Progress Monitoring 101

How to effectively monitor learning progress to support MTSS and student success.

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Introduction

When students struggle in school, teachers often provide additional instruction or intervention to help them. Such efforts are frequently part of a Multi-Tiered System of Support (MTSS) that is designed to provide all students with timely assistance (Brown-Chidsey & Bickford 2016).

Another term sometimes used for MTSS is Response to Intervention (RTI). This term is based on the idea that teachers provide evidence-based assistance and collect data to see if the student responds to the intervention. Collecting frequent data during intervention is known as progress monitoring and is an essential part of both MTSS and RTI practices.

This guide will provide all the information you need to get started with progress monitoring, including information about its origins, purposes, assessments, procedures, and perhaps most importantly, how to interpret progress data.

Section 1 | Origins of Progress Monitoring

Tiered systems of support originated in the 2001 revisions of the Elementary and Secondary Education Act (ESEA). This revision was known as the No Child Left Behind (NCLB) Act and included many provisions and steps to provide assistance to struggling students through school-wide, classroom-level and small-group interventions.

The provisions for student assistance were also incorporated in the 2004 amendments of the Individuals with Disabilities Education Improvement Act (IDEIA). The two sections of this Act that incorporated tiered supports and RTI related to a new provision known as Early Intervening Services (EIS) as well as a new alternative procedure for identifying a specific learning disability (SLD).

Early Intervening Services

This section of the law allows school districts to use up to 15 percent of their federal special education funding to provide instructional programming to students who might later require special education services. The specific goal of this provision is to intervene early and prevent the need for special education.

Districts that use funds for EIS must document the interventions provided and student outcomes using progress monitoring data. The progress monitoring data collected to document EIS outcomes provide evidence of how progress monitoring not only improves student learning, but also saves money through less costly prevention services.

An important extension of EIS is the use of early intervention services for all students who are struggling in school, regardless of whether they might demonstrate features associated with an SLD. The rapid growth of both RTI and MTSS services in the last decade reflects an understanding by educators that many students arrive at school with risk factors that could impede success. However, intervention services that focus on an individual student's learning needs can result in improvements strong enough to prevent a need for special education services.

Specific Learning Disability

The second part of IDEA 2004 that included progress monitoring relates to the sources of information that are allowed to be used to identify an SLD.

The term SLD is specific to U.S. special education statute and regulation and was traditionally defined as a discrepancy between a student's measured cognitive skills (i.e., IQ score) and performance on academic skills tasks such as reading, writing and mathematics.

The SLD construct emerged from educators' expectations of student performance based on the assumption that students with average or above average IQ scores should be able to master basic academic skills easily. This assumption was used by early advocates for recognition of SLD as a rationale for unexpected underachievement among students with average or higher IQ scores. This method of identifying students with an SLD was used extensively in the early years of U.S. special education services. At the same time, researchers evaluated the extent to which this method provided an accurate diagnosis of an SLD.

Although the theory that a student with an average IQ but low academic achievement has intuitive appeal as a way to identify students with an SLD, subsequent research did not provide evidence to support this theory. Findings from studies that compared different methods of SLD identification showed that the IQ-achievement discrepancy method does not accurately identify students with the characteristics of an SLD (Kovaleski, VanDerHeyden, & Shapiro,j 2013). In addition, research that examined a method known as Processing Strengths and Weaknesses (PSW) for identifying SLD revealed that such methods did not provide any additional insights for selecting effective interventions for students with the SLD profile (Burns et al., 2016).

The net result of research examining the accuracy of IQ-achievement discrepancy methods as well as the PSW method indicates that these approaches are not effective means of identifying SLD and instructional practices that help students with the SLD profile. Concurrent research (e.g., Kovaleski et al., 2016) documents that progress data are a reliable and valid source of data to support SLD eligibility decisions.

Section 2 | Purpose of Progress Monitoring

Progress monitoring can serve a variety of purposes; however, the three main reasons teachers conduct student progress monitoring include (a) evaluating student learning outcomes, (b) considering instructional change and (c) determining eligibility for other educational services.

Student Outcomes

The most straightforward reason for progress monitoring is to track student learning over time. Such monitoring will show if a student has made expected gains in relation to the instruction provided. While all students benefit from some amount of progress monitoring, for those whose current skills are below grade level, monitoring can document the gains needed to catch up to peers.

