Counseling 101 Column

A Problem-Solving Model for Improving Student Achievement

Problem solving is an alternative to assessments and diagnostic categories as a means to identify students who need special services.

By Andrea Canter

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The implementation of the No Child Left Behind Act (NCLB) has prompted renewed efforts to hold schools and students accountable for meeting high academic standards. At the same time, Congress has been debating the reauthorization of the Individuals With Disabilities Education Act (IDEA), which has heightened concerns that NCLB will indeed "leave behind" many students who have disabilities or other barriers to learning. This convergence of efforts to address the needs of at-risk students while simultaneously implementing high academic standards has focused attention on a number of proposals and pilot projects that are generally referred to as problem-solving models. A more specific approach to addressing academic difficulties, response to intervention (RTI), has often been proposed as a component of problem solving.

What Is Problem Solving?

A problem-solving model is a systematic approach that reviews student strengths and weaknesses, identifies evidence-based instructional interventions, frequently collects data to monitor student progress, and evaluates the effectiveness of interventions implemented with the student. Problem solving is a model that first solves student difficulties within general education classrooms. If problem-solving interventions are not successful in general education classrooms, the cycle of selecting intervention strategies and collecting data is repeated with the help of a building-level or grade-level intervention assistance or problem-solving team. Rather than relying primarily on test scores (e.g., from an IQ or math test), the student's response to general education interventions becomes the primary determinant of his or her need for special education evaluation and services (Marston, 2002; Reschly & Tilly, 1999).

Why Is a New Approach Needed?

Although much of the early implementation of problem-solving models has involved elementary schools, problem solving also has significant potential to improve outcomes for secondary school students. Therefore, it is important for secondary school administrators to understand the basic concepts of problem solving and consider how components of this model could mesh with the

needs of their schools and students. Because Congress will likely include RTI options in its reauthorization of special education law and regulations regarding learning disabilities, it is also important for school personnel to be familiar with the pros and cons of the problem-solving model.

Student outcomes. Regardless of state or federal mandates, schools need to change the way they address academic problems. More than 25 years of special education legislation and funding have failed to demonstrate either the cost effectiveness or the validity of aligning instruction to diagnostic classifications (Fletcher et al., 2002; Reschly & Tilly, 1999; Ysseldyke & Marston, 1999). Placement in special education programs has not guaranteed significant academic gains or better life outcomes for students with disabilities. Time-consuming assessments that are intended to differentiate students with disabilities from those with low achievement have not resulted in better instruction for struggling students.

Dilemma of learning disabilities. The learning disabilities (LD) classification has proven especially problematic. Researchers and policymakers representing diverse philosophies regarding disability are generally in agreement that the current process needs revision (Fletcher et al., 2002). Traditionally, if a student with LD is to be served in special education, an evaluation using individual intelligence tests and norm-referenced achievement tests is required to document an ability/achievement discrepancy. This model has been criticized for the following reasons:

- A reliance on intelligence tests in general and with students from ethnic and linguistic minority populations in particular
- A focus on within-child deficiencies that often ignore quality of instruction and environmental factors
- The limited applicability of norm-referenced information to actual classroom teaching
- The burgeoning identification of students as disabled
- The resulting allocation of personnel to responsibilities (classification) that are significantly removed from direct service to students (Ysseldyke & Marston, 1999).

Wait to fail. A major flaw in the current system of identifying student needs is what has been dubbed the wait to fail approach in which students are not considered eligible for support until their skills are widely discrepant from expectations. This runs counter to years of research demonstrating the importance of early intervention (President's Commission on Excellence in Special Education, 2002). Thus, a number of students fail to receive any remedial services until they reach the intermediate grades or middle school, by which time they often exhibit motivational problems and behavioral problems as well as academic deficits.

For other students, although problems are noted when they are in the early grades, referral is delayed until they fail graduation or high school standards tests, increasing the probability that they will drop out. Their school records often indicate that teachers and parents expressed concern for these students in the early grades, which sometimes resulted in referral for assessments, but did not result in qualification for special education or other services.

