


**Multi-Tiered
System of Supports (MTSS):**

**DATA BASED PROBLEM SOLVING
AND DECISION MAKING**



Erin A. Sullivan, M.S. Ed., M.A.
Colorado Department of Education
Office of Learning Supports

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Welcome & Introductions

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Office of Learning Supports (OLS)

Vision

Every Colorado school and district will successfully implement and sustain a multi-tiered system of supports to improve academic and social emotional outcomes for every student.

Mission

The mission of the Office of Learning Supports is to shape, develop, and increase the collective capacity of schools and districts to implement and sustain a multi-tiered system of supports, through a problem-solving culture that integrates data, practices, and systems which improve educational outcomes for every student.

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- Judy Elliott, former Chief Academic Officer (L.A. Unified School District)
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 - Steve Goodman
- National Implementation Research Network (NIRN)
- National Association of School Psychologists (NASP)
- National Technical Assistance Center on PBIS (OSEP)
 - Rob Horner and George Sugai
- RTI Action Network
- State Implementation Scaling up Evidence-based Practices Center (SISEP)
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 - Bob Algozzine and Kate Algozzine
- University of Oregon
 - Steve Newton and Anne Todd
- University of Louisville
 - Dr. Terrance Scott

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Training Expectations

<u>M</u>otivated	<u>T</u>ake Care of Yourself and Others	<u>S</u>hare Information	<u>S</u>tay On-task
<ul style="list-style-type: none"> • Active involvement • Think in possibilities • Show Enthusiasm and Humor 	<ul style="list-style-type: none"> • Start and end on time • Take care of the environment • Put cell phones on vibrate 	<ul style="list-style-type: none"> • Network • Team work • Work with those outside your familiar group of colleagues 	<ul style="list-style-type: none"> • Limit side conversations • Listen and attend when others are speaking

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Learning Outcomes

Participants will:

- Review Essential Components and language of a Multi-Tiered System of Supports (MTSS)
- Recognize varied applications of the MTSS Problem Solving Process
- Evaluate the structures necessary for effective teaming and meeting practices
- Practice the four steps of the MTSS Problem Solving Process

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Message from Secretary Duncan

- <http://www2.ed.gov/policy/gen/guid/school-discipline/index.html>

7

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Multi-Tiered System of Supports (MTSS) *An Overview*

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"Multi-Tiered System of Supports..."

Whole-school, data-driven, prevention-based framework for improving learning outcomes for EVERY student through a layered continuum of evidence-based practices & systems

<http://www.cde.state.co.us/mtss>

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MTSS

Shared Leadership; Data-Based Problem Solving and Decision Making; Layered Continuum of Support; Evidence-Based Instruction, Intervention, and Assessment Practices; Universal Screening and Progress Monitoring; Family, School, and Community Partnering

Behavior
Supports

Academic
Supports

Additional
Learning
Supports

CO MTSS/PBIS

Instruction & Curriculum

Family, School, and Community Partnerships

School-wide Discipline
& Climate, Classroom
Management,
Function-based
Support, etc.

Literacy, Numeracy,
Social Studies, Physical
Sciences, History,
Physical Education, Art,
etc.

School-based
Mental Health,
Health & Wellness

Every student, every staff member, every family, every school setting

Adapted from George Sugai, 2012

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A Shift in Thinking



This shift alters everything else!



What about the interaction of the **curriculum, instruction, learners, and learning environment** should be altered so that the student(s) will learn?

Adapted from Ratsche and Elliott materials (citing Ken Howell)

