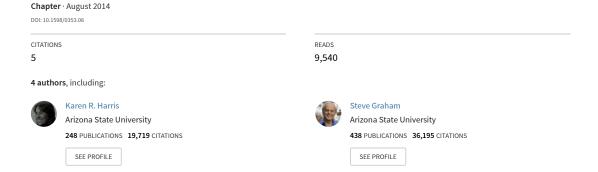
# Turning Broccoli Into Ice Cream Sundaes: Self-Regulated Strategy Development for Persuasive Writing Using Informational Text



# Turning Broccoli Into Ice Cream Sundaes

# Self-Regulated Strategy Development for Persuasive Writing Using Informational Text

Karen R. Harris, Steve Graham, Amber B. Chambers, & Julia D. Houston, Arizona State University

ecently, a second grader excitedly told her mom (an English language arts coordinator for the district where her daughter attends school) that she now loves writing and is really good at it! The mother contacted her daughter's teacher and asked, "How did you turn writing, which used to be like broccoli in our home, into ice cream sundaes?" The teacher, delighted with the question, launched into a brief description of the writing "tricks" that she had taught her students after recent, intensive professional development in the self-regulated strategy development (SRSD) approach to teaching strategies for writing and self-regulation of the writing process (L. Laud, personal communication, February 4, 2014).

In this chapter, we share with you the SRSD approach to teaching writing, which has been used effectively in grades 2–12, as well as with adults. Although the strategies taught become progressively more sophisticated and complex across grades and development, the basic instructional methods remain the same. Here, we describe instruction with struggling fourth- and fifth-grade students who learned to write strong persuasive essays using informational text as a source.

# Why We Need to Focus on Writing Instruction

Poor writing abilities make it difficult for students to effectively use writing as a tool for learning, communication, and self-expression. Writing about

material read or presented in class enhances students' learning (Bangert-Drowns, Hurley, & Wilkinson, 2004; Graham & Hebert, 2010). Beyond the school years, good writing is also critical, as over 90% of white-collar workers and 80% of blue-collar workers report that writing is important to job success (National Commission on Writing for America's Families, Schools, and Colleges, 2006).

A major problem facing schools today is that the majority of students are not capable writers. On the National Assessment of Educational Progress in the United States (Salahu-Din, Persky, & Miller, 2008), only 33% of grade 8 and 24% of grade 12 students performed at or above the proficient level (defined as solid academic performance) in writing. Further, 55% of grade 8 and 58% of grade 12 students scored at or below the basic level, denoting only partial mastery of the writing skills needed at these grade levels. Other countries report similar challenges (Festas et al., in press).

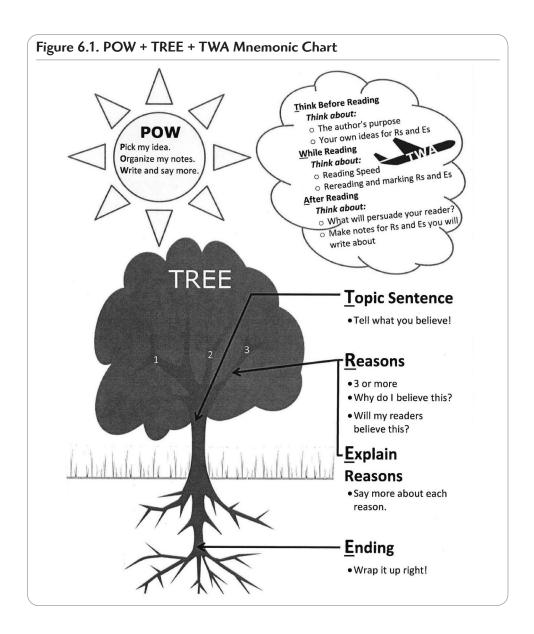
Why are students facing such difficulties in learning to write? First, writing is challenging and typically must be developed across grades K-12 and into postsecondary employment or education. Skilled writing is complex, requiring extensive self-regulation of a flexible, goal-directed, problem-solving activity. In addition to basic skills, students must also develop knowledge and understandings about the writing process, genre knowledge, and strategies for writing and self-regulating the writing process (Bereiter & Scardamalia, 1987; Fitzgerald, 2013; Harris & Graham, 2009). The National Commission on Writing for America's Families, Schools, and Colleges (2006), however, reported that of the three Rs, writing has become the most neglected in classrooms; reading, math, and science have also received priority over writing in funding for research (Harris, Graham, Brindle, & Sandmel, 2009). Further, research indicates that the majority of teachers report inadequate pre- and inservice preparation in writing instruction and infrequently using evidence-based approaches to teaching writing. Finally, many of the major approaches to teaching writing used in schools today have been developed based on theoretical or paradigmatic stances and general research on learning and writing and lack a sound evidence base.

