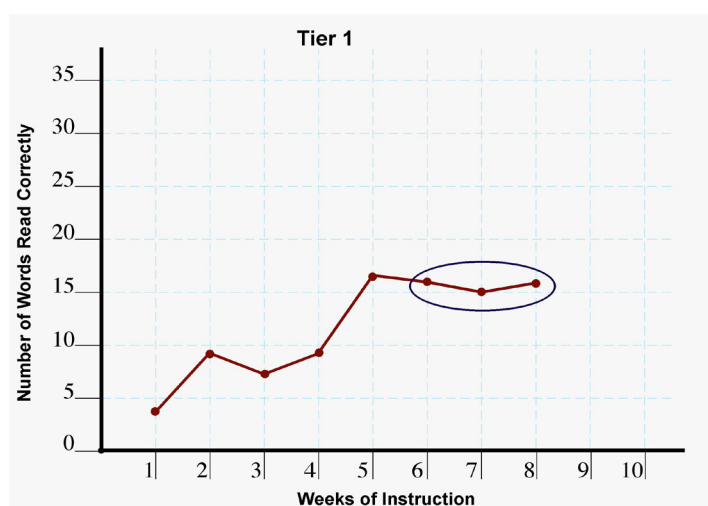
- Progress monitoring probe scores have been shown to be highly correlated with standardized test scores. (Fuchs & Fuchs, 2003)
- Scores on progress monitoring probes indicate how students are reading compared with other students in their class and with a normative sample of grade-level peers. (Vaughn & Chard, 2006; Fuchs & Fuchs, 2006)
- Performance level can be used to determine which students are not responding adequately to general education instruction (i.e., Tier 1 instruction) or to targeted instruction (i.e., Tier 2 instruction). (Fuchs & Fuchs, 2006; Good, Simmons, & Kame'enui, 2001)

Tips for Implementation

At the end of a monitoring period (e.g., seven weeks of Tier 1 instruction), the teacher compares a student's performance level to the benchmark specified by the measure being used. To do this, he or she examines the student's graph and calculates the student's average score on the three most recent probes.

Benchmark:

An indicator used to identify the expected understandings and skills needed for content standards by grade level.

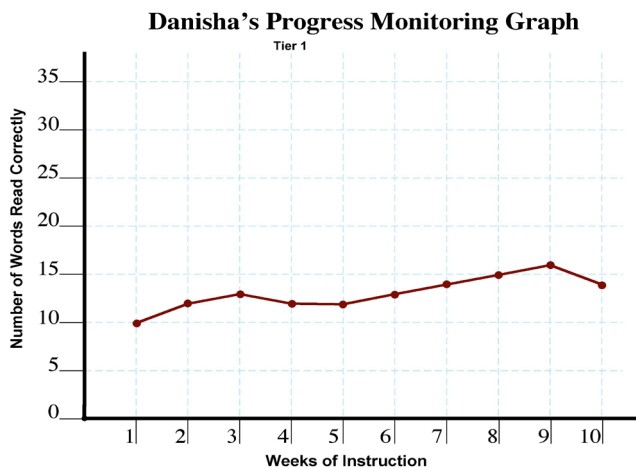


- If a student's average score on the last three probes is equal to or greater than the benchmark, the student is responding adequately to instruction.
- If a student's score is below the specified benchmark, more intensive instruction is warranted.

Example

Note: This example is also used on the STAR Sheet “Determining Rate of Growth” for a comparison of two of the methods for evaluating student performance.

During the second week of school, Mrs. Haversham administered a universal screening measure to each student in her first-grade classroom. Danisha scored in the bottom ten percent of her class—the criterion that indicates that she may not be responding to instruction. To determine whether or not Danisha was adequately responding to Tier 1 instruction, Mrs. Haversham monitored her progress for ten weeks using *Vanderbilt University Word Identification Fluency (WIF)* probes. Danisha’s progress monitoring graph is shown below. Using that data, Mrs. Haversham calculates the student’s average score on the three most recent probes.



Danisha’s Performance Level

(Probe 8)	15	
(Probe 9)	16	
(Probe 10) +	14	$3\overline{)45} = 15$
	45	

Mrs. Haversham and the school support team determine that Danisha’s performance level is 15 wpm, which is below the established ten-week benchmark of 21 wpm. This indicates that Danisha is not responding adequately to instruction and may benefit from Tier 2 instruction.

Strategies to Implement

Universal Screening

After administering a universal screening, the teacher determines the performance level of each student by examining his or her scores. To ascertain which students may not be responding adequately to instruction in the general education classroom (Tier 1), the teacher may use one of three methods:

- Compare each student’s performance level to an established benchmark
- Rank order the students and identify the lowest performing students in a class (or in a grade level)
- Select a certain percentage of the lowest performing students (e.g., the bottom 20 percent of the class)

Tier 1

After monitoring the progress of a student for five to ten weeks in Tier 1, the teacher will evaluate that student’s performance level to determine whether the student needs more targeted instruction (i.e., Tier 2 instruction). In order to do so, the teacher needs to have a criterion with which to compare the student’s scores. The criteria for evaluating a student’s progress will vary depending on the progress monitoring measure being used. Each progress monitoring measure specifies the benchmarks that indicate an adequate response to intervention for that measure. These criteria also vary for each type

of probe and for each grade level.

For example, the end-of-year benchmark for the *Vanderbilt University Passage Reading Fluency* probe for second grade is 75 words read correctly in one minute. Consequently, a student would need to score 75 or above to be considered performing at or above grade level.

Tier 2

Teachers can evaluate the performance of a student receiving Tier 2 instruction by examining that student's progress monitoring data. However, it is recommended that teachers use the dual-discrepancy approach to determine whether a student is responding adequately to Tier 2 instruction. To learn more about this approach, see Page 10.

