CHAPTER 20

Problem Solving

Problem solving is a central component of an MTSS. This chapter describes how problem-solving steps can be used to assist students with school difficulties. As mentioned in Chapter 8, work by Bransford and Stein (1984) and later Deno (1985) led to the development of the IDEAL problem-solving model for schools. The IDEAL method includes five steps that can be used at all stages of an MTSS to support student learning. This method focuses on understanding that students experience problems and difficulties, but that they themselves are not problems. An important aspect of the IDEAL method for school problem solving is that it offers a variety of options that provide additional instruction for students who need it.

BACKGROUND

When the first U.S. special education law (Education of All Handicapped Children Act [EHCA]; Public Law 94-142) was passed in 1975, the goal was to make sure that all students could access an effective education. Prior to this law, children with disabilities were often denied access to education even though it was provided for other children. Without this federal legislation, each state provided varying degrees of education for children with disabilities, but there was no consistency. Leading up to 1975, legal cases brought by advocates for children with disabilities created precedents for all children to have access to a free public education; EHCA created a new system to ensure that all children, regardless of ability, could access this right. Much of the advocacy for passage of EHCA was by advocates for children with severe and profound disabilities such as orthopedic impairments or Down syndrome. As a result of this advocacy, early understanding

of the law included a belief among teachers and parents that those served by the law would include only children with a medical diagnosis of a specific, and generally severe, condition.

Starting in the late 1970s and well into the 1990s the U.S. Department of Education, as well as the state departments of education, worked to ensure that all teachers, school administrators, and other school personnel understood the special rights and legal protections afforded students with disabilities under EHCA and its successor laws (i.e., Individuals with Disabilities Education Act, or IDEA). Many states passed laws requiring that all teachers and most other professional school staff take a college-level course or other form of professional development to be knowledgeable about the federal and state special education laws. As a result of such requirements, many classroom teachers and administrators came to think of students with disabilities as very different and separate from other students. After the passage of EHCA and through the 1980s, the term *mainstream* was used to refer to students in "regular" or "general" classrooms, while students with disabilities were largely taught in separate, stand-alone classrooms (see Chapter 25 for details).

Perhaps due to this separateness and isolation, some educators came to think that all of the school difficulties of children with disabilities were due to the inherent nature of the disability itself and not related to the classroom environment or teaching methods. This is an important point because if there is an assumption that a student's difficulties are all within the child, then there is little need or motivation to consider whether different teaching practices could help the student. But the assumption that all of a student's school problems were caused by severe disabilities—and labeled with a medical diagnosis—did not match the demographic data about students served in special education as it was implemented in the 1980s and 1990s. While many of those who advocated for special education laws expected that the majority of students who would be served under these laws would be children with severe disabilities, by the time that the law was revised and first updated in 1986 there were data showing that the majority of students served under EHCA were primarily students with so-called mild disabilities such as specific learning disability (SLD).

In the school year 1980–1981, the second year of EHCA implementation, students with SLD made up 3.6% of all students in U.S. public schools and those with SLD were the largest subgroup of all students with disabilities served under the law (National Center for Education Statistics, 2013c). By 1991, when the EHCA law was revised for a second time, and when the title was changed to IDEA, students with SLD made up 5% of all U.S. public school students, and their numbers were more than double any other special education category. These data surprised many advocates for children with disabilities. A more detailed history of efforts to improve special education is found in Chapter 25. Important to understanding the history of problem solving is that these numbers worried education policymakers because if they kept growing, the resources needed to support

special education would not be available at the federal or state levels. Thankfully, there were educators and researchers who realized that another approach to supporting students with school difficulties might be needed to address the problems of students with "mild" disabilities.

Concurrent with the passage of Public Law 94-142, the U.S. Congress funded research centers at several major universities with the goal of developing research-based methods for identifying and supporting students with disabilities. One of the centers funded was at the University of Minnesota. The grant support at this center was used by researchers Stan Deno and Phyllis Mirken (Shinn, 1989) to develop assessment and intervention materials for students with disabilities, including SLD. In 1985, Stan Deno summarized the research in a seminal article titled "Curriculum-Based Measurement: The Emerging Alternative." In this article, Deno described how research on tools to identify and progress monitor students with SLD had contributed to a new understanding of the types of difficulties that students sometimes face in schools. Importantly for MTSS, Deno's work described how using a problem-solving approach for understanding students' learning difficulties could offer faster and much more effective solutions for students and teachers.

Since 1985, Deno has updated the problem-solving model and described how it continues to offer the best way to support students who exhibit school difficulties. Initially, this model was conceptualized as a tool for supporting students with academic difficulties, but its applications have been expanded to include students with behavior and conduct problems such as attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and others. Deno credits two noneducation authors for the nucleus of the acronym for this problem-solving method. In 1984, John Bransford and Barry Stein published a book titled *The IDEAL Problem Solver: A Guide for Improving Thinking, Learning, and Creativity*. This book described the basic five steps in a general problem-solving model like what Deno and colleagues (Deno, 1985) had been developing in their research. A key feature of both the Bransford and Stein (1984) and Deno (1985) definitions of a "problem" was that it was separate and distinct from the person(s) who was experiencing it (Shinn, 1989). This is important for education because instead of defining a student as being the problem, the IDEAL model defines a problem as the difference between what is expected and what is occurring. This means that the problem is not inherent to a single person, but that a problem exists and needs to be addressed.

