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MTSS Interventions: Increasing Effectiveness at Tier 1, Tier 2, and Tier 3

A guide for using data to align supports targeted to students' needs, monitor intervention fidelity, and evaluate effectiveness at multiple levels

eBOOK

CONTENTS

Section One

INTRODUCTION TO A DATA-DRIVEN MULTI-TIERED SYSTEM OF SUPPORT

A multi-tiered system of support, or MTSS, is a framework with a tiered infrastructure that uses data to help match academic and social-emotional behavioral (SEB) assessment and instructional resources to each and every student's needs.

In this tiered, data-informed framework, educators work to ensure that core instruction meets the needs of the majority of students. Educators use whole child data to identify students who need additional supports beyond core instruction in order to succeed. Appropriate supports are then provided with the right focus and intensity.

Through MTSS, educators have a framework to use resources appropriately and impactfully in order to meet the needs of all learners. It also helps educators leverage data to continually monitor and improve their own effectiveness. An MTSS helps educators to address common challenges such as limited resources, difficulty collaborating, and a lack of visibility in program effectiveness. It brings cohesion to the good work and best practices that are already happening in a district, so that those efforts do not happen in isolation.

To better understand this, let's look at an analogy.

An MTSS Analogy: The Dentist's Office

Each day, we provide universal, general care for our teeth in the form of brushing and flossing. Most communities also resource a dentist office, where general practitioner dentists are staffed to provide regular cleanings. These high-quality, universal best practices—flossing, brushing, and regular cleanings—are intended to be effective for the vast majority of patients.

They're also intended to prevent a high number of patients from needing advanced care such as oral surgery. Oral surgery is an intense treatment, demanding more resources, more training, and specialized staff. Data (in the form of pain or medical examinations) may reveal that some patients need that intensive care, even with high-quality universal practices in place. In these cases, it's important to provide supports that are well-aligned to the patient's needs in a timely manner. But if too many people require intense treatment, the demand will exhaust the available resources. By providing, monitoring, and continually improving universal supports and preventative actions, dentists are able to better care for all patients and limit the need for intensive treatment.

In schools, an MTSS is similar. Educators work to have highly effective core instruction in the classroom so that fewer students need intensive interventions to be successful. This ensures that there are enough specialized resources available to provide to the students who need them. Data are used to identify the students who need those additional supports, pinpoint the need, align the appropriate support, and monitor its effectiveness. In an MTSS, educators seek to address both academic and non-academic needs and barriers to learning, ensuring all students are able to succeed.

Whole Child Data

MTSS enables educators to shift away from a singular focus on academics and take a "whole child" approach to student supports. The framework helps educators understand and promote student success and well-being through many interconnected, data-informed lenses. The whole child data picture can include:

• Academics
• Social-emotional behavior
• Attendance
• Behavior incidents
• Intervention
• Health office visits
• Qualitative data (e.g., observations, teacher notes)

Although MTSS incorporates student data beyond assessments, it's important to note that a key foundation of the whole child data picture is provided by a comprehensive and balanced assessment system. A comprehensive and balanced assessment system is a cohesive set of high-quality assessment practices and tools that promotes an informed, intentional selection of assessments for the right purpose and supplies all stakeholders with the right information to inform next steps.

The tools in a comprehensive assessment system (as overviewed in Figure A) provide educators with valid and reliable tools to measure academic and SEB learning and needs. As we will explore in later sections, these assessments also play key roles in aligning interventions and monitoring effectiveness.

FIGURE A | ASSESSMENTS IN A COMPREHENSIVE ASSESSMENT SYSTEM
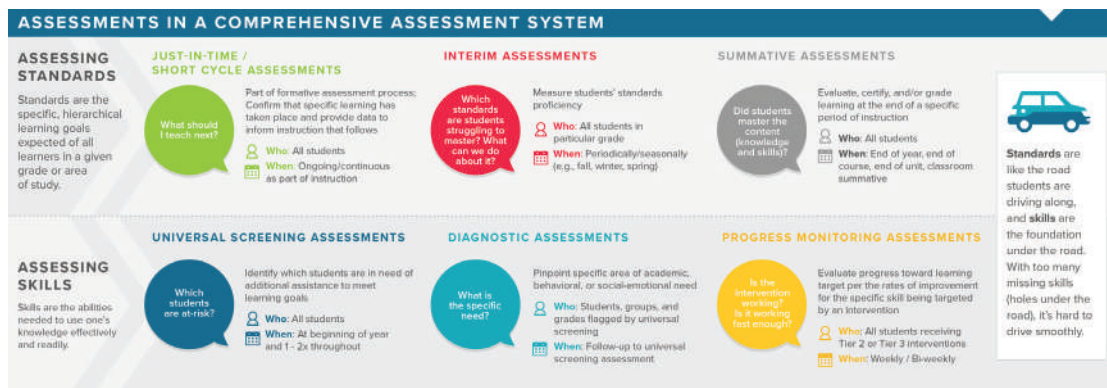
Tiered Supports & Interventions

In an MTSS, students' instruction and support are "tiered." There are three tiers:

Tier 1 – General Instruction: The high-quality classroom instruction that all students receive. This tier encompasses best practices and differentiated instruction, and is constantly refined by what is working in Tier 2 and Tier 3. Generally, districts aim to see 80 to 90 percent of students responding and succeeding in Tier 1 general instruction.

Tier 2 – Targeted, Group Interventions: The research-based supports provided to students who are identified as struggling or not responding to Tier 1 instruction. Tier 2 interventions are often implemented in small group settings to support many students with a similar need for the sake of systematic efficiency. Districts typically expect to see five to 15 percent of students in Tier 2.

Tier 3 – Intensive, Individualized Interventions: The more frequent, intense, and individualized interventions provided to students with a greater need or who are not responding to Tier 2 supports. If students still do not respond, they may be referred for special education evaluation. Usually, districts expect to see one to five percent of students in Tier 3.

