Examination of systems-level data within an MTSS Framework

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About this document

Use of data to guide decision making is an essential component of a Multi-tiered System of Support (MTSS) Framework. This document is intended to suggest data sources for and provide questions to ask as part of a systems-level (i.e., district- and school-level) examination of effectiveness of academic and behavioral supports. This document does not include suggestions for examining data at the classroom or individual student level.

Why is systems-level data examination important?

Data are used at a systems level (i.e., district- and school-level) to identify overall areas of need for focus and planning for improvement, to set progress goals, and, to identify areas of success for celebration and planning to sustain.

Examination of core supports: When strong core supports are in place, the majority of students should experience success at meeting academic, behavioral, and social-emotional expectations and schools will likely be able to devote the necessary resources to provide intervention supports for those students who need it. If core supports are not strong, it may be difficult for schools to find the resources needed to provide intervention for a large number of students and intervention support may be provided to students for whom it would not otherwise be necessary. When resources are stretched to provide intervention for a large number of students, it hampers a school's ability to provide the level of intensity of support required for students who need it the most to be successful.

Examination of intervention supports: "Intervention failure should be a rare occurrence," (VanDerHayden & Tilly, 2010). When strong intervention supports are in place, the majority of students receiving intervention or intensified intervention should be meeting goals or progress targets, 90% and 95% respectively (VanDerHayden & Tilly, 2010). If schools are meeting these standards, it is an indication that the intervention system is working to promote success for students. If schools are not meeting these standards, it may indicate the current intervention supports need to be strengthened. If current intervention supports are not producing enough growth for students to meet goals/progress targets, teams should examine the current intervention supports and plan for strengthening.

Sources of data

Multiple sources of student data and implementation data can be used in examination of effectiveness of MTSS including:

- Surveys from staff, families, students (e.g., climate, practices, acceptability)
- Direct observation data (e.g., classroom and common area observations examining implementation of academic and behavioral procedures, student engagement, etc.)
- Academic assessments
- Disciplinary referral patterns

Table 1 provides examples of data that can be gathered to create a data profile at the school or district level. These data can be used to answer questions to examine effectiveness of MTSS supports
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Table 1: Data Profile

Examining Core Supports – Student data	
Academic data (ES)	
Elementary	Middle school/High school

Achievement data (State test or norm-referenced assessment)
 	
• 3 years of data disaggregated by subgroup (i.e., ethnicity, SES, SPED, etc.) by grade level categorized by:
  ○ % proficient, % above, % below
 	
Universal Screening data
 	
• 3 years of data disaggregated by subgroup (i.e., ethnicity, SES, SPED, etc.) by grade level categorized by:
  ○ % proficient, % above, % below
  ○ % of students whose scores fall into the core range at the beginning of the year and remain in core at the end of the year
	Achievement data (State test or norm-referenced assessment)
	
	• 3 years of data disaggregated by subgroup (i.e., ethnicity, SES, SPED, etc.) by grade level categorized by:
	  ○ % proficient, % above, % below
	
	ACT data
	
	• percentage of students taking; percentage of students in each quartile (1st-24th; 25th-49th; 50th-74th; 75th-99th) and/or average scores on composite and subtests
	
	Participation in advanced level courses
	
	• % of students participating in advanced level courses (all and by subgroup)
	
	Grades
	
	• % of students w/1 F in core courses
	• % of students w/2 or more Fs in core courses
	
	Graduation rate

Behavior and Social-Emotional data	
• Office Discipline Referrals (ODRs) disaggregated by subgroup (i.e., ethnicity, SES, SPED, etc.) by grade level • Suspensions, detentions, expulsions disaggregated by subgroup (i.e., ethnicity, SES, SPED, etc.) by grade level • Behavior universal screener summary data (how data are compiled may vary based on screening categories/how screeners are scored) • Attendance (in particular middle & high school) • % of students missing 5-7 days; % of students missing 8-14 days; % of student missing 15 days and above	

Examining Core Supports – Systems & implementation data
• Direct observation of use of effective instructional and behavior management practices in classrooms and common areas • Survey/rating scales – teacher, student, families (e.g., climate, instruction) • MTSS self-assessment tool

Examining Intervention Supports

Academic Data

- Percentage of students identified as needing intervention (based on universal screening process and pre-established decision rules)
- Percentage of students receiving intervention for whom the intervention:
  - Brought them to grade level (they exit intervention)
  - Produced appropriate rate of growth toward goals (growth rates/decreased risk category on universal screener)