Consider how radically different it is to think of a problem as separate from an individual. If a teacher thinks that a student's difficulties are because of a genetic disorder that cannot be changed in any way, will that teacher think that changing his or her instruction could be worthwhile? But what if the teacher thinks that changes in classroom instruction and routines could improve outcomes for the student? Most teachers go into education because they want to help children. If doing something different in the classroom might help an individual

student, would a teacher be willing to try it? We like to think that the answer is "yes." An MTSS is based on having teachers adjust instruction based on student need, and research suggests this is the better approach to take.

PROBLEM-SOLVING STEPS

There are five steps in the IDEAL problem-solving method (Bransford & Stein, 1984; Deno, 2013):

1. *I*dentify the problem.
2. *D*efine the problem.
3. *E*xplore alternate interventions.
4. *A*pply the selected intervention.
5. *L*ook at the effects.

Each step is uniquely important for effective problem solving and no step should be skipped. Each is described in detail.

Identify the Problem

The first step is to identify that there is a problem. This step corresponds with other research on what it takes for people to change. Prochaska and DiClemente (1992) suggest that there are five stages toward change and the first step is *precontemplation*. Precontemplation means that the individual does not (yet) acknowledge that a change is needed. But this is followed by the *contemplation* stage, at which point steps toward change are considered. Problem identification in the IDEAL model is like contemplation in the Prochaska and DiClemente change model. When the problem is identified—through contemplation—this does not mean it will automatically be solved, only that at least one person thinks there is a problem. Another analogy about problem identification is that it is the first moment when the problem appears on someone's "radar" (Brown-Chidsey & Steege, 2005). When a ship's captain sees something on the radar, it's not possible to know if the "blip" is small or large. Just like a blip on the radar, problem identification brings the problem to awareness, but additional steps are needed to do something about it.

Define the Problem

After a problem has been identified the next step is to define it. This is important because only once a problem has been defined can the importance of the problem be known. The best way to define a problem is to measure the distance between what is expected and what is occurring. This definition captures the

nature of the problem for the stakeholders. In school settings the primary stakeholders are students and teachers. In general, school problems happen when there is a difference between what the teacher expects and what the student is doing or has done. When a student's performance is relatively close to the teacher's expectation, the situation is likely to be understood as a minor problem. Often, a teacher can provide reteaching or correction and the student can meet the stated goal. But when the difference between the teacher's expectations and the student's performance is large, the situation can seem very different. Then, a teacher might start to think that the student can never meet the goal, and the student might give up because the tasks are so hard. The larger the distance between the expectations and performance, the more likely it is that the problem is one that needs intervention.

In order to know the difference between what is expected and what is happening, a reliable and valid measurement of student performance is needed. Thankfully, there are many such measures available. For academic skills, curriculum-based measurement (CBM) works very well (and was actually designed for this purpose). For behaviors, information about how many discipline incidents have occurred, data from systematic classroom observations, and teachers' ratings of students' behaviors are all useful. In order to know if a student's current performance is different from other students, there needs to be some type of standard or basis of comparison. Such standards could be classroom specific, such as when a teacher expects all students to line up a certain way, or could be based on school, grade, district, or national norms. Once the student's performance and basis of comparison are known, then the team can decide if the difference between these is big enough to justify intervention.

If the difference is significant, then the team should consider different interventions and decide which one to try. Sometimes, the difference might not be big enough to justify intervention, but someone still thinks there is a problem. A classic example of this is when a parent thinks a child should be getting better grades, but the student's current performance meets or exceeds the school's standards. In such cases, it is important that a team member explain to the parent that the student's current performance is at or above the school's expectations. This is much better than not saying anything to the parent who might think the school did not pay attention to the concern or did not care. Certainly, many parents will want their children to do well in school and may benefit from understanding how the problem-solving method works. In some cases, it may be that the student should be referred for talented and gifted programming. Such programs are different from helping a student get higher grades, but could be an appropriate option for certain students. As schools implement the Common Core State Standards (CCSS), grade-level and schoolwide teams will want to learn how to compare student performance with those standards. See Box 20.1 for more information.

BOX 20.1. Understanding Student Performance and the CCSS

With the implementation of the CCSS (see Chapter 5), there is much greater consistency in what students will be expected to learn in each grade. As of 2015, 43 U.S. states and five territories had adopted and implemented the Standards. These standards are not a radical departure from prior learning goals, but do offer more consistency in what students will learn in each grade level across the United States. This is important because U.S. students are increasingly mobile during their school-age years. With common standards, students will be more likely to experience the same learning content even if they move among schools, districts, or states. Most education publishers have aligned their materials with the Standards but additional resources for teachers to understand the CCSS are available. The National Governors Association Center for Best Practices, Council of Chief State School Officers (2010)—which developed the standards—has a website with resources for teachers and parents:

www.corestandards.org/resources

In addition there is an "app" available for both Apple and Android devices that can be downloaded to smartphones and tablet computers for easy reference.