Resources

- Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly*, 41(1), 93–99.
- Fuchs, D., Fuchs, L. S., Hintze, J., & Lembke, E. (2007). *Using curriculum-based measurement to determine response to intervention (RTI)*. Retrieved on 4 February, 2009, from http://www.studentprogress.org/summer_institute/default.asp#RTI
- Fuchs, L. S., & Fuchs, D. (2003). *What is scientifically-based research on progress monitoring?* National Center on Student Progress Monitoring. Retrieved October 6, 2008, from <http://www.osepideasthatwork.org/toolkit/pdf/ScientificallyBasedResearch.pdf>
- Good, R. H., III, Simmons, D. C., & Kame'enui, 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.
- Vaughn, S., & Chard, D. (2006). Three-tier intervention research studies: Descriptions of two related projects. *Perspectives*, Winter, 39–43.

RTI: Data-Based Decision Making Determining Rate of Growth

About the Strategy

Rate of growth (or slope) indicates how much a student's reading skills have improved over time. It is usually represented by the slope of a student's graphed scores.

What the Research and Resources Say

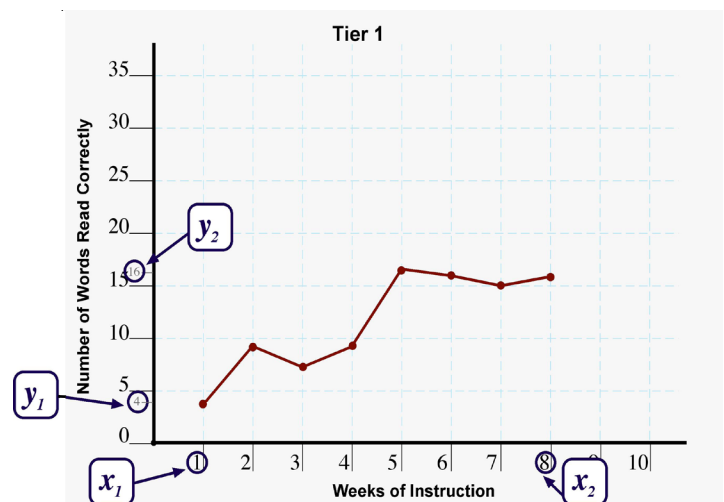
- The rate of growth is a measure of how many new words a student is learning, on average, each week. (Fuchs & Fuchs, 2003)
- Teachers can examine the slopes of the students in their classes, compare them with normative expectations for growth, and determine which students are not making adequate progress. (McMaster, Fuchs, Fuchs, & Compton, 2002; Fuchs & Fuchs, 2003)
- The rate of growth provides a good indication of whether a student will meet an established goal or benchmark (e.g., an end-of-year goal). (Vaughn & Chard, 2006)
- The recommended rate of growth will vary by grade and by probe. (Fuchs, Fuchs, Hintze, & Lembke, 2007)

Strategies to Implement

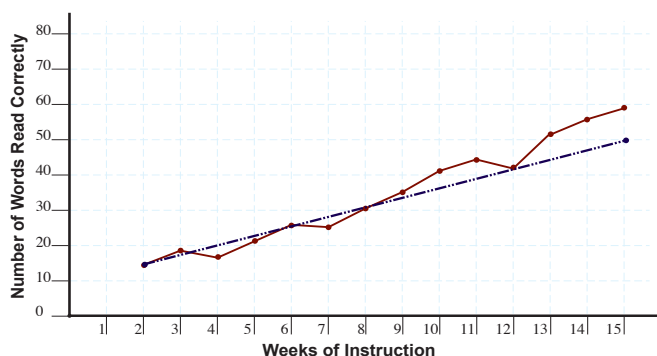
At the end of a monitoring period (e.g., seven weeks of Tier 1 instruction), the teacher should compare the student's slope to the rate of growth specified by the progress monitoring measure being used. A student's slope can be determined with the following pieces of information:

- The score on the first probe: y_1
- The score on the last probe: y_2
- The first administration (e.g., week 1): x_1
- The last administration (e.g., week 8): x_2

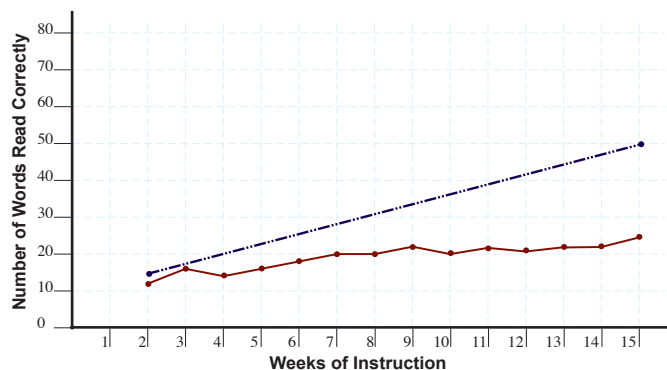
$$\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}$$



- If a student's slope is equal to or greater than the specified rate of growth (e.g., 1.8 on the first-grade *Vanderbilt University WIF* probe), the student is responding adequately to instruction. See **A** below.
- If a student's slope is less than the specified rate of growth, more intensive instruction (i.e., Tier 2 instruction) is warranted. See **B** below.



A



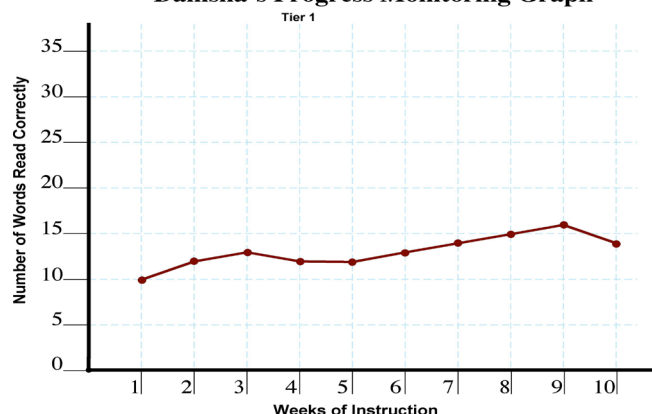
B

Example

Note: This example is also used on the STAR Sheet "Determining Performance Level" for a comparison of two of the methods for evaluating student performance.