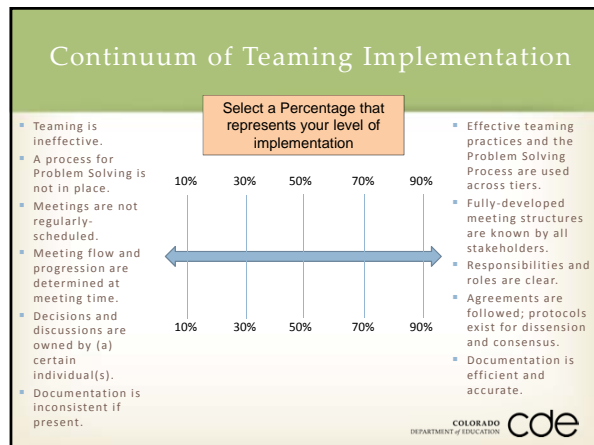
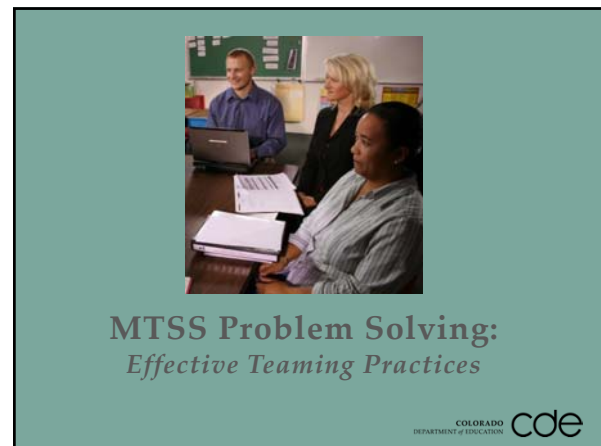
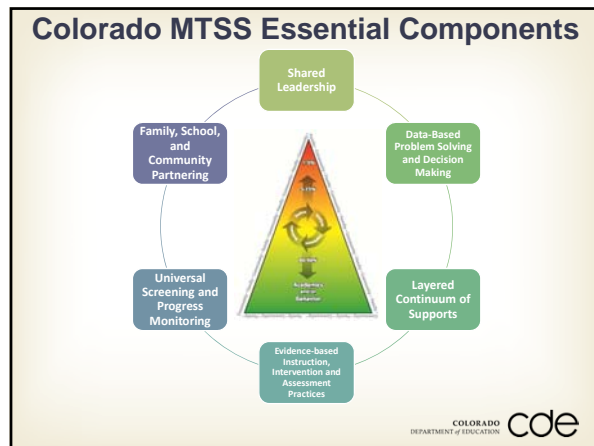
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Focus on the System

To get to "**all**", we must pay attention to "**every**". We must pay attention to the "**system**" first, and then, we move to small groups and individuals.

Dave Tilly

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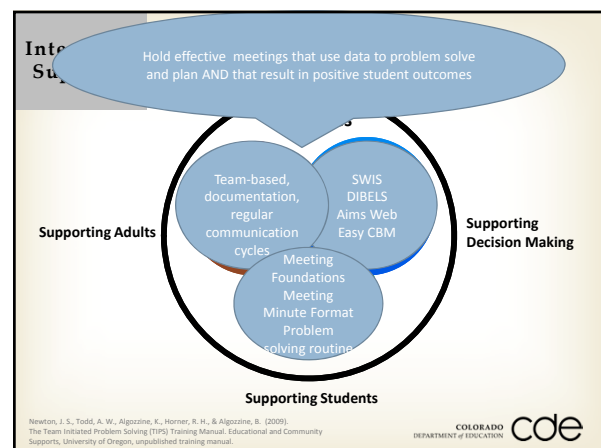
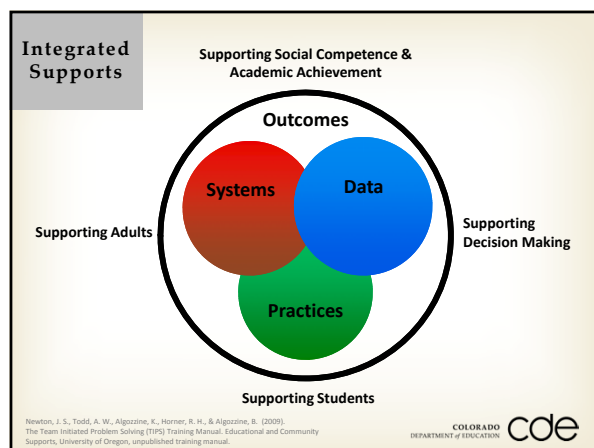


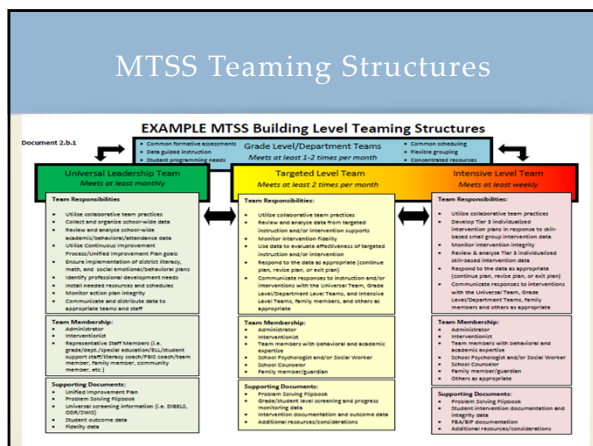
What do we need?

