OSEP Research Institutes: Bridging Research and Practice



In this column, *Bridging Research and Practice*, three of the federally funded special education research institutes report to you, the practitioner, on their progress in areas that will be particularly helpful to you in working with your students. The U.S. Office of Special Education Programs (OSEP) has funded these three research institutes to study specific curricular and instructional interventions that will accelerate the learning of students with disabilities in curricular areas:

Center on Accelerating Student Learning (CASL) focuses on accelerating reading, math, and writing development in Grades K-3. The Directors of CASL are Lynn and

Doug Fuchs of Vanderbilt University. Principal Investigators include Joanna Williams at Columbia University and Steve Graham and Karen Harris at Vanderbilt University.

Research Institute to Accelerate Content Learning Through High Support for Students With Disabilities in Grades 4-8 (REACH) is examining interventions that reflect high expectations, content, and support for students. The Director of REACH is Catherine Cobb Morocco at Education Development Center in Newton, MA. Research partners include the University of Michigan (Annemarie Palincsar and Shirley Magnusson), the

University of Delaware (Ralph Ferretti, Charles MacArthur, and Cynthia Okolo), and the University of Puget Sound (John Woodward).

The Institute for Academic Access (IAA) is conducting research to develop instructional methods and materials to provide students with authentic access to the high school general curriculum. The Institute Directors are Don Deshler and Jean Schumaker of the University of Kansas, Lawrence. Research partners include the University of Oregon and school districts in Kansas, California, Washington, and Oregon.

This issue features CASL.

Teaching Writing Strategies to Young Students Struggling With Writing and At Risk for Behavioral Disorders: Self-Regulated Strategy Development

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By fourth grade, over half of students write so poorly that their writing skills are not adequate for meeting classroom demands (Persky, Daane, & Jin, 2003). Poor writing skills place these children academically at risk, not only during the early elementary years but in secondary school as well. During the middle and high school years, writing is the primary means by which students demonstrate their knowledge (Graham, 2005). It is used to gather, remember, and share content information. Furthermore, it is an effective tool for exploring and thinking about ideas (Bangert-Drowns, Hurley, & Wilkinson, 2004).

Writing is especially difficult for students with behavioral difficulties (Tindal & Crawford, 2002). Nelson, Benner, Lane, and Smith (2004) found that from kindergarten through Grade 12, students with emotional or behavioral disorders (E/BD) scored well below average on a standardized test of writing ability. Given the importance of writing to school success, this places

these students at a considerable disadvantage in the educational system (Graham, 2006). It is especially important that children with or at risk for E/BD receive sound instruction in writing early on, before their writing problems become more intractable. Research indicates that waiting until later grades to address literacy problems that are evident in the primary grades is not a successful strategy (Slavin, Karweit, & Madden, 1989).

Learning to write is a complex process that depends on mastering a variety of processes and skills (Graham, 2006), including how to plan compositions and regulate writing behavior. One approach that has been used successfully to teach both good and poor writers such processes is Self-Regulated Strategy Development (SRSD; Harris & Graham, 1996, 1999). With SRSD, students are taught strategies for processes that include planning as well as the knowledge and self-regulatory procedures (goal setting, self-monitoring,

self-instructions, and self-reinforcement) needed to apply the target strategies, better understand the writing task, and regulate their writing behavior. In addition, this approach enhances students' motivation for writing by making students' writing gains visible, connecting these gains to using the knowledge and strategies they are learning, and emphasizing the importance of effort as a key factor in learning to write well.

In this article, we describe how SRSD instruction was modified to teach planning and self-regulatory strategies for writing a story to second-grade students who were at risk for behavioral difficulties and who also had co-occurring writing deficits. This instruction occurred within the context of a positive behavioral support (PBS) model.

Intervening Within the Context of a Three-Tiered Model of Positive Behavioral Support

In recent years, schools have made strides in supporting students' behavioral, social, and academic needs within the context of PBS models. PBS provides proactive instructional support by establishing common expectations among faculty and staff, teaching all students these expectations, and providing opportunities for students to practice and receive reinforcement for meeting these expectations. This is accomplished within a three-tiered model where primary, secondary, and tertiary prevention programs are delivered in a systematic method to provide progressively more intensive supports to students as needed (Horner & Sugai, 2000). Primary interventions are designed to prevent behavioral, social, and academic problems, whereas secondary interventions are provided to students unresponsive to primary prevention efforts (approximately 10%-15% of the student body). Tertiary supports are reserved for students with multiple risk factors and those unresponsive to secondary efforts (approximately 5%-7%).

