FORWARD

In June of 2008, The Florida Department of Education (FDOE) published a Response to Instruction/Instruction/Intervention (RtI) Implementation Plan, providing an initial, formal, state-level framework to assist districts with critical components, definitions and applications to support the development of systematic problem-solving systems.

Phase I of Florida’s implementation for PS/RtI came to a close in 2011, and the state-wide implementation of a Multi-Tiered System of Support (MTSS) has emerged. State-level priorities include consensus building, infrastructure development, and implementation. Florida MTSS merges Florida PS/RtI, Florida Positive Behavior Supports (PBS), and Technology and Learning Connections for Assistive Technology and Universal Design for Learning to support district-wide implementation of an integrated data-based planning and problem-solving system.

Florida Administrative Code 6A-6.6.0.331 General Education Intervention Procedures, Evaluation, Determination of Eligibility, reevaluation and the Provision of Exceptional Student Education Services says, “...it is the local school district’s responsibility to develop and implement a multi-tiered system of support which integrates a continuum of academic and behavioral interventions for students who need additional support to succeed in the general education environment.”

This implementation guide is intended to serve as a guide to support schools in their implementation of MTSS.
PART 1: Implementation Guidelines

MTSS – Multi-Tiered Systems of Support

The Multi-Tiered Systems of Support (MTSS) model aligns resources in schools for providing high quality instruction and intervention matched to student needs. Learning rate over time and level of performance are used to inform instructional decisions. The MTSS model addresses both academic and behavior needs of students through instruction and interventions developed to meet those needs. The problem solving/response to intervention (PS/RtI) component of MTSS is required in the reauthorization of the No Child Left Behind (NCLB) Act and the Individuals with Disabilities Education Improvement Act (IDEA 2004). Problem solving and measuring the response to intervention through progress monitoring ensures the quality and validity of classroom instruction.

In effective Multi-Tiered Systems of Support:

- Learning is accelerated to close gaps and prevent new ones.
- Fewer students are at risk over time.
- Decisions about who needs additional support can be made rapidly.
- Rates of intervention success are high.
- Goals are defined in terms of improved achievement.

Elements of an effective Multi-Tiered Systems of Support Implementation include:

1. Leadership
2. Building Capacity/Infrastructure for Implementation
3. Communication and Collaboration
4. Data-Based Problem Solving
5. Three-Tiered Instructional/Intervention Model
6. Data Evaluation
Leadership

School Based Leadership Team (SBLT)

The School Based Leadership Team (SBLT) is a multi-disciplinary team of professionals who create and support a structure for school-based decision making, establish and monitor school-wide Learning and development goals, ensure and coordinate the delivery of services to all students (academic, behavior, student engagement), allocate the resources needed to fully implement plans with fidelity, and monitor the effectiveness of core (Tier 1) and supplemental (Tier 2) instruction and intervention.

Responsibilities of the SBLT include:

- ensuring that the critical elements of MTSS are defined and understood by school staff, including curriculum, assessment, and instructional practices.
- actively engaging staff in ongoing professional development and coaching to support MTSS implementation.
- actively facilitating implementation of MTSS as part of their school improvement planning process.

SBLT Membership

The Principal: It is crucial and expected that the school principal is actively involved in and facilitates MTSS implementation, including communication, participation in PD on MTSS and establishing an MTSS vision, supporting the leadership team and staff to build capacity for implementation, and actively supporting data-based problem solving use at the school.

MTSS Facilitator: Provides facilitation and leadership for implementation of MTSS, data literacy, problem solving skills development

Multi-Disciplinary Representation: six to eight members with cross-disciplinary representation, such as:

<table>
<thead>
<tr>
<th>Member</th>
<th>Function</th>
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<tbody>
<tr>
<td>Principal</td>
<td>• Provides leadership for common vision for MTSS</td>
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<tr>
<td></td>
<td>• Ensures team is implementing MTSS</td>
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<tr>
<td></td>
<td>• Assesses MTSS skills of staff</td>
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<td></td>
<td>• Ensures documentation of MTSS activities</td>
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<td></td>
<td>• Ensures adequate implementation of intervention support</td>
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<td>• Ensures professional development</td>
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<td></td>
<td>• Establishes communication with parents and community</td>
</tr>
<tr>
<td>Member</td>
<td>Function</td>
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<td>-------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
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</table>
| General Education Teacher (Grade Level Representation) | • Provides information about core instruction  
• Participates in student data collection and analysis  
• Delivers Tier 1 instruction/intervention  
• Collaborates, and may deliver Tier 2 instruction/intervention  
• Integrates Tier 1 materials with Tier 2 and 3 activities |
| Special Education Teacher(s)                    | • Provides expertise and experience with Tier 3 intensive intervention/instruction  
• Collaborates with General Education teachers  
• Participates in student data collection and analysis  
• Participates in Tier 3 Problem Solving teams |
| Content Area Expert(s)                          | • Academic: Provides guidance on curriculum, Florida standards, high-quality instructional practices  
• Behavior: Provides expertise on school-wide behavior systems, coaching classroom management |
| School Counselor                                | • Provides background information about and liaison with children and families  
• Supports intervention fidelity, documentation  
• Provides social-emotional interventions for classroom groups and in small groups |
| District Student Services Staff                 | • Participates in collection, interpretation, analysis of academic and behavioral data  
• Facilitates development of academic and behavior intervention plans  
• Provides support for intervention fidelity, documentation  
• Provides professional development and technical assistance for problem-solving activities  
• Provides social-emotional interventions for classrooms and in small groups |
| Instructional Support Staff                     | • Provides assistance with data collection, data analysis, and intervention planning  
• Provides insight and expertise in best practices in small group instruction |

The SBLT will identify a designated meeting time to complete problem solving activities such as the following:

- Align functions of mandated school-based teams/committees (e.g., Child Study Team, Literacy Leadership Team, PBS Team, School-Wide Behavior Team)
- Identify processes and resources for data management
- Review student data (i.e., Universal Screening, Progress Monitoring)
- Develop resource and assessment maps of interventions and strategies currently available at the school
- Within the resource map, identify the interventions and strategies to be used as standard protocol for Supplemental Intervention (Tier 2)
- Plan for differentiation/modification to instruction and/or interventions for students
- Review MTSS implementation data utilizing Florida’s self-assessment of MTSS implementation rubric
- Review of staff skill assessment data (e.g., observations, perceptions of skills/needs surveys)
- Plan staff professional development/technical assistance for the implementation of MTSS

**SBLT Meeting Roles**

It is strongly recommended that the SBLT meet weekly in order to manage and fulfill the above responsibilities and tasks. For effectiveness and efficiency in the team meeting, some of the SBLT members are assigned the following roles:

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
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</thead>
<tbody>
<tr>
<td>Facilitator</td>
<td>Generates agenda and leads team discussions and data-based dialogue</td>
</tr>
<tr>
<td>Data Manager/Coach</td>
<td>Assists team in obtaining and interpreting of data</td>
</tr>
<tr>
<td>Technology Specialist</td>
<td>Obtains and understands technology necessary to manage and display data</td>
</tr>
<tr>
<td>Recorder</td>
<td>Documents meeting content and disseminates to team members</td>
</tr>
<tr>
<td>Time Keeper</td>
<td>Helps team begin on time and ensures adherence to agreed-upon agenda</td>
</tr>
</tbody>
</table>

Clear expectations for these roles should be developed by the SBLT early in the year.
SBLT Meeting Schedule

SBLTs will develop a meeting schedule based on their particular needs. It is strongly suggested that the SBLT meet weekly on a specified day and time. Regularly scheduled meetings signal importance, encouraging attendance and participation. An example of an SBLT schedule and functioning:

The SBLT meets Tuesdays from 7:45 a.m. to 8:45 a.m.