FIGURE B | TIERS IN AN MTSS
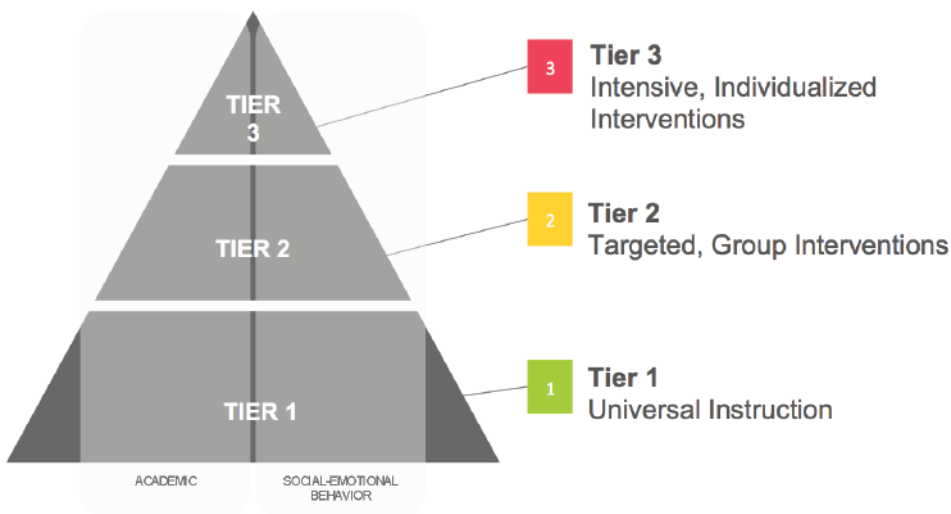
What is an Intervention?

An intervention is an instructional resource or support that is implemented in addition to Tier 1 core instruction. Interventions can be implemented for both academic as well as SEB needs. They can be used to support students who are at risk or require additional challenge. Whether for academics or SEB, any intervention selected for students should be research-based.

By monitoring and analyzing their intervention programs, districts can maximize and amplify effective strategies, make efficient and timely decisions about intervention allocation and programming, and save dollars and resources on programs that are not serving students. However, many districts encounter a number of barriers in implementing, tracking, and evaluating their own interventions' implementations and efficacy. It can be challenging to determine which questions to ask, which actions to take, and how to create a process for doing this work strategically.

The purpose of this eBook is to help teams create effective practices for monitoring, evaluating, and improving their student intervention programs so that they are equipped to continually improve supports for all learners.

Section Two

STARTING WITH TIER 1

Although it might sound counterintuitive, any work to enhance intervention practices should start with an examination of the universal tier. If there are academic or SEB issues within the universal tier, attempting to address those widespread issues through group or individual interventions will be both ineffective and unsustainable. This section will unpack this concept more thoroughly. It will also examine how to use data to identify universal Tier 1 issues and implement strategies for supporting Tier 1 needs.

What is Tier 1?

Tier 1, also referred to as the universal tier or core instruction, is the high-quality classroom instruction that *all* students receive. The universal tier includes all resources that are available to all students, such as assessment, curriculum, and instructional strategies for both academics and SEB. The goal is for universal instruction to be effective for the vast majority of students, without additional Tier 2 or Tier 3 intervention supports.

There is no single combination of Tier 1 practices that will be effective for all students in every school. Effective Tier 1 instructional strategies and curricular materials are dependent on the unique background knowledge and needs of a student population. Tier 1 practices will need to change as the needs of students change. The goal of examining universal tier effectiveness is to understand where those needs exist so that resources can be aligned where they are needed most and stand to have the greatest impact for the largest number of students.

Tier 1 Effectiveness

The universal tier is usually considered "effective" when at least 80% of students are succeeding and on track while having only received core instruction (with no additional intervention supports).

Districts use this 80% rule because they typically only have the resources (i.e., staff, programming, time, and dollars) to provide Tier 2 and Tier 3 interventions to approximately 20% of students. When a district attempts to provide interventions for more students than it truly has the capacity to support, the interventions become overloaded and ineffective. In this scenario, interventions often start to be implemented in a way that deviates from how they are intended to be implemented, essentially rendering them no longer research-based. For example, a 40-minute intervention might be broken up into two 20-minute interventions periods, or an intervention that is intended to be received five days per week is only offered Monday, Wednesday, and Friday to accommodate a second group on Tuesdays and Thursdays. Although well-intentioned, this strays from the procedures on which the research was based and proven effective. It makes the intervention significantly less likely to close achievement gaps successfully.

For this reason, if data show that more than 20% of students require interventions in academics or SEB, districts should address those widespread needs at the universal tier—not through Tier 2 and Tier 3 interventions. By focusing resources around practices and professional learning that improve Tier 1, districts are able to address the needs of all students without overloading their intervention program, while providing students with the greatest level of need with the most intensive supports. This approach is shown to lead to greater, school-wide growth than working to implement interventions with more students than a district truly has the capacity to serve.

Ensuring Equity in Schools

Examining the universal tier through an equity lens opens opportunities to ensure that all students are being served by Tier 1 efforts. Disaggregating Tier 1 data for different groupings of students—such as by gender, ethnicity, disability code, or access to internet—can reveal practices, strategies, and efforts that are not supporting groups of students.

Without dedicating time to this work, groups of students that are at higher risk or are experiencing less growth than their peers can be obscured by aggregated data, resulting in the continued use of biased practices that lead to achievement gaps. In order to address equity issues in Tier 1, schools may disaggregate data by groups of students and look for differences in achievement and growth.

If large gaps are seen between groups, it can be assumed that there is inequity within the system. In other words, current practices are not serving all groups of students equally. To solve these issues, districts need to reflect upon their curriculum, instruction, professional learning, infrastructure, and resources that contribute to the growth and high achievement of all students.

Identifying Tier 1 Needs

How can Tier 1 academic and SEB needs be identified? The answer is through universal screening.

Universal screening is the process of analyzing academic and SEB data about all students in a class, grade, school, or district. Data are gathered at the beginning of the year and then typically one or two additional times (e.g., fall, winter, and spring) using a valid, reliable, and standardized screening assessment. Educators can then use these universal screening data to ascertain students' current risk levels, monitor student growth, and identify opportunities for Tier 1 improvements.

Universal Data Analysis Teams (DATs)

Many districts create teams to analyze data and evaluate whether actions are improving student outcomes. While various districts employ different terms, this eBook uses the term "Data Analysis Team," or DAT, coined by Joseph Kovaleski. There should be different DATs for different purposes, as overviewed in Figure C.

