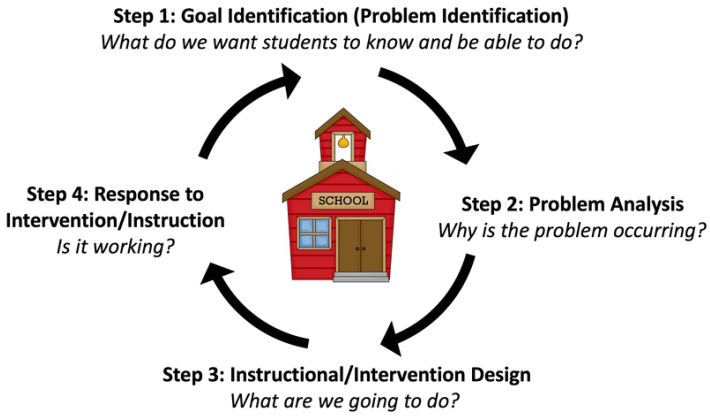
Fact Sheet

This Fact Sheet is a product of the Florida Problem Solving/Response to Intervention Project,
a collaborative project between the Florida Department of Education and the University of South Florida.

Problem Solving within a Multi-Tiered System of Supports (MTSS)

The Four-Step Problem-Solving Process

Data-based problem solving is a critical component of an MTSS and is essential to improving educational outcomes for students across content areas, grade levels, and tiers. It is a team-based, collaborative process used to make decisions at all levels of the educational system, from the district-wide organization to the individual student. While several models of data-based problem solving exist, the four-step problem-solving process used within Florida's model of MTSS includes: 1) defining the goals or expectations to be attained, 2) identifying possible reasons why the desired goals are not being attained, 3) developing a plan for and implementing evidence-based strategies to attain the goals, and 4) evaluating the effectiveness of the plan.



Step 1: Goal Identification (Problem Identification) - What do we want students to know and be able to do?

The first step of the problem-solving process is accomplished by establishing what students are expected to know and be able to do and then comparing that to their current level of performance. This step provides teams with important information about the scope of the problem (i.e., whether it impacts most, versus very few students) and the intensity of the issue (i.e., size of the gap). It also establishes the problem in clear, quantifiable terms that can be easily and repeatedly measured to determine progress in subsequent steps of the process.

Step 2: Problem Analysis - Why is the problem occurring?

The second step of the problem-solving process allows teams to gain a better understanding of why the problem is occurring or why students are not meeting expectations. During this step the team generates hypotheses (i.e., educated guesses) about why the problem is occurring and then uses data to determine which are most likely to be true or valid. Hypotheses are generated across four educational domains: Instruction, Curriculum, Environment, and the Learner (ICEL) and are validated using a variety of methods: Review, Interview, Observe, or Test (RIOT). This process of gathering information is often referred to as ICEL by RIOT and is critical to ensure that the intervention designed in Step 3 accurately addresses the root cause or reason for the problem and will, therefore, more likely result in improved student outcomes.

DOMAINS	R Review	I Interview	O Observe	T Test
I Instruction				
C Curriculum				
E Environment				
L Learner				

Step 3: Instructional/Intervention Design - What are we going to do?

The third step of the problem-solving process focuses on the development of a comprehensive intervention plan. Within this plan, the team identifies an intervention that directly addresses the validated hypothesis and then establishes who will provide the intervention, when, and where. A comprehensive plan also includes details about how the plan will be supported (e.g., coaching, professional learning, reminders), how intervention fidelity will be measured, and how student progress will be monitored. In addition, it is essential that decision rules are established to determine what will constitute a positive, questionable, or poor response, and that teams schedule subsequent meetings to review data and determine progress. As a general rule, the more specific the plan, the more likely it will be implemented as designed.

Step 4: Response to Intervention/Instruction - Is it working?

The final step of the problem-solving process is to determine the effectiveness of the intervention. Teams review the ongoing progress monitoring data to determine the student response to intervention (RtI) based on the pre-established decision rules for a positive, questionable, or poor response. If the intervention yields a *positive* response, and the rate of improvement is sufficient to meet the goal within the expected timeframe, the team may decide to continue the intervention as planned until the goal is met, increase the goal, or begin to fade the intervention. If the response is *questionable*, indicating improvement in the level of performance, but at a rate insufficient to meet the goal within the time expected, the team should review fidelity data to ensure the intervention was delivered as designed, and address fidelity issues if necessary. If there is no concern with fidelity, the team may choose to increase intensity of the intervention to improve the rate of growth. If the response is *poor*, indicating no improvement or a widening gap, fidelity should be reviewed and addressed if necessary to ensure the intervention was delivered as intended. If fidelity is good, the team should return to the problem-solving process to determine a more appropriate and effective intervention. Four-step problem solving is cyclical and self-correcting, in that teams return to previous steps of the process until the desired outcomes are achieved.

Data-Based Decisions Using Student Outcome and Intervention Fidelity Data

If student outcome data indicate...	The response is...	Then potential actions are...
Gap is closing at a rate sufficient to meet the goal within the expected time frame	Positive 	If goal is *not* met: • Continue, or increase intensity of current intervention plan If goal is met: • Fade intervention and monitor *or* • Identify new goal and modify intervention plan, as appropriate
Student performance is improving, but the gap is still widening, *or* Gap stops widening, but is not closing at a rate sufficient to meet the goal within the expected time frame	Questionable 	If intervention was *not* implemented with fidelity: • Address fidelity, continue current intervention plan, and monitor If intervention was implemented with fidelity: • Increase intervention intensity and monitor, then if improvement doesn't occur, return to earlier steps of problem solving
Gap is continuing to widen	Poor 	If intervention was *not* implemented with fidelity: • Address fidelity, continue current intervention plan, and monitor If intervention was implemented with fidelity: • Return to earlier steps of problem solving to consider replacing the intervention (still addressing validated hypothesis), revisiting other viable hypotheses, or reassessing problem identification