*Content leadership and Child Study activities may be scheduled into agenda at every meeting. Agenda items required to be submitted 1 day in advance of meeting.

<table>
<thead>
<tr>
<th>1st and 3rd Tuesdays</th>
<th>2nd and 4th Tuesdays:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45 – 8:00</td>
<td>Tier 2 documentation and progress monitoring data reviewed and analyzed (reading, math, science, writing) – Grade level team leader facilitating (K-2 on the 2nd Tuesday, 3- 5 on the 4th Tuesday)</td>
</tr>
<tr>
<td>8:00 – 8:45</td>
<td>Action Planning for content core is developed or revised based on data analysis</td>
</tr>
</tbody>
</table>

**If parent participation is required for discussion of a specific student, a team will be assigned to meet with the parent separate from the SBLT meeting.

Data chats must be scheduled by the SBLT a minimum of 3 times a year following the schedule of benchmark assessments. Separate data meetings should occur for Tier 1, Tier2, and Tier 3 problem solving.

For example:

- **Tier 1:** The SBLT will schedule a data day for reading 3 times a year following each Common Assessment window.
- **Tier 2:** The SBLT will meet with the K-3 grade teams every 8 weeks, and the 4-5 grade level teams every 10 weeks during PLC to discuss ongoing progress monitoring data and evaluate intervention effectiveness.
- **Tier 3:** The Tier 3 Problem Solving Team will schedule meetings as a result of SBLT Tier 2 data meeting outcomes, and to review and revise individual problem-solving plans.
MTSS Infrastructure

Building the capacity to implement MTSS is crucial to being able to sustain the use of collaborative inquiry/data-based decision making. Key factors in capacity-building include involving key people and leaders; building the school culture to support the practice; working to infuse collaborative inquiry into ongoing structures such as faculty meetings, curriculum committees, and PLCs; and making use of student data to inform actions an expectation for all staff.

The SBLT facilitates professional development (PD) and coaching for all staff members (relative to their job roles and responsibilities) on:

- assessments and data sources used to inform decisions
- data literacy and data-based problem-solving
- multi-tiered instruction and intervention

The School-Based MTSS Coach (Facilitator or Instructional Staff Developer)

Coaching must be used to support MTSS implementation. The school-based MTSS coach should be expected to:

- facilitate or model the components of MTSS
- provide opportunities to practice problem-solving skills
- provide collaborative and performance feedback to all staff
- develop coaching activities based on PD feedback, implementation fidelity, and student outcomes.

(See Appendix for MTSS Coach’s Roles and Responsibilities)

The role of the school-based MTSS Coach, who may also be identified as a facilitator, staff developer, or team leader, is to provide technical assistance and support to school staff to improve implementation of the components of a multi-tiered systems of support model. Responsibilities may include:

- Model and support data literacy:
- gain basic knowledge of school data and assessments
- interpret and guide analysis of multiple data sources effectively to improve teaching and learning
- encourage all other school staff to achieve data literacy

- Facilitate collaborative problem solving processes:
  - convene leadership/data teams
  - plan team meetings
  - facilitate the process of data-driven dialogue
  - guide the problem solving team through collaborative inquiry
  - promote equity and effective Learning for all students
  - create an environment where each team member safely and fully participates

- Provide leadership for sustainability of systems:
  - institutionalize collaborative inquiry:
    - build a foundation on shared values, standards, vision
    - identify student learning problems
    - verify causes (root cause-and-effect analysis and validation)
    - generate solutions,
    - implement, monitor, and achieve results

- Demonstrate leadership in instructional improvement
  - ensure intervention for closing achievement gaps
  - build consensus for multi-tiered systems of support and collaborative problem solving
  - influence school culture by building a vision
  - celebrate successes
  - support and contribute to the development of comprehensive data systems that provide timely and accurate information.
  - Commit to ensuring equity and learning for all students.

- Provide assistance and professional growth opportunities to teachers:
  - train and mentor in the use of materials, assessment strategies, best practices
  - monitor and provide high-quality feedback on the fidelity of interventions provided to improve student achievement.

Scheduling to provide adequate time for trainings and coaching support is essential. The SBLT is responsible for ensuring that time is available for administering and collecting assessments needed to make data-based decisions, providing multiple tiers of evidence-
based instruction and intervention, and for staff to engage in collaborative, data-based problem-solving and decision making.

**Procedures and Resources**

Systematic processes, procedures, and decision-rules needed to engage in data-based problem solving must be developed and incorporated school-wide. Procedures should be refined based on data and feedback from the staff, schedule changes, and resource availability.

Resources including personnel, funding, and materials should be documented in resource maps and other documentation of resource allocation. Those maps should be updated at least annually based on student need, available personnel, funding, materials, and other resources.

The School-Based Leadership Team is responsible for developing a strategic plan for the implementation of MTSS in its own school setting, and for documenting that plan in the School Improvement Plan. The plan for infrastructure should include ongoing professional development and coaching with an emphasis on data-based problem-solving and multi-tiered instruction and intervention, and processes and procedures for engaging in data-based problem-solving.
Communication and Collaboration

On-going communication and collaboration are essential for successful implementation of MTSS. Many innovations fail due to a lack of consensus, to a lack of feedback to implementers to support continuous improvement, and to not involving stakeholders in planning. In addition to including stakeholders, it is also important to build the infrastructure to communicate and work with families and other community partners. There practices increase the likelihood that innovative practices will be implemented and sustained.

Self-Assessment of MTSS Implementation (SAM National Pilot Version 2.0 (November 2014)

Stakeholder support and consensus are essential to the implementation in MTSS. The success or failure of any change initiative rests on the commitment and support of key members of the school community. Activities that will build that commitment and consensus include:

- Building a vision of the compelling, desired future for the school that is communicated clearly and often
- Strongly supporting the work of the SBLT and of data use
- Creating a safe environment for data use; not using data to harm, but to support
- Empowering teachers to make instructional decisions based on data
- Helping staff members access resources; e.g., research or curriculum materials
- Modeling the practice of using data
- Providing teachers with timely access to data and time to meet to practice collaborative problem solving and inquiry
- Fostering a culture of family and community engagement
- Actively engaging families in MTSS; i.e.,
  - Actively engaging families that represent the diverse population of the school
  - Engaging families in problem solving when their children need additional supports
  - Providing intensive (individualized) outreach to unresponsive families. That support should be an individualized approach requiring information gathering and problem solving to identify outreach strategies that are more likely to be successful for a family that is not engaging with the school's typical outreach. (SAM National Pilot)
Data-Based Problem Solving

Problem solving is the practice of providing high-quality instruction/intervention matched to student needs and using learning rate over time and level of performance to make important educational decisions. (Batsche, et al., 2005). Data-based problem solving means that data are used effectively to improve Learning, and informs how patterns of student performance across diverse groups (e.g., racial/ethnic, cultural, socio-economic, language proficiency, disability status) are addressed.