Apple version: *https://itunes.apple.com/us/app/common-core-standards/id439424555?mt=8*

Android version: *https://play.google.com/store/apps/details?id=com.masteryconnect.CommonCore&hl=en*

At first, the standards can seem overwhelming, so teachers may want to choose one area to learn at a time. State-level assessments matched to the standards were implemented by states starting in 2014–2015 and the data from these assessments will provide more information about how individual students are doing in relation to expected learning outcomes.

Explore Alternate Interventions

Once a team has determined that a student's school difficulty is sufficiently different from the expectations to warrant intervention, the next step is to consider possible interventions and select one. Over time, educators will become familiar with specific interventions for different behavioral and learning areas and this will help teams with the exploration process. There are many websites at which information about interventions can be found. Thanks to the Internet, there are reviews of different interventions that teams might want to consider. Table 20.1 includes a list of websites that include reviews of specific interventions. All of tthe sites listed in the table have conducted objective, thorough, and scientifically

TABLE 20.1. Websites with Reviews of Instruction and Intervention Materials

Name	Website
Best Evidence Encyclopedia	*www.bestevidence.org*
National Center on Intensive Intervention	*www.intensiveintervention.org*
Technical Assistance Center on Positive Behavioral Interventions and Supports	*www.pbis.org*
Center on Response to Intervention	*www.rti4success.org*
What Works Clearinghouse	*http://ies.ed.gov/ncee/wwc*

valid reviews of the interventions covered. None of the sites endorse any interventions, but instead provide information that educators can consider as they make instructional decisions. When a team is not certain about what intervention to use, it might be best to "test drive" two or three interventions in order to see what works best (Steege & Watson, 2009). When comparing interventions, it is important to use data collection and review procedures that allow accurate comparison of their effects. (See Chapter 22 for more information about how to compare interventions.)

Apply the Selected Intervention

Having decided on one intervention to use, the team needs to arrange for its implementation. Much of this work involves logistics of time, people, materials, and location. In addition, the team will need to select the progress measure to monitor the student's improvement over time. Keeping in mind that interventions are always in addition to core (Tier 1) instruction, the team should identify when in the school day the intervention will be provided (see Chapter 13). When there is a "skills" block or other time set aside each day for interventions, locating the time in the schedule is much easier. When there is no such time already set aside, the team will have to figure out what other time block in the student's day can be used for intervention. This process may lead the team to urge that the school add a skills block to the daily schedule! In addition to the time, there must be an interventionist provided to implement the intervention. Sometimes, a student may be joining an existing intervention group and so there is already a teacher, specialist, or paraprofessional offering such instruction. But if the right group for the student does not yet exist, the team needs to figure out who will provide the intervention. Importantly, the interventionist must be properly trained to use the selected intervention before the intervention begins. When a published intervention is used, there are often online or computer-based training materials available.

The specific materials for the intervention will be needed as well. It is helpful if there is one person in each building who coordinates the ordering and purchase of intervention materials. That person will be able to indicate when anything needs to be ordered. Knowing whether there are sufficient materials is important because it will affect the start date of the intervention. Where the intervention will take place is important as well. When a student will join an existing group, this is generally easy to determine, but when a new group is formed, space for the lessons will be needed. Second to time, space is a precious resource in schools so the team might need to review allv existing intervention space use and be sure that available locations are being used wisely. Over time, the team members will become familiar with locations in the school where interventions can happen. A final step in selecting and implementing the intervention is to choose a progress measure to be used. No intervention should be implemented without a corresponding progress measure. Unless there are data showing how the student is doing, educators will not know if it worked.

Progress Monitoring

As mentioned throughout this book, there are numerous existing progress measures that can be used to track student progress. Table 20.2 summarizes some of the most commonly used measures. This list is not exhaustive and certainly others can be used as well. The essential step for the team is to decide which measure will be used and how frequently. The National Center on Intensive Intervention (2014) recommends that students participating in Tier 2 interventions complete progress measures at least once a month, and that students participating in Tier 3 interventions complete progress measures at least once a week. Team members should keep in mind that the frequency of progress monitoring will affect how soon the data can be reviewed. There must be at least 3 data points before the effects of an intervention can be considered. If a student is monitored once a month, that will mean at least 3 months must pass before the data can be reviewed. In addition, the data need to be stable (see Chapter 21 for details). For

TABLE 20.2. Published Progress Monitoring Tools

Name	Website
AIMSweb	*www.aimsweb.com*
DIBELS	*http://dibels.org*
EasyCBM	*www.easycbm.com*
FastBridge Learning	*https://app.fastbridge.org/*
SWIS	*www.pbisapps.org/Applications/Pages/SWIS-Suite.aspx*

this reason, many school teams monitor Tier 2 students every 2 weeks, allowing the data to be reviewed after 6 weeks.