In this DAT structure, the work of analyzing screening data to identify Tier 1 needs is completed by a Universal DAT. This group typically includes interventionists, school psychologists, data analysts or instructional coaches, the principal, and often teachers. The Universal DAT meets 3 times per year (after each screening period) to monitor Tier 1 instructional effectiveness and identify Tier 1 needs. This group also identifies students who may require Tier 2 or Tier 3 intervention supports (a role that is explored in the next section).

FIGURE C | THREE TYPES OF DATA ANALYSIS TEAMS (DATS): UNIVERSAL, INTERVENTION, AND PROGRAM
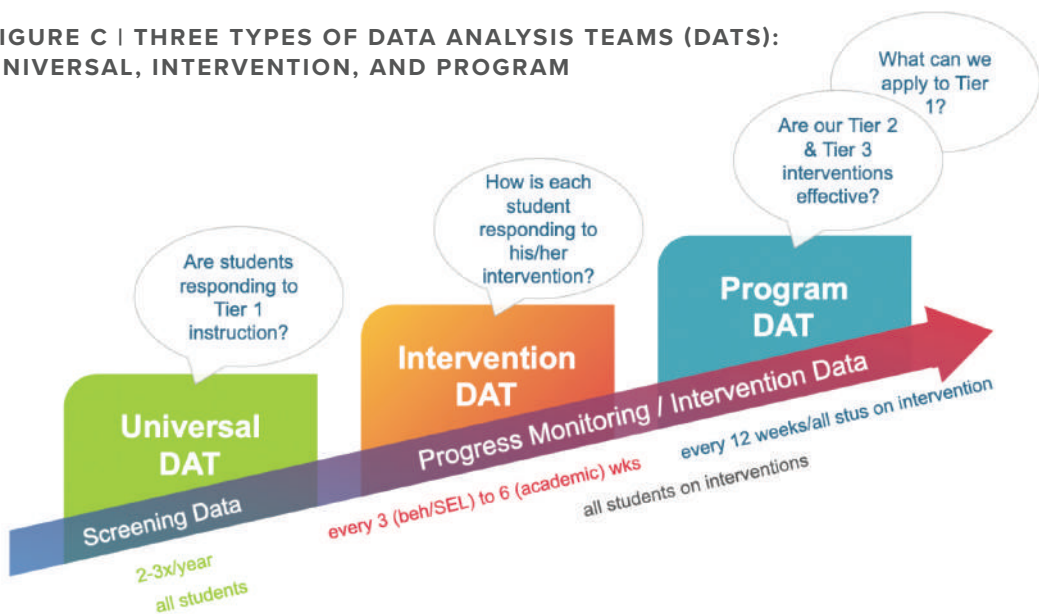
Key Questions

The Universal DAT reviews the universal screening data by district, school, and/or grade to identify general areas of Tier 1 need. Here are example questions that this team might ask:

1) **Are at least 80% of students meeting low-risk targets?**

   If data show that more than 20% of students require interventions in a specific academic or SEB skill, districts should address those widespread needs at the universal tier—as opposed to trying to provide additional Tier 2 and Tier 3 interventions. This enables districts to address the needs of all students without overloading their intervention program, while the students with the greatest level of need are able to receive the most intensive supports.
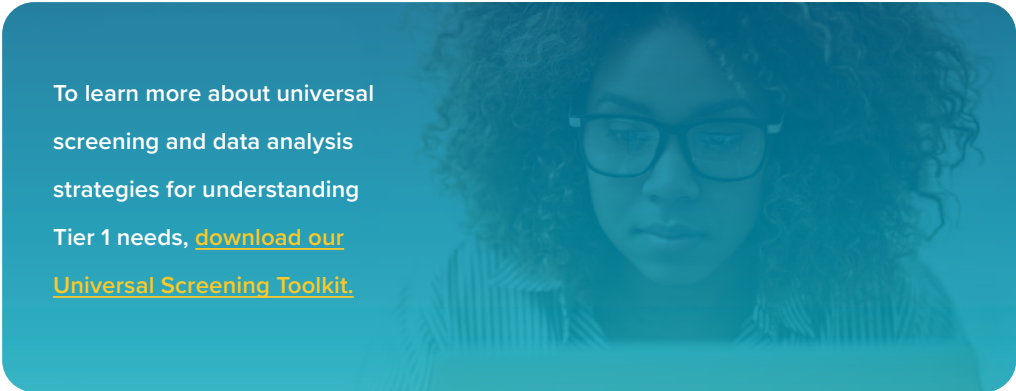
2) Are at least 95% of students who begin the year at low risk growing enough to stay at low risk at the end of the year?

This question gives another perspective on identifying universal tier needs by examining growth. The goal is to ensure that students who begin the year on track continue to learn and grow enough throughout the year to stay on track at the end of the year. If students are not staying on track, it indicates that Tier 1 instruction is not yet meeting students' needs.

Focusing on students who start the year on track is significant because it will isolate students who have likely only received universal tier instruction (filtering out students who have also received Tier 2 or Tier 3 interventions). This gives a clearer picture of universal tier instructional effectiveness.

3) Do we see different results for different groups of students (e.g., by ethnicity, gender, socio-economic status, teaching modality, device and internet access)?

This question helps identify whether Tier 1 instruction and intervention efforts are yielding equitable outcomes for all students. Oftentimes, this level of data analysis is more characteristic of end-of-year analysis and planning. Given the disruptions this year, however, districts should carefully monitor groups of students throughout the year and ensure that all students are growing. Data must be used to identify areas of both success and need, so that any necessary adjustments can be made while there's still time to impact student outcomes.

To learn more about universal screening and data analysis strategies for understanding Tier 1 needs, download our Universal Screening Toolkit.

Addressing Tier 1 Needs

After a Tier 1 need is identified, what can be done?

Amplify Areas of Success

Before working to address the need, it can be helpful to pause and reflect on areas of success. Example questions include:

• Are there areas of Tier 1 success?

• What are the likely causes for this? What core instruction practices are being implemented in that area?

• Can those effective practices be applied to an area of need?

• Is there a particular teacher or coach with significantly higher results from whom we can learn best practices?

Asking these questions also helps ensure effective practices are not inadvertently eliminated in the effort to address areas of need.