Integrated data-based problem solving for student academic, behavior, and social-emotional outcomes occurs across content areas, grade levels, and tiers. Across all tiers, data are used to identify the difference or “gap” between expected outcomes and current student performance relative to academic, behavior, and social-emotional goals.

In The Data Coach’s Guide to Improving Learning for All Students, Nancy Love and her co-authors suggest that the following assumptions are foundational for an effective data-based problem solving team:

- Making significant progress in improving student learning and closing achievement gaps is a moral responsibility and a real possibility in a relatively short amount of time – two to five years. It is not children’s poverty or race or ethnic background that stands in the way of achievement; it is school practices and policies and the beliefs that underlie them that pose the biggest obstacles.

- The meaning of data is imposed through interpretation. Effective data users become aware of and critically examine their frames of reference (how we see the world) and assumptions. Data themselves can also be catalysts for questioning assumptions and changing practices based on new ways of thinking.

- Collaborative inquiry (constructing understanding of student-learning problems and inventing and testing out solutions together through rigorous and frequent use of data and reflective dialogue) unleashes the resourcefulness and creativity to continuously improve instruction and student learning.

- A school culture characterized by collective responsibility for student learning, commitment to equity, and trust is the foundation for collaborative inquiry.

- Improved teaching comes about when teachers implement sound teaching practices grounded in cultural proficiency and a thorough understanding of the subject matter and how to teach it.
At all levels and in all settings, the problem solving process incorporates at least the following four steps in a cyclical, recurring model to address prevention, early intervention, and intensive intervention:

**Step 1: Problem Identification**
What is the problem? How does the student’s performance compare to benchmark level of performance and peers’ level of performance?

**Step 2: Problem Analysis**
Why is the problem occurring? What would happen if_______would occur? Can we validate our ideas?

**Step 3: Intervention Design**
What are we going to do about the problem? What will we teach? How will we teach it? Is instruction matched to the problem we identified?

**Step 4: Response to Intervention**
Is the instruction/intervention working? How do we know? Is academic and/or behavior performance improved? Are outcomes for all students equitable? Is the group's/student’s response good, questionable, or poor? What are the next steps?
<table>
<thead>
<tr>
<th>A Crosswalk for Comparing Systems of Problem Solving</th>
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<tbody>
<tr>
<td><strong>4-Step Problem Solving Process</strong> (School and Student- level Issues such as effectiveness of instruction and tiers of intervention)</td>
</tr>
<tr>
<td><strong>Step 1: Problem Identification</strong></td>
</tr>
<tr>
<td>What's the problem?</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Step 4: Response to Intervention</strong></td>
</tr>
<tr>
<td>Is it working? Is academic and/or behavior performance improved? Are outcomes</td>
</tr>
<tr>
<td>for all students equitable? Is the group's/student's response good, questionable, or poor? What are the next steps?</td>
</tr>
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<td><strong>Revised 1/11/16</strong></td>
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</tbody>
</table>
The Steps of Problem Solving

**Step 1. Problem Identification/Identifying the Student Learning Problem What is the problem?**

The MTSS problem solving team will analyze data from as many sources as possible, and from as many levels as possible (aggregated, disaggregated, strand, item, and student work) to identify the discrepancy between what is expected and what is occurring. The goal is to glean as much information about student learning from the data source as possible. Data sources might include:

- State assessments to identify trends over time in the percentage of students meeting or exceeding the standards (school, district, state)
- Disaggregated state assessments to identify trends in learning over time for students in specific populations achieving proficiency at a specified grade level and within a specified content area
- Strand-level analysis to identify strengths and weaknesses in student learning in relation to specific content and learning outcomes
- Other common assessments and local student-learning data sources to refine understanding of student-learning needs
- For individual student learning problems, the team may examine student performance on individual items and skills (academic and behavior), and student work to further clarify and define the problem.

The problem solving team will use all data sources to articulate a clear learning problem and an accompanying learning goal.

For the Problem Solving Worksheet, the team will state what the student(s) should be able to do in observable and measurable terms; i.e., identify the **target skill**.

- Then, collect data regarding the **current level of performance**, the **expected level(s) of performance**, and the **peer group performance**. The team will need to be able to review the data by grade, classroom and subgroup.

- Once this data is obtained, a gap analysis can be conducted –difference between students’ current and expected level of performance. This allows the team to determine at what level the intervention needs to be focused and the intensity of the current problem.
An example of Gap Analysis:
From *The Data Coach’s Guide to Improving Learning for All Students*, p. 152

John Carr has developed a guide for describing meaningful differences that is “a mixture of statistical significance, effect size, and practical significance derived from many years of examining test results in large districts.” Note that the table is meant to be a rough gauge rather than a precise measure of meaningful differences.

<table>
<thead>
<tr>
<th>Meaningful Differences Guide</th>
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<tbody>
<tr>
<td><strong>Total Number of students being compared</strong></td>
</tr>
<tr>
<td>Descriptive difference</td>
</tr>
<tr>
<td>Percentage point difference</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Small</td>
</tr>
<tr>
<td>Moderate</td>
</tr>
<tr>
<td>Fairly Large</td>
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<tr>
<td>Large</td>
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<tr>
<td>Very large</td>
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Step 2: Problem Analysis/Verify Causes
Why is it occurring?

The second step in problem solving is to determine the most likely and alterable reason the problem is occurring. This step involves generating hypotheses and gathering information to confirm or refute hypotheses generated. The problem analysis step is crucial and yet frequently overlooked. Time spent analyzing a problem through gathering known and unknown information will help teams make sound, defensible decisions leading to implementation of a well-designed intervention that will have a greater likelihood for success.

The flowchart presented in Figure 1 serves as a guide for the steps in Problem Analysis.

1. The first step in problem analysis is to determine whether or not the team has sufficient information to begin generating hypotheses. In most instances the team will have enough data to begin this process and should move to step 2.

   However, if this is not the case, then more information is gathered. Information is gathered through the use of Reviews, Interviews, Observations, and Tests (RIOT). Further information about the use of these RIOT procedures is provided below.

2. Once the team has enough information, hypotheses are generated about why the target skill is not occurring. Hypotheses should be:
   a. Based on research relevant to target skills,
   b. Focused on alterable variables,
   c. Lead to intervention, and
   d. Consider both skill and performance deficits.

   Hypotheses should also be generated in the domains of Instruction, Curriculum, Environment, and the Learner (ICEL). This is done across all tiers. Further information about these four assessment domains is provided below.