Behavior Data

- Percentage of students identified as needing intervention (based on universal screening process and pre-established decision rules)
- Percentage of students receiving intervention for whom the intervention:
  - Worked to help the student meet their behavior goal (they exit intervention)
  - Produced appropriate rate of growth toward meeting behavior goal (appropriate reductions in behavior or increase in replacement behaviors)

Examining Intervention Supports – Systems & implementation data

- Aggregated data from the Intervention Rating Profile (IRP)
- Direct observation of use of effective instructional and behavior management practices in intervention delivery
- Survey/rating scales – teacher, student, families (e.g., participation in intervention)
- MTSS self-assessment tool

Examining Special Education Supports

- % of students identified with a disability over last 3-5 years (overall and by category)
- % of students receiving special education supports who exited (because they no longer required SPED support) over the last 3 years
- "Hit rate" – Number of students verified to receive SPED support/Number of students referred for Special Education supports (over the last 3-5 years)

Examining Special Education Supports – Systems & implementation data

- Direct observation of use of effective instructional and behavior management practices in intervention delivery
- Survey/rating scales – teacher, student, families (e.g., participation in intervention)

Teams can utilize the data profile to systematically answer the following questions:

- Is our core effective to meet the academic and behavioral needs of the majority of our students?
  - Do we have discrepancies between any subgroups? Are there certain groups for whom the system is working and certain groups for whom it is not?
- Are our interventions (and intensified interventions) effectively meeting the needs of students receiving them?
  - Are certain interventions more effective than others?
- Are our special education supports effective?

Table 2 provides examples of student and implementation data sources that can be utilized to answer these questions.

Next steps

If the answer to any of the questions above is no, conduct a further analysis of current practices to examine "why" the current system is not producing the desired results, form a data-based hypothesis about which variables may be influencing the results, and plan for strengthening. Some areas for analysis of **core and intervention supports** include:

- Current policies around discipline, use of instructional methods, materials
- Research evidence for core curricular and instructional practices, materials, programs
- Evidence-base of both the content covered and the delivery methods utilized within interventions
- Implementation of core and/or intervention curricular and instructional practices, materials, programs;
- Scheduling (e.g., allocated time and academic engaged time; time guidelines for whole group vs. small group instruction)
- Dosage of interventions
- Lesson pacing guidelines (within and across lessons)
- Assessment data collection and use for instructional decision making
- Resource allocation
- Professional learning and coaching provided for staff
- Implementation of communication and feedback loops
- Staff beliefs and expectations (e.g., self-efficacy with implementation, beliefs about student learning, acceptability of interventions)
- Professional learning and coaching opportunities provided for interventionists

Table 2: MTSS Systems-level Questions

Questions	Potential Student Data Sources	Potential Implementation Data Sources
How effective is our core at meeting the academic needs of the majority of our students? (System standard=80%) How effective is our core at maintaining/producing growth for students meeting grade level expectations? (System standard=95%) With what quality and consistency are we implementing our identified core instructional practices?	• Percentage of students meeting grade level benchmarks/expectations on screening measures, on summative assessments • Percentage of students beginning the year meeting grade level expectations or benchmarks continue to meet grade level expectations/benchmarks on screening measures	• Core observation fidelity data • MTSS Self-Assessment data • Teacher surveys on core practices
How effective is our core at meeting the behavioral needs of the majority of our students? (System standard=80%) With what quality and consistency are we implementing our identified core instructional practices?	• Percentage of students with 0-1 Office Discipline Referrals	• Core observation fidelity data • MTSS Self-Assessment data • Teacher surveys on core practices • Student surveys/interviews
Are there certain groups of students for whom the system is working and certain groups of students for whom it is not? (System standard=80%)	• Percentage of students in each subgroup (i.e., ethnicity, SES, SPED, etc.) who meet grade level benchmarks/expectations on screening measures, on summative assessments • Percentage of students in each subgroup (i.e., ethnicity, SES, SPED, etc.) with 0-1 Office Discipline Referrals	• Core observation fidelity data • MTSS Self-Assessment data • Teacher surveys on core practices • Student surveys/interviews
How effective are our interventions at meeting the needs of students receiving them? (System standard=90% for interventions and 95% for intensive interventions) With what quality and consistency are we implementing our evidence-based interventions?	• Percentage of students receiving intervention who are meeting progress goals	• Intervention observation fidelity data • MTSS Self-Assessment data • Teacher surveys on intervention practices
Are certain interventions providing higher rates of growth than other interventions? If so, which ones?	• Percentage of students receiving intervention who are meeting progress goals disaggregated by intervention	• Intervention observation fidelity data • MTSS Self-Assessment data • Teacher surveys on intervention practices