Call for evidence-based programs. One of the major tenets of NCLB is the implementation of scientifically based interventions to improve student performance. The traditional models used by most schools today lack such scientifically based evidence. There are, however, many programs and instructional strategies that have demonstrated positive outcomes for diverse student populations and needs (National Reading Panel, 2000). It is clear that schools need systemic approaches to identify and resolve student achievement problems and access proven instructional strategies.

How It Works

Although problem-solving steps can be described in several stages, the steps essentially reflect the scientific method of defining and describing a problem (e.g., Ted does not comprehend grade-level reading material); generating potential solutions (e.g., Ted might respond well to direct instruction in comprehension strategies); and implementing, monitoring, and evaluating the effectiveness of the selected intervention.

Problem-solving models have been implemented in many versions at local and state levels to reflect the unique features and needs of individual schools. However, all problem-solving models share the following components:

* Screening and assessment that is focused on student skills rather than classification
* Measuring response to instruction rather than relying on norm-referenced comparisons
* Using evidence-based strategies within general education classrooms
* Developing a collaborative partnership among general and special educators for consultation and team decision making.

Three-tiered model. One common problem-solving model is the three-tiered model. In this model, tier one includes problem-solving strategies directed by the teacher within the general education classrooms. Tier two includes problem-solving efforts at a team level in which grade-level staff members or a team of various school personnel collaborate to develop an intervention plan that is still within the general education curriculum. Tier three involves referral to a special education team for additional problem solving and, potentially, a special education assessment (Office of Special Education Programs, 2002).

Response to intervention. A growing body of research and public policy discussion has focused on problem-solving models that include evaluating a student's RTI as an alternative to the IQ-achievement discrepancy approach to identifying learning disabilities (Gresham, 2002). RTI refers to specific procedures that align with the steps of problem solving:

* Implementing evidence-based interventions
* Frequently measuring a student's progress to determine whether the intervention is effective
* Evaluating the quality of the instructional strategy
* Evaluating the fidelity of its implementation. (For example, did the intervention work? Was it scientifically based? Was it implemented as planned?)

Although there is considerable debate about replacing traditional eligibility procedures with RTI approaches (Vaughn & Fuchs, 2003), there is promising evidence that RTI can systematically improve the effectiveness of instruction for struggling students and provide school teams with evidence-based procedures that measures a student's progress and his or her need for special services.

New roles for personnel. An important component of problem-solving models is the allocation (or realignment) of personnel who are knowledgeable about the applications of research to classroom practice. Whereas traditional models often limit the availability of certain personnel—for example, school psychologists—to prevention and early intervention activities (e.g., classroom consultation), problem-solving models generally enhance the roles of these service providers through a systemic process that is built upon general education consultation. Problem solving shifts the emphasis from identifying disabilities to implementing earlier interventions that have the potential to reduce referral and placement in special education.

Outcomes of Problem Solving and RTI

Anticipated benefits of problem-solving models, particularly those using RTI procedures, include emphasizing scientifically proven instructional methods, the early identification and remediation of achievement difficulties, more functional and frequent measurement of student progress, a reduction in inappropriate and disproportionate special education placements of students from diverse cultural and linguistic backgrounds, and a reallocation of instructional and behavior support personnel to better meet the needs of all students (Gresham, 2002; Ysseldyke & Marston, 1999). By using problem solving, some districts have reduced overall special education placements, increased individual and group performance on standards tests, and increased collaboration among special and general educators.

The enhanced collaboration between general education teachers and support personnel is particularly important at the secondary level because staff members often have limited interaction with school personnel who are outside of their specialty area. Problem solving provides a vehicle to facilitate communication across disciplines to resolve student difficulties in the classroom. Secondary schools, however, face additional barriers to collaboration because each student may have five or more teachers. Special education is often even more separated from general education in secondary school settings. Secondary school teachers also have a greater tendency to see themselves as content specialists and may be less invested in addressing general learning problems, particularly when they teach five or six class periods (and 150 or more students) each day. The sheer size of the student body and the staff can create both funding and logistical difficulties for scheduling training and team meetings.

Is Problem Solving Worth the Effort?