Intensifying Tier 1

In order to address the actual need, identify opportunities to intensify Tier 1 instruction. Here are three key strategies for intensifying Tier 1 to address areas of need:

1) Classwide or Whole Group Intervention

A classwide intervention is an intervention that is administered to a whole class or group (usually by grade level) that targets a specific Tier 1 skill gap. This whole group intervention provides instructional support and feedback beyond the Tier 1 core instruction that students are already receiving. Doing so gives students extra opportunities to practice and develop the specific skill. For instance, if a grade level is focusing on increasing reading fluency, teachers might implement a Tier 1 intervention to start each class period with 5 minutes of reading, regardless of the course subject. The extra practice accumulates over time to help students master the skill of reading fluency.

2) Focusing on Student Engagement

Considering student engagement in Tier 1 improvement efforts will empower students to play an active role in their own learning. Consider how students are talking, writing, and actively participating in their own learning. Here are strategies for increasing student engagement to help support the universal tier:

- **Build relationships:** Ensure there is time to connect with students and build relationships, whether in onsite or remote environments. An example is the "2 by 10" intervention. This entails taking 2 minutes a day for ten school days in a row to connect with a student about something outside of classwork, such as hobbies, interests, and families.

- **Evidence-based instructional strategies:** Incorporating evidence-based teaching methods and opportunities to show mastery can help students become more involved in the lesson and their own learning.

- **Increasing motivation:** Incorporating games for practice, positive rewards, and feedback can help students stay engaged.

3) Increasing Dosage

Another way to improve the universal tier is to intensify what is already happening in the universal tier. There are a number of ways to do this:

- **Increasing frequency:** Increase the number of days per week the students receive intervention.

- **Increasing duration:** Increase the length of time the students receive the intervention in each session.

- **Decrease group size:** Reduce the number of students in core instruction classes for more individualized attention.

Addressing Gaps in Implementation

In addition to intensifying Tier 1 instruction, districts can also improve the universal tier and support Tier 1 needs by addressing barriers to effective core instruction. Here are some common implementation gaps that could be examined:

- **Lack of protected instructional time.** If an elementary school is working to improve reading outcomes, a Tier 1 action would be to ensure there is dedicated and protected time to increase reading instruction.

- **Lack of SEB expectations and instruction.** Without specific expectations around SEB instruction strategies, there may be a lack of consistency and focus in how SEB needs are supported at the universal level for students. Ensure that research-based SEB instructional strategies are framed in expectations for how they are consistently taught and reinforced at the universal tier. This work is often completed as part of a district's PBIS implementation.

- **Lack of curricular materials.** Ensure that research-based curricular materials are being used for both academics and SEB.

- **Collaboration.** Create dedicated, protected time and space for professional learning communities (PLCs), DATs, and other data teams to meet and to follow-up on their action steps. Ensure these teams have the tools they need to do their work efficiently.

- **Professional Learning.** Allocate professional learning hours and dollars with Tier 1 needs in mind. Ensure educators have received adequate training in the curriculums and programs for universal needs.

Developing Your Plan

Universal DATs should document their plan to address Tier 1 needs. Importantly, this includes plans for examining data after the next screening period to determine whether the Tier 1 intensifications are helping students catch up to grade level standards or if additional intensifications are needed.

• Identify the Tier 1 need
• Articulate a specific, measurable, attainable, realistic, and time-bound goal
• List some possible strategies that will address the need
• Rate the different strategies:
    • Which ones are research-based?
    • Which ones are most practical?
    • Which would require additional materials?
    • Which require additional training?
• Select and explicitly describe the strategy or strategies that will be used
• Plan logistics for implementing the strategy
• Set your next review date to analyze universal screening data and evaluate the impact of these actions

Section Three

IMPLEMENTING TIER 2 AND TIER 3 INTERVENTIONS

As stated in the previous section, an MTSS framework guides educators to start with an analysis of Tier 1 data. Doing so ensures that universal, widespread needs are addressed at a universal level, instead of attempting to address those needs on an individual or group intervention basis. This work is typically done by a Universal DAT.

A Universal DAT's second purpose is to identify students who should receive Tier 2 or Tier 3 interventions. This chapter will explore how these students can be identified and how educators can set up their intervention implementations to be as effective as possible.
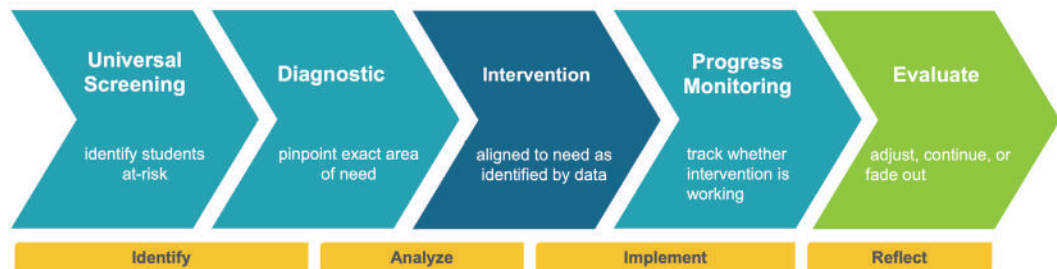
Which Data are Used?

Universal Screening

Just as universal screening data can be used to identify areas of Tier 1 academic or SEB need, they can also be used to identify individual students who are at the greatest level of risk or need. To identify these students, the DAT might ask questions such as:

• Which students are at high risk levels? How long have they been at high risk?

• Which students are not on track to meet goals by EOY? How long have they not been on track?

• Which students are the farthest from grade level benchmarks? What do their trend lines look like?

These questions help educators identify which students require additional support and obtain a broad sense of where the need likely exists (e.g., reading, math, or SEB). However, in order for interventions to be effective, they should be aligned to the *specific skill* in which a student struggles. To determine this, the Universal DAT looks at diagnostic assessment data.

FIGURE D: ASSESSMENTS IN THE INTERVENTION PROCESS

Universal Screening	Diagnostic	Intervention	Progress Monitoring	Evaluate
identify students at-risk	pinpoint exact area of need	aligned to need as identified by data	track whether intervention is working	adjust, continue, or fade out
Identify	Analyze		Implement	Reflect

Diagnostic Assessment, Multiple Measures & Whole Child Data

Diagnostic assessment is the process of using multiple measures and reports to identify student strengths and needs in specific skill areas, so that teachers can provide instruction that addresses those learning needs. The significance of diagnostic assessment is that it helps educators pinpoint the student's specific need and select a research-based intervention that is tightly aligned to the need. Because of this careful alignment, the intervention is more likely to be effective.

