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Comprehension Strategy Instruction for Two Students With Attention-Related Disabilities

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Many students struggle to maintain the attention needed to comprehend while reading. One 4th-grade student and 5th-grade student, both with poor comprehension and attention-related disabilities, were taught to use a proven systematic reading comprehension strategy, TWA (Think Before Reading, Think While Reading, Think After Reading), when reading science passages. TWA consists of 9 strategies: State Author’s Purpose, What I Know, What I Want to Learn, Adjust Reading Speed, Reread, Link Knowledge, Identify Main Idea, Summarize, and State What I Learned. Students received scaffolded support throughout the intervention and learned to self-monitor and self-reinforce their reading performance. Both students’ reading comprehension improved during and after lessons when compared with performance before instruction. TWA appeared to help these students regulate their strategy use and sustain attention during reading.

Keywords: attention deficit hyperactivity disorder, comprehension, strategy instruction

Students with attention deficit hyperactivity disorder (ADHD) represent a group of students at risk for academic failure (DuPaul, 2007). Compared with their peers without ADHD, these students have poorer grades as well as higher rates of retention, academic underachievement, and failure to graduate (Deshazo, Lyman, & Klinger, 2002; Preston, Heaton, McCann, Watson, & Selke, 2009). Brock (1996) reported that increased severity of ADHD predicted lower reading scores for intermediate-level students. Other researchers reported that students with ADHD had lower scores on decoding and silent reading comprehension tasks than did students with age and similar intelligence with no ADHD (Ghelani, Sidhu, Jain, & Tannock, 2004). These problems may be related to breakdowns in sustained attention during independent reading (Preston et al., 2009). The presence of other disabilities comorbid to ADHD further erodes academic progress observed for these learners (DuPaul, 2007; Ghelani et al., 2004).

Although few instructional interventions studies have been conducted with children with ADHD (DuPaul, 2007), these students appear to benefit from clear expectations and positive reinforcement of appropriate behavior, use of verbal and visual cues to redirect and sustain attention, and systematic strategy instruction (Montague & Warger, 1997; Reis, 2002). One systematic approach that has demonstrated effectiveness in teaching low-achieving students with and without disabilities to maintain attention while reading is self-regulated strategy development (SRSD) instruction for the TWA (Think Before Reading, Think While Reading, Think After Reading) reading comprehension strategy. SRSD for TWA has shown positive effects when taught to children with poor reading achievement including those with disabilities (Mason, 2004; Mason, Snyder, Sukhram, & Kedem, 2006) and emotional disturbances with and without comorbid attention disorder (Meadan & Mason, 2007; Rogevich & Perin, 2008). Because TWA has shown promise with a range of struggling readers, including students with attention-related disabilities, we decided to implement TWA with Justin and Marshall (pseudonyms), two male students with ADHD and comorbid disabilities (i.e., learning disability and speech/language impairment). Each student had an individualized educational plan with goals in reading and was identified by their teachers as at risk academically. We collected baseline data on each student’s comprehension performance before implementing the intervention, as well as conducting postinstructional probes, making our investigation an AB design (baseline-intervention). Before describing our teaching experiences, we explain the steps of TWA and why we chose it as our intervention.

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TWA for Readers

Striving readers may benefit from an array of instructional supports targeting comprehension, including monitoring, cooperative learning, main idea identification, summarization, self-questioning (Pressley & Afflerbach, 1995). TWA (see Figure 1) incorporates many effective components into a nine-step framework (Mason, 2004). TWA consists of the three reading phases—before reading, during reading, and after reading—with three steps in each phase. During TWA instruction, students learn to use all nine steps but also learn to set goals and self-monitor use of the strategies.

Steps in TWA

In the before-reading step (Think Before Reading), students learn to activate past knowledge by identifying the author’s purpose for writing the passage. For science and other informational text, the author’s purpose in writing is typically to inform or explain concepts and ideas about a particular topic. Next, readers complete the What I Know and What I Want to Learn components derived from Ogle’s Know, Want to Know, What I Learned strategy (Ogle, 1989). In the Think While Reading step, students learn to monitor how well they understood what they read and are taught to reread when the meaning is lost. Also, students learn to link knowledge, or make connections between the text and their past knowledge. Last, students adjust reading speed (Graves & Levin, 1989) by slowing down with challenging text sections.