During the second week of school, Mrs. Haversham administered a universal screening measure to each student in her first-grade classroom. Danisha scored in the bottom ten percent of her class—the criterion indicating that she may not be responding to instruction. To determine whether or not Danisha was adequately responding to Tier 1 instruction, Mrs. Haversham monitored her progress for ten weeks using *Vanderbilt University WIF* probes. Danisha's progress monitoring graph is below. Using that data, Mrs. Haversham calculates Danisha's rate of growth (i.e., slope).

Danisha's Progress Monitoring Graph



Danisha's Rate of Growth

$$\begin{aligned}
 (y_2=14) \\
 (y_1=10) \quad y_2 - y_1 &= 14 - 10 = 4 \\
 (x_2=10) \quad x_2 - x_1 &= 10 - 1 = 9 = \frac{4}{9} = .44 \\
 (x_1=1)
 \end{aligned}$$

Mrs. Haversham determines that Danisha's rate of growth is .44, which falls below the established criterion of 1.6. This indicates that Danisha is not responding adequately to Tier 1 instruction and may benefit from Tier 2 instruction.

Keep in Mind

Tier 1

Although some teachers may evaluate a student's performance in reading by examining performance level, others prefer to examine a student's rate of growth because it allows them to predict whether that student is going to meet a mid-year or end-of-year benchmark. In addition:

- The criteria for evaluating rate of growth vary depending on the progress monitoring measure being used and for each grade level.
- Each progress monitoring measure specifies the rate of growth that indicates an adequate response to intervention for that measure.
- Teachers and schools can purchase software that graphs and helps to interpret student progress monitoring data.

Tier 2

Teachers can evaluate the performance of a student receiving Tier 2 instruction by examining that student's progress monitoring data. However, it is recommended that teachers use the dual-discrepancy approach to determine whether a student is responding adequately to Tier 2 instruction. To learn more about this approach, see Page 10.

Resources

- Fuchs, D., Fuchs, L. S., Hintze, J., & Lembke, E. (2007). *Using curriculum-based measurement to determine response to intervention (RTI)*. Retrieved on 4 February, 2009, from http://www.studentprogress.org/summer_institute/default.asp#RTI
- Fuchs, L. S., & Fuchs, D. (2003). *What is scientifically-based research on progress monitoring?* National Center on Student Progress Monitoring. Retrieved October 6, 2008, from <http://www.osepideasthatwork.org/toolkit/pdf/ScientificallyBasedResearch.pdf>
- McMaster, K., Fuchs, D., Fuchs, L. S., & Compton, D. L. (2002). Monitoring the academic progress of children who are unresponsive to generally effective early reading intervention. *Assessment for Effective Intervention*, 27(4), 23–33.
- Vaughn, S., & Chard, D. (2006). Three-tier intervention research studies: Descriptions of two related projects. *Perspectives*, Winter, 39–43.

RTI: Data-Based Decision Making Using the Dual-Discrepancy Approach

About the Strategy

The **dual-discrepancy approach** is a method that involves evaluating a student's performance level and rate of growth. It is the preferred method for determining whether students are responding adequately to Tier 2 and subsequent tiers of instruction.

What the Research and Resources Say

- The use of both criterion, performance level and rate of growth, has been shown to be the most reliable means of distinguishing between students who respond to instruction and those who do not. (McMaster, Fuchs, Fuchs, & Compton, 2002)
- Unlike with the IQ-achievement discrepancy model, the use of both criterion (performance level and rate of growth) to determine academic progress avoids gender bias or the overrepresentation of specific ethnic groups in special education services. (Speece, 2005)
- Students who are below the criteria for both performance level and rate of growth are not responding to the high-quality instruction provided and may benefit from more intensive instruction. (McMaster, Fuchs, Fuchs, & Compton, 2002)

Strategies to Implement

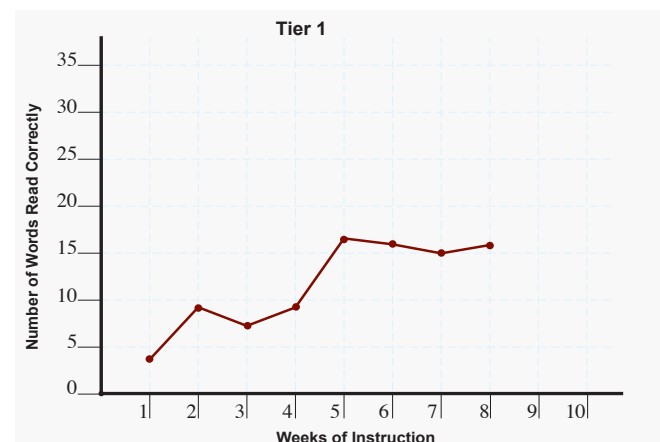
The dual-discrepancy approach is recommended for evaluating a student's response to Tier 2 instruction and to more intensive levels of instruction. It is important to note that there is no set sequence for the evaluation of performance level and rate of growth. For the purposes of this case study, an order has been imposed on this process (see the steps below) because experience indicates that it is more common for students to meet their performance-level expectations (i.e., benchmarks) than to meet their rate-of-growth expectations (i.e., slopes). In effect, evaluating performance level first might reduce the amount of work teachers undertake to make tier decisions. When evaluating student progress for Tier 2, teachers should:

Step 1: Evaluate the performance level for each struggling student

- If a student's performance level meets or exceeds the relevant benchmark, the student is making adequate progress (see the table below). If a student's performance level does not meet the benchmark **Go to Step 2**.

Step 2: Evaluate the rate of growth

- If a student's slope meets or exceeds the established rate of growth, the student is making adequate progress (see the table below).
- If a student's slope does not meet the established rate of growth **Provide Tier 3 intensive, individualized instruction**.