Look at the Effects

Once all of the above steps have been implemented, the team will have data indicating whether the intervention is working. Specific details about the technical review of data are provided in Chapter 22. Here, the focus is on the logistics of bringing the team together to look at data. Effective use of problem-solving methods requires that school teams create and use regular meetings to review data. As explained in Chapter 6, there is a process to creating effective teams, and for problem solving to be useful, teams need to spend time developing effective meeting procedures. Usually, it is not possible to review the data of all students participating in intervention on one day, in one meeting. But, given that students start and end intervention at different times, that is not necessary. Instead, effective school teams create schedules for reviewing student data at regular intervals. As explained above and in Chapter 21, the frequency of data collection drives the frequency of data review. There need to be at least 3 data points before data can be reviewed, but sometimes there will need to be more in order for the data to be stable.

With 3 or more data points plotted on a graph, the team can take a look at whether an intervention is having the desired effect. The easiest way for the whole team to see the data at once is to use a computer projector to display it on a wall of the meeting room. Be sure to close any curtains or doors to the room when displaying student data so that Family Educational Rights and Privacy Act (FERPA) rules are followed. With the data on the wall, the team can quickly see and discuss whether the intervention is having the desired effects for the student. The good news is that much of the time, when a research-based intervention has been implemented with integrity, it will be working and the team will quickly decide to maintain the intervention. In such cases, the data review takes about 2 minutes. This is important because it frees up time for discussion of students whose data indicate that the desired progress is not happening.

When reviewing data, school teams do need to consider whether the intervention was implemented with integrity. As explained in Chapter 17, without treatment integrity it is impossible to know exactly what led to the student's specific outcomes. Because schools are very busy places, when a student's data show adequate progress based on the goals, treatment integrity is assumed. While making this assumption has limitations, if the student's performance is improving, why mess with success? But when a student's data show limited or no progress, the team's first question should be "Was the intervention implemented with integrity?" This is important because it might be that the intervention could be effective if it were put into place exactly as intended. There are a number of

reasons why an intervention might not get implemented correctly. If the student or interventionist is often absent, implementation can suffer. It may also be the case that the interventionist did not get adequate initial training for the specific intervention. When the student's data indicate a lack of progress, it is the school team's responsibility to investigate treatment integrity. If there is evidence that the intervention was not implemented with integrity, the next step is to start it over with integrity. To be certain that such integrity is reached, the steps outlined in Chapter 17 should be followed.

After investigating integrity and determining that it was adequate, the team needs to review the data again. When it shows good progress, the intervention can be continued. If it shows too little or no progress, the team needs to choose another plan. Often, there might be other possible interventions worth trying and the team will decide to implement another intervention and continue progress monitoring. If a student does not show progress over a period of time, then the team needs to discuss whether a referral for special education is justified. Each state, and some school districts, have spvecific policies about the process for referring students to special education after MTSS methods have been tried. Team members will need to learn and use the local and state guidelines about such referrals. Once a formal referral for special education is made, the rules and regulations concerning special education will need to be followed.

WHEN IS PROBLEM SOLVING NEEDED?

The steps included in the IDEAL problem-solving method are very thorough and certainly take a significant amount of time to implement correctly. For this reason it is important to consider whether every student with difficulties will require such detailed problem solving. Fuchs and Fuchs (2007) suggest that students and schools can benefit from using a combination of a "standard-protocol" and a problem-solving approach to an MTSS (see Chapter 18). A standard protocol refers to having a predetermined small number of research-based interventions available and ready to use as soon as students demonstrate difficulties. Often, schools use such standard protocols for Tier 2 interventions. The benefit of having such programs already set up and ready to go is that the process and time needed to start an intervention for a student is reduced. Research suggests that such standard protocols can be very effective for most students who require intervention. This alleviates the need for detailed problem solving for every student who presents with difficulties. But for those students who do not respond to a Tier 2 standard-protocol intervention, the problem-solving process is the best next step. Many schools employ the problem-solving method at Tier 3. Remember, only 5% of a school's total enrollment will need Tier 3 support if Tiers 1 and 2 are effective, so the total number of students who would be carefully reviewed

using the problem-solving steps is quite small. This is important because it means that the team will have the time needed to review each student's situation carefully and to discuss possible solutions.

PROBLEM SOLVING IN ACTION

The following example illustrates the IDEAL problem-solving steps as applied for a student named Dean. As you will see, Dean displayed both academic and behavioral difficulties, both of which were addressed through the problem-solving process.

Background

Dean is a second-grade student at a small rural elementary school. Dean has attended the school since kindergarten, which consisted of a half-day program. Dean did not attend preschool prior to enrolling in kindergarten, but met all of the district's kindergarten-screening benchmarks. Both Dean's kindergarten and first-grade teachers reported that he was very quiet and shy, but he was well behaved and met all of the learning targets. In October of his second-grade year, Dean's teacher, Mrs. Doiron, shared concerns for him at the second-grade teachers' weekly grade-level team meeting. Mrs. Doiron was concerned about Dean because he was avoiding or refusing to do math assignments, and recently had "bolted" from the classroom on three occasions. She indicated that Dean was doing fine in reading and language arts, but not in math.