To date, primary prevention efforts at the elementary level have been successful in decreasing aggression and disruption (MacGregor, Nelson, & Wesch, 1997; Olweus, 1993) as well as improving social and academic performance (Kamps, Kravits, Stolze, & Swaggart, 1999; Lane & Menzies, 2005). Schools, however, have struggled to implement successful secondary interventions (Lane et al., 2002). Unfortunately, little attention has been devoted to studying how to (a) use schoolwide data to identify students who require secondary interventions and (b) build empirically validated approaches to meet the behavioral and academic needs of students at risk for E/BD. In this article, we describe (a) how schoolwide data were used to identify second-grade students with writing and behavioral concerns, and (b) the application of a secondary intervention, SRSD, designed to improve the writing performance of these students.

Identifying Students With Behavioral and Writing Concerns

As part of their PBS plans, the participating school used a number of school-wide measures to monitor student performance, two of which were the

Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1992) and the Test of Written Language-3 (TOWL-3; Hammil & Larsen, 1996). The SSBD (Walker & Severson) is a user-friendly, cost-effective, empirically validated, multiple-gating procedure designed to screen elementary-age .students for internalizing and externalizing behavior disorders. The screening process begins with teacher nominations and ratings followed by independent observations in structured and unstructured settings. In Stage 1, teachers are given a description of internalizing and externalizing behaviors. Next, teachers rank their students from most like to least like to establish the degree to which students' characteristic behavior patterns correspond with each behavioral profile. The three highest ranked students on the internalizing and externalizing dimensions pass through Gate 1, with six students proceeding to Stage 2. In Stage 2, teachers complete two rating scales, the Critical Events Index (CEI) and the Combined Frequency Index (CFI), for each student identified in Stage 1. The CEI is a 33item checklist of high-intensity, low-frequency behaviors (e.g., sets fires). Teachers record the presence or absence of each behavior. The CFI assesses lowintensity, high-frequency behaviors on adaptive (e.g., does seat work as directed) and maladaptive (e.g., pouts or sulks) domains. Students exceeding normative criteria pass through Gate 2 into Stage 3. During Stage 3, a professional other than the teacher conducts systematic observations of students in structured (engagement) and unstructured (peer interactions) situations.

The TOWL-3 Story Construction Subtest was administered to all second-grade students at the participating school to monitor writing progress. This measure assesses a child's ability to write a complete and interesting story. Eight second-grade students with externalizing or internalizing behavior patterns as determined during Stage 2 of the screening process who also performed at or below the 25th percentile on the TOWL-3 were invited to take part in the SRSD writing intervention.

Teaching Students With Behavioral Difficulties to Write Better Stories

Each student received individual instruction in how to apply a story writing strategy for generating and organizing their ideas before writing a first draft. Students learned to consider the common parts of a good story while planning to write; these parts were represented by the mnemonic WWW, What = 2, How = 2. Each part of the mnemonic stood for a question the students asked themselves while making notes for their stories: (1) Who is the main character? (2) When does the story take place? (3) Where does the story take place? (4) What does the main character do or want to do; what do other characters do? (5) What happens when the main character tries to do it; what happens with other characters? (6) How does the story end? (7) How does the main character feel; how do other characters feel? Teachers explained that generating and organizing prewriting notes with this strategy would help students write stories that were fun to read and included all seven common parts of a story.

The WWW, What = 2, How = 2strategy was embedded in a more general writing strategy represented by the mnemonic POW. This three-step strategy can be used with any genre of writing. Teachers told students that good writers first select a topic ("Pick my idea"). Next, good writers develop a plan for what they want to write ("Organize my notes"). Students apply the WWW, What = 2, How = 2 strategy during this step. Finally, good authors continue to write, expanding on the topic during the writing process ("Write and say more"). Each student was told that using POW results in more powerful writing. In addition, students learned to use self-regulation strategies, including goal setting, self-instructions, self-monitoring, and self-reinforcement throughout the writing process. Attributions for effort and use of the strategies were explicitly discussed and reinforced.