Instructional Change

Progress monitoring also provides a way for teachers to evaluate their own practices. When a student's progress data indicate desired improvement, instructional change might not be needed. On the other hand, when progress data show that a student is not making the gains necessary to reach the instructional goal, a teacher can revise the instruction and collect more data.

Eligibility

Both student outcomes and instructional change are progress monitoring applications that are used continuously throughout a school year. A third purpose for progress monitoring is to determine whether a student is eligible for other types of educational services, including special education.

Beginning in 2004, the IDEIA incorporated provisions for using progress data as part of the process to determine if a student meets the criteria for a specific learning disability (SLD). Although much narrower in scope than other uses, using progress data for SLD eligibility is required in certain states and allowed in all of them (Hauerwas, Brown, & Scott, 2013).

Section 3 | Types of Progress Assessments

Effective progress monitoring depends on the availability of assessments with the psychometric properties to track student learning over time. For a progress measure to be effective, it needs to be (a) standardized, (b) consistent, (c) reliable, and (d) valid.

Standardized

Progress measures need to be standardized assessments. A standardized assessment is one that uses the exact same instructions, procedures and scoring every time it is given. Standardization is important because it allows scores to be compared both between students and over time. If non-standardized assessments are used to measure student progress, it is impossible to know if the results were due to differences in testing conditions.

Consistent

A second essential feature of effective progress measurement is consistency. Specifically, data must be collected at specified intervals so that gains over time can be reviewed. Ideally, these intervals are roughly equal so that the amount of gain in each interval can be compared with other intervals.

Reliable

All useful assessments need to be reliable. Reliability refers to a measure's accuracy in producing scores over multiple testing occasions. Test reliability makes it possible for teachers to trust scores obtained over time.

Valid

Finally, progress measures need to be valid for the intended purpose. Test validity is the extent to which an assessment measures what it claims to assess. For example, how well does a reading assessment measure reading skills? Only valid assessments will provide accurate information about student learning outcomes.

The above four essential features are necessary for all types of progress measures, including those for academic skills and behavior. The specific features of academic and behavior progress measures are different but important in relation to how they capture student data.

Section 4 | Academic Progress Measures

The most widely-researched type of academic progress assessment is Curriculum-Based Measurement (CBM). CBM includes brief, timed assessment of basic academic skills such as reading, mathematics computation and writing. CBM can be used for both universal screening and progress monitoring. In order to provide a way to assess student progress at frequent intervals, multiple equivalent versions of each type and level of CBM are available. For example, to monitor student reading improvement, reading passages of similar difficulty and length are used weekly to monthly.

Another type of academic assessment is known as Computer-Adaptive Tests (CAT). CATs are different from CBM because they involve having each student complete different questions. The result of this adaptive questioning is that the computer calculates each student's current skill level based on the answers provided. At this time, little research exists concerning the use of CATs for progress monitoring.

Section 5 | Behavior Progress Measures

It is also possible to apply progress monitoring to student behavior. However, the assessment of behavior is student-specific. Behavior progress monitoring involves:

1. Identifying one or more specific behaviors that influence the student's learning, and
2. Conducting regular observations to document the frequency and severity of behavior across settings.

For example, if a student's most significant problem behavior is talking without permission in class, this could be observed and recorded. Positive behaviors also can be observed. For example, the behavior of raising one's hand to talk in class could be observed as well. Sometimes, negative behaviors such as talking out of turn are monitored alongside positive behaviors such as hand-raising. The goal is to reach a point when the positive behaviors outnumber the negative ones. Over time, the negative behaviors should be eliminated. To keep track of students' improvements, behavior monitoring is done more frequently than academic monitoring, with daily observations being common.

Connect Behavior to Academic Success

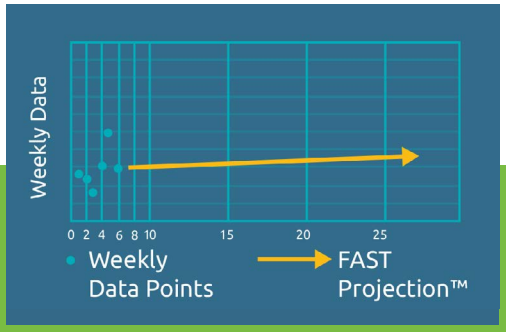
Form a more complete picture of student achievement and plan interventions that nurture the whole child by bringing behavior together with academic screening and progress monitoring.

View FAST behavior measures.