Tier 1

Dean's core instruction for math was the Everyday Mathematics program (McGraw-Hill Education, 2013). This program incorporates a "spiral" curriculum in which students are exposed to each topic or skill multiple times in each grade level, and then again at successive grade levels. Mrs. Doiron reported that she was teaching the program with integrity, but that she also added additional lessons during the core math instruction time because of her concern that Everyday Mathematics did not prepare the students well enough in computation fact fluency. The additional instruction included two parts: direct instruction of addition and subtraction math facts, and the peer-tutoring program called Peer Assisted Learning Strategies (PALS). For the initial fact teaching, Mrs. Doiron stood at the front of the room and used a computer projector to model the facts. The students had individual whiteboards on which they wrote answers to fact problems that Mrs. Doiron presented. These lessons were conducted for 15 minutes each, three times a week.

The PALS lessons consisted of the program-provided command card and student materials (Vanderbilt Kennedy Center, 2014). PALS lessons involve matching

all students in pairs based on their current skills and then having them complete scripted coaching activities with each other. Prior to having the students coach each other, Mrs. Doiron provided four lessons in how to use PALS correctly. Once the students learned how to do the PALS sessions, they were incorporated into the class math instruction time two times per week for 15 minutes each. Mrs. Doiron reported that it was the PALS lessons that Dean appeared to avoid. During the second and third training sessions, Dean requested permission to go to the bathroom and was out of the classroom for most of the sessions. During the fourth training session when the students were supposed to practice the PALS coaching activities with their partners, Dean refused to speak to his partner and put his head on this desk. When Mrs. Doiron began the first formal PALS session the following week, Dean ran out of the classroom and hid in a hallway closet until the school psychologist, Mr. Gerard, convinced him to come to his office. This behavior was repeated two more times at the start of subsequent PALS sessions.

Tier 2

Based on the Tier 1 information that Mrs. Doiron shared, the grade-level team members asked Mrs. Doiron about Dean's general math performance and what other ideas she was considering. She reported that Dean scored between 70 and 80% correct on most math quizzes and tests. His fall math benchmark screening score was 1 point below the goal, so she has not yet put him into an intervention group. She has considered adding him to a group that meets during the school's daily skills block and that is run by the Title I math teacher. This group works on addition and subtraction fact fluency. Based on these details, the other teachers agreed that it made sense to have Dean attend the intervention block daily, starting right away. This was done and Dean's progress scores are shown in Figure 20.1. As shown in the graph, Dean made little progress toward the midyear second-grade math goal score of 14 after 4 weeks of the Tier 2 fact fluency lessons.

In early October, Mrs. Doiron again brought Dean's case to the second-grade team meeting to discuss his progress. In addition to sharing the graph, she also reported that Dean was continuing to run out of the room during all PALS sessions. Dean would go to the school office and sit near the secretary until Mrs. Doiron or Mr. Gerard could come and take him back to the classroom. Although Mrs. Doiron and Mr. Gerard had worked out a system for getting him back into the room, preventing his departure was the goal. This behavior was very disruptive and kept Dean away from a part of his math instruction. The team discussed whether Dean might dislike his assigned PALS partner or if the PALS activities were too hard for him. Mrs. Doiron reported that she did not think so, based on observing him in class and reviewing his other math work. Based on this information, the grade-level team recommended that Mrs. Doiron ask to meet with the building-level student assistance team (SAT) and discuss Dean's situation.

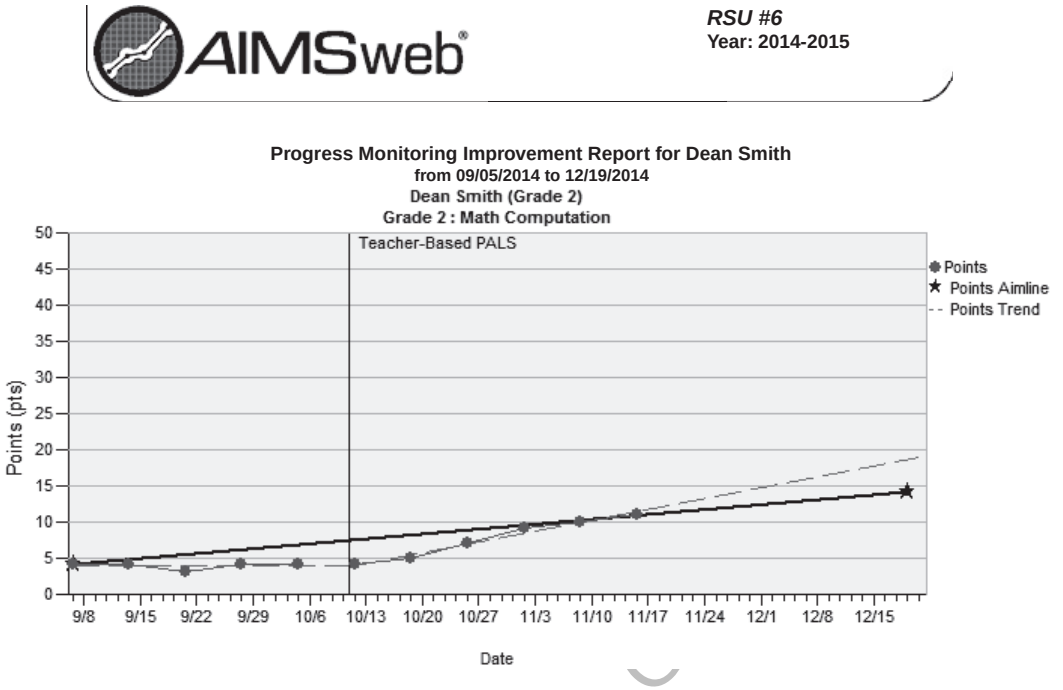

FIGURE 20.1. Dean's Tier 2 progress data. Copyright 2014 by NCS Pearson, Inc. Reprinted by permission. All rights reserved.