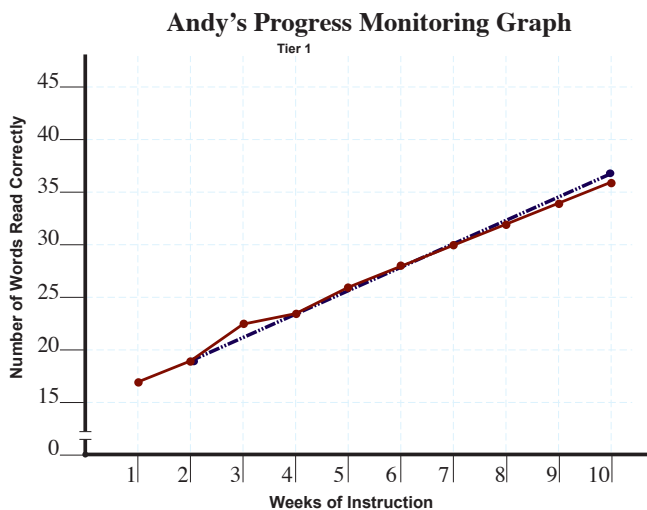


	Performance Level	Rate of Growth	Outcome
Meets Criteria	Yes	Yes	Making Adequate Progress
	Yes	No	Making Adequate Progress
	No	Yes	Making Adequate Progress
	No	No	Not Making Adequate Progress; Needs More Intensive Services

Example

Andy, a first-grade student, has received Tier 2 instruction for 10 weeks. It is now time for his teacher and the S-team to determine whether he has responded adequately to instruction and to make an instructional placement decision based on his progress monitoring data. Using the dual-discrepancy approach, his teacher first determines his performance level. If Andy's performance level meets or exceeds the relevant benchmark, the team will determine that he is making adequate progress and will either discontinue Tier 2 instruction or provide another round of Tier 2 instruction. If Andy's performance level does not meet the ten-week benchmark, 37 wpm, the team will calculate his rate of growth (i.e., slope).

Step 1: Evaluate Andy's performance level

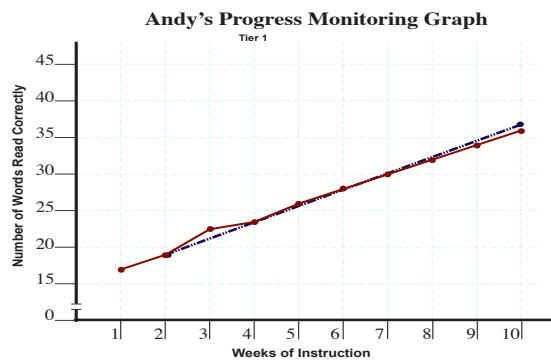


Andy's Performance Level

(Probe 8)	32	
(Probe 9)	34	
(Probe 10)	$\begin{array}{r} +36 \\ \hline 102 \end{array}$	$3 \sqrt{102} = 34$

Andy's performance level is 34 wpm. Because he did not meet the designated ten-week benchmark of 37 wpm, his teacher needs to calculate his rate of growth.

Step 2: Evaluate Andy's rate of growth



Andy's Rate of Growth

$$(y_2=36)$$

$$(y_1=17) \quad y_2 - y_1 = 36 - 17 = \frac{19}{9} = 2.1$$

$$(x_2=10) \quad x_2 - x_1 = 10 - 1 = 9$$

$$(x_1=1)$$

Andy's rate of growth is 2.1, which exceeds the established criterion of 1.8. This indicates that Andy is not dually discrepant and may discontinue Tier 2 instruction. Because Andy has not met his benchmark, some teams might decide that Andy would benefit from another round of Tier 2 instruction.

Resources

- Fuchs, D., Fuchs, L. S., Hintze, J., & Lembke, E. (2007). *Using curriculum-based measurement to determine response to intervention (RTI)*. Retrieved on 4 February, 2009, from http://www.studentprogress.org/summer_institute/default.asp#RTI
- McMaster, K., Fuchs, D., Fuchs, L. S., & Compton, D. L. (2002). Monitoring the academic progress of children who are unresponsive to generally effective early reading intervention. *Assessment for Effective Intervention*, 27(4), 23–33.
- Speece, D. L. (2005). Hitting the moving target known as reading development: Some thoughts on screening children for secondary interventions. *Journal of Learning Disabilities*, 38(6), 487–493.

RTI: Data-Based Decision Making

Making Tier Placement Decisions

About the Strategy

Making tier placement decisions is the process in which a school team evaluates a student's progress monitoring data and decides what level of instruction the student needs. The team can decide that the student needs 1) more intensive, 2) less intensive, or 3) the same level of instruction.

What the Research and Resources Say

- The most reliable way to make a tier placement decision for Tier 2 and beyond is to use the dual-discrepancy approach. (McMaster, Fuchs, Fuchs, & Compton 2002; Fuchs & Fuchs, 2007)
- The data are compared to pre-established criteria. (Fuchs & Fuchs, 2006)
- Multiple tiers of intervention allow for increasingly intensive interventions. (Vaughn Gross Center, 2003)
- A recommended approach to the tier placement process is to create a school team that examines students' data and makes data-based tier placement decisions. (TN Dept of Ed., 2007; Bender & Shores, 2007)
- As members of the RTI decision-making team, parents can offer an additional perspective and contribute to the success of the RTI approach for their child. (Bergeson, 2006)

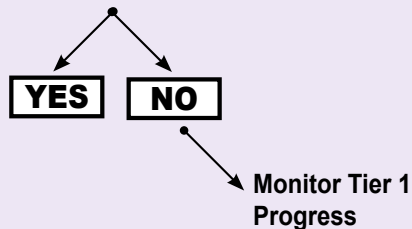
Strategies to Implement

One major application of data-based decision making under the RTI approach is to help school personnel make tier placement decisions, of which there are two general types: tier initiation and tier discontinuation.

Tier Initiation Process

Universal Screening

Did the student demonstrate adequate reading performance on the screening?

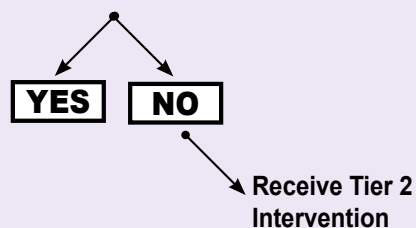


Universal Screening:

All students respond to a universal screening measure.

Assessing Tier 1 Response

Is the student responding adequately to general education classroom instruction?

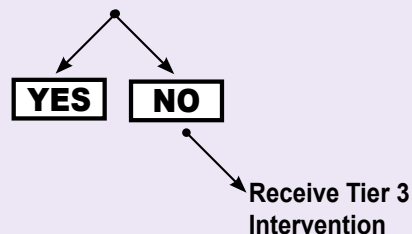


Tier 1 Instruction:

All students receive Tier 1 instruction. The progress of students who do not meet the criteria on the universal screening measure is monitored.