In the United States, concern about writing development is reflected in the new grade-level expectations for writing to meet the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). The Standards focus on the acquisition of foundational writing skills, such as handwriting and spelling, as well as the following: (1) writing for multiple purposes (narrate, persuade, inform/explain); (2) producing and publishing well-organized text that is appropriate to the task and the purpose by increasingly applying processes involving planning, revising, editing, and collaborating with others; (3) using writing to build knowledge about specific topics or materials read; and (4) applying writing to extend and facilitate learning in a range of discipline-specific subjects as well as across purposes and audiences.

A prominent emphasis in the Common Core is learning how to write logical, coherent, and compelling arguments. Opinion essays (based on one's own ideas and experiences) are emphasized in the early grades, with persuasive essays (using your own ideas and reading source material that can provide facts, details, and so forth) emphasized beginning in grade 4 (Graham, Harris, & Santangelo, in press). The Common Core specifies that fourth and fifth graders need to be able to use texts they've read to write persuasive essays that support a clearly presented position with logically ordered and linked reasons. These reasons should be backed by facts and details, and the essay should end with an effective conclusion. Further, Common Core requirements, such as reading text to assist in writing persuasive essays, underscore the need to develop reading and writing strategies that work together, because learning to write and writing to learn are critical across the school years and beyond (Harris & Graham, 2014). In this chapter, after providing the evidence base for SRSD, we share how to use SRSD instruction to teach students to do a close reading of informational text and then use what they have learned in writing a persuasive essay. Figure 6.1 includes an overview of the strategies that our fourth and fifth graders have learned to succeed at this task.

# Developing Writers Who Meet Common Core Expectations: The Role of Evidence-Based Practices

Although the Common Core is far from perfect in the area of writing and changes will undoubtedly be needed (Graham et al., in press), it offers an orderly progression and road map for writing development across the grade



levels. This is a major advance and one we hope will contribute to better writing development. The Common Core is purposefully silent, however, about how these writing benchmarks are to be achieved. No guidance regarding how to teach writing is provided. We believe that using evidence-based approaches in teaching writing will make a critical difference, as will

increasing the time and attention given to writing development (Graham et al., in press).

A large body of evidence-based practices for teaching writing now exists (as can be seen in Chapter 2 of this book), although more work is clearly needed. We focus in this chapter on one powerful evidence-based approach making a difference in students' writing development: SRSD. Over 100 studies of SRSD (including true experiments, quasi-experiments, and single-subject design studies) have been conducted across grades 2–12 and with adults (cf. Graham, Harris, & McKeown, 2013). These studies provide convincing evidence that SRSD is an effective method for teaching writing strategies to students who represent the full range of writing ability in a typical class, as well as struggling writers and students with writing and other disabilities. As Harris, Graham, and Adkins (2014) explained, SRSD has been used effectively with whole classes (Tier 1), small groups (Tier 2), and individual students (Tier 3).

SRSD for writing has been deemed an evidence-based practice in the Institute for Education Sciences' practice guide *Teaching Elementary School Students to Be Effective Writers* (Graham et al., 2012) and by a panel of independent researchers (Baker et al., 2009). SRSD received strong ratings from the National Center on Intensive Intervention and was identified as having the strongest impact of any strategies instruction approach in writing in *Writing Next: Effective Strategies to Improve Writing of Adolescents in Middle and High Schools*, commissioned by the Carnegie Corporation of New York (Graham & Perin, 2007). SRSD research has resulted in the development of writing strategies (with the assistance of teachers and their students) for multiple genres, including personal narratives, opinion and persuasive essays, report writing, expository essays, story writing, and state writing tests. SRSD research has also been conducted on the integration of reading and writing strategies to improve both reading and writing (Mason, Reid, & Hagaman, 2012).

# SRSD in Writing: What and How

In this section, we provide an overview of the SRSD instructional model and process. First, we describe key characteristics critical to success with SRSD. Next, we outline the six stages in the SRSD instructional framework. Finally, we illustrate how SRSD was used to teach fourth- and

fifth-grade students how to plan and write persuasive essays using informational text as required in the Common Core. Although we did this work with small groups of struggling writers in grades 4 and 5, the strategies taught have been validated with whole classes (see Harris et al., 2012, for further discussion of whole-class instruction and effective professional development for teachers). Our description of SRSD here must be brief. Interested readers, however, can find more detailed information about the instructional stages and process, a wide range of strategies, lesson plans, recommendations for evaluation, and other SRSD-related materials in the resources listed in Table 6.1.