- A clear model with steps for problem solving routine
- Access to the right information at the right time in the right format
- A formal/predictable process that a group of people can use to build and implement solutions

Newton, J. S., Todd, A. W., Algozzine, K., Horner, R. H., & Algozzine, B. Version 2 (2012). The Team Initiated Problem Solving (TIPS) Training Manual. Educational and Community Supports, University of Oregon, unpublished training manual.

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Universal Leadership Team Role and Function Tier 1: School-Wide Systems

- Installing the infrastructure
 - Identifying needs
 - Training, coaching, resources, evaluation
- Analyzing school-wide data
 - Academic and behavior data
- Problem-solving system issues
 - Identifying barriers
 - Generating and implementing solutions
 - Funding, visibility, political support
- Evaluation
 - Continuous improvement

Adapted from MTSS: How does this acronym impact me?
Global Scholar, 2012

Problem Solving Team Membership

- Administrator
- Grade level/department representation
- Student Support Personnel (counselors, social workers, school psychologists, etc.)
- Specialists (for Title 1, Gifted and Talented, English Language Development, Special Education, etc.)
- Others (family, student, support staff, bus driver, coach, community partners, etc.)

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Defining Roles for Effective Meetings

- Core roles
 - Facilitator
 - Note taker
 - Data analyst
 - Active team member
 - Administrator
 - Backup for each role

Typically NOT the administrator

Can one person serve multiple roles?

Are there other roles needed?

Adapted from Newton, J. S., Todd, A. W., Algozzine, K., Horner, R. H., & Algozzine, B. (2009). The Team Initiated Problem Solving (TIPS) Training Manual. Educational and Community Supports, University of Oregon, unpublished training manual.

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MTSS Problem Solving: Using Data for Decision Making

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Colorado MTSS PROBLEM SOLVING PROCESS

Step 1—Define the problem
What is the problem?

Define

Step 2—Problem Analysis
Why is it occurring?

Analyze

Step 3—Plan Implementation
What are we going to do about it?

Implement

Step 4—Evaluate
Is it working?

Evaluate

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ACTIVITY: Using A Problem Solving Process

Refelction

- How is the 4-step problem solving process currently utilized in your school?
 - Which teams utilize this process?
 - Which steps do the team utilize?
- How is decision making documented by the team?

Problem Solving: Levels of Application

Problem solving can be applied to the student, classroom, building, district, and system levels:

- **Student:** academic and/or behavior issues
- **Classroom:** discipline, returning homework
- **Grade Level:** low academic skill performance
- **Building:** bullying, attendance
- **District:** over-/under-representation
- **SYSTEM:** *problem common to students in building*

What is the problem? Step 1—Define the Problem

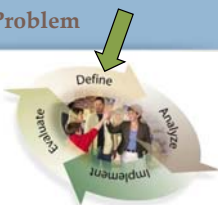
PURPOSE: To define the problem as the measurable difference between the desired outcome and the actual behavior or performance.

GUIDING QUESTIONS:

- What is the desired outcome?
- What is the actual performance?
- What is the difference between the two?
- If there is more than one problem, determine which is the highest priority.
- What is the level of the problem?
(district-wide, school-wide, grade level, whole class, small group, or individual)

OUTCOME CONSIDERATIONS

Academics, Social Behavior, Adults and Students



Tier 1: MTSS Data Based Problem Solving and Decision Making Questions and Data Sources—Define the Problem

- **Questions:**
 - What do we want our students to know?
 - How will we know if they learned it? What will we do next if they do or don't know it?
 - Is our core instruction (academic and behavior) meeting 80-85% of our students' needs?
 - Are we implementing MTSS practices with fidelity?
 - Do we have support resources?
- **Data Sources (systems, processes, and practices)**
 - **Universal Screening**
 - Formative Assessments
 - Summative Assessments
 - Observations
 - **Discipline Referrals**
 - **Suspension Data**
 - **Attendance**
 - **Fidelity Measures**
 - **School Climate Surveys**
 - **Other Surveys**

Adapted from Global Scholar, 2013

Primary Statement

Primary statements help us answer the **first** question of the problem-solving process. Primary statements help define the problem.