Assessing Tier 2 Response

Is the student responding adequately to targeted intervention?

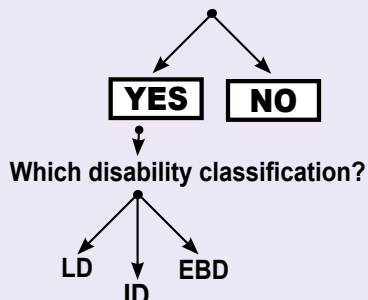


Initiating Tier 2 Intervention:

Students who do not respond adequately to Tier 1 instruction receive targeted intervention (i.e., Tier 2) in addition to Tier 1.

Assessing Tier 3 Response

Does the student meet criteria for a disability classification?



Initiating Tier 3 Intervention:

Students who do not respond adequately to Tier 2 intervention receive intensive, individualized intervention (i.e., Tier 3) in addition to Tier 1 instruction.

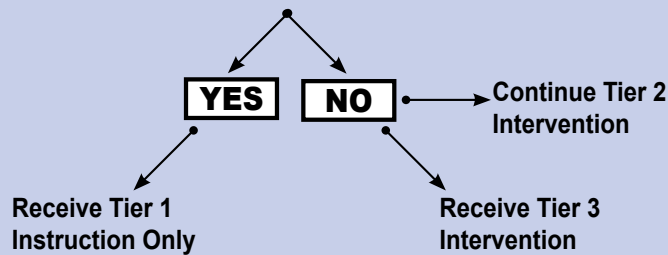
Tier Discontinuation Process

Tier 1 Instruction

All students receive Tier 1 Instruction

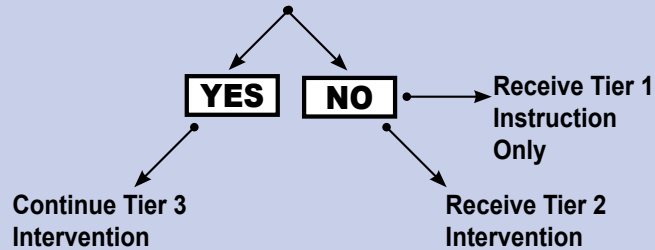
Assessing Tier 2 Response

Is the student responding adequately to targeted intervention?



Assessing Tier 3 Response

Does the student continue to need intensive individualized intervention?



Tier 1 Instruction:

All students receive Tier 1 instruction throughout the year.

Discontinuing Tier 2 Intervention:

Students who respond adequately to Tier 2 instruction may:

- Discontinue Tier 2 intervention and receive Tier 1 instruction only
- Receive another round of Tier 2 intervention. (This is often an option for students who respond favorably to intervention but who have not quite met the established benchmark.)

Discontinuing Tier 3 Intervention:

Students who respond adequately to Tier 3 intervention may:

- Discontinue Tier 3 intervention and receive Tier 2 intervention to support the eventual transition to Tier 1 instruction only
- Discontinue Tier 3 intervention and receive Tier 1 instruction only

Note: When Tier 3 is special education, an IEP meeting must be held to change or discontinue intervention services.

Keep in Mind

When they implement the RTI approach, schools should:

- Specify the criteria to be used to define “inadequate” response to instruction (e.g., established normative benchmarks).
- When a student’s data indicate that the student is not making adequate progress in the general education classroom (i.e., Tier 1 instruction), the school team may determine that he or she would benefit from additional targeted instruction (i.e., Tier 2).
- When the data for a student who has received one or more rounds of Tier 2 instruction indicate that he or she is now performing at grade level, the student may be able to discontinue Tier 2 instruction and maintain his or her level of performance with Tier 1 instruction only.
- School personnel need to be sure that a student has mastered and can maintain the skills acquired during intervention before that intervention is discontinued.
- A student may be referred for a special education evaluation at any point in the RTI process.

Resources

- Bender, W. N., & Shores, C. (2007). *Response to intervention: A practical guide for every teacher*. Thousand Oaks, CA: Corwin Press.
- Bergeson, T. (2006). *Using response to intervention (RTI) for Washington’s students*. Retrieved on October 7, 2008, from <http://www.k12.wa.us/CurriculumInstruct/pubdocs/RTI.pdf>
- Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly*, 41(1), 93–99.
- Fuchs, L. S., & Fuchs, D. (2007). A model for implementing responsiveness to intervention. *TEACHING Exceptional Children*, 39(5), 14–20.
- McMaster, K., Fuchs, D., Fuchs, L. S., & Compton, D. L. (2002). Monitoring the academic progress of children who are unresponsive to generally effective early reading intervention. *Assessment for Effective Intervention*, 27(4), 23–33.
- Tennessee State Board of Education. (2007). *Specific learning disabilities eligibility standards (SLD)*. Retrieved on October 7, 2008, from http://state.tn.us/sbe/Nov07/VJ_SpecificLrngDisabilities_Eligibility_Std.pdf
- Vaughn Gross Center for Reading and Language Arts. (2003). *Introduction to the 3-tier reading model: Reducing reading difficulties for kindergarten through third grade students* (4th ed.). Austin, TX: University of Texas System/ Texas Education Agency.

RTI: Data-Based Decision Making

Communicating with Parents

About the Strategy

Communicating with parents involves notifying and discussing with them their child's progress and response to instruction.