We highlight our experience with two students with writing and behavior problems, Jay and Bruce, to illustrate how these students learned to use POW plus WWW, What = 2, How = 2 and self-regulation strategies. Before SRSD instruction, both students produced stories that only included a few of the story parts and devoted no time to planning before writing. Prior to instruction, Bruce wrote: That man is not letting that fish in the school. A preinstruction story by Jay was similar: There is a girl who brought a fish and played with him all day.

Teaching Jay and Bruce How to Write Better Stories

The SRSD model includes the following six stages: develop background knowledge, discuss it, model it, memorize it, support it, and independent performance. We explained to Jay and Bruce that we would teach them some "tricks" (strategies) that would help them write powerful stories that were fun to write and fun for others to read. Modifications to the typical SRSD instructional procedures were made for children at risk for behavioral difficulties based on a study by Adkins (2005) and pilot work. Modifications included increased opportunity to master the first two stages (develop background knowledge and discuss it), adjustments in the instructional sequence (e.g., moving self-evaluation and graphing of preinstruction stories to later in the instructional sequence), and high rates of reinforcement (PBS tickets and verbal praise), as seen in the following stages.

Develop Background Knowledge. First, teachers (who were project personnel) ensured that Bruce and Jay were familiar with the seven parts of a story included in the WWW, What = 2, How = 2 mnemonic. Knowing and understanding these parts are critical to using the strategy and developing a quality story. During Stage 1 of SRSD, teachers discussed each part with Jay and Bruce, then guided them in picking out the parts in stories that they read, and then writing each part on a graphic organizer.

Discuss It. The teachers then described the POW plus WWW, What = 2, How = 2 strategies, and how these strategies could be used to write good stories that were fun to write and fun for others to read. In addition, teachers explained that students would learn to

transfer these strategies to other aspects of their writing and/or reading; students brainstormed with their teachers some other instances where one or both strategies could be used. Throughout instruction, Jay and Bruce shared with their teachers when and how they had transferred these strategies.

Model It. Jay and Bruce's teachers modeled how to use the POW plus WWW, What = 2, How = 2 strategies to write a story, talking out loud while planning and writing a story. They introduced examples of how to set goals for their writing (e.g., include all parts in my story, make my story fun to read), self-monitoring performance (graph performance on the rocket chart and compare it to the pretreatment story), and self-reinforcement (e.g., self-statements like "I did a great job"). Teachers also modeled both how to "write and say more" by adding new ideas to the story as they planned and as they wrote, and how to add more effective vocabulary ("million-dollar words"). Jay and Bruce collaborated with their teachers, offering some ideas during planning and writing, but their teachers were primarily in charge of the writing process.

A critical part of the modeling stage was teachers' use of self-instructions to guide the planning and writing process, use the strategies, and maintain effort. Jay and Bruce discussed with their teacher the self-instructions the teacher used, and how they were helpful, then generated their own self-instructions; these were listed on a chart for the students to use during their writing. For example, Bruce used the statement, "I just need to take my time and think."

Memorize It. During each lesson prior to this point, Jay and Bruce had practiced recalling the POW and WWW, What = 2, How = 2 strategy mnemonics and their meanings. Practice included writing and explaining the mnemonics as well as fun activities such as flash cards. At this point, each teacher made sure that Jay and Bruce had memorized both mnemonics and their meanings, which both students did without difficulty.

Support It. Each student collaborated with their teacher to write a story using the strategies they had learned,

with the teacher providing as much support as needed to guarantee success. As they collaborated in writing stories, Jay and Bruce were reminded to use their self-statements and make sure that they included all seven story parts during planning and writing. Each student graphed the number of story parts included in each collaboratively written story. They recorded this number on a chart containing a series of rockets. Each rocket contained seven segments, and the student colored one segment for each part included in the story. This self-regulation procedure allowed them to monitor the completeness of their stories and the effects of learning the strategies.

To emphasize how much progress had already been made, each student compared the first story they collaboratively wrote with their teacher to a story written before instruction. Each student read their baseline story, graphed the number of parts on the rocket sheet, and rewrote their preinstruction story to include all seven parts and additional million-dollar words.