Section 6 | Progress Monitoring Procedures

For progress monitoring to provide helpful information, careful selection of progress assessment is required. Most importantly, the progress measure needs to align with the skill being taught. For example, if the student is learning addition, a progress measure with multiplication items will not be helpful. Teacher knowledge of the subskills required to master specific learning goals is important. Once the skill or skills that the student needs to learn are identified, the best progress measure can be selected.

In addition to selecting an assessment, the frequency for monitoring should be specified. The National Center on Response to Intervention (2013) recommends that academic monitoring be conducted at least monthly, but as often as weekly. As noted above, behavior monitoring is usually done more often and ranges from daily to multiple times per day, depending on the severity of the behavior. An important consideration when setting up a progress monitoring schedule is how soon there will be enough data for interpretation.



Accurate Progress Monitoring in Half the Time

Predict future student performance in just six data points compared to 12 to intervene smarter, make instructional modifications sooner and keep students on track to meet learning goals.

Preview FAST Projection™.

Section 7 | Interpreting Progress Monitoring Data

To interpret progress data, there must be enough data points to identify a trend. Again, there are differences between academics and behavior in the number of data points needed. Several research studies have concluded that the more data points collected, the more reliable the information (Christ, Zopluoglu, Monaghen, & Van Norman, 2013; Thornblad & Christ, 2014). In particular, these studies showed that in most cases, at least 10, but ideally 12 or more, data points are needed for accurate interpretation. More recently, Christ and Desjardins (2018) showed that if a different method is used to calculate the data trend (e.g., Bayesian statistics), as few as six data points can be interpretable.

Behavior data are analyzed differently and focus on the frequency of the target behavior in relation to the goal. Interpretation of both academic and behavior progress data is best done by a team. Such teams can be at the grade or building level. Ideally, this team meets regularly to review available student progress data and keep track of which students have met goals and which students need additional intervention. The primary way that progress data are reported is with a graph.

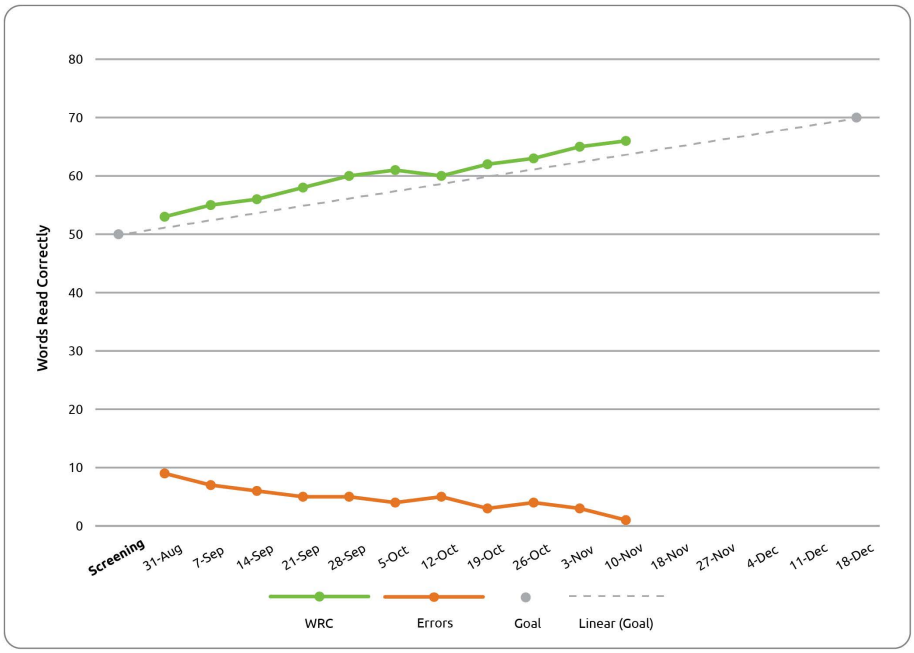
Graphs

Both academic and behavior progress data can be displayed using a line graph. The X (horizontal) axis shows the dates when data were collected. The Y (vertical) axis shows the scores. Sometimes a graph might display more than one type of data. Below is a sample graph that shows both the number of words the student read correctly (WRC) and the errors made while reading. The units of measurement displayed on the Y axis are based on the specific progress measure and can include raw scores (i.e., Words Read Correctly per minute) or percentages.

There are three main patterns that are typical in student progress data: (a) strong response, (b) limited response and (c) no response.

