Problem Solving and Data-Based Decisions

The importance of assessment and effective instruction for RTI cannot be overstated. The problem-solving process serves as the overarching structure that drives assessment and intervention activities. Therefore, problem solving lies at the heart of RTI. Problem solving means going beyond fulfilling procedural requirements and checklists to doing what it takes to resolve students' learning problems. The problem-solving model has been organized into a series of four steps and the questions answered by using the process are found in Table 3 below. These steps are more than procedural formalities and the most essential part of the process is obtaining positive outcomes (and not merely following steps). The steps are the outline of an evidence-based method of investigation and can be organized into a series of questions that educators must answer if they are to improve students' learning opportunities. The questions that drive the process appear in the Table 3 as well as Figure 6 below. Data are gathered at each step, making it a data-based problem-solving process with the goal to make instruction more effective for learners, or “enabling learning” (Tilly, 2005).

Table 3. The Problem-Solving Model

<table>
<thead>
<tr>
<th>Problem Solving Steps</th>
<th>Problem Solving Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Problem Identification (define the problem)</td>
<td>What is the Problem?</td>
</tr>
<tr>
<td>Step 2. Problem Analysis (analyze why the problem occurs)</td>
<td>Why is it happening?</td>
</tr>
<tr>
<td>Step 3. Intervention Plan and Implementation</td>
<td>What can we do about it?</td>
</tr>
<tr>
<td>Step 4. Outcome Evaluation</td>
<td>Did it work?</td>
</tr>
</tbody>
</table>

Figure 6. Using the problem-solving model to investigate students' learning difficulties
The problem-solving process and the skills and procedures used to implement it are not new and have existed for well over 30 years (Deno & Gross, 1973). In many places, school-based problem-solving teams have been using this model to develop and evaluate pre-referral interventions for years. For those schools, RTI will simply represent an extension of a process that is already in place. For schools with pre-referral teams in place, the adoption of the problem solving process as a procedure will streamline and objectify the process.

Problem solving is an iterative process; the process repeats based upon outcomes. Evaluation may show that the intervention was successful and, as such, the “problem solving” will be the procedure for exiting the student from intervention. If evaluation indicates intervention was not successful, the problem solving process continues by going back to look at the problem once again, working through the steps to adapt or revise the intervention. Problem solving is used at the school level to solve system “problems” identified by screening data and also at the individual level when students are identified as “at risk” are in Tier 2 or Tier 3 interventions. Problem solving is also used for students on IEPs as a means to define and assess areas of concern, write appropriate IEP goals, plan and implement appropriate intervention, and then evaluate the extent to which goals are attained.

For schools to implement RTI, they must systematically and rigorously apply all the activities discussed up to this point. The Office of Public Instruction envisions schools concentrating the responsibilities and most of these activities within a school-based team. As part of the RTI process, schools must have a problem-solving team with detailed knowledge of and training in the problem-solving process. In addition, teams should have training in evaluation and decision making procedures, such as universal screening to identify students at risk for academic difficulties, progress monitoring, and data-based decision making. Also, team members should become intervention resources for their schools. Therefore, they should have knowledge of scientifically-based, valid practices and know how to strategically select interventions based on assessment data. Finally, teams should be experts in RTI procedures and decision-making.

A standard treatment protocol is a viable alternative approach to problem solving at Tier II and may be used along with, or in some cases in place of problem solving, to make initial intervention decisions when a student is identified as “at risk” and in need of Tier 2 intervention. Standard treatment protocol is a process where student decisions are made using an established response to regular occurring circumstances. An analogy from medicine is the standard treatment protocol typically used when people have flu-like symptoms: rest and drink plenty of fluids. There is no need initially for additional assessment for a diagnosis or to inform intervention. The patient assesses the results using a thermometer and if the temperature goes down and the patient feels better, it is assumed that it was probably the flu and nothing more is done. In the educational model, an example of a standard treatment protocol response to a student with poor decoding might be Tier 2 group work with other students having the same skill concerns using an evidence-based intervention that targets facility with decoding. Students are monitored for progress (similar to taking a temperature) and if the student improves sufficiently to meet minimum expected proficiency, it is assumed that decoding was the student’s problem and the student is exited from intervention. If the student did not improve in decoding after 9-15 weeks, then the problem solving process would begin with more specific assessment about skill deficits that would inform more highly targeted intervention. Going back to the medical
example, if a patient’s fever and symptoms did not return to normal within 24-36 hours, the
doctor would do more specific assessment to determine if there is another diagnosis and what the
treatment should be.

Implementation of a standard treatment protocol intervention usually involves a trial of fixed
duration (e.g., 9-12 weeks) most often delivered in small groups. A standard treatment protocol
approach can be applied to make universal initial decisions for struggling students with similar
problems. Recent research has shown that this approach can be successful when applying early
interventions in reading. When students are successful in the treatment trial, they are returned to
the core curriculum. When students are unresponsive to the treatment trial, they are provided
with additional instruction supported through either strategic or intensive interventions.

In general, problem solving and standard treatment protocol are not exclusive and many models
use both approaches. Standard treatment protocol often proves more successful early on because
it allows teams to make quick, evidenced-based decisions for a large number of students. RTI
systems tend to make decisions in reading, mathematics and writing using either approach or a
combination of the standard treatment protocol and problem solving.