Tier 3

In Dean's school district, when a student is referred to the SAT, it is considered Tier 3. But in this district, such a meeting does not automatically mean that the student will be referred for special education. Rather, the SAT often helps the teacher develop other interventions to be tried. Sometimes, the SAT also arranges for additional data about the student to be collected. After Mrs. Doiron shared Dean's data with the SAT, the members used the IDEAL steps to address the situation. First, the team affirmed that Mrs. Doiron and the other second-grade teachers viewed Dean's math performance as a problem (identify the problem). Next, Dean's current (e.g., October) math progress score was compared with the goal for second graders. The data showed that he was significantly below the goal and not on track to meet it by the middle of the school year. These data were similar to Dean's recent classroom math assessments, which showed that he got 50–60% of items correct. Based on these data, the SAT affirmed that Dean's math difficulties met the definition of a problem (define the problem).

Next, the team asked additional questions concerning Dean's classroom behaviors. For example, they wanted to know if he ever ran out of the classroom at any times other than during PALS, and how well he got along with the other students. Mrs. Doiron reported that Dean was very quiet, but polite with other

students. He rarely initiated conversations with classmates, but he responded appropriately when classmates spoke to him, and he never ran away at other times. She indicated that Dean had a good sense of humor and he often smiled at other students' jokes, and he clearly followed along with instruction and class activities. The team members wanted to know if Dean showed any other math avoidance behaviors. Mrs. Doiron reported that he clearly did not favor math and had to be reminded to get out his math materials more often than other subjects. When given the choice to work on math or other tasks, he always picked another task. His independent math work was neat and accurate, but he often did not fully complete assignments despite using all the time available. Mrs. Doiron reported that Dean was fully engaged during her math fact lessons three times a week as well as during the daily Everyday Math lessons and activities.

The team members agreed that Dean's math difficulties appeared to be related to difficulties with fact fluency, but were not sure why he was engaged and compliant with the whole-class lessons and not the PALS lessons. After discussing whether to try a different fluency intervention, the team decided it wanted more information about Dean's behavior. It was decided that Mr. Gerard, a member of the SAT, would conduct a functional behavioral assessment (FBA) of Dean's behaviors during whole-class and small-group (Tier 2) math lessons. This meant that Dean would continue to participate in the small-group Tier 2 lessons while the FBA was conducted.

The FBA consisted of interviews with Mrs. Doiron, the Title I math teacher, and Dean's parents. Results indicated that Dean did not engage in running-away behaviors in any other settings. Observations conducted during the Tier 2 lessons showed that Dean was compliant with the teacher's directions, but he did not interact at all with the other students in the group. The group consisted of five students (three girls and two boys) from three different second-grade classrooms. The observations revealed that the three girls did most of the talking during the lessons and that the teacher directed much of her attention during the 30-minute lessons to keeping the three girls engaged in the math lesson. Mr. Gerard conducted three observations of Dean during his classroom math instruction. The first was on a Monday when Mrs. Doiron conducted a 15-minute math fact lesson after the Everyday Mathematics activities. During this lesson, Dean was quiet but engaged and wrote answers on his whiteboard as directed by Mrs. Doiron. Mr. Gerard noted that Dean's answers were not always correct and that Dean appeared to look at his neighbor's answers to see if he was right; when incorrect, Dean erased and quickly replaced his answer with the correct one. Dean did not ever volunteer to share his answers with the class, but did state them when called on by Mrs. Doiron.

A second observation was conducted on Tuesday of the same week when there was a PALS lesson scheduled. As the Everyday Math activities ended, Dean was observed to get up and ask Mrs. Doiron if he could go to the bathroom. She told him that he could go after all of his assigned math work was done. Dean

walked slowly back to his desk and slumped down. When Mrs. Doiron told the students to get their PALS packets and sit with their partners, Dean got up as if to go and get his packet but then ran out the open classroom door. Having anticipated this, Mr. Gerard followed Dean out of the room and found him near the closet where he often ran. They went to Mr. Gerard's office to discuss the situation. On the past occasions when Dean had gone to Mr. Gerard's office after leaving the classroom, Dean had told Mr. Gerard that the reason he ran away was that doing PALS was "stupid" and a waste of his time. This time, Mr. Gerard asked Dean if maybe the reason he wanted to run away during PALS was that it was hard for him. Dean said that some of the problems were hard and that he hated having to talk to his partner. When asked if he did not like his partner, Dean started crying. After some waiting time, Dean told Mr. Gerard that talking with others has always been hard and he wished school did not require using words.