Do we have a problem?

Adapted from Newton, J. S., Todd, A. W., Algozzine, K., Horner, R. H., & Algozzine, B. (2009). The Team Initiated Problem Solving (TIPS) Training Manual. Educational and Community Supports, University of Oregon, unpublished training manual.

Average Referrals Per Day Per Month - Multi-Year



Primary Statement

We have peaks in frequency of problem behaviors in Oct, Nov, & Dec, with a decreasing trend during second semester. Our ODR/day is below last year's rate for 6 out of 10 months (Dec, Jan, Feb, March, April, May).

Moving From a *Primary* to a *Precise* Statement

- **What** are the most common academic or behavioral concerns?
- **Where** are academic or behavioral concerns most likely?
- **When** are academic or behavioral concerns most likely?
- **Who** is currently experiencing academic or behavioral concerns?
- **Why** are academic or behavioral concerns sustaining?

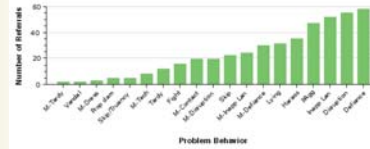
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Referrals by Problem Behavior “What”

Referrals by Problem Behavior

All, Sep 1, 2013 - Mar 4, 2014



Many problem behaviors occurring. The most frequent are defiance, disruption, inappropriate language, physical aggression. They can all be categorized under “disrespectful” behaviors.

Is there one major problem behavior or multiple behaviors?

Are there similarities in the types of behaviors?

Do they appear to be student-student problem behaviors or student – adult?

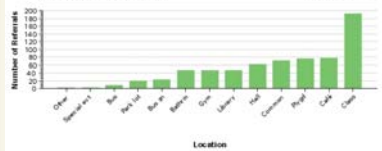
Are they major or minor problem behaviors?

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Referrals by Location “Where”

Referrals by Location

All, Sep 1, 2013 - Aug 31, 2014



Classroom is our biggest location. Non-classroom settings, such as: Cafeteria, playground, common areas and hallway are also a concern.

Where are the problems occurring?

Are there problems in many locations, clusters of locations, or one location?

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Referrals by Time and Day “When”

Referrals by Time

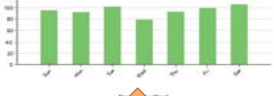
All, Sep 1, 2013 - Aug 31, 2014



Behavior incidents are happening throughout the day, but primarily in the afternoon

Referrals by Day Of Week

All, Sep 1, 2013 - Aug 31, 2014



Behavior incidents are happening throughout the week, but a spike occurs on Saturday (?) and Tuesday.

- When are the problem behaviors occurring?
- How do those times/days match with the daily activities or school schedule?
- How does this information match with Referrals by Location?

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Referrals by Student and Grade “Who”

Referrals by Student

All, Sep 1, 2013 - Aug 31, 2014



We have a lot of students with referrals: Rule of thumb: many students = systems issue

- What proportion of students have
 - 0-1 ODR
 - 2-5 ODR
 - 6+ ODR

Referrals by Grade

All, Sep 1, 2013 - Aug 31, 2014



All grades are represented, but 8th grade has the most

- Which grade levels have the most referrals?
- Do we have a large # of students with referrals?

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Example: *Primary* to *Precise*

- **Primary:** We have peaks in frequency of problem behaviors in Oct, Nov, & Dec, with a decreasing trend during second semester. Our ODR/day is below last year's rate for 6 out of 10 months (Dec, Jan, Feb, March, April, May).
- **Precise:** A lot of students (primarily 8th graders) are engaging in defiance, disruption and inappropriate language in both classroom and non-classroom settings (cafeteria, playground, common areas); throughout the day (mostly in the afternoon).

