**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...**

**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)

**TIPS FOR IMPLEMENTATION**

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): \( x_2 \)

\[
\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}
\]
RTI: DATA-BASED DECISION MAKING

DETERMINING RATE OF GROWTH

• 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.

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).
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 23.

**RESOURCES**