In the final step of TWA, Think After Reading, students learn to identify main ideas in each paragraph by highlighting key sentences and phrases in the text with a yellow marker. The students highlight supporting details with a green marker and highlight irrelevant details with a pink marker. In the second after-reading step, readers summarize highlighted information in their own words and then restate what they learned (Ogle, 1989). The TWA process ends with students orally retelling or summarizing the whole passage. TWA has been validated as effective when taught following procedures outlined for SRSD instruction (Harris, Graham, Mason, & Friedlander, 2008).

SRSD

Harris and Graham (2003) described SRSD instruction as a way to teach children how and when to use and self-regulate strategies. Six stages of instruction are associated with readers’ strategy acquisition: (a) develop preskills, (b) discuss the strategy, (c) model the strategy, (d) memorize the strategy, (e) support it—guided practice in strategy use, and (f) independent practice in strategy use. To develop preskills, teachers interact with students to activate background knowledge of skills the readers already have and teacher any requisite unknown skill. After this preliminary stage, teachers discuss the strategy explaining each strategy step and why the step is helpful in improving reading. For example, in the discussion of TWA, teachers use the analogy of a pilot controlling an airplane during flight to help students understand the importance of using TWA’s steps to be in control and make adjustments during reading. During the modeling stage, the teacher demonstrates how to apply the strategy step with a task, in this case reading, while talking out loud the process. The teacher models how to complete each step of TWA with a passage and materials identical to those the students will learn to use. Each strategy step is then memorized through repeated practice over several lessons. TWA’s mnemonic helps readers by chunking the nine steps into three sets of three that are practiced at the beginning of each lesson as well as implemented during the lesson. In the next stage—support it—learners begin to manage the use of the strategy with decreasing teacher support. Teachers set criteria for the level of mastery students must demonstrate before reducing the amount of support for strategy use. In this way, teachers scaffold by responsively shifting from modeling and collaborative practice, to guided small group or partner practice. Last, learners who have memorized and can accurately and effectively
implement strategy steps are ready for independent practice, the final stage of SRSD.

In addition to these six stages, teachers using SRSD promote students’ self-regulation in several ways. First, learners set goals (a) at the beginning of the intervention by signing a learning contract and (b) before each lesson to use and implement the strategy (e.g., “I will use all the steps of TWA during reading today”). Goal setting makes expectations clear and provides students with a means of evaluating their own performance. Once goals are established, students learn to monitor their performance using a checklist. As they complete parts of a strategy, they check the step off and have a resource to guide them if they forget what comes next. In addition, students learn to develop self-statements (e.g., “I can use TWA to help me understand this paragraph”) to guide performance and to replace any negative message they may have developed. Self-statements may be written down and kept in the students’ folders to review during lessons. In this way, students remind themselves of positive self-statements. In addition, students self-reinforce not only through their positive self-statements (e.g., “I knew I could do it!”), but also by tracking their own performance. In TWA instruction, for example, students color in a section of a cartoon rocket for each step of TWA they complete in a lesson.

The six stages of SRSD in conjunction with the self-regulatory components have consistently had a positive influence on the learning of students with and at risk for disabilities (Harris, Graham, et al., 2008; Harris, Santangelo, & Graham, 2008). We wanted to know what impact TWA taught via SRSD would have on the comprehension of students who have difficulty sustaining attention during reading. We investigated this effect using an AB (i.e., baseline–intervention) design. We now describe how we implemented SRSD instruction for TWA with two male students with ADHD and comorbid disabilities. Also, we describe how we monitored each student’s strategy use performance and the subsequent effect on reading comprehension.

**Method**

The teacher taught two students how to use TWA during 10 one-on-one tutoring sessions following an AB design. Justin and Marshall completed three and four baseline comprehension probes, respectively, before instruction. In addition, the boys completed one reading probe after each lesson (i.e., intervention phase), and one probe each (a) immediate postinstruction, (b) 5-day delay postinstruction, (c) 5-day delay generalization with tester unknown to participants, and (d) maintenance 4- and 8-weeks postinstruction.

**Participants**

Both participants were recommended by their general education teachers for additional instruction in comprehension strategies. Parents provided written consent for their children to participate. The first author then described the assessments and lessons individually to both boys and obtained their written assent before beginning the study.

