FIGURE 6.4
Self-Monitoring Stressors

Period	What stressed me?	How I chose to handle it	On a scale of 1–5, how well did it work?
First period			
Second period			
Third period			
Fourth period			
Homework time			

Students need to understand that they are in control of their own learning and that adults want to support them. When students participate in the design process, they tend to cooperate more and appreciate what's being done. This is a big change from many of the old models where the student felt victimized by the process or was completely left out.

The entire team is more likely to come prepared and follow through if the goal is clarified by specifying exactly what evidence each person should collect to determine the success of the action plan. The teacher, parent, and student need a way to measure growth in small increments. This is known as *progress monitoring*.

Progress Monitoring Guidelines

The purpose of progress monitoring is to

- Show the current level of academic or behavior performance (baseline data) and then systematically measure the student's progress toward the DATA goal.
- Determine the effectiveness of instruction or of the intervention plan.
- Guide instructional decisions and adjustments.

Let's look at Rebecca's case to understand the thinking behind how progress monitoring works.

Rebecca: A Focus on Reading Comprehension

Seven-year-old Rebecca has difficulty with reading comprehension. After completing the appreciative inquiry interview with the coach, her teacher, Miss Wood, remembered that when she prompted students to answer *who, what, when, where, why,* and *how* questions while reading, comprehension usually increased. She is going to intensify the use of this strategy by using visuals and connecting concepts as described in this website from James Madison University: http://coe.jmu.edu/learningtoolbox/5w1h.html.

So Rebecca's DATA goal is this: "If we teach Rebecca to answer *who, what, when, where, why,* and *how* questions using visuals, her comprehension will increase. In five weeks, she will go from correctly answering _____percent of comprehension questions to _____percent."

Miss Wood isn't sure where Rebecca's starting point is, so she collects baseline data by looking at work samples from the previous five weeks. Baseline scores must always be stated in measurable terms (for example, current words per minute, scores on a rubric, percentage correct, number of minutes of sustained behavior, or level or number of prompts needed to sustain a behavior). This baseline then serves as a starting point for measuring growth. Research suggests collecting a minimum of three to five data entries to establish a credible baseline (Wehby, n.d.) .

Here's how Miss Wood calculated Rebecca's baseline score for *who, what, when, where, why,* and *how* questions. Based on the last five main idea and detail worksheets, the percentage of comprehension questions that Rebecca answers correctly now ranges between 20 and 40 percent. Averaging the five scores determines her baseline of 31 percent. Once the DATA goal has a baseline score, Miss Wood sets a target goal. Rebecca's DATA goal now reads as follows: "If we teach Rebecca to answer *who, what, when, where, why,* and *how* questions using visuals, her comprehension will increase. In five weeks, she will go from correctly answering 31 percent of comprehension questions on main idea and details to 50 percent."

Research shows that the most successful students are those who are actively involved in their own learning (Center for Teaching and Learning, n.d.). By creating a bar graph (see Figure 6.5), Miss Wood enables Rebecca to track her own progress. When Rebecca explains which strategies work for her and which do not, she sees how her effort and the new strategies pay off. This reflective conversation helps develop a growth mindset (Dweck, 2016). Rebecca will learn to celebrate her successes and help her teacher make decisions about when and how to adjust her instruction.

Which Type of Graph Is Best?

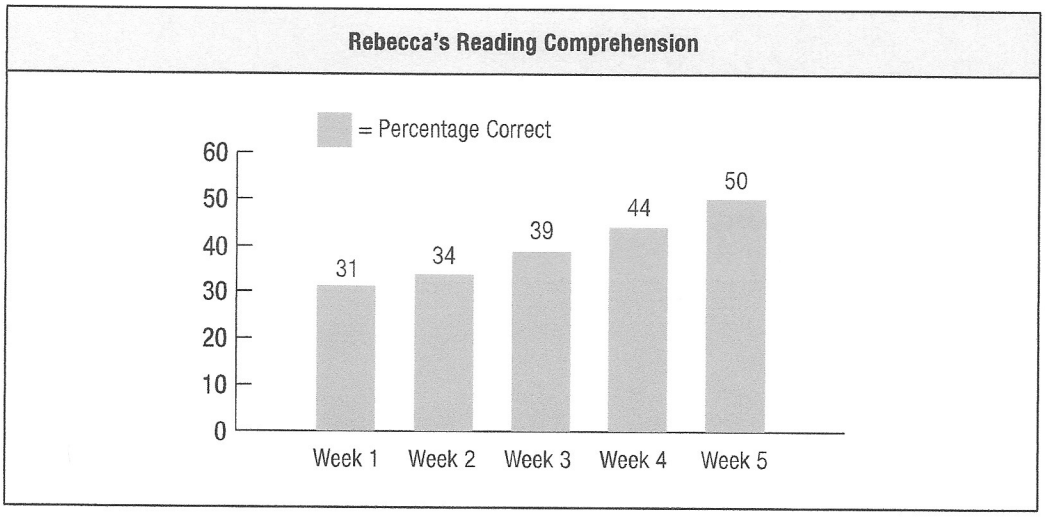
A line graph is the most common visual used for tracking academic or behavior growth. The individual data points connected by a line create a visual display that makes it easy for students to evaluate whether they are or are not improving on a particular skill or behavior.