Just as a math intervention should not be selected to support a reading skill gap, a fluency intervention should not be selected to fill a phonemic awareness skill gap. Diagnostic assessment helps educators better understand the discrete skill gap so the right intervention is selected.

Some universal screeners (such as Illuminate's FastBridge FASTtrack tools) provide diagnostic reporting as a built-in part of screening. If your district uses a different screening assessment, it may offer subskill reports to assist with this analysis.

As part of the diagnostic assessment process, it is recommended to continue taking a whole child approach to understanding needs. Analyzing attendance, behavior incident, school climate, and qualitative data (e.g., teacher notes and observations) in addition to academic and SEB data can help educators better understand the root cause of why students struggle.

For instance, if a student is struggling in math, particularly in calculation, it might appear that a calculation intervention is needed. However, upon examining the student's additional data, it might become clear that the student is struggling with self-regulation, resulting in frequent behavior incidents that cause her to be frequently pulled from core instruction. In this case, although the student is struggling in math, a math intervention isn't needed. The student really needs an SEB intervention.

To do this work effectively, ensure that you are using a data management platform that supports qualitative and quantitative whole child data, so that current and longitudinal data can be easily accessed and explored without any lost time.

Deepen your understanding of whole child data and comprehensive assessment systems.

Download our eBook: The Whole Child

FIGURE E | USE A DATA PLATFORM TO SUPPORT WHOLE CHILD DATA TRIANGULATION
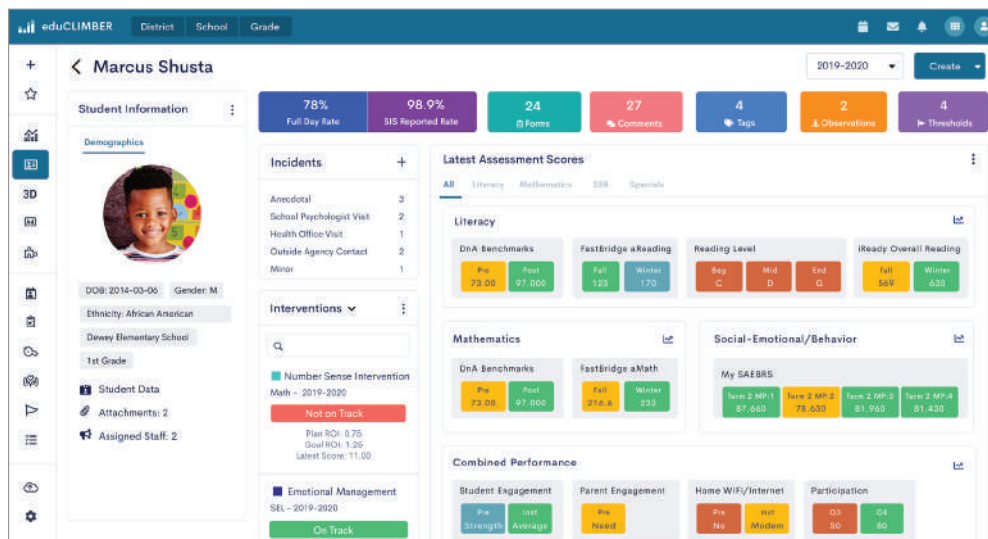

Image shows eduCLIMBER Student Profile

Decision Rules

To guide educators through the process of analyzing data across measures, it's helpful to use decision rules. Decision rules outline the specific cut points for different data sources at which various actions should be taken. They determine things such as:

• At what point do we consider a student to be at risk?

• Which data are reviewed in addition to universal screening data?

• At what point do we believe an intervention is needed?

• What do we consider high risk?

• When do we know that a student is ready to be faded from an intervention?

These are typically developed by the DAT for each grade level in the areas of math, reading, and SEB. Resources such as the PRESS Intervention Manual are also commonly used to support and expedite development.

Although creating decision rules takes time, it can be well worth the effort and ultimately save an immense amount of time throughout the year. Without establishing these criteria or cut points, it can be difficult and stressful to make data-informed, time-efficient, and consistent decisions for students.

Deciphering Tier 2 and Tier 3 Needs

Decision rules can also help educators determine the intensity of a student's need and the proper support to provide: a Tier 2 targeted, group intervention or a Tier 3 intensive, individualized intervention. By and large, the bigger the skill gap, the more intense the student's need.

As previously stated, MTSS is intended to help educators meet students' needs without depleting available resources (including time, programming, staff, and dollars) or debilitating their efforts. Using Tier 2 targeted, group interventions to support many students with a common need can help educators provide research-based additional supports to students who need them, without straining to provide individual interventions for all students who need support. It ensures that the most specialized resources can be provided to students who need them the most, while still providing additional supports to those students who are at an increased, yet less intense, level of risk.

Why Data Visualizations Matter

The way data are organized plays a large role in a team's ability to view data efficiently and group students for Tier 2 interventions appropriately. In many districts, data live in silos and must be manually compiled to look across measures and across students. This makes it very difficult to group students for interventions that address root causes or to provide interventions as soon as students show a need, thereby preventing small gaps from growing into large ones. Investing in a tool to support your team in this work increases their ability to strategically and effectively support students.

FIGURE F | EDUCLIMBER'S DATA WALLS

	Student			ELA-State Assessment Yearly	FAST - aReading-FAST Fall	Winter	Full Day Rate	MAP-Reading-MAP Fall	Winter
☐	Davis, Brianna	0		2267	517	523	84.02	181	221
☐	Eoster, Giangkieu	0	No IEP	2365	489	497	86.94	214	203
☐	Washington, Bindu	0	3rd Grade on Watch EL R	2282	517	514	80.41	190	202
☐	Baruch, Michyla	0	3rd Grade On Watch	2428	463	470	88.57	202	223
☐	Gamboa, Alissa	0		2416	510	516	86.94	209	203
☐	Monzalvo, Alvin	0	3rd Grade On Watch MAF	2391	511	513	89.8	214	216
☐	Urquijo, Miguel De	0	EL Reclassification No IEF	2394	520	522	84.9	199	192
☐	Vaca, Marion	0	3rd Grade On Watch EL R	2408	453	460	88.08	221	217
☐	Weir, Diocelina	0	EL Reclassification No IEF	2428	497	506	91.84	212	228
☐	Shusta, Marcus	0	No IEP	2445	501	505	88.16	200	214
☐	Diocson, Nycholas	0	3rd Grade On Watch No I	2482	495	501	88.57	225	225
☐	Hickenbottom, Hannah	0		2470	521	530	91.54	220	223
☐	Villegas, Delilah	0	3rd Grade On Watch EL R	2476	528	529	86.24	215	224
☐	Gude, Tammy	0		2583	496	511	97.01		
				2405.49	504.39	510.89	515.12	207.17	211.62