Justin, a 10-year-old fourth-grade student, had an identified speech and language impairment and ADHD. Marshall, an 11-year-old fifth-grade student, was identified as having both a learning disability and ADHD. Justin and Marshall took traditional and time-released Ritalin, respectively, for their ADHD (dosages unavailable). Both students had goals for reading comprehension in their individualized educational plans, and both had reading scores that “did not meet standards” on state high-stakes testing the previous academic year. Marshall scored two levels below his grade on the composite reading and comprehension (2.8 grade equivalent) portions of the Woodcock-Johnson III (Woodcock, McGrew, & Mather, 2001). No Woodcock-Johnson III scores were available for Justin.

**Materials**

Because the students’ general education teachers indicated that the boys had difficulty with science passages, we chose this type of text for use during instruction. Informational text generally presents a greater challenge for readers than narrative (Best, Floyd, & McNamara, 2008), making it a critical area for instruction. Fourth- and fifth-grade science passages (Brummet, Lind, Barman, DiSpezio, & Ostlund, 1995; Frank et al., 2005) revised to achieve Dale-Chall fourth-grade readability (Chall, Bissex, Conard, & Harris-Sharples, 1996), were used for both instruction and assessment. The passages covered topics across life, earth, and physical sciences. We counterbalanced assessment passages between students to control for a possible order effect; however, both boys read the lesson passages in the same order.

**Dependent measures**

To measure passage comprehension, both students completed reading probes consisting of an oral retell of the passage. Retells completed by Justin and Marshall were audiotaped, transcribed, and scored by the first author and a trained assistant for the number of main ideas, details, and overall quality (i.e., main ideas, details, and organization). The first author created a list of five to six main ideas of each lesson and assessment passage (Kintsch & Van Dijk, 1978). Transcripts of the students’ oral reading retells were compared with these lists during scoring to find the number of main ideas recalled. For quality, a rubric with scores of 0 (no response or no accurate information reported) to 7 (completely captures gist of passage) points was used to measure performance (Mason, 2004). Highest quality retells, awarded seven points, completely captured the gist, were organized in the way that reflected the original text’s organization, and included five or more main ideas from the passage chunked with supporting
details. A score of 1 was awarded to retells that included a few randomly organized details with no main ideas.

**Intervention**

Instruction followed the guidelines for SRSD instruction for TWA previously established in the literature (Mason, 2004; Mason, Meadan, Hedin, & Corso, 2006; Meadan & Mason, 2007). All 30-min tutoring sessions occurred during regular school hours over a 14-week period. The lessons were scripted, audiotaped, and transcribed. Complete lesson scripts are available upon request from the first author.

**Questions.** For our investigation, we modified TWA instruction to mirror teacher–learner interactions that occur through classroom discussion (Jitendra, Hoppes, & Xin, 2000; Kucan & Beck, 2003; Mariage, 1995). At several points in the TWA framework, we asked “In the Book” (Raphael & Au, 2005, p. 210) questions to trigger discussions about the science passages (see Table 1). For example, Think Before Reading, students learned to develop who, what, why, and how questions as part of What I Want to Learn. These questions were written down and reviewed during the Think After Reading component. At the Linking Knowledge step, the teacher asked preplanned “In my Head” questions (Raphael & Au, 2005) to help Justin and Marshall make text-to-text, text-to-self, and text-to-world connections. The order of these questions was determined during reading on the basis of the passage content. After reading, teachers and students evaluated the passage, discussing: (a) How well did the author explain? (b) How much better do I understand [title] now? and (c) How could the author have explained better? We hypothesized that TWA with the addition of teacher discussion questions would encourage our students to engage in more discussion about the text, increase their attention during reading, and improve their comprehension (DuPaul, 2007; Kucan & Beck, 2003; Swanson & Saez, 2003).

**Lesson procedures.** Over the course of the 10 lessons, the stages of strategy acquisition as outlined in SRSD instruction were followed. Control of TWA strategy use was gradually transferred from teacher to student. Each lesson began with a review of TWA’s steps. The teacher and students wrote out the TWA mnemonic and orally rehearsed the nine TWA components to promote memorization and activate prior knowledge of the strategy.

In Lesson 1, the teacher (i.e., first author) activated the students’ background knowledge, developing preskills needed for reading informational passages and using TWA. She then explained each step of TWA using the analogy of a pilot controlling an airplane. The teacher and students signed a contract agreeing to learn TWA.