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A Shift in Thinking

The diagram illustrates a shift in thinking. On the left, a red octagonal STOP sign contains the text: "STOP: 'What about the student is causing a problem?'". A green arrow points from the STOP sign to a blue rounded rectangle on the right. Inside the blue rectangle, the text reads: "What about the interaction of the *instruction, curriculum, and learning environment* should be altered so that the student(s) will learn?". Below the STOP sign, a white box with a black border contains the text: "This shift alters everything else!". At the bottom left, a small text line reads: "Adapted from Batsche and Elliott materials (citing Ken Howell)". At the bottom right, the logo for the COLORADO DEPARTMENT OF EDUCATION (cde) is displayed.

STOP:
"What about the student is causing a problem?"

Instead

What about the interaction of the *instruction, curriculum, and learning environment* should be altered so that the student(s) will learn?

This shift alters everything else!

Adapted from Batsche and Elliott materials (citing Ken Howell)


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RIOT Procedures

Review	Interview
Records	Teacher
Cumulative Folders	Families
Work Samples	Bus Drivers
Health Records	Child
Benchmark assessments	Significant Others

Observation	Test
Student-peer	Curriculum-based
Student-teacher	Behavior rating scales
Parent-child	Norm-referenced
Instruction-watching	Criterion-referenced

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Tier 1 Problem Analysis – ICEL Behavior Practices		
Instruction <ul style="list-style-type: none"> • Teaching matrix rules • Reinforcement of matrix rules with specific praise • Use of precorrections • Cultural Responsive Behavior Instruction • Multiple opportunities to teach expectations • Active Supervision • Teacher document consequences 	Curriculum <ul style="list-style-type: none"> • Matrix rules positively stated and observable • Teaching teachers to use "specific" praise • Rules established for all settings • Classroom rules/no more than 5 • Continuum of consequences for encouraging expected behaviors • Continuum of consequences for discouraging expected behaviors • Data collection tools that are looked at monthly • Evidence based methods to teach replacement behavior 	Environment <ul style="list-style-type: none"> • High rates of reinforcement • High rates of positive interactions (min 4:1) • Effective routines and procedures in classroom • Effective routines and procedures in non-classroom settings • Faculty ask for assistance in making their classroom a PBIS classroom • Consistent, clear attention signal

What are we going to do about it?


Step 3—Plan Implementation

PURPOSE: To select and implement a system support or an intervention that is focused on what to teach, how best to teach it, and how to monitor progress.

What is the simplest thing that can be done that has the greatest impact?

GUIDING COMPONENTS:


- System supports or interventions must be based upon data and knowledge gained through the steps of **problem definition** and **problem analysis**.
- System supports or intervention plan development includes selection of an evidence-based practice, determination of who will be responsible, alignment of resources, how fidelity of implementation will be measured, how progress will be monitored, and specific decision points criteria met.
- Progress monitoring involves collecting, graphing, and using data frequently.
- Progress monitoring requires plan development including **who, what, when, and how** frequently data are collected and reviewed.



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The Bottom Line...

Are we matching instruction and intervention to student need?



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Linking Interventions to Identified Needs

Identified Need or Problem	Possible Intervention
<ul style="list-style-type: none"> Students are engaging in disruptive behaviors to get out of class (primarily in the afternoon classes) 	<ul style="list-style-type: none"> Investigate which courses/content areas are happening in the afternoon
<ul style="list-style-type: none"> Students are engaging in swearing and inappropriate language when in non-classroom settings, especially to get peer or adult attention 	<ul style="list-style-type: none"> Increase adult supervision in non-classroom settings to provide prompts and positive acknowledgement to students

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Linking Interventions to Identified Needs

Identified Need or Problem	Possible Intervention
<ul style="list-style-type: none"> Students are engaging in disruptive behaviors to get out of class (primarily in the afternoon classes) 	<ul style="list-style-type: none"> Investigate which courses/content areas are happening in the afternoon
<ul style="list-style-type: none"> Students are engaging in swearing and inappropriate language when in non-classroom settings, especially to get peer or adult attention 	<ul style="list-style-type: none"> Increase adult supervision in non-classroom settings to provide prompts and positive acknowledgement to students

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Designing Intervention Strategies