Mr. Gerard walked Dean back to the classroom and then conducted one additional observation on Thursday of the same week, the next day when PALS was planned. Unlike Tuesday, when Dean asked Mrs. Doiron if he could go to the bathroom before PALS, on Thursday he joined his partner for PALS, very briefly. Dean walked to the desk and started to sit down, then looked up at Mr. Gerard before running out of the room. Again, Mr. Gerard followed Dean out of the room and they went to Mr. Gerard's office to talk. By the time they got to Mr. Gerard's office, Dean was crying. After some time to calm down, Dean was able to tell Mr. Gerard that he just "can't" do PALS because he could not do math and talk at the same time. When asked if this had been a problem before in school, Dean said "no," because all other math had been "in my head." Mr. Gerard asked Dean why he was able to answer Mrs. Doiron's questions about math, and Dean said, "That's different. She's a teacher." Mr. Gerard then asked Dean if he would be willing to try doing PALS with a teacher to see if he could learn the steps. If that worked out, maybe he could try PALS with a student of his choosing. Dean said he would try PALS with a teacher if he and the teacher were the only people in the room. Mr. Gerard agreed that would be a good next step and walked Dean back to his classroom.

Mr. Gerard reported the results of the FBA to the SAT the next week. His conclusion was that Dean's "bolting" behavior functioned to help him avoid PALS, a task he found aversive. The SAT agreed with Mr. Gerard that Dean's behavior seemed to be specific to this situation and that a specialized intervention was needed to help Dean. But the team also agreed that it was worth trying out this intervention first, rather than refer Dean to special education. If Dean's fear of PALS could be addressed without special education, that would benefit everyone. Mr. Gerard outlined a possible intervention for Dean that involved having him work with one teacher alone to practice PALS during the skills block time when he had been attending the fact fluency group (explore alternate interventions). Mr. Ouellette, a fifth-grade teacher with a love of math who was on the SAT, volunteered to be the teacher to work with Dean for this intervention. The team

worked out a 4-week schedule in which Dean would work with Mr. Ouellette each day to learn and become comfortable with the PALS procedures (apply the selected intervention). During this time, Dean's math skills would continue to be monitored weekly as before with AIMSweb M-COMP.

Dean's scores on weekly progress measures are shown in Figure 20.2. These data show that he made stable and significant progress toward the year-end math goal. Dean's progress in using PALS with a teacher was important because it suggested that PALS was an effective program for Dean, if Dean completed the steps. The next step for Dean was to have him use PALS with a classmate. To make this happen, and with Mr. Gerard's guidance, Mr. Ouellette asked Dean which one of his classmates he would be willing to have as his PALS partner. Dean indicated that Lisa, a quiet girl who was also a very good math student, would be his choice. With Dean's permission, Mr. Ouellette met with Lisa to explain the situation and ask her to attend PALS sessions with Dean during skills block. Lisa agreed and Mr. Ouellette had Lisa be part of the session with him for 2 weeks before he faded himself, 1 day at a time, over the next 5 weeks. Then, Mr. Ouellette talked with Dean about how Lisa had been his partner for a while and that maybe he was ready to do PALS in the class, with Lisa as his partner. This was arranged, and Dean was able to complete the PALS lessons with Lisa for 3 weeks in a row. Then, Mrs. Doiron met with Dean and suggested that maybe he was

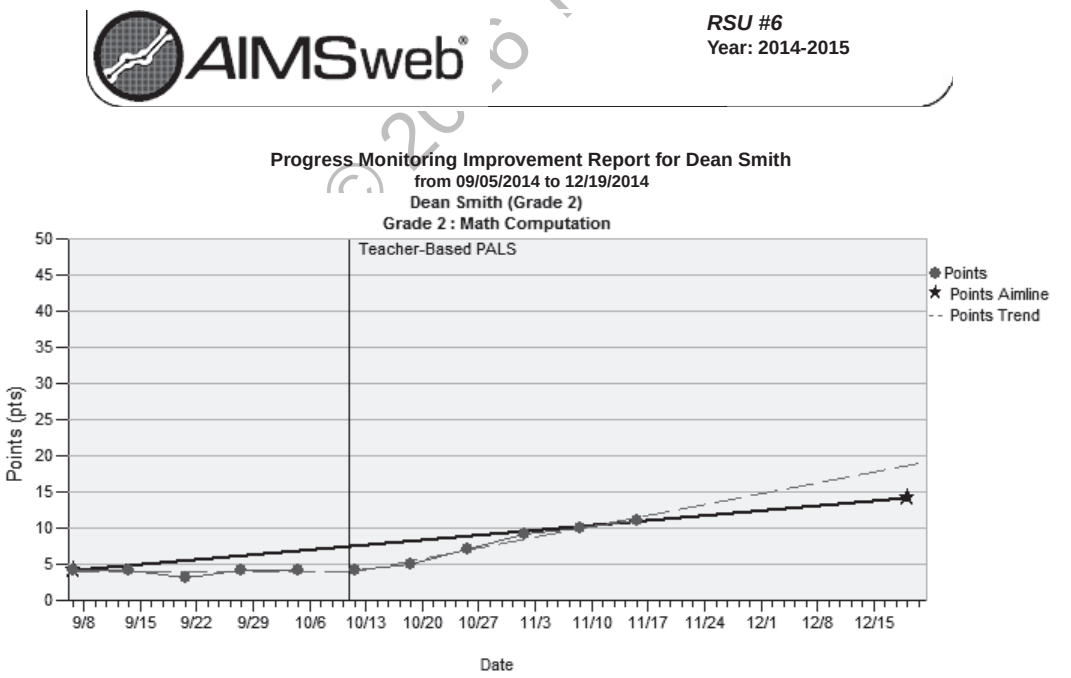

FIGURE 20.2. Dean's progress after a change to a teacher-based PALS intervention. Copyright 2014 by NCS Pearson, Inc. Reprinted by permission. All rights reserved.