What the Research and Resources Say

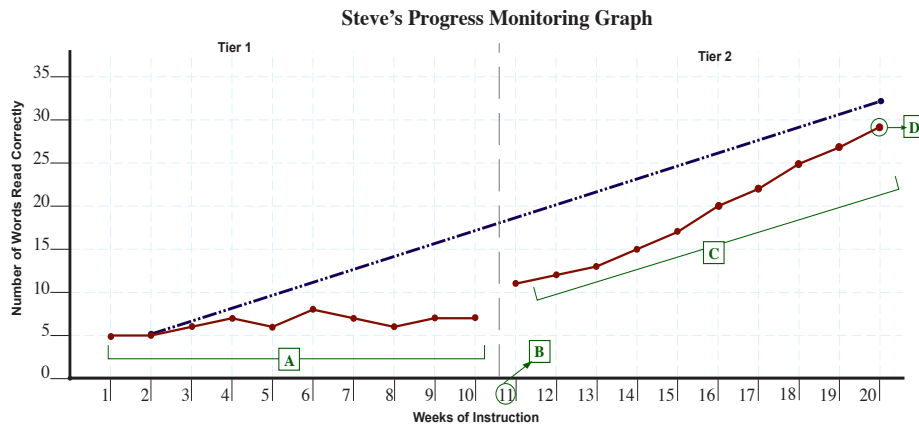
- Involving parents in all phases of RTI implementation is one of the keys to its success. Parents bring another perspective to the decision-making process that increases the likelihood that RTI interventions will be effective. (Bergeson, 2006)
- Sharing normative standards of performance with parents (e.g., the benchmarks or criteria that define responsiveness to instruction) will smooth the process of making tier placement decisions. (Johnson, Mellard, Fuchs, & McKnight, 2006)

Strategies to Implement

- The school should establish communication with the parents at the beginning of the school year to explain the RTI process and to provide families with information about the core instruction and instruction at the various levels.
- Schools should have procedures in place to ensure that parents are informed of their child's progress at critical junctures (e.g., after the universal screening, before changes in their child's tier placement are made).
- Teachers should meet with parents at least once a year for parent conferences. Additionally, teachers should meet with parents when instructional changes are made.
- Schools should offer translators (as needed) for written and verbal communication with parents.
- Communication with parents is especially important when a student is identified as having some additional need that will be met through a more intense level of instruction (e.g., Tier 2). When meeting with parents, a teacher should focus on specific student needs and bring a graph of the student's progress monitoring data to interpret for the parents. The graph can:
 - Provide a point of reference for the discussion between the teacher and parents
 - Present an objective picture of the student's performance
- During a parent-teacher meeting, teachers should be prepared to discuss the issues parents typically are interested in:
 - Their child's progress compared to his or her past achievement
 - Their child's progress compared to other students
 - The goals their child is expected to meet by the end of the school year

Example

Steve is a first-grade student at McDuffy Elementary. Below is his Tier 2 progress monitoring graph. His teacher, Ms. Doss, meets with Steve's parents to discuss his progress. The following monologue describes what she might say in this meeting. Notice how she addresses the three typical parental concerns listed above.



**Short-term goal=32 wpm
Slope=2.0**

"Hi, Mr. and Mrs. Lancaster. It's nice to see you again. I want to discuss Steve's reading progress with you today, and I am going to use this graph to help us. The last time we met, we talked about the fact that Steve's reading performance was not improving. Although he was able to maintain his ability to read about 5–7 words correctly per minute on the tests I gave him, his reading skill did not increase, as shown here on this graph (A). The school support team suggested, and you agreed, that he might be more successful with the additional support provided by our Tier 2 instruction. Steve began Tier 2 instruction in week 11 (B), and as you can see from this line (C) his scores have been steadily improving ever since. He is currently reading about 29 words correctly in one minute (D), which is a nice improvement from where he was at week 10. In order to be reading on grade level, Steve's short term goal is to be able to read 32 words per minute. Although Steve has yet to meet that grade-level goal, shown by the dashed line on the graph, I think that if he continues receiving Tier 2 instruction, he will be reading on grade level—that is, 60 words per minute—by the end of the school year."

Resources

- Bergeson, T. (2006). *Using response to intervention (RTI) for Washington's students*. Retrieved on October 7, 2008, from <http://www.k12.wa.us/CurriculumInstruct/pubdocs/RTI.pdf>
- Johnson, E., Mellard, D. F., Fuchs, D., & McKnight, M. A. (2006). *Responsiveness to intervention (RTI): How to do it*. Retrieved on October 6, 2008, from http://www.nrcld.org/rti_manual/

Background

Student: Emil

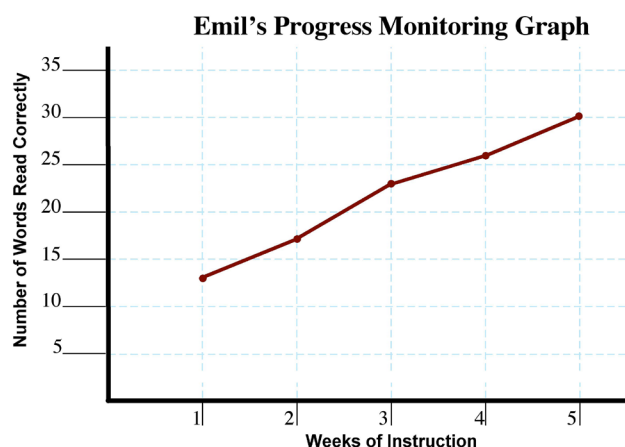
Age: 6

Grade: 1

Scenario

Emil is a first-grade student at Mitchell Elementary School. His teacher, Ms. Perry, administered a universal screening measure a few weeks after school began. Emil's score indicated that he may be struggling in reading. As a result, Ms. Perry monitors his reading performance once per week for five weeks using a measure of reading fluency. The five-week goal (or benchmark) is 22 words per minute (wpm). Emil's scores are in the graph and table below.

Week of Instruction	Score on Probe
Week 1	13
Week 2	17
Week 3	22
Week 4	26
Week 5	30



Possible Activities

- Data-based Decision Making
- Determining Performance Level
- Making Tier Placement Decisions



Assignment

1. Review the Case Study Set Introduction and each of the STAR sheets on the possible activities listed above.
2. Using the five weeks of progress monitoring data outlined above, calculate Emil's performance level.
3. Determine whether Emil is responding adequately to Tier 1 instruction. Elaborate on your response.
4. Based on your evaluation, what tier of instruction would you recommend for Emil?