3. Once hypotheses are generated, the team utilizes available information to validate or rule out the hypotheses. The validation of a hypothesis is crucial because if the hypothesis is inaccurate and the wrong intervention is implemented, valuable time could be wasted on an intervention that was not an appropriate instructional match for the student.
**Assessment Domains - ICEL**

Traditionally, assessment of problems focused on student’s intrinsic characteristics. The data-based problem solving process provides the opportunity to examine the interaction between the instruction, curriculum, learning environment and learner(s) in order to identify a discrepancy and subsequently identify an intervention to close the gap. When generating hypotheses for why the replacement behavior is not occurring, information from the following domains should be considered:

**Instruction (how curriculum is taught)**
- instructional decision-making regarding selection and use of materials and placement of students in materials
- frequency of interaction/reinforcement
- clarity of instructions
- communication of expectations and criteria for success (behavioral and academic)
- direct instruction with explanations and prompts (behavioral and academic)
- sequencing of lesson designs to promote success
- variety of practice activities (behavioral and academic)

**Curriculum (what is taught)**
- long range direction for instruction
- instructional materials
- intent
- arrangement of the content/instruction
- pace of the steps leading to the outcomes
- stated outcomes for the course of study
- general learner criteria as identified in the school improvement plan and state benchmarks (behavioral and academic)

**Environment (where instruction takes place)**
- physical arrangement of the room
- furniture/equipment
- clear classroom expectations
- management plans
- peer interaction, expectations, reinforcement, support
• schedule
• task pressure

Learner (who is being taught)
  ▪ skills
  ▪ health
  ▪ prior knowledge
  ▪ tracking (lower-track students get more drill and practice)
  ▪ cultural background
  ▪ poverty
  ▪ trauma

The Learner domain is the last to consider and should not be addressed until the instruction and curriculum are appropriate and the environment is positive. If discrepancies in these areas are not resolved first, interventions in the Learner domain alone are not likely to succeed.

**Assessment Procedures - RIOT**

Assessments in the problem solving process are conducted to answer assessment questions in order to gather relevant information about the problem and validate or rule out a hypothesis. Assessment questions should always be answered by utilizing Reviews, Interviews, Observations, and Tests.

The order of the RIOT assessments holds significance in that they are listed in order of least intrusive and time intensive to the most intrusive and time intensive. Answers to questions should be sought using information available through review and interview procedures before turning to the more intrusive and time intensive observations and tests. Teams should seek convergent data as important educational decisions should not rest on one source of data. Examples of RIOT procedures are listed below:

**Review**
  • student permanent products
  • district standards and benchmarks
  • curriculum guide
  • scope and sequence
  • school rules
  • health records
  • error analysis of permanent products
Interview
- teachers
- parents
- student
- peers

Observe
- effective teaching practices
- teacher expectations
- antecedent conditions
- consequences
- classroom work
- alignment of assignments (curriculum materials) with goals and objectives (curriculum)
- alignment of teacher-talk with curriculum
- student, peers, and instruction
- interactions and causal relationships
- distractions and health/safety violations
- target behaviors – dimensions and nature of the problem

Test
- classroom environment scales
- checklists and questionnaires
- level of assignment and curriculum material difficulty
- student performance

A tool for collecting data that is useful in determining missing data and in asking additional questions in this framework (RIOT/ICEL). Another tool for collecting data is the Verify Causes Tree which introduces the concept of reflecting on diverse perspectives, systemic causes, and avoids blaming students, families or the community. The focus should be on instructional practices, such as the need to reteach, teach in a different way, teach in more depth, or teach at a different point in the curriculum.
Identify known information about target behavior

Disregard irrelevant information

Gather unknown relevant information with additional RIOT procedures

Do you have enough informal to generate a hypothesis?

YES

Make hypotheses and predictions. The problem is occurring because __________. If __________ would occur, the problem would be reduced.

Do you have enough data to validate your prediction?

NO

Develop assessment questions that will validate or rule out prediction

Manipulate setting demands, increase level of assistance, or use compensatory techniques. Test skills – validate need for skill instruction. Use additional RIOT procedures as needed.

Has prediction been validated?

NO

Go back and review data

Go back and review hypothesis

YES

Develop intervention tied directly to validated and alterable hypothesis

Figure 1: Steps in Problem Analysis
**Step 3: Intervention Design/ Generating Solutions**  
What are we going to do about it?

The third step in problem solving is to develop an intervention plan to address the identified problem. Within this intervention plan, goals are set and a plan for how to evaluate effectiveness is determined. The purpose of an intervention is to create an instructional (academic and/or behavioral) match based upon the verified hypotheses from the problem analysis step.

Interventions address either a skill deficit (i.e., lack of skills to successfully complete task) or a performance deficit (i.e., factors interfering with capability of performing the skill). Interventions should be designed to adjust what is being taught and/or how it is taught and should be integrated across tiers. Additionally, the level of support (Tier level) should be increased until an intervention is identified that results in a positive response to intervention.

The intervention plan should address the person(s) responsible, skills targeted, and implementation arrangements (e.g., frequency, duration, location). Similarly, the monitoring plan for determining student progress must include the person(s) responsible, what data will be collected and how often, and how it will be determined if the plan is effective.

Intervention fidelity cannot be overemphasized in this step. The fourth step of problem solving (evaluate) is based on the veracity of interventions in Tiers 1, 2 and 3 delivered as intended; therefore, response to intervention cannot be evaluated if the intervention was not implemented or implemented poorly. In order to increase fidelity, an intervention support plan is included for each intervention. This refers to the ongoing support provided to the implementer of the interventions, e.g., training on the intervention and/or progress monitoring measure, ongoing consultation to ensure other barriers do not develop, etc. This support plan should include the person(s) responsible, what will be done, when it will occur, and where it will occur. A support plan is included within the Intervention Plan section of the Tier 1, Tier 2 and Tier 3 Problem Solving Worksheets.
Step 4: Response to Intervention/Achieving Results
Is it working?

The fourth step in the problem solving process is to evaluate the effectiveness of the intervention plan based on data collected. In order to make data-based decisions about the effectiveness of the intervention, the ongoing progress monitoring data must be displayed graphically.

Decisions about Data: The graphic display of data provides a clear illustration of expectations and performance over time that is easily interpreted by parents and educators. This visual comparison to a standard enables a team to know if learning gains are being made, and if so, under what conditions. There are three types of responses that the team should consider: positive, questionable and poor.