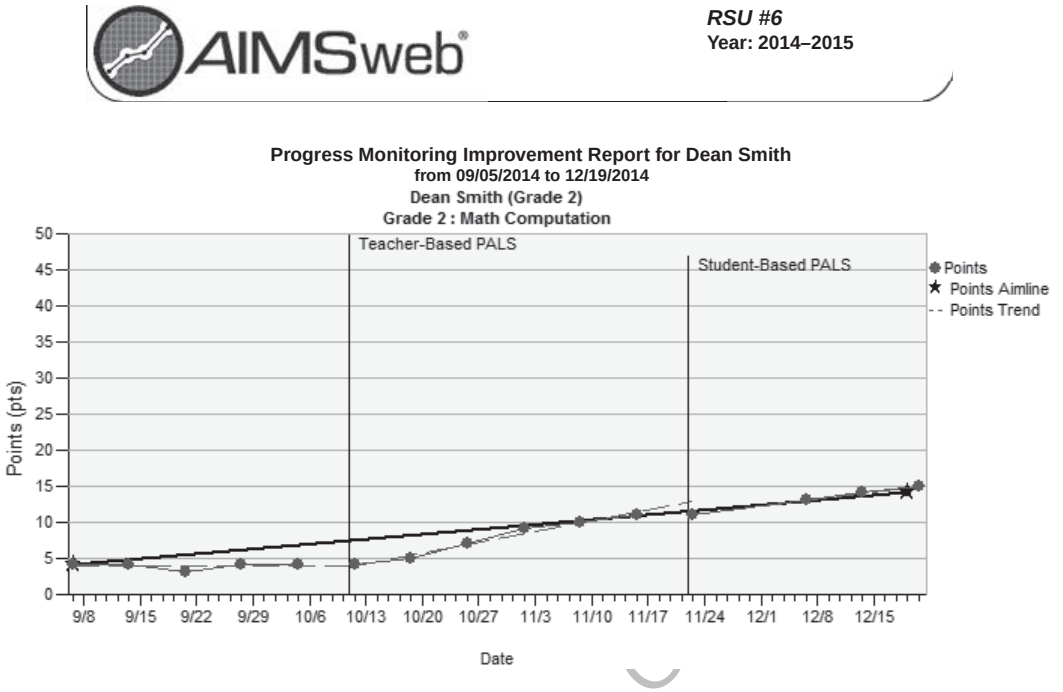

FIGURE 20.3. Dean's progress in PALS with a classroom-based peer. Copyright 2014 by NCS Pearson, Inc. Reprinted by permission. All rights reserved.

ready for a partner change (a typical event in PALS). Dean said he could try it and Mrs. Doiron assigned him to Brooke. Figure 20.3 shows Dean's progress from the beginning of the year to late December. The good news is that Dean met the midyear math goal and overcame his fear of doing PALS in the classroom.

By using the five steps of the IDEAL problem-solving method, Dean's teacher and colleagues were able to develop and implement an intervention that addressed Dean's school problem. It is important to note that despite their best efforts, the second-grade team at Dean's school did not find the solution he needed. This was probably because the grade-level teams depend on standard protocols and Dean needed individualized problem solving. Using standard protocols at Tier 2 is a reasonable and effective strategy because most students respond to such interventions. But Dean exhibited a fear of showing his math weaknesses to classroom peers. To address this need, an FBA and individualized intervention were needed. Mr. Gerard, the school psychologist, used exposure to PALS with a trusted adult as a step toward helping Dean be able to do PALS with a classmate. Such gradual exposure therapy is one of many tools that can be used with students who exhibit such fears. With these supports, Dean was able to overcome his fear of working with a classroom peer on math and he ended the year having met the second-grade math standards.

SUMMARY

Problem solving is an important tool that school teams can use to address the difficulties that students have. The IDEAL problem-solving method is one that has been validated in research studies as effective in school settings. The steps of the IDEAL method help the school team to identify and define school problems, evaluate possible interventions, apply the interventions, and look at the outcomes. If school teams use the IDEAL problem-solving method, they will recognize the importance of how each student's school difficulties are defined and understand that using functional solutions will lead to more student success and less stress for teachers. Importantly, problem solving with the IDEAL model should not be used with every student who experiences school difficulty. It is best reserved for Tier 3 because it is generally unnecessary at Tier 2 and it requires more time and resources. Yet, when needed, it is a very effective means of helping students with more unique school difficulties.

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