Developing a Plan

Whether implementing a Tier 2 or Tier 3 intervention, it's important to document a plan for the intervention. The plan outlines the specific need for the student or group of students along with a measurable goal and key intervention details. Documenting implementation details helps later determine whether the intervention is implemented with fidelity—an important component of evaluating intervention effectiveness. For this reason, the student's plan should specify the intervention, the intervention's duration, frequency, and interventionist, and how often progress will be monitored.

Setting a Goal

When writing an intervention plan, articulate a specific, measurable, time-bound goal for the student. For instance, the goal, *"Joelle will improve in reading,"* does not specify how much she will improve, by when, or in what specific skill. Instead, this goal could be adjusted to "*Joelle will increase the number of words read correctly from 68 to 93 as measured by FastBridge CBMreading by May 1."* Make sure your goal includes:

• The specific skill (e.g., words read correctly vs. "reading")

• The numerical, measurable goal

• The tool that will be used for progress monitoring

• The date by which the goal will be obtained

Selecting an Intervention

Ensure that a research-based intervention is selected. Just as importantly, ensure that it is designed to help students develop the specific skill gap to be targeted. For instance, a fluency intervention shouldn't be implemented to fill a reading comprehension skill gap.

Progress monitoring tools are often confused with interventions. Progress monitoring in and of itself is not an intervention. The intervention is the research-based additional instructional supports that is provided to students to help expedite the growth of a specific skill gap. The progress monitoring tool is the assessment used to monitor whether the skill is increasing. Both should be specified in the plan.

Outlining Implementation Details

Outline how often the intervention will be implemented, for what length of time, in what setting, and by which trained individual.

Specifying the Progress Monitoring Tool

Progress monitoring is a standardized process of evaluating progress toward a performance target, based on rates of improvement from frequent (usually weekly or biweekly) assessment of a specific skill. Progress monitoring assessments are very sensitive to growth and are aligned to the skill or need that is identified during diagnosis and targeted by an intervention.

These assessments help measure whether an intervention is working and if it's working fast enough. The goal of high-quality progress monitoring tools is to prevent students from receiving ineffective interventions for prolonged or indefinite periods of time, and to efficiently remove students from effective interventions as soon as the student is ready.

There are two types of progress monitoring assessments: General Outcome Measures (GOMs) and Skill-Based Measures (SBMs). GOMs track whether a student is "generally" on track for mastering grade level expectations. SBMs measure progress on the specific skill being targeted by the intervention. GOMs and SBMs should be alternated every other week.

In the intervention plan, ensure that valid and reliable GOM and SBM progress monitoring tools are selected and that the SBM is designed to measure the skill being targeted by the intervention. For instance, if a fluency intervention is being implemented, the progress monitoring tool should be designed to measure progress or growth in reading fluency; an assessment designed to measure reading comprehension will not yield valid data about the effectiveness of the fluency intervention. The skill gap, the intervention, and the progress monitoring tool should all align to one another. Keep in mind that progress monitoring can and should be done for both academic and SEB interventions.

To encompass these goal and intervention detail elements, the plan might also state: *Ms. Harmon will work with Joelle using Achieve3000 two times per week for 25 minutes in a small group during Group Time in class. Progress is monitored weekly by FastBridge CBMreading.*

Creating a Plan to Track Intervention Fidelity & Participation

As we will explore more in the next section, there are two key elements to the intervention effectiveness puzzle: progress monitoring and intervention fidelity.

When evaluating an intervention's effectiveness, data on intervention fidelity—whether the intervention was implemented as prescribed—is just as important as progress monitoring data. If an intervention is not implemented with fidelity, the intervention outlined in the plan cannot be evaluated for effectiveness because it was not implemented as intended. If there are fidelity issues, those are important issues to address immediately.

Make sure that your team has a dedicated, consistent process for tracking each intervention session, including duration, frequency, interventionist, participation, and engagement. If there is not a specific process, those data might be collected in inconsistent ways (meaning that they aren't able to be aggregated), collected infrequently, or not collected at all. Using tools designed to track intervention fidelity (such as Illuminate Education's eduCLIMBER) makes this work effortless for teams.

Important data to capture include:

• **Participation:** How often did the student actually receive the intervention? If the student was absent from an intervention, why?

• **Engagement:** If the student was present, was he or she engaged?

• **Frequency and Duration:** Was the intervention implemented for the prescribed amount of time? Was it implemented as often as prescribed?

• **Setting:** Did the intervention take place in the location specified (e.g., small group in classroom vs. small group pulled out)?

• **Interventionist:** Was the intervention implemented by the individual who was named in the student's plan? If so, has he or she been trained in using the intervention at hand?

Section Four

EVALUATING EFFECTIVENESS

For many teams, the hardest part of the intervention process comes after the intervention is implemented. Many struggle with establishing a process for evaluating whether individual interventions are working and whether an overall intervention program is helping students catch up to grade level benchmarks. Yet, these are the questions that can help educators close learning gaps efficiently, fade students from interventions as soon as possible, and allocate dollars and professional development to the programs that are working for students—and drop any programs that aren't.

This section will explore strategies for monitoring the effectiveness of both individual students and individual interventions, as well as overall intervention programs. This work is completed by the two remaining types of DATs: Intervention DATs and Program DATs.

Evaluating Intervention Effectiveness by Individual Student

The Intervention DAT is responsible for monitoring the individual students who are receiving interventions to determine whether an intervention is working and whether to continue, change, or exit the intervention. This team usually includes a principal or coach, interventionist, and a data analyst or school psychologist. They meet every 6 weeks for academic intervention reviews and every three weeks for SEB intervention reviews.