The following section describes characteristics of each type of response to intervention and what steps the team should consider under each circumstance.
POSITIVE RESPONSE

The following characteristics indicate a *positive* response to intervention:

- Gap is closing
  - Can extrapolate point at which target student(s) will come in range of goal

When a *positive* response to intervention occurs the team should consider the following next steps:

- Continue intervention with current goal until goal is met
- Continue intervention with goal increased
- Fade intervention to determine if student(s) have acquired functional independence.
QUESTIONABLE RESPONSE

The following characteristics indicate a *questionable* response to intervention:

- Rate at which gap is widening slows considerably, but gap is still widening
- Gap stops widening but closure does not occur

When a *questionable* response to intervention occurs the team should consider the following question and next steps:

- **Was intervention implemented as intended?**
  - If no, employ strategies to increase implementation integrity
  - If yes, increase intensity of current intervention for a short period of time and assess impact. If rate improves, continue. If rate does not improve, return to problem solving.
POOR RESPONSE

The following characteristic indicates a *poor* response to intervention:

- Gap continues to widen with no change in rate

When a *poor* response to intervention occurs the team should consider the following questions and next steps:

- Was intervention implemented as intended?
  - If no, employ strategies to increase implementation integrity
  - If yes, recycle through the problem solving cycle using the following questions:
    - Is intervention aligned with the verified hypothesis? (Intervention Design)
    - Are there other hypotheses to consider? (Problem Analysis)
    - Was the problem identified correctly? (Problem Identification)
A three-tiered instruction/intervention framework is used to organize resources and supports to ensure student learning and educational success. The intensity of supports provided to students matches student need.

Tiers of instruction:
- are provided according to each student’s need
- ensure that each student may master grade-level course standards and expectations
- ensure that each student may progress successfully (on time, age appropriately) through the PK-12 system.

All students receive instruction within this tiered system:

- Tier 1: Core (all students)
- Tier 2: Supplemental (any student/some students)
- Tier 3: Intensive (any student/few students)

**Instruction is tiered, students are not!**
Tier 1: Core Support for All Students

Core instruction is provided to all students and is accessible and differentiated to support the full continuum of student needs.

Tier 1 is:
- High quality teaching and school supports for positive behavior and academics that all students receive in all subjects and at all grade levels
- Effective if approximately 75-80% of students are successful as a result of core instruction, curriculum, and supports
- Implemented through well-researched programs and best practices

<table>
<thead>
<tr>
<th>Tier 1 Assessment Examples:</th>
<th>Tier 1 Core Intervention Examples:</th>
</tr>
</thead>
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<tr>
<td>Benchmark Assessments (FSA, Common Assessments)</td>
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<td>Universal Screening (Running Record)</td>
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<td></td>
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</table>

The Fidelity of Effective Core Supports

When a Tier 1 problem is identified, it would make little sense to target individual students for extra support until the deficiencies within core instruction for academics or behavior are addressed. All students are likely to benefit from improved Tier 1 strategies (e.g., highly effective teaching, strong and structured behavioral expectations), even those who are already proficient in the targeted skills. Far fewer students will need supplemental interventions if effective Tier 1 strategies are implemented.

If Tier 1 strategies are not implemented with fidelity or are ineffective despite being implemented with fidelity, the goal of the School Based Leadership Team should be to identify necessary changes to Tier 1 curriculum, instruction, and supports.
Tier 2: Supplemental Support for Some Students

Supplemental intervention is provided to any student in need of additional supports or intervention for a targeted skill in order to continue to progress within the core instruction.

Tier 2 is:
- Additional supplemental instruction/intervention that some students need in order to be successful with core grade level expectations.
- Supplemental (or strategic, or targeted) because these interventions address specific student problems.
- Delivered in addition to core Tier 1 instruction.
- Linked to core curriculum and expectations.
- Problem-solved with decisions make in collaboration with the School-Based Leadership Team (SBLT).
- Progress monitored at least bi-weekly, and results are graphed.
- Evaluated for effectiveness by the SBLT.
- Documented in the records of the SBLT.

Tier 2 Assessment Examples:
- Common Assessments
- School Assessments such as ODRs, tardies, absences, suspensions
- Observations
- Data from differentiated instruction
- Gap analysis

Tier 2 Supplemental Intervention Examples:
- Additional minutes or smaller group for reading skills
- Go Math Strategic Intervention
- Anger management small group
- Check In/Check Out

The purpose of Tier 2 Supplemental instruction and supports is to improve student performance to proficiency in the Core curriculum. Tier 2 services are “effective” when at least 70% of students receiving those services in addition to Core supports meet or exceed grade level proficiency. Tier 2 services require more time and a narrower focus of instruction than Tier 1 and may be provided by a variety of professionals – general education, intervention teachers, behavior specialists) in any setting.
Tier 3: Intensive Support for a Few Students

Intensive intervention is provided to help students overcome significant barriers to mastering grade-level standards within the core instruction.

Tier 3 is:
- Based on students’ response to evidence-based instruction and intervention in addition to the gap between student performance and expectation levels
- The result of evaluating existing data from Tier 1 and progress monitoring data from Tier 2 interventions to allow the Problem-Solving Team to determine if Tier 3 is appropriate (Tier 1 and Tier 2 were implemented with fidelity and data indicates that a student is not closing the performance gap.)
- Frequently (at least weekly) progress monitoring that includes visual representation (graphs)
- A result of collaborative problem solving between parents, teachers, service providers, and sometimes the student

**Tier 3 Assessment Examples:**
- Functional Behavioral Analysis (FBA)
- AimsWeb Progress Monitoring graphs

**Tier 3 Intensive Intervention Examples:**
- Positive Behavior Intervention Plan
- Increased Intensity of Tier 2 Intervention (e.g., smaller group or individual, additional minutes in group)
- Counseling

The purpose of Tier 3 services is to help students overcome significant barriers to learning academic and/or behavior skills required for school success.

Tier 3 intensive services are characterized by:
1. More instructional time
2. Smaller (or individual) instructional groups
3. More precisely targeted at the appropriate level
4. Clearer and more detailed explanations used during instruction
5. More systematic instructional sequences used
6. More extensive opportunities for practice provided
7. More opportunities for effort correction and feedback provided

From Florida’s MTSS: “MTSS Implementation Components”
Important Ideas About Intensive Support

- A large percentage of our students are in need of intervention, and many need intensive support.
- Some of the students with intensive needs are students with disabilities, but many are not.
- All schools have students who require intensive intervention to master grade level standards and expectations.
- Tiered interventions (Tiers 2 and 3) must not supplant core instruction.
- If a student needs intensified instruction, all tiers must be intensified.
Problem Solving for Three-Tiered Instructional/Intervention Model

**Tier 1 (Core) Problem Solving**

The purpose of Problem Solving at Tier 1 is to answer the following questions:

- How effective is the core instruction for all students?
- How effective is the core instruction for subgroups of students?
- Which grade levels/classrooms may require Tier 1 intervention (i.e., differentiation of Tier 1 instruction)?
- Which groups of students may require additional intervention?

In order to answer these questions, the following data must be identified, gathered, and analyzed:

- Current Level of Performance
- Benchmark/Expected Level of Performance
- Gap between current and expected levels of performance

Sources of Tier 1 data are both formative and summative, and may occur very frequently. They may include universal assessment across domains, accountability assessments (e.g., FSA), classroom assessments, grades, trend data, discipline referrals, and attendance.

Tier 1 (Core) problem solving is engaged in by the School-Based Leadership Team, and should be documented on the PCS Tier 1 Problem Solving Worksheet or the Action Plan Template for Collaborative Problem Solving (see Appendix – add to eLearn forms list PCS Tier 1 Problem Solving Worksheet from eLearn).