Background

Student: Hannah

Age: 8

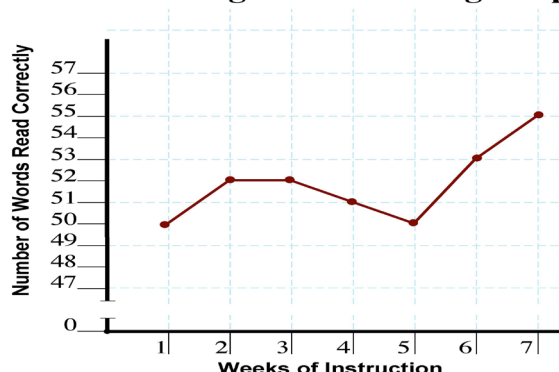
Grade: 3

Scenario

Hannah is a third-grade student who transferred to Cartwright Elementary School late in the fall. Her teacher, Mrs. Pei, has noticed that she seems to struggle with many independent reading assignments. When Mrs. Pei administered the mid-year universal screening measure, she was not surprised to see that Hannah's score had fallen below the grade-level benchmark. Consequently, Mrs. Pei monitors her reading performance once per week for seven weeks using a measure of reading fluency. The rate of growth she is expected to achieve by the end of seven weeks is 1.2. Hannah's scores are in the graph and table below.

Week of Instruction	Score on Probe
Week 1	50
Week 2	52
Week 3	52
Week 4	51
Week 5	50
Week 6	53
Week 7	55

Hannah's Progress Monitoring Graph



Possible Activities

- Data-based Decision Making
- Determining Performance Level
- Making Tier Placement Decisions



Assignment

1. Review the Case Study Set Introduction and each of the STAR sheets on the possible activities listed above.
2. Using the seven weeks of progress monitoring data outlined above, calculate Hannah's slope.
3. Determine whether Hannah is responding adequately to Tier 1 instruction. Elaborate.
4. Based on your evaluation, what tier of instruction would you recommend for Hannah?

Background

Student: Shaunika

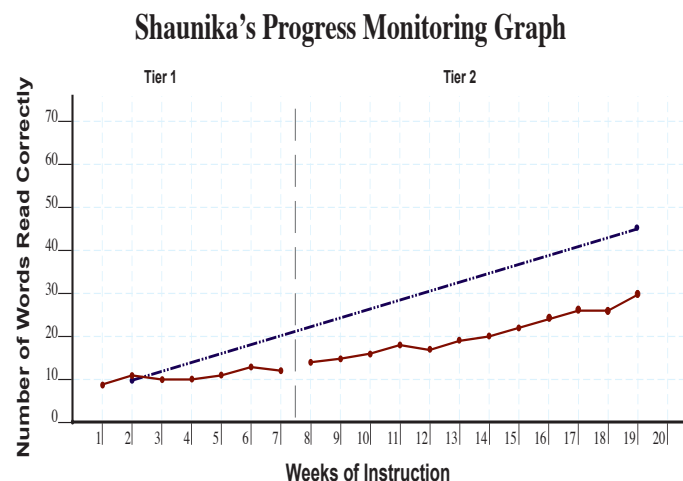
Age: 7

Grade: 2

Scenario

At Pegram Elementary School, the first round of Tier 2 instruction has ended for four second-grade students who were not responding adequately to the reading instruction in the general education classroom. The second-grade school support team is ready to meet to evaluate the progress of these students and to determine each student's instructional needs. They begin by evaluating Shaunika's Tier 2 progress monitoring data. The team will use the dual-discrepancy approach to determine how Shaunika has responded to Tier 2 instruction and to decide what tier of instruction would best meet her current instructional needs. The criteria the team are using to determine whether a student is responding adequately to instruction is a performance level of 45 wpm and a rate of growth of 1.8.

Week of Instruction	Score on Probe
Week 8	14
Week 9	15
Week 10	16
Week 11	18
Week 12	17
Week 13	19
Week 14	20
Week 15	22
Week 16	24
Week 17	27
Week 18	26
Week 19	30



Possible Activities

- Data-based Decision Making
- Determining Performance Level
- Determining Rate of Growth
- Determining Dual Discrepancy
- Making Tier Placement Decisions



Assignment

1. Review the Case Study Set Introduction and each of the STAR sheets on the possible activities listed above.
2. Using the twelve weeks of Tier 2 progress monitoring data outlined above, calculate Shaunika's performance level and slope.
3. Using the dual-discrepancy approach, determine whether Shaunika is responding adequately to Tier 2 instruction. Explain your response.
4. Based on your evaluation, what tier of instruction would you recommend for Shaunika?

Background

Student: Kateri

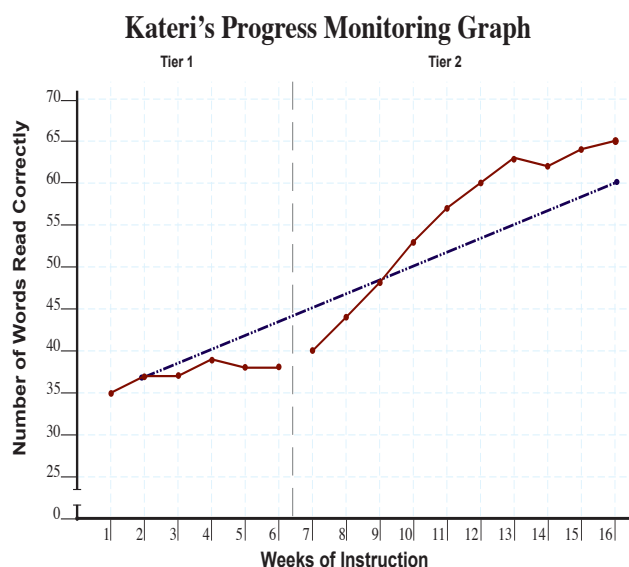
Age: 9

Grade: 3

Scenario

Kateri has received Tier 2 instruction for ten weeks. Her Tier 2 instructor believes that she has made great progress with the more targeted instruction. The Leonard Elementary School support team is ready to meet to evaluate Kateri's progress and to determine whether she has made enough progress to be successful with Tier 1 instruction only or whether she needs more intensive instruction. The team will use the dual-discrepancy approach to determine how Kateri has responded to Tier 2 instruction and to decide what tier of instruction would meet her current instructional needs. The criteria the team are using to determine whether a student is responding adequately to instruction is a performance level of 60 wpm and a rate of growth of 1.2.