In Lesson 2, the teacher followed a scripted lesson plan to model the use of all TWA steps with a science passage. For each step, she thought aloud about how to complete the step as well as why it was helpful, using positive self-statements (e.g., “If I use the TWA checklist, I can remember what to do to help me understand what I am reading”). The teacher modeled checking off each step of TWA as she completed it, commenting after reading that she had met her goal of using all the TWA steps. The students checked off the steps as well and were invited to develop a list of self-statements that were written down and kept in the students’ folder. This lesson and all subsequent lessons ended with student self-reinforcement, coloring in a segment of a cartoon rocket for each TWA step completed (see Figure 2). Mention Students received a sticker at the end of each lesson in recognition of their hard work.

In Lessons 3–6, the teacher became a copilot, working collaboratively with the students to complete the steps of TWA. Across this block of lessons, the teacher observed student progress carefully and gradually allowed the students to take more responsibility for implementing the TWA strategy steps. Later, as students developed strategy use, the teacher guided the students only when she observed breakdowns in strategy implementation or when the student asked for help. In this phase, the teacher facilitated memorization of the strategy steps and their completion, wrote down What I Want to Learn questions, prompted

<table>
<thead>
<tr>
<th>TWA step</th>
<th>Discourse questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think before reading</td>
<td>Why do you think the author wrote this?</td>
</tr>
<tr>
<td>Develop author’s purpose</td>
<td>N/A</td>
</tr>
<tr>
<td>Tell what I know</td>
<td>Student developed who, what, when, how, and why questions.</td>
</tr>
<tr>
<td>Tell what I want to learn</td>
<td></td>
</tr>
<tr>
<td>Think while reading</td>
<td>How is this like or different from something you already know?</td>
</tr>
<tr>
<td>Adjust reading speed</td>
<td>What other examples could the author use here?</td>
</tr>
<tr>
<td>Reread</td>
<td>What does the author organize the passage to help you understand?</td>
</tr>
<tr>
<td>Link knowledge</td>
<td>What new questions come to mind?</td>
</tr>
<tr>
<td>Think after reading</td>
<td>Who or what is the paragraph mostly about?</td>
</tr>
<tr>
<td>Identify main idea</td>
<td></td>
</tr>
<tr>
<td>Develop oral summary</td>
<td>How well did the author explain?</td>
</tr>
<tr>
<td>Tell what I learned</td>
<td>How much better do you understand now?</td>
</tr>
<tr>
<td></td>
<td>What things could the author have added?</td>
</tr>
</tbody>
</table>

Note. TWA refers to “think before reading, think while reading, think after reading.”
reflection on the answers after reading, and reminded students of how and when to implement steps. When students completed the linking knowledge, for example, the teacher used preplanned discourse questions to help students make connections. After reading, the teacher and student collaboratively identified and highlighted main ideas and supporting details with yellow and green marker. They worked together to delete trivial details. The teacher guided students’ use of highlighted material to paraphrase the main idea and construct summaries of the paragraph in their own words. During these lessons, the students used teacher-made checklists with the TWA steps written out to self-monitor performance.

Lessons 3–6 ended with the What I Learned step. The teacher and students first evaluated the reading for the day then reviewed and answered the previously developed What I Want to Learn questions. Participants developed an oral retell of the entire passage. After Justin and Marshall gave their oral retells of the passage, the teacher told them how many details including main ideas they had recalled. This feedback, in addition to using the TWA checklist, helped them monitor their reading performance. If a student did not demonstrate criteria-level mastery of the strategy, the teacher repeated the lesson with a second passage and the same level of support.

In Lessons 7–9, fading of support materials began. The students learned to write T W A at the top of their passages to use for self-monitoring instead of using a teacher-made checklist. In addition, they learned to write MI and D next to the main idea and details instead of highlighting. In Lesson 9, the students were asked to keep TWA, MI, and D “in your head” rather than writing it on the paper. At this point in the lesson sequence, students completed TWA independently with only general prompts (e.g., “What next?”) from the teacher. Lesson 10 consisted of independent practice, during which the teacher did not intervene but gave feedback on the students’ performance.

Fidelity of intervention. The teacher followed a script of instructional steps during all lessons, checking off each step as completed. A trained scorer then compared one third of lesson audiotapes to the corresponding script as a fidelity measure; that is, point-by-point agreement (Kazdin, 1983). Approximately 92% of lesson steps were completed accurately (i.e., Steps Heard on Audiotapes Scripted Steps × 100). The final steps of the intervention—coloring cartoon rockets, thanking students, and providing students with a sticker—were the only steps omitted during instruction. This omission occurred when the teacher turned off the tape player before the end of the lesson.