Data from district-wide and state-level projects in rural, suburban, and urban communities around the country support the need to thoughtfully implement problem-solving models at all grade levels. There are several federally funded demonstration centers that systematically collect information about these approaches. Although national demonstration models may be a few years away, it seems likely that state and federal regulations under IDEA will include problem

solving and RTI as accepted experimental options. Problem solving continues to offer much promise to secondary school administrators who are seeking to improve student performance through ongoing assessment and evidence-based instruction. *PL*

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Case Study: Optimizing Success Through Problem Solving

By Marcia Staum and Lourdes Ocampo

Milwaukee Public Schools, the largest school district in Wisconsin, is educating students with Optimizing Success Through Problem Solving (OSPS), a problem-solving initiative that uses a four-step, data-based, decision-making process to enhance school reform efforts. OSPS is patterned after best practices in the prevention literature and focuses on prevention, early intervention, and focused intervention levels. Problem-solving facilitators provide staff members

with the training, modeling, support, and tools they need to effectively use data to drive their instructional decision-making. The OSPS initiative began in the fall of 2000 with seven participating schools. Initially, elementary and middle level schools began to use OSPS, with an emphasis on problem solving for individual student issues. As the initiative matured, increased focus was placed on prevention and early intervention support in the schools. Today, 78 schools participate in the OSPS initiative and are serviced by a team of 18 problem-solving facilitators.

OSPS in Action: Juneau High School

The administration of Juneau High School, a Milwaukee public charter school with 900 students, invited OSPS to become involved at Juneau for the 2003–2004 school year. Because at the time OSPS had limited involvement with high schools, two problem-solving facilitators were assigned to Juneau for one half-day each week. The problem-solving facilitators immediately joined the Juneau's learning team, which is a small group of staff members and administrators who make educational decisions aimed at increasing student achievement.

When the problem-solving facilitators became involved with Juneau, the learning team was working to improve student participation on the Wisconsin Knowledge and Concepts Exam (WKCE). The previous year, Juneau's 10th-grade participation on the exam had been very low. The learning team used OSPS's four-step problem-solving process to develop and implement a plan that resulted in a 99% student participation rate on the WKCE. After this initial success, the problem-solving model was also used at Juneau to increase parent participation in parent-teacher conferences. According to Myron Cain, Juneau's principal, "Problem solving has helped the learning team at Juneau go from dialogue into action. In addition, problem solving has supported the school within the Collaborative Support Team process and with teambuilding, which resulted in a better school climate."

By starting at the prevention level, Juneau found that there was increased commitment from staff members. OSPS is now in the initial stages of working with Juneau to explore alternatives to suspension. The goal is to create a working plan that will lead to creative ways of decreasing the number of suspensions at Juneau.

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What Is Response to Intervention?

Many researchers have recommended that a student's response to intervention or response to instruction (RTI) should be considered as an alternative or replacement to the traditional IQ-achievement discrepancy approach to identifying learning disabilities (Gresham, 2002; President's Commission on Excellence in Special Education, 2002). Although there is considerable debate about replacing traditional eligibility procedures with RTI approaches (Vaughn & Fuchs, 2003), there is promising evidence that RTI can systematically improve the effectiveness of instruction for struggling students and provide school teams with evidence-based procedures to measure student progress and need for special services. In fact, Congress has proposed the use of research-based RTI methods (as part of a comprehensive evaluation process

to reauthorize IDEA) as an allowable alternative to the use of an IQ-achievement discrepancy procedure in identifying learning disabilities.

RTI refers to specific procedures that align with the steps of problem solving. These steps include the implementation of evidence-based instructional strategies in the general education classroom and the frequent measurement of a student's progress to determine if the intervention is effective. In settings where RTI is also a criteria for identification of disability, a student's progress in response to intervention is an important determinant of the need and eligibility for special education services.

It is important for administrators to recognize that RTI can be implemented in various ways depending on a school's overall service delivery model and state and federal mandates. An RTI approach benefits from the involvement of specially trained personnel, such as school psychologists and curriculum specialists, who have expertise in instructional consultation and evaluation.

Resources

- National Center on Student Progress Monitoring, www.studentprogress.org
- National Research Center on Learning Disabilities, www.nrcld.org

This article was adapted from a handout published in **Helping Children at Home and School II: Handouts for Families and Educators** *(NASP, 2004). "Counseling 101" articles and related HCHS II handouts can be downloaded from www.nasponline.org/resources/principals/index.aspx.*