Documentation of problem solving in the SBLT should be maintained in the SBLT’s Meeting Agenda as well as posted evidence of data work in the meeting location. That documentation should include clear evidence that SBLT members have developed data literacy to a level that allows thinking about the variety of types and levels of data, how to use that data, and how to use it effectively.
Tier 2 (Supplemental/Strategic) Problem Solving

Tier 2 problem solving is the responsibility of the School Based Leadership Team. Students who require supplemental supports will be identified as a result of Tier 1 problem solving that includes determining that core instruction is effective (approximately 80% or more students are meeting grade level expectations), but that some students require additional support to achieve grade-level standards.

The purpose of Tier 2 problem solving is to answer the following questions:

- What is the appropriate intervention for a given group of students?
- How effective are the interventions selected for students identified as needing Tier 2 supports?
- Are the majority of students within a given supplemental group demonstrating a positive response to the instruction?
- Are there students who may require increased intensity/individual problem solving to accelerate their growth rate?

Possible sources of Tier 2 data include gaps between students’ performance and expected levels of performance in program assessments and district common assessments, and progress monitoring data collected regularly to measure the progress of students receiving supplemental intervention.

Tier 2 (Supplemental) problem solving is engaged in by the School-Based Leadership Team and its designated sub-committees. The work of the team should be documented in an Action Plan for Collaborative Problem Solving. (see Appendix – add to eLearn forms list PCS Tier 1 Problem Solving Worksheet from eLearn).

Documentation of problem solving in the SBLT should be maintained in the SBLT’s Meeting Agenda as well as posted evidence of data work in the meeting location.
**Tier 3 (Intensive) Problem Solving**

The focus of Tier 3 problem solving is the individual student. Tier 3 problem solving is the responsibility of the Tier 3 Problem Solving team, comprised of at least two members of the SBLT (one of whom is highly trained in problem solving), the child’s teacher, and the child’s parent or guardian.

The purpose of Tier 3 problem solving is to answer the following questions:

- Why is the desired behavior not occurring? What are the conditions under which it can or cannot occur?
- What about the interaction of the curriculum (including assessments), instructional practices, learning environment (including equity issues), and the Learner may be hindering the desired outcome?
- What data do we have to validate or rule out possible barriers/causes? What is the most likely explanation?
- Given the outcome of problem analysis, what additional supports need to be implemented to accelerate the student’s rate of growth?
- What is the student’s response to this intensive intervention? How well are the selected individualized, intensive supports helping the student reach the goal or desired behavior?
- What is the relationship between sustained growth and sustained support? When does the data indicate that supports can be faded or minimized in intensity?

The data-based decision that a student may require individualized, highly-intensive supports should be made by the Tier 3 Problem Solving team as a result of evaluating a groups’ response to Tier 2 intervention. Problem solving at this level is focused on the individual student who has not made similar progress in the identified skill area as other students receiving the same small group intervention and core instruction. Interventions at Tier 3 are diagnostic and precise, and are delivered individually or in a very small 2:1 or 3:1 pupil/teacher ratio) group setting with progress monitoring occurring more frequently (weekly for academic skills and daily for behavior).

It is the Tier 3 Problem Solving team’s decision to increase the intensity of intervention to a Tier 3 level for some students should be reflected in the results section of the Tier 2 Problem Solving Worksheet. The student’s Tier 2 data is summarized on the Student Tier 2 Data Summary. (see Appendix - add to eLearn forms list PCS Tier 2 Problem Solving Worksheet from eLearn).
Documentation of problem solving in the Tier 3 Problem Solving Team should be maintained both for compliance purposes and to facilitate the transfer of a plan to another school should the student transfer.

**Support Responsibilities for Tier 3 Problem Solving**
The SBLT must designate/assign a school-based staff member to support the work of the Tier 3 Problem Solving Team(s). That staff member is responsible for such functions as:

- Scheduling Tier 3 meetings in coordination with the Tier 3 Problem Solving Team Facilitator, including regular review and revision meetings as planned in the Problem Solving Worksheet or Functional Behavior Assessment.

- Inviting the parent, and notifying other team members, when the meeting is scheduled and where it will be held.

- Maintaining a confidential list of students who have been identified by the SBLT as requiring problem solving to develop intense interventions. The list should include the dates of problem solving meetings, and the names of the problem solving facilitators and the child's case manager if the child receives ESE services.

- Implementing the system established by the SBLT to secure documentation and data from problem solving and intervention implementation.

Should it be determined that a student requires an evaluation to consider eligibility for Exceptional Student Education (as a student with a disability or a student needing Gifted Education services), the Tier 3 support person, in collaboration with Student Services personnel, will manage the collection/gathering of the documentation necessary to consider eligibility; e.g., consent forms, eligibility checklists, etc. It is not required that the support person attend all meetings.

If a teacher or parent has concerns about a student that have not been determined through data reviews to be in need of supplemental instruction/intervention, the concerns should be considered in the data discussions at Tier 1, PLC discussions, etc.

**Tier 3 Problem Solving Team**
The Tier 3 Problem Solving Team is comprised of at least 2 members of the SBLT (one of whom is highly trained in problem solving), the teacher and the parent. It is suggested that one member from the SBLT be the educational diagnostician and/or school psychologist if the concern is academic skills or academic behaviors.
If the concern is social behavior skills, a Pinellas County Schools-trained FBA facilitator (school psychologist, school social worker, or behavior specialist) must be one of the SBLT members assigned to the team. If the student is experiencing severe behavior and academic concerns, the team must include the FBA facilitator and a member who can address the academic problem solving as well. As needed, the team may include other staff as well.

Critical to the MTSS framework and the three-tiered service delivery model is the degree to which the interventions in Tiers 1, 2, and 3 are integrated. The purpose of Tier 2 supplemental intervention is to improve achievement of core, grade-level standards; the purpose of Tier 3 is to support progress in supplemental intervention and achievement of grade-level standards in the core. If a student requires intensive (Tier 3) intervention, then instruction/intervention in Tiers 1 and 2 should also be intensified.

Ensuring that services provided across tiers are integrated and support a student’s success in core instruction is essential. This can be accomplished by scheduling and building in teacher/ interventionist communication opportunities where teachers discuss the following:

- Scope and sequence of core instruction
- Scope and sequence of Tier 2, Tier 3 instruction
- Student progress
- Upcoming lesson information to allow for pre-teaching opportunities
- Aligning instructional vocabulary across tiers to eliminate discrepancies

The Tier 3 Problem Solving Team will review the Tier 1 and Tier 2 data and determine what additional information might be needed to answer the questions of Tier 3. The RIOT/ICEL summary sheet and/or the Data Coaches Guide chart including equity and critical support can be used to guide the collection of information. As much information as possible should be gathered before the initial meeting so that problem solving can be as efficient as possible.

For students who continue to demonstrate severe social behavior difficulties after the implementation with fidelity of Tier 1 and Tier 2 supports and interventions, Tier 3 will include a Functional Behavior Assessment (FBA) which will result in a Positive Behavior Improvement Plan (PBIP).