Through frequent progress monitoring and timely data analysis, educators can make the right decisions about intervention next steps as soon as possible, without wasting resources or instructional minutes. Adjusting or ending ineffective interventions prevents students from indefinitely receiving ineffective supports and continuing to fall behind. At the same time, promptly beginning to fade students out of effective interventions is just as important; the student can return to universal instruction while a "seat" in the intervention is made available for another student who needs additional support.

Key Questions

1) **Do the progress monitoring data show that the student is responding? Is the student responding fast enough to meet the goal in time?**

    ▶ **Are there enough data to make a decision?** In order to get an accurate picture of how the student is responding, there needs to be enough data points to establish a trend. Decisions should be validated by at least 12 data points, unless using Illuminate's FAST Projection™ algorithm (the only tool to provide an accurate prediction of future growth in only six data points, as opposed to the usual 12).

    ▶ **Is there a lot of variability in the data?** If the data points vary significantly, it implies that there might be accuracy or validity issues with the data. A good rule of thumb is that 80% of data points should be within 20% of each other.

▶ **How does the student's rate of improvement (ROI) compare to the ROI goal?** This question helps determine whether the student is on track to meet the goal in time, and ultimately, whether the intervention is helping the student close a specific skill gap successfully and efficiently. The rate of improvement is essentially the difference between the starting data point and the goal, divided by the number of weeks implemented. In other words, it breaks out the total amount of growth that needs to happen into weekly intervals, so educators are able to see if students are on track week by week. If the current ROI trendline does not show the student is on track to meet the goal, it indicates that the intervention is either not working or not working fast enough.

▶ **What is the student's growth percentile?** This question helps educators determine whether the student is going to catch up to the end-of-year benchmark. The "growth percentile" helps track whether the student is growing rapidly enough to catch up to their grade-level benchmark, or achieving "catch-up growth." In a normal year, ROIs typically translate to a student needing to be in the 65th growth percentile in order to meet their goal and catch up. When students start further than usual from their goal, their ROI must be more aggressive—meaning that they need to be in a higher growth percentile than the 65th. So, monitoring growth percentiles is another way to check whether an intervention is working fast enough.

2) **If not, was the intervention implemented with fidelity?**

▶ **Was it implemented as prescribed?** Review the intervention plan and compare it with the data collected during the intervention implementation. Check:
• Participation
• Engagement
• Frequency and Duration
• Setting
• Interventionist

▶ **If not, why not?** If the implementation is not being implemented with fidelity (or if the student was not present or engaged in the intervention), the intervention has not been implemented as prescribed and effectiveness cannot be accurately evaluated. In this case, start by addressing those issues and then re-evaluate.

▶ **If so, are there any other factors to consider?** Check the intervention is research-based and aligned to the correct skill gap. Check that the progress monitoring tool is valid, reliable, and also designed to measure the correct skill gap.

Making a Decision & Taking Action

After analyzing the data, the Intervention DAT articulates a clear plan of action for how to respond to data. The team documents the decision as well as their rationale.

☐ **Continue** the intervention because progress is evident, although the goal has not been met (a new review date must be agreed upon).

☐ **Change** the intervention because the goal has not been met.

☐ **Fade** intervention because the student has met the goal. Ongoing monthly monitoring will occur.

☐ **Exit** the intervention. Indicate why:
  ☐ **Discontinue** the intervention because the goal has been met (or problem has been resolved).
  ☐ **Consider** the development of a **504 plan**.
  ☐ **Consider** the need for **special education referral**. The results of this intervention will contribute to the evaluation and determination of entitlement for special education services.

FIGURE G | SHOULD AN INTERVENTION BE CONTINUED, ADJUSTED, OR FADED?

The student <u>is</u> responding to an intervention at a rate that will meet the grade-level EOY goal	• Continue the intervention until the student has reached the goal. • Then, fade the intervention supports gradually. A good rule of thumb is to fade over 4-6 weeks. This allows the team to collect enough data to ensure the student is still successful without additional supports before exiting the intervention completely.

The student is improving but <u>is not</u> responding to the intervention at a rate that will meet grade-level EOY goal	• Confirm that a research-based intervention is being used.
	
	• Determine if the intervention is being implemented with "fidelity," or implemented as prescribed.
	
	• If the intervention is being implemented with fidelity, determine how to adjust intervention intensity, or "dosage," to meet the student's needs.
	  • Increasing frequency: Increase the number of days per week the student receives the intervention.
	  • Increasing duration: Increase the length of time the student receives the intervention in each session.
	  • Decrease group size: Reduce the number of students for more individualized attention.
	  • Encourage engagement: Increase sense of connection or collaboration, increase motivation, and ensure opportunities to engage in a variety of learning activities and instruction.

The student <u>is not</u> improving?	• First, consider why the intervention is not effective. Common causes include:
	  • The intervention is not research-based.
	  • The intervention is not being implemented with fidelity.
	  • The progress monitoring measure is monitoring a different skill than what is being targeted by the intervention.
	  • The intervention is truly not working for a particular student.
	
	• Take action.
	  • If there is an issue with the intervention, progress monitoring tool, or implementation fidelity, fix those issues and then re-evaluate.
	  • If you determine that the intervention simply isn't working for a student, move the student to a different research-based intervention designed to target the specific skill deficit identified by the diagnostic data. (Be sure to update the student's plan to note when the intervention adjusted.) Then re-evaluate.

Evaluating Effectiveness by Intervention

The Program DAT is responsible for determining the effectiveness of individual interventions as well as the overall intervention program by reviewing data for all students receiving an intervention. This team meets every 12 weeks and typically includes a principal, school psychologist, and district-level curriculum administrator.

In this work, the team starts by reviewing effectiveness for individual interventions. In doing so, they identify which interventions are working for students and, therefore, should perhaps be expanded or maximized to support additional students. Just as importantly, it identifies which interventions are either not being used or are not effective, suggesting that those programs can be eliminated to save dollars and professional development hours. It can also pinpoint interventions experiencing significant fidelity issues that should be addressed at a system-level so that effectiveness can be accurately evaluated.

Key Questions

Here are sample questions that might be examined for each intervention currently being implemented.