1. **Strong Response**

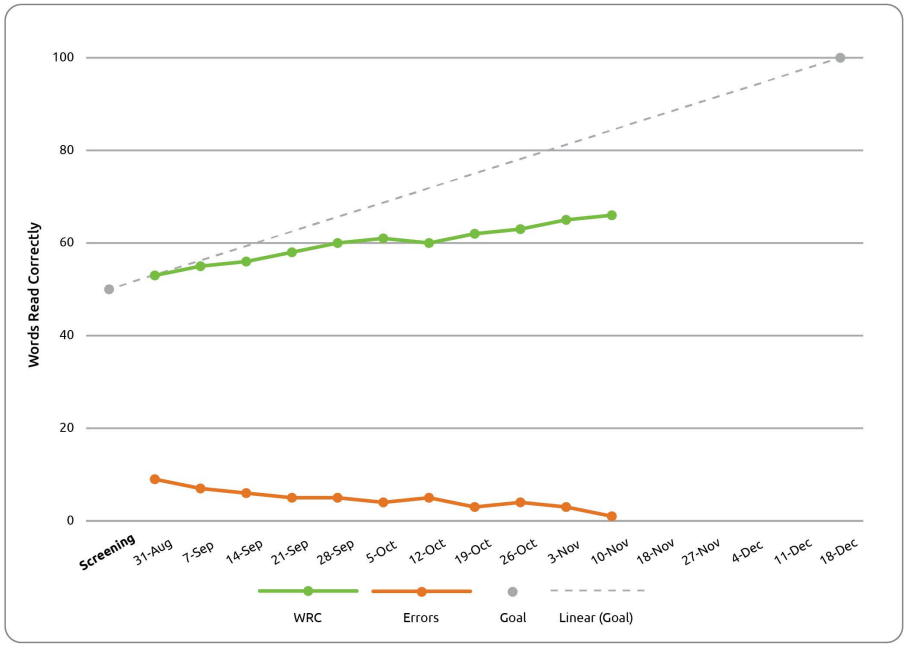
The graph below shows a strong response. The student had a screening score of 50 and a goal to reach 70 by December. The student made consistent progress and by November was on track to reach the goal. Notice that both the WRC went up and the number of errors went down. This graph suggests that this student has responded well to the intervention.



2. **Limited Response**

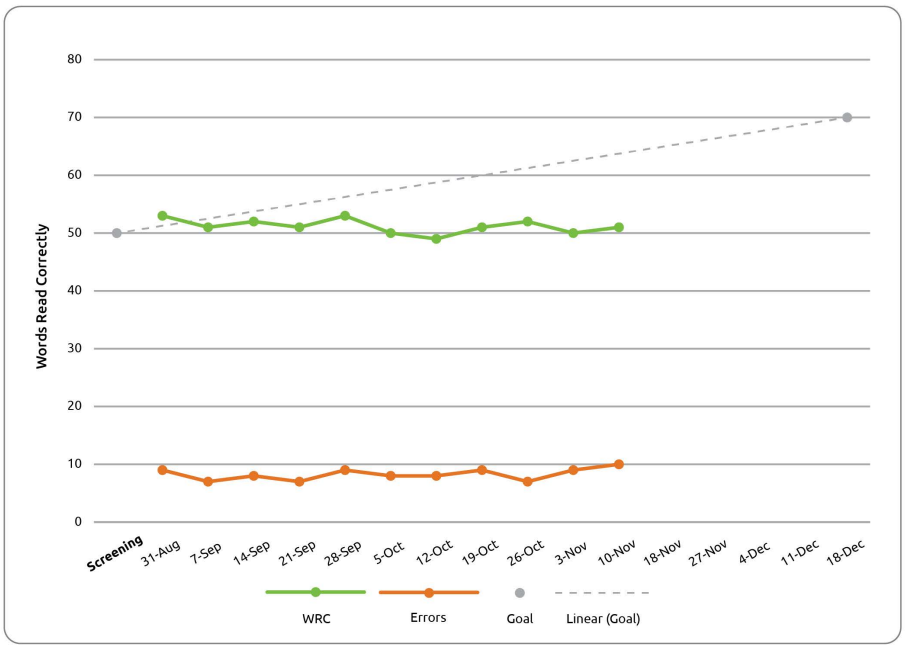
On the following page is another graph with the same WRC, but the goal was changed to 100 WRC by the December date. In this case, the student made the exact same amount of growth but it was not enough to reach the higher goal. We can refer to these data as showing a limited response because there was growth, but it was insufficient to meet the goal.