Proactive Strategies (How can we avoid the problem context?)	<ul style="list-style-type: none"> Have more adults in non-classroom settings moving around, interacting with students and reinforcing the expectations (specifically when 8th graders are in those settings)
Instructional Strategies (How can we define, teach, and monitor what we want?)	<ul style="list-style-type: none"> Reteach expected behaviors in non-classroom settings (specifically cafeteria, playground, common areas, hallways) – take the students to the location and have the adults in those settings teach and remind them of expected behaviors. Identify peer mediators/monitors within grade levels to help
Reinforcement Strategies (How can we build in systematic reward for desired behavior?)	<ul style="list-style-type: none"> Acknowledge students while moving around non-classroom settings Decrease in referrals in 2 weeks = more social time with peers


Is it working?

Step 4—Evaluate


PURPOSE: To determine the effectiveness of implemented system supports or interventions and make appropriate educational decisions.

GUIDING QUESTIONS:

- Was the system support or intervention successful?
- Does the plan require more time and monitoring or modification?
- Was the system support or intervention implemented with fidelity?
- Was the outcome met according to set criteria?
- Do we have the resources to sustain these supports?
- Do we need to go back to previous steps?
- Celebrate progress!



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Learning Team Activity: *Putting It Into Practice*

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LEARNING TEAM ACTIVITY

Step 1: Define the Problem

- Create a precise problem statement based on the information from the data set you were presented.
- Do you have all the information you need to develop a precise problem statement?
- If not, what other information would be helpful to identify the problem?

Adapted from Florida PBIS Project

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Step 2: Problem Analysis

Why is it occurring?

Utilizing a RIOT/ICEL matrix, brainstorm all possible reasons as to why the problem is occurring.

	Review	Interview	Observe	Test
Instruction				
Curriculum				
Environment				
Learner				

Guiding Questions:
Based on the data provided, which of the brainstormed possible reasons is most likely? What is the agreed upon hypothesis?

Adapted from Florida PBIS Project

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Step 3: Plan Implementation

What are we going to do about it?

Guiding Questions:

1. Based on the developed hypothesis, brainstorm intervention strategies for each of the categories in the chart below. Remember to consider the ***simplest thing that can be done that will have the greatest impact.***
2. Circle at least one feasible potential intervention.

Proactive Strategies (How can we avoid the problem context?)	
Instructional Strategies (How can we define, teach, and monitor what we want?)	
Reinforcement Strategies (How can we build in systematic reward for desired behavior?)	

Adapted from Florida PBIS Project

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Step 3: Plan Implementation

What are we going to do about it?

Guiding Questions:

1. What interventions and supports are we going to put in place?
2. How will we know if the intervention was implemented with fidelity? What type of data will be collected?
3. What resources are needed? By whom? By when?
4. How will we know when the intervention has been successful?
5. For the circled intervention in Step 3, list at least one type of data that could be used to measure effectiveness.

Intervention Strategy	Data Sources	Resources Needed	Goal/Desired Outcome
Intervention #1:	Data:		
Intervention #2:	Data:		
Intervention #3:	Data:		

Adapted from Florida PBIS Project

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Step 4: Plan Evaluation

Is it working?

Guiding Questions:

1. Was the system support or intervention successful?
2. Does the plan require more time and monitoring or modification?
3. Was the system support or intervention implemented with fidelity?
4. Was the outcome met according to set criteria?
5. Do we have the resources to sustain these supports?
6. Do we need to go back to previous steps?
7. Have we celebrated progress?!

Adapted from Florida PBIS Project

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Big Ideas

- We need efficient and effective teaming practices to support our problem solving
- It may help to restructure our teams or committees in order to “work smarter, not harder”
- Problem solving occurs at all levels of support – universal, targeted and intensive
- Utilize multiple data sources (ICEL/RIOT) to analyze why a specific problem is occurring and to develop a plan of action

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Results Matter

“All organizations and systems are designed, intentionally or unwittingly, to achieve precisely the results they get”

R. Spencer Darling

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Thank you for all you do!

CONTACT INFORMATION

Erin A. Sullivan

Sullivan_e@cde.state.co.us

<http://www.cde.state.co.us/mtss>

www.cde.state.co.us/pbis

www.cde.state.co.us/pbis/bullying/index



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Project Officer, Jennifer Coffey, PhD.

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