Each teacher gradually decreased support for their student, until students were leading the process and were ready to write independently. Teachers reminded students to continue using their self-statements, check their work, and remind themselves that their goals were to write stories that were fun to write and fun for others to read, included all seven parts, and made sense to readers. The students continued to graph their performance on the rocket chart.

Independent Performance. During the final stage of the intervention, Jay and Bruce were able to write stories independently and successfully, planning their stories on a blank sheet of paper rather than using the graphic organizer, and including all seven parts. Each student took a practice test before posttesting began, to help them be comfortable with writing a story completely independent of their teachers.

Behavioral Supports

In addition to the modifications in the typical SRSD instructional procedures noted earlier, additional opportunities to

Jay's Postinstruction Stories

A long time ago in January two boys went to the store. They had no money to buy anything. They tried to get fish but they couldn't do that. They are mad because they do not have any fish. Then they are sad because they do not have any pets at all. So they go to the library and tried to get a pet there but they got in more trouble than they were at first. Their mom and dad went with them this time they bought the fish for them. They were happy and they went to the store with some money to get one more fish.

[Immediately following instruction]

respond were programmed into the lessons to keep students engaged and actively participating. A great deal of positive reinforcement via verbal praise was also included. Teachers were trained to provide specific praise regarding students' positive behaviors throughout each session.

Additional positive reinforcement was provided in conjunction with the school's PBS plan, which included a ticket system. At the beginning of each lesson, the teacher and student discussed the PBS ticket, as well as the behavioral expectations for that session. Each student had the opportunity to earn one ticket at the end of each session for displaying one of the four social competencies outlined on the ticket (i.e., respect, responsibility, best effort, care of property). At the end of each session, the teacher and student discussed whether the student had earned the ticket, and, if so, which social competency the student displayed. The teacher completed the tickLong ago there was a bird named Jack who thought he was perfect. He flied to a tree and made in front of people. Jack said that he was perfect. Sam and Hunter were sad so they played by themselves. The next day Sam and Hunter went to another tree but it still was not good enough. While Sam and Hunter were playing Jack came. Sam and Hunter play flied as fast as they could. But Jack turned on his Windmill and went right past them

They turned right back around but Jack still was coming. Jack was out of breath and turned his Windmill off but he tried to catch them but he is too tired to do that. Jack was ready to get them. So Jack almost got Sam and Hunter but he didn't know where to start so he kept on looking but he had not clue where they were. Hunter and Sam were playing they were right behind Jack. Jack turned off his Windmill. He went home and played.

After that he felt sad and so he played by himself. He was so happy that he play this all the time. It was very fun.

[Five weeks following instruction]

et and gave it to the student to take back to his or her teacher. Jay and Bruce both responded well to these behavior supports, and each received a ticket at the end of each lesson.

Jay and Bruce's Stories

After completing instruction, both Jay and Bruce demonstrated significant improvements in planning, as well as in the length and quality of their stories. Both Bruce and Jay moved from writing brief descriptions of pictures with few story parts to creating stories that included all seven parts and made sense to the reader. (See boxes.)

Concluding Comments

SRSD instruction has met with clear success for students with learning disabilities and other students who struggle with written expression (Graham & Harris, 2003). Our early work indicates that with additional modifications such as increased opportunity to master the first two stages (develop background knowledge and discuss it), adjusted

Bruce's Postinstruction Story

Once upon a time there were a boy a girl and a snake and they were outside and the girl wanted to play with the snake and the boys wanted to play with the snake and the girl was happy and the boy was embarrassed and they went away.

instructional sequence (e.g., moving self-evaluation and graphing to later in the instructional sequence), and high rates of reinforcement (PBS tickets and verbal praise), SRSD also is effective in improving the writing skills of students at risk for behavioral difficulties and who have writing difficulties. Although students will continue to have room to improve and instruction should continue, the gains made represent a critical advance. Moreover, SRSD fit smoothly into the larger context of a multitiered model of support. It is important to recognize that SRSD is not a stand-alone writing program, and that it should be used in conjunction with other techniques for teaching writing (Harris & Graham, 1996).

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Lesson plans used with these students can be obtained by contacting the third author, Karen Harris (e-mail: karen. harris@vanderbilt.edu).



What new requirements will I have to satisfy to be highly qualified?

What are my district's responsibilities for parentally placed students with disabilities in private schools?

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