For some students who demonstrate severe difficulties in both academic and social behavior skills, both a Tier 3 Problem Solving Worksheet (PSW) and an FBA/PBIP will be developed. Similar data may need to be used in problem solving. It is strongly recommended that the same team develop the academic and the behavior plan to ensure that the plans
and the supports are aligned. Additionally, both academic and behavioral causes/barriers should be considered for either target skill in problem analysis.

The parent will be invited to the Tier 3 Problem Solving meeting which will be held at a convenient time for the parent and teacher. If there is no time that the parent can attend, alternate methods to ensure participation are expected, such as conference calls. All attempts to ensure parent participation should be documented.

An in-depth discussion of the problem solving steps is found in the beginning section of this section. These steps are the same at Tier 3 as for Tier 1 and 2. While the focus of problem solving at Tier 3 is individualized, the hypothesis building involves the interaction of the Instruction, Curriculum, and Environment with the Learner.

**Step 1 – Problem Identification: What is the Problem?**
The targeted concerns are identified through the data from the SBLT and from the RIOT/ICEL information. As in Tier 1 and Tier 2, the Tier 3 Problem Solving Team will use data to quantify the problem. The team will have the current level of performance and the rate of learning for the student as a result of Tier 1 and Tier 2 problem solving.

**Step 2 – Problem Analysis: Why Is It Occurring?**
The team will employ problem solving to consider the possible reasons the difference exists between the current level of performance and rate of learning and the expected or desired level of performance and rate of learning. The hypotheses and the data to validate or rule out the hypothesis are listed. The team will make a prediction that if a given intervention is implemented, the problem will be reduced.

**Step 3 – Implementation Plan: What Are We Going to Do About It?**
Interventions are planned that are aligned with the hypothesis and prediction and that increase the intensity of what has been provided to the student up to this point. Intensity of intervention can be increased by modifying the following:

1. Frequency of intervention – how often will group meet?
2. Duration – for how many minutes will intervention take place?
3. Focus – what will be taught?
4. Size of group – how many students will be in the instructional/intervention group?

The intervention plan must include a support plan for the provider and/or teacher, a progress monitoring plan, and a plan for monitoring the fidelity of the implementation.
**Step 4: Response to Intervention: Is It Working?**

In order to know if interventions are working for students identified as needing Tier 3 supports and to determine what changes, if any, need to be made, the following data must be identified:

- Current Level of Performance (trendline of ongoing progress monitoring data points)
- Expected Level of Performance
- Aimline (a line drawn from current level of performance at initiation of intervention to the established goal/desired level of performance)

This data will be graphed in a format (generally a line graph) that includes the trendline, aimline, and benchmark or desired level of performance. The measure is plotted on the vertical axis and the time on the horizontal axis. The graph must clearly provide a visual of the data that will enable the team to make decisions about the response to the intervention. This information is used to determine next steps.

Problem solving does not stop until the gap has closed (or will close in an acceptable amount of time) and the supports can be withdrawn without decline in student performance.

Within the group of students that require intense intervention (Tier 3), some students may be identified as students with disabilities and require specially designed instruction to be successful. Problem solving continues for students who are determined eligible for ESE services at the same level of intensity as for students requiring Tier 3 interventions who do not have a disability. If a student is suspected of having a disability, an evaluation should be requested. Information on processes and procedures to consider this possibility can be found in the ESE Handbook.
Data Evaluation

The School-Based Leadership Team is responsible for ensuring that all staff understand the purposes of assessment and have access to academic, behavior, and social-emotional data sources that address the following purposes of assessment:

- identify students at risk academically, socially, and/or emotionally
- determine why a (any) student is at risk
- monitor student academic and social-emotional growth/progress
- inform academic and social-emotional instructional/intervention planning
- determine student attainment of academic, behavior, and social-emotional outcomes

Critical guiding questions and assessment practices are refined and adjusted to ensure the availability of accurate and useful data to inform instruction. Guiding questions about using data and inferring meaning from them might include:

- What questions are we asking of the data?
- What inferences and explanations can we draw from these data sets?
- What tentative conclusions might we draw?
- What additional data might we explore to verify?
- Does our curriculum emphasize this content?
- Did we teach this content?
- Do all students have access to high-quality instruction of this content taught by highly qualified teachers?
- Do our beliefs, assumptions, and expectations about what students can learn limit some students from learning this content?

*The Data Coaches Guide to Improving Learning for All Students*
Policies and procedures for decision-making must be established that include schedules for screening, the use of diagnostic assessments, frequent progress monitoring, and the criteria for determining tiers of support needed. Staff must also consistently administer assessments, access data sources and make data-based decisions with fidelity to the policies and procedures established by the leadership team.

The SBLT should periodically conduct analyses to determine how implementation of critical elements of MTSS relate to positive student outcomes; that is, resources are allocated based on student need, the relationship between the resources allocated and the outcomes of students is evaluated, and processes and criteria for resource allocation are refined based on strategies that result in improved student outcomes.

It is also vital that the SBLT evaluate how MTSS is implemented, providing information on what practices relate to improvements in student academic, behavioral, and social-emotional outcomes. Key stakeholders may ask critical questions such as these:

➢ How much consensus is there among educators that MTSS should be implemented?

➢ Does the school and district staff possess the knowledge and skills to implement MTSS?

➢ To what extent are educators implementing evidence-based instruction and interventions across grade-levels, content areas, and tiers with fidelity?

➢ What steps of problem-solving are being implemented with fidelity?

➢ How are students performing compared to grade-level expectations?

➢ What other factors may be contributing to MTSS implementation and student outcomes?

Responding to questions like these allows key stakeholders to prioritize what data to collect and to develop methods and procedures for gathering the information.
APPENDIX

GLOSSARY

Adequate Yearly Progress - a statewide accountability system mandated by the No Child Left Behind Act of 2001 which requires each state to ensure that all schools and districts make adequate yearly progress as defined by states and as approved by the US Department of Education.

Aimline - line on a graph that represents expected student growth over time

Baseline Data - data collected prior to an intervention; used in making a comparison with data collected during and/or after the implementation of an intervention

Consensus - allowing all staff to learn about what changes are needed and to allow them to have a stake in the design of what PS/RtI looks like at their school; beliefs are shared, vision agreed upon and implementation requirements are understood

Core Curriculum - the course of study deemed critical and usually made mandatory for all students of a school or school system. As mandated by No Child Left Behind, core curricula must represent scientifically-based practice. Core is provided to all students.

Curriculum Based Assessment – measurement that uses direct observation and recording of a student’s performance in the local curriculum as a basis for gathering information to make instructional decisions

Curriculum Based Measurement (CBM) – probe or direct assessment used to identify student levels of proficiency in academics; a method of measuring and recording student progress in designated learning areas

Data Point - one score on a graph or chart, which represents a student's performance relative to a specific assessment at one point in time.