When the data indicate that the student improved but not enough to reach a goal, one approach is to intensify the current intervention. Methods to intensify intervention include adding more minutes per day or days per week so that the student has more opportunities to improve skills. When more minutes or days are not possible, another option is to reduce the number of students in the intervention group so this student has more opportunities to practice the skills.



3. No Response

The third typical data trend is referred to as no response. In this case, the student's data indicate no skill improvement despite the intervention. Below is an example of a graph depicting no response to the intervention. In this case the screening score was again 50 and the goal 70 but the weekly progress assessment scores were all virtually the same as the screening score. And, the number of errors did not change either. These data suggest that this intervention is not effective for this student and a different one should be tried.



Section 8 | Frequently Asked Progress Monitoring Questions

For those new to progress monitoring, there are likely to be a number of remaining questions. Below are answers to many frequently asked questions about progress monitoring practices.

How do I know which students to monitor?

Progress monitoring is important for any student who is participating in additional intervention beyond core instruction. For these students, having regular assessments of their skills in the intervention areas will show if the intervention is working. All students participating in supplemental instruction, as well as those participating in a replacement core program, should have regular progress monitoring. This includes students participating in Tier 2, Tier 3 and special education services.

Who conducts progress monitoring?

There is not a fixed rule about the person who can best conduct progress monitoring, but this person needs to be trained to use the progress assessment accurately. It might be that the person providing the intervention can conduct monitoring, or that another staff member has the time available. Keep in mind that paraprofessionals can conduct progress monitoring as long as they are appropriately trained.

What if a student is absent?

If a student is absent on the regular day for progress monitoring this might not be a problem. If monitoring is conducted weekly, and the student was present the week before and likely to be present the following week, then skipping a week is not a problem. However, if monitoring is done less often (e.g., monthly) and/or the student was absent for a prior monitoring session, it will be important to try to have the student complete the monitoring assessment on a different day as soon as possible.

Do I need parent permission to conduct progress monitoring?

It depends. If progress monitoring is done as part of general education interventions (i.e., Tiers 2 and 3) and parents have been previously notified that such monitoring will occur for all students participating in such interventions, then no parental permission is needed. If all parents were not previously notified, or if monitoring is part of an Individualized Education Program (IEP), then notification or permission is needed; however, such permission is included when the parent agrees to an IEP. In any situation in which parent knowledge about the progress monitoring is uncertain, contacting the parent and discussing the plan is best practice.

Should I progress monitor all of my students?

It depends. If you are a general education classroom teacher, then no. Progress monitoring is designed to provide important information about students who are participating in interventions that are not provided for all students. The regular assessments for all students participating in the Tier 1 core instruction include both universal screening and program-based measures (i.e., chapter tests). For most students, these assessments are sufficient to track their progress. If you are an interventionist or special education teacher, then yes, all of your students probably need regular progress monitoring according to the intervention schedule or each student's IEP.

Top 10 Progress Monitoring Myths, Debunked

Not everything you thought you knew about progress monitoring is true. Learn which facts are actually fiction.

Read the article.

Summary

Progress monitoring is an important tool for evaluating student learning on a regular basis. Progress measures are available for both academics and behavior. To be effective, a progress assessment needs to be standardized, consistent, reliable, and valid. Progress monitoring frequency typically varies from daily to monthly, depending on the specific skills being taught. Progress data is most often summarized in a graph that depicts the student's scores on the assessments over time. These graphs are evaluated in relation to the type of student response to intervention. The data can be used by grade-level and school-wide teams to adjust instruction, move students among different groups, and — where allowable — determine eligibility for special education services.

About the Formative Assessment System for Teachers (FAST)

FAST from FastBridge Learning® has helped educators in more than 40 states build and sustain Multi-Tiered Systems of Support (MTSS) that promote data-based decision-making across core, supplemental and intensive instructional settings to impact learning growth through a unique combination of Computer-Adaptive Tests (CAT) for universal screening and Curriculum-Based Measures (CBM) for progress monitoring across reading, math and behavior. FAST's easy-to-read reports facilitate collaborative problem-solving by connecting data to recommendations for evidence-based instruction and intervention delivery, and our professional development and training builds teachers' capacity to implement assessments and interventions correctly and with confidence.

With FAST progress monitoring, teachers can frequently check in on Tier 2 and 3 students in your MTSS program, measure their rate of improvement and determine whether targeted instruction and interventions should be maintained, modified or intensified to close achievement gaps, faster.

Learn more about using FAST for progress monitoring.

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