Results

Justin’s performance

Justin completed three baseline readings over three days before instruction began. Justin’s mean baseline performance for identification of main ideas in a passage was less than 1, $M = .33$ ($SD = .58$; see Figure 3). During TWA
instruction, Justin identified two to four main ideas ($M = 2.8, SD = .75$), with a similar postinstruction probe score of three main ideas. Five school days after instruction ended, Justin completed his delay and generalization reading probes in which he identified four and two main ideas, respectively ($M = 3, SD = .71$). He wrote the TWA mnemonic on his passage before reading, although he did not mark any text. Maintenance reading probes collected 4 and 8 weeks later indicated that Justin did not maintain performance much above preinstruction levels and definitely below what was noted during and shortly after instruction ($M = 1.5, SD = .71$).

Justin’s mean performance for oral retell quality at baseline was 1 (see Figure 3). During instruction, the quality of his retells increased with scores ranging from 3 to 5 ($M = 3.6$), suggesting that he paired some main ideas with supporting details and was beginning to use the organization of the passage to reconstruct its meaning. During postinstruction, Justin attained quality scores of 5 ($M = 3.6, SD = .82$), suggesting readings collected 4 and 8 weeks later indicated that Justin’s oral retell performance decreased toward preinstruction levels. Although results of Justin’s performance were promising after instruction, his performance did not maintain over time or generalize across teachers (score of 3). The delay measures that Justin completed independently did not reflect the retell quality he achieved either immediately following or during instruction.

**Marshall’s performance**

Marshall completed four baseline reading probes over four days before his instruction began (see Figure 4). Marshall identified no main ideas during the first three baseline
readings and only one main idea in the fourth. Although this indicated a small rise in the baseline, his mean baseline score was .25 main ideas per passage ($SD = .5$). With the exception of one lesson, Marshall was able to identify three or more main ideas in each reading during instruction ($M = 3.67$, $SD = 1.11$). During the postinstruction probe 5 school days after lessons ended, Marshall identified one main idea. On the same day, he identified two main ideas in the generalization reading probe. His maintenance score after 4 weeks returned to baseline levels. Despite impressive improvements in main idea identification achieved during instruction, Marshall did not maintain performance on short-term, generalization, or delayed readings.

Marshall demonstrated a similar pattern with retell quality, receiving scores from 0 to 2 across four baseline readings (see Figure 4). During instruction, Marshall's quality scores steadily rose, from 3 to 6 on the final reading ($M = 4.5$, $SD = 1.05$). During one postinstruction and one generalization test, his quality score dropped to 3; however, this represented an improvement over baseline. In a reading probe collected 4 weeks later, Marshall achieved a quality score of 1, similar to his baseline performance. Overall, Marshall demonstrated excellent comprehension during instructional phases, a promising outcome. His retells included important information and reflected the organization of the passage showing that he had understood what he read. He did not sustain this level of performance beyond the instructional setting as shown by the postinstruction reading probes.

**Treatment acceptability**

After the end of the intervention, both students answered a set of eight open-ended questions about TWA and reading. Both students stated that TWA helped them to become better readers. Both students specifically mentioned the author’s purpose, reading speed, and rereading as important for good reading. When Marshall was asked, “How did
TWA help you to become a better reader?” he stated, “Now I remember to reread and watch my speed. I talk about the author’s purpose.” When asked, “What about TWA helps you the most?” Justin answered, “What I want to learn. If you have questions you ask, you can find that out.” Also, Justin said TWA helped him to become a better reader: “I need to reread and link. I have to watch my reading speed. It really helps!”

Discussion

Systematic, explicit instruction in skills employed by good readers with self-monitoring is recommended evidence-based practice for readers with disabilities (Gajira, Jitendra, Sood, & Sacks, 2007; Gersten, Fuchs, Williams, & Baker, 2001; Mastropieri & Scruggs, 1997). For both Justin and Marshall, TWA with added discussion questions appeared to help them manage and self-monitor strategy use to improve comprehension of science passages in an instructional setting. These outcomes provide support for use of TWA; however, because we used an AB rather than a true single-subject design, we present our experience as a descriptive rather than an experimental study. We cannot rule out the effects of one-on-one instructional setting or anticipate how TWA’s potential might generalize to other settings and students. In addition, the slope of Marshall’s improvement during baseline and intervention appear similar. Additional baseline data may have provided clearer differentiation of these two conditions. Nevertheless, our results suggest that ongoing use of TWA may benefit students with ADHD and disabilities. Why does systematic explicit instruction like TWA help students understand informational text?