1) **How many students are receiving this intervention district-wide? By school?**
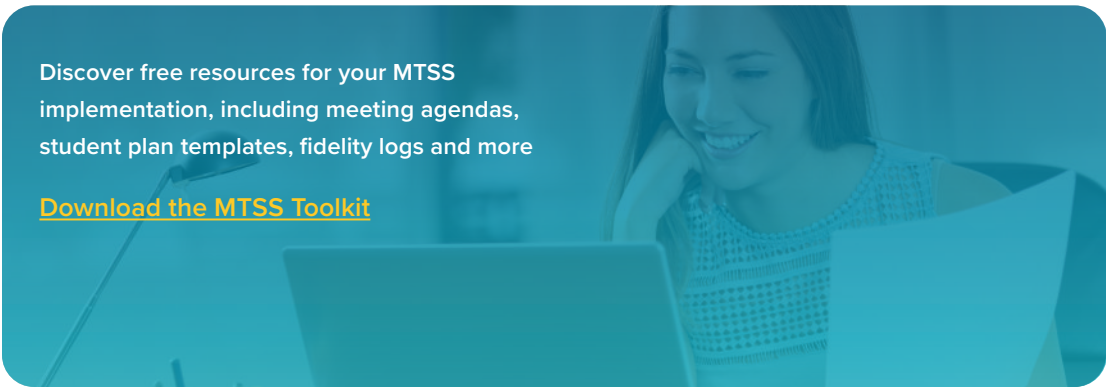
2) **Is it effective?**
    - Are at least 70% of students responding to the intervention (on-track to meet their goal on time)?
    - Of the students receiving this intervention, are fewer at risk according to our universal screening data?
    - Of the students receiving this intervention, are proficiency levels increasing according to our interim data?

3) **If not, why not?**
    - Review intervention implementation fidelity
    - Review intervention participation and engagement
    - Review results for different interventionists

4) **Which interventions are showing to be effective? Should those interventions be expanded or used with additional students or schools?**

5) **Which interventions are not showing to be effective? Are there any that should be dropped?**

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Evaluating Effectiveness by Overall Intervention Program

Monitoring whether interventions are helping students close specific skill gaps is only one lens of evaluating effectiveness. Ultimately, the goal is to ensure students are on track for their grade level benchmarks. For this reason, the Program DAT also reviews data for all students receiving Tier 2 or Tier 3 interventions to see if those additional supports are helping them to catch up on general outcome measures.

FIGURE H | EDUCLIMBER INTERVENTION MODULE
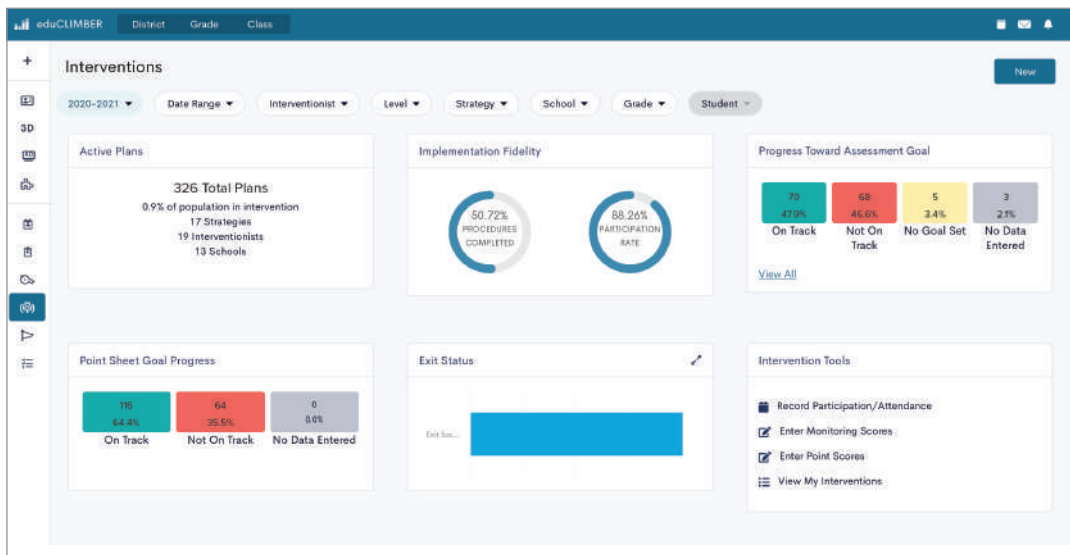
Key Questions

1) What does our overall implementation program look like?

- How many different interventions are being used district-wide? By school?

- How many total students are receiving a Tier 2 intervention district-wide? By school? What is the approximate percentage of students?

- How many total students are receiving a Tier 3 intervention district-wide? By school? What is the approximate percentage of students?

2) Is our intervention program helping students to catch up?

- Are at least 70% of students responding to their intervention (on-track to meet their goal on time)?

- Of the students receiving an intervention, are fewer at risk according to our universal screening data?

- Of the students receiving an intervention, are proficiency levels increasing according to our interim data?

- Is the rate of improvement (ROI) for students who participate in interventions significantly higher than the ROI for students who have not?

3) Do we see different results for different groups of students (e.g., by ethnicity, gender, socio-economic status, teaching modality, device and internet access)?

This question helps identify whether intervention efforts are yielding equitable outcomes for all students. Oftentimes, this level of data analysis is more characteristic of end-of-year analysis and planning. Given the disruptions this year, however, districts should carefully monitor groups of students throughout the year and ensure that all students are growing. Data must be used to identify areas of both success and need, so that any necessary adjustments can be made while there's still time to impact student outcomes.

Keep in mind that if more than 5-15% of students are receiving Tier 2 interventions and/or more than 1-5% of students are receiving Tier 3 interventions, there is likely a Tier 1 issue. Refer to Section 2 of this eBook for more information about addressing those needs.

Section Five

CONCLUSION

Providing interventions is a key element to a data-driven MTSS as well as an essential practice for helping each and every student succeed.

However, in order for an intervention program to be both effective and efficient, it must start with a focus on Tier 1 needs instead of attempting to address widespread issues through individualized or small group approaches. Educators also need the right data to progress monitor and track intervention fidelity so that effectiveness and equity can be evaluated.

To complete this work throughout the year, educators require the right tools. Illuminate Education's eduCLIMBER brings the whole child data picture (for both current and historic years) to the fingertips of educators. It also provides built-in tools specifically designed to support intervention tracking, effectiveness reporting, team collaboration, and other MTSS processes, no matter where teaching and learning takes place.

Reach out today to schedule a demo.

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