Differentiated Instruction – the use of a variety of instructional strategies that address diverse student learning needs based on what students need to learn (content), how they will learn it (process), and/or how they can express it (product)
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>Effect Size</td>
<td>Effect sizes are indicators of the size or magnitude of the statistically significant difference between the experimental treatment and control groups. Effect sizes of 1.0 or greater are generally considered large. Effect sizes of .50 are considered “medium”, and effect sizes of .25 are considered small, i.e. of little practical significance.</td>
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<tr>
<td>Evidence Based Practice</td>
<td>Educational practices and instructional strategies that are supported by scientific research studies and found to significantly improve achievement or have strong evidence that they will achieve this result.</td>
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<td>Fidelity of Implementation</td>
<td>Refers to the accurate and consistent provision or delivery of instruction in the manner in which it was designed or prescribed according to research findings and/or developers’ specifications.</td>
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<td>Formative Assessment</td>
<td>Classroom/curriculum measures of student progress; monitors progress made toward achieving learning outcomes; informs instructional decision making. Examples include (but are not limited to): CBM, CBA, pre/posttests, portfolios, benchmark assessments, quizzes, teacher observations, and teacher/student conferencing.</td>
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<tr>
<td>Gap</td>
<td>The difference between the expectation and the current level of performance or the expectation and peer performance or current level of performance and peer performance.</td>
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<td>GAP Analysis</td>
<td>The numerical calculation based on identified gaps to determine significance and magnitude of problem and assist in resource allocation.</td>
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<tr>
<td>Goal or Aim Line</td>
<td>The goal line on a graph connects the intersection of the student’s initial performance level and date of that initial performance level to the intersection of the student’s year-end goal and the date of that year-end goal. It represents the expected rate of student progress over time.</td>
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<tr>
<td>Infrastructure</td>
<td>The structures necessary for implementation of PS/RtI, including processes, training, determination of model (standard protocol or PS), Tier 2 and 3 intervention systems,</td>
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data systems and management, technology support, decision rules, schedules, etc.)

Intervention- a change in the manner and/or the degree of the instruction a student receives with the intent of improving performance and achieving progress. An intervention addresses academic and/or behavioral needs of a student.

Growth Rate - (Also Rate of Improvement, Rate of Learning) a student’s growth in academic or behavioral skills over time, determined by a comparison of prior levels of performance and growth rates of peers

Level of performance - the point where a student actually achieves as compared to the point of expected performance

Positive response to intervention - the gap between the expectation and the current performance is closing or a point at which the gap closes can be extrapolated

Probes - brief classroom assessments of specific skills

Problem Solving Method - Within PS/RtI, a problem-solving approach is used to individually tailor an intervention. It has four stages: problem identification, problem analysis, plan implementation, and plan evaluation.

Progress Monitoring - scientifically-based practice that is used to measure ongoing student progress and determine the effectiveness of the instruction/intervention plan; frequent measurement of students reveals data that shows if adequate progress is being made and if students need more or if a different intervention to achieve targeted goals and/or outcomes; is brief, frequent, repeatable, and always includes graphing.

Resource Map - A compiled list of scientific research based interventions available at a school, progress monitoring tools, personnel trained to deliver and progress monitor the programs and strategies to be used in supplemental (Tier 2) and intensive (Tier 3) instruction and intervention

Scientific, Research Based - defined by NCLB as follows: 
Section 9101(37) The term ‘scientifically based research’- (A) means research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and
valid knowledge relevant to education activities and programs; and
(B) includes research that-
(i) employs systematic, empirical methods that draw on observation or experiment;
(ii) involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;
(iii) relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators;
(iv) is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs, or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random assignment experiments, or other designs to the extent that those designs contain within-condition or across-condition controls;
(v) ensures that experimental studies are presented in sufficient detail and clarity to allow for replication, or at a minimum, offer the opportunity to build systematically on their findings; and
(vi) has been approved by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review.
(NCLB Section 9101(37), 20 USC 7707 (b) (37))

Standard Protocol - use of the same empirically validated intervention for all students with similar academic or behavioral needs; this method facilitates quality control

Strategy - a procedure used for strengthening the process of learning

Summative Assessment - a form of evaluation used to describe the effectiveness of an instruction program or intervention, that is, whether the intervention had the desired effect. With summative assessment, student learning is typically assessed at the end of a course of study or annually (at the end of a grade).

Tier 1 - the core instruction provided to all students; effective if at least 80% of all students meet expectations
Tier 2 (Supplemental) - standard protocol interventions provided to small groups of students that relate directly to a specific or targeted skill that has been identified by student data; are provided in addition to the core instruction. Interventions are

Tier 3 (Intensive) - Intensive academic and/or behavioral interventions are characterized by their increased focus for students who fail to respond to less intensive forms of instruction. Intensity can be increased through many dimensions including length, frequency, and duration of implementation.

Trendline - line on a graph that represents a line of best fit through a student’s data points; compared against the aimline to determine responsiveness to intervention and to tailor a student’s instructional program

Universal Screening - formal and/or informal assessments administered to all students to determine who may be identified as “at risk” of falling below state or grade level standards
ASSUMPTIONS from the Data Coach’s Guide

Beliefs. Problem Solving - Response to Instruction/Intervention is guided by a set of beliefs. In order to build consensus, these central beliefs must be shared by everyone who impacts student learning:

- All children can learn
- Every student is everybody’s responsibility
- Leadership is vital
- Parents have vast knowledge about their children and should be partners in the educational system
- Improving the effectiveness of core instruction is basic to this process
- Student performance is influenced most by the quality of the instruction and interventions we deliver and how well we deliver them, not preconceived notions about child characteristics
- The best educational strategy is the one that works
- The effectiveness of any educational strategy must be evaluated frequently
- Decisions are best made with data
- Assessment (data) should both inform and evaluate the impact of instruction/intervention

References
MTSS Coach’s Roles and Responsibilities

The role of the school-based MTSS Coach (may also be identified as a facilitator, staff developer, team leader) is to provide technical assistance and support to school staff to improve implementation of the components of a multi-tiered systems of support model. Responsibilities may include:

- **Model and support data literacy:**
  - gain basic knowledge of school data and assessments
  - interpret and guide analysis of multiple data sources effectively to improve teaching and learning
  - encourage all other school staff to achieve data literacy

- **Facilitate collaborative problem solving processes:**
  - convene leadership/data teams
  - plan team meetings
  - facilitate the process of data-driven dialogue
  - guide the problem solving team through collaborative inquiry
  - promote equity and effective learning for all students
  - create an environment where each team member safely and fully participates

- **Provide leadership for sustainability of systems:**
  - institutionalize collaborative inquiry:
    - build a foundation on shared values, standards, vision
    - identify student learning problems
    - verify causes (root cause-and-effect analysis and validation)
    - generate solutions,
    - implement, monitor, and achieve results

- **Demonstrate leadership in instructional improvement**
  - ensure intervention for closing achievement gaps
  - build consensus for multi-tiered systems of support and collaborative problem solving
  - influence school culture by building a vision
  - celebrate successes
  - support and contribute to the development of comprehensive data systems that provide timely and accurate information
  - Commit to ensuring equity and learning for all students.

- **Provide assistance and professional growth opportunities to teachers:**
  - train and mentor in the use of materials, assessment strategies, best practices
  - monitor and provide high-quality feedback on the fidelity of interventions provided to improve student achievement