Sustained practice with strategies

Rogevich and Perin (2008) pointed out that “applying previously learned skills in a new situation requires cognitive flexibility, a sustained level of attention, and planning ability—areas that are particularly challenging for students with attentional deficits” (p. 149). However, all students may need additional support when attempting to use informational text (Best et al., 2008). Similar to many of their typically achieving peers (Otero, 2002; Saenz & Fuchs, 2003), Justin and Marshall found that the demands of challenging informational text used in science exceeded their ability to accurately comprehend. Teaching ways to think about text content as well as how to sustain strategy use and monitor progress may add to the success experienced by striving readers with attention problems. However, support should be maintained until students are both effective and efficient users of the strategies; otherwise they may lapse into familiar, albeit ineffective strategies which they previously used (Otero, 2002).

The TWA checklist helped students self-manage their strategy use, a technique that has been effective in other studies (Jitendra et al., 2000; Malone & Mastropieri, 1992). Because TWA relies on the use of a checklist during early lessons (Mason, 2004), participants received both cues reminding them of the task at hand and reinforcement for completing the task. As this checklist was faded, readers learned to write the TWA mnemonic at the top of the passages during lessons. Readers with ADHD may need extended periods of guided practice in using self-monitoring across multiple learning contexts before they recognize the strategies’ usefulness outside of tutoring experiences.

Sustained attention

DuPaul (2007) stressed that students with ADHD must learn to read without engaging in disruptive, inattentive behaviors that distract them from comprehending. Teachers often modify reading tasks for students with ADHD by breaking work into smaller segments (Montague & Warger, 1997). When using TWA, the reading task is modified by chunking long passages into smaller pieces (Mason, 2004; Mason, Meadan, et al., 2006; Mason, Snyder, et al., 2006). Specifically, pauses at the end of paragraphs allowed readers to think about and identify main ideas, delete unimportant information, and summarize, as well as rehearse passage information. Furthermore, because the passages were chunked into paragraphs, Justin and Marshall needed to sustain their attention over relatively short segments of texts. These planned interruptions may have created the space needed by readers to monitor their comprehension (Crain-Thoresen, Lippman, & McClendon-Magnuson, 1997). Systematic breaks in decoding of text may allow time and opportunity for readers to reflect on meanings, engage in word solving, build connections within and between sections of text, and draw on background knowledge.

Explicit purpose for reading

Although the stated purpose of each lesson was to use TWAs steps, the underlying message was to understand what was read. Considering the author’s purpose, developing comprehension questions in the What I Want to Learn step, and identifying main ideas all helped readers focus their attention on meaning making. During early lessons, the students’ attention may have been divided between learning TWAs steps and learning the content. However, by Lesson 7, both Justin and Marshall mastered the steps and had more attention to allot to comprehending, the ultimate goal of reading. To foster this learning over time, both students may have benefited from a longer initial instructional period to foster development and control over both the strategy steps, the discussion that accompanies comprehension, and the passage content. Providing booster lessons over time and in different contexts (e.g.,
different instructor) can support generalization and maintenance (Harris, Santangelo, & Graham, 2008) and should have been considered for Justin and Marshall. Specific feedback on task performance immediately after instruction may help students tie successes to their TWA use as they practice over time (Reis, 2002).

Conclusion

In this era of evidence-based instructional approaches, TWA provides a promising method for addressing the comprehension problems experienced by children with ADHD and comorbid disabilities. SRSD instruction for TWA combines proven strategies such as identifying main ideas, rereading, and summarizing and supports student learning by providing them procedures for self-regulating strategy use. Systematic explicit instruction in evidence-based practices improved the oral retell scores for the two students in our investigation over 10 lessons. Although we had to withdraw support in the context of our investigation, instruction over longer periods of time with continued support from teachers may allow them to internalize and sustain the comprehension monitoring and repair activities used by good readers. Readers with attention-related disabilities may experience improved comprehension as they adopt these effective monitoring and repair practices.

Author notes

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References


Brock, S. E. (1996, March). The reading comprehension ability of children with ADHD. Paper presented at the annual meeting of the National Association of Psychologists, Atlanta, GA.


Hedin, Mason, and Gaffney