Miss Wood chose a bar graph to help Rebecca track her own progress because bar graphs are easier for young students to create and read. The bar graph enables Rebecca to be actively engaged with her data by coloring in the bars after Miss Wood marks the point that shows her score. At the end of each week, Miss Wood asks Rebecca the following reflective questions based on her data chart:

- What are you practicing, and why is it important?
- Do you think that what you are doing is helping you get better? Explain what's working.
- Is there anything you and I need to do differently next week?

FIGURE 6.5

Bar Graph for Progress Monitoring



Teaching students to self-monitor by guiding them through a reflective process based on data is a crucial life skill.

What Should We Measure?

It's best to think of measuring in three basic ways:

- **Frequency** measures the increase or decrease in the number of occurrences.
- **Duration** measures how long a behavior lasts.
- **Intensity/quality** measures how much better or worse something is.

Figure 6.6 shows how this might look with a student who has regular meltdowns.

Notice how Sally is not expected to instantly change. The plan is for reasonable growth in small steps over time. When she achieves these goals, new ones will be set to help her extinguish the unproductive behavior and replace it with new and more helpful ways to respond to her stress. Measuring and displaying small, consistent steps of growth are keys to long-term success.

If Olympic swimmers measured their athletic performance in minutes shaved off their time, they would seldom see their own progress. Instead of minutes, they measure in increments of seconds or hundredths of seconds. This is the kind of thinking needed for effective progress monitoring.

FIGURE 6.6

Frequency, Duration, and Intensity: Tracking Sally's Meltdowns

Concern	Frequency	Duration	Intensity
Temper tantrums	Change in how many tantrums in a day	Change in how long each incident lasts	Change in how loud and disturbing this is
	Sally will go from having 10 tantrums a day to 5.	Sally will reduce the amount of time being upset from 20 minutes to 10 minutes per episode. *Or* Sally will be able to calm herself enough to be able to resume her work within 45 minutes (currently it takes her about 75 minutes).	Sally will go from screaming and kicking to removing herself to a cool-down place and writing or verbalizing how she feels.

For example, the number of words written per minute is better than pages completed, the number of steps completed in a math problem is better than just looking at a final answer, and the number of steps in a process that the student can explain correctly is better than assessing whether the entire process is right or wrong. This concept of measuring in small units is important if we want students to maintain enough motivation to keep trying.

Here is a checklist to guide progress monitoring design:

- Are you measuring frequency, duration, intensity/quality?
- Is the assessment short and easy to administer?
- Is the assessment repeatable so you don't compare apples to oranges?
- Can the student see growth at a granular level (very small increments)?
- Is the data easy to record and visual enough to easily draw conclusions?
  - ◊ Bar or line graph
  - ◊ Chart
  - ◊ Rubric
- Does the assessment measure the change you want to see?
- How often will you monitor progress?

Data Collection Tools: An Overview

Now that you know what to look for, let's go through some of the tools that make data collection quick and straightforward.

Rubrics

Rubrics measure quality or intensity. A well-designed rubric clearly communicates academic or behavior expectations. Rubrics also provide a detailed list of the sequence of skill progressions that are helpful for setting small goals for growth. Figure 6.7 shows a rubric for measuring collaboration.

The video *Accessing and Using Rubrics Inside SLP Toolkit* (SLP Toolkit, 2018) gives an added explanation for the rationale of creating rubrics: available at www.slptoolkit.com/blog/rubrics-video. It also provides additional progress-monitoring rubrics for both academic and behavior issues.

Videos

With videos, you can measure frequency by using tally marks, duration by using a timer, and intensity or quality by pairing it up with a rubric. John Hattie (2012) lists *microteaching* as having a huge effect (0.88 effect size) on student growth. In microteaching, a teacher