Week of Instruction	Score on Probe
Week 7	40
Week 8	44
Week 9	47
Week 10	53
Week 11	57
Week 12	60
Week 13	63
Week 14	62
Week 15	64
Week 16	65



Possible Activities

- Data-based Decision Making
- Determining Performance Level
- Determining Rate of Growth
- Determining Dual Discrepancy
- Making Tier Placement Decisions



Assignment

1. Review the Case Study Set Introduction and each of the STAR sheets on the possible activities listed above.
2. Using the ten weeks of Tier 2 progress monitoring data above, calculate Kateri's performance level and slope.
3. Using the dual-discrepancy approach, determine whether Kateri is responding adequately to Tier 2 instruction. Explain your answer.
4. Based on your evaluation, what tier of instruction would you recommend for Kateri?

Background

Student: Paul

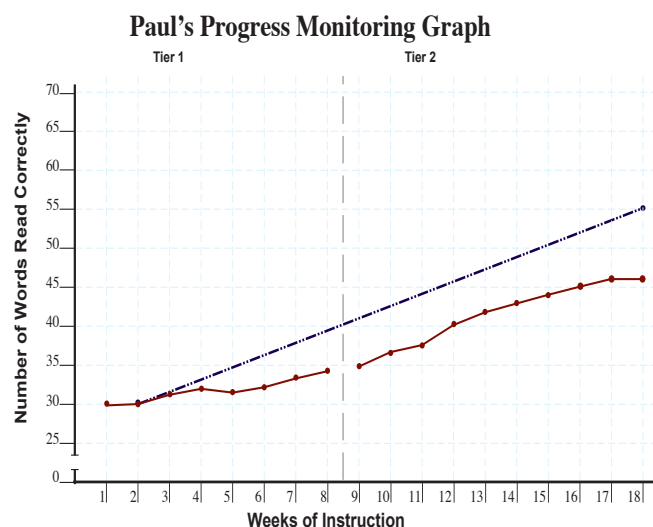
Age: 8

Grade: 3

Scenario

Paul attends Lincoln Elementary School. He has received Tier 2 instruction for 10 weeks. Paul's teacher has been monitoring his progress using the *Vanderbilt University Passage Reading Fluency* probe. Paul's eighteen-week goal is 55 wpm and his expected rate of growth is 1. The school support team is meeting today to review Paul's progress and to determine what tier of instruction would best meet his current educational needs. When they apply the dual-discrepancy approach, the support team members disagree about what tier of instruction would best meet Paul's needs.

Week of Instruction	Score on Probe
Week 9	35
Week 10	37
Week 11	38
Week 12	40
Week 13	42
Week 14	43
Week 15	44
Week 16	45
Week 17	46
Week 18	46



Possible Activities

- Data-based Decision Making
- Determining Performance Level
- Determining Rate of Growth
- Determining Dual Discrepancy
- Making Tier Placement Decisions



Assignment

1. Review the Case Study Set Introduction and each of the STAR sheets on the possible activities listed above.
2. Using the ten weeks of Tier 2 progress monitoring data above, calculate Paul's performance level and slope.
3. Using the dual-discrepancy approach, determine whether Paul is responding adequately to Tier 2 instruction. Explain your response.
4. Why do you think the support team members disagree about what tier of instruction would best meet Paul's needs? What tier of instruction would you recommend for Paul—Tier 1 instruction only or another round of Tier 2 instruction? Explain your decision.

Background

Student: Clay

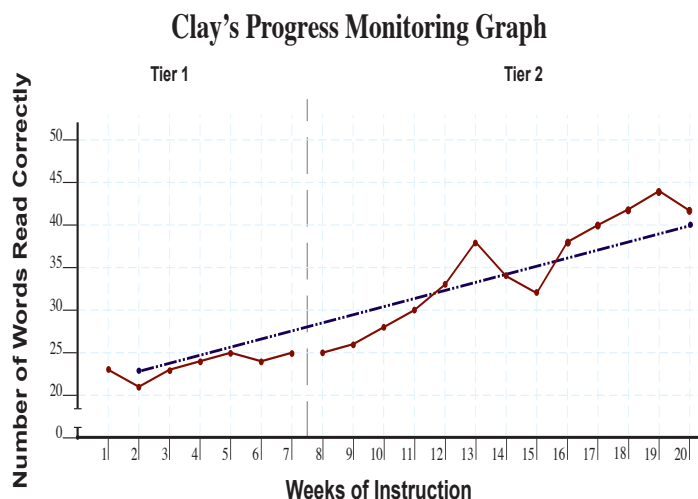
Age: 7

Grade: 2

Scenario

The La Quinta Elementary School support team is ready to review the Tier 2 progress monitoring data for a number of students. One of these students, Clay, has received Tier 2 instruction for thirteen weeks. The school support team will evaluate Clay's progress monitoring data to determine how he has responded to Tier 2 instruction and to decide which instructional tier would best meet his needs. The team will use the dual-discrepancy approach to answer these questions. The criteria the team are using to determine whether a student is responding adequately to instruction is a performance level of 40 wpm and a rate of growth of 1.3. Once the school support team has completed its evaluation of Clay's data, his teacher will contact Clay's parents and arrange a meeting to discuss Clay's progress and the team's recommendations regarding his tier placement.

Week of Instruction	Score on Probe
Week 8	25
Week 9	26
Week 10	28
Week 11	30
Week 12	33
Week 13	38
Week 14	34
Week 15	32
Week 16	38
Week 17	40
Week 18	42
Week 19	44
Week 20	42





Assignment

1. Review the Case Study Set Introduction and each of the STAR sheets.
2. Using the thirteen weeks of Tier 2 progress monitoring data outlined above, calculate Clay's performance level and slope.
3. Using the dual-discrepancy approach, determine whether Clay is responding adequately to Tier 2 instruction. Explain your response.
4. Based on your evaluation, what tier of instruction would you recommend for Clay?
5. Imagine you are Clay's teacher. Describe in detail what information you would share with his parents and how you would justify the team's tier placement recommendation.