Extensive research and practice indicate that six characteristics are essential to optimizing outcomes with SRSD; ignoring these critical

#### Table 6.1. Resources for Self-Regulated Strategy Development (SRSD)

#### **Publications for Teachers**

- Graham, S., & Harris, K.R. (2005). Writing better: Effective strategies for teaching students with learning difficulties. Baltimore, MD: Paul H. Brookes.
- Harris, K.R., & Graham, S. (1996). Making the writing process work: Strategies for composition and self-regulation (2nd ed.). Cambridge, MA: Brookline.
- Harris, K.R., Graham, S., Mason, L.H., & Friedlander, B. (2008). *Powerful writing strategies for all students*. Baltimore, MD: Paul H. Brookes.
- Mason, L.H., Reid, R., & Hagaman, J.L. (2012). Building comprehension in adolescents: Powerful strategies for improving reading and writing in content areas. Baltimore, MD: Paul H. Brookes.
- Sandmel, K.N., Brindle, M., Harris, K.R., Lane, K.L., Graham, S., Nackel, J., Mathias, R., & Little, A. (2009). Making it work: Differentiating Tier two selfregulated strategies development in writing in tandem with schoolwide positive behavioral support. *Teaching Exceptional Children*, 42(2), 22–33.

#### Web-Based and Other Resources

- IRIS Center modules on SRSD and writing: iris.peabody.vanderbilt.edu
- Selected lesson plans and teaching materials from Project Write: kc.vanderbilt.edu/ projectwrite
- This video shows SRSD being implemented in an elementary and a middle school classroom: Harris, K.R., Graham, S., & Deshler, D. (2002). *Teaching students with learning disabilities in the regular classroom* [DVD]. Alexandria, VA: Association for Supervision and Curriculum Development.
- Two nonprofit organizations are using a research-based approach to professional development in SRSD for teachers that has produced meaningful improvements in students' writing performance: Hill for Literacy (www.hillforliteracy.org) and thinkSRSD (www.thinksrsd.com).

characteristics can undermine SRSD instruction (cf. Harris et al., 2009). First, with SRSD, students are provided with supported, explicit instruction targeting (1) writing strategies for specific genres (e.g., persuasive essays); (2) general writing strategies (e.g., using powerful vocabulary, crafting engaging opening and closing sections); (3) self-regulation procedures that help manage the writing process and use of writing strategies (i.e., goal setting, self-monitoring, self-instructions, self-reinforcement); and (4) relevant declarative, conditional, and procedural knowledge (i.e., knowing what to do; how to do it; and when, where, and why to do it). The intensive and direct focus on developing writing processes and knowledge is a cornerstone of SRSD.

Second, many developing writers, especially those who experience difficulty with learning to write, also face affective and behavioral challenges in writing. Each of these is, therefore, addressed with SRSD. As part of this approach, teachers deliberately and repeatedly support students in their development of self-regulation, motivation, positive attitudes toward writing, and belief in themselves as capable writers. Numerous strategies are used to accomplish these goals. For instance, learning to write is an interactive, engaging, and collaborative process among teachers and students. Teachers initially provide the necessary level of scaffolding and support to ensure that students learn the targeted knowledge and strategies, but then gradually and purposefully release control for applying what is learned to the students. To help them overcome negative perceptions and attitudes toward writing, SRSD is embedded in an affirming and supportive instructional environment where writing is valued and prioritized. Examples of how teachers achieve this goal include the following:

- Projecting contagious enthusiasm during SRSD instruction
- Designing interesting, meaningful, and appropriately challenging writing projects
- Establishing a low-risk environment during writing time
- Making it clear to students how their effort and strategy use contribute to their writing development
- Providing frequent, constructive feedback
- Creating multiple opportunities for positive peer interactions and support

Third, SRSD instruction is individualized to optimize each student's writing development. Teachers use their knowledge of students' strengths and needs to differentiate both what and how they teach (see, e.g., Sandmel et al., 2009). For example, a teacher might modify a strategy to make it more complex for some students while initially simplifying it for others. Instruction is further individualized by having students establish personalized goals. The nature and frequency of support and feedback provided to students are also adjusted in response to their individual needs. When SRSD is used with an entire class, there are times when it is appropriate and beneficial for students to work together as a large group. At other times, teachers employ flexible grouping and have students work independently or with them in small groups, pairs, or individually (Harris et al., 2012, 2014).

Fourth, students move through SRSD instruction at their own pace. In other words, there is no preestablished, standardized timetable for moving through the SRSD instructional stages; rather, each student advances from one stage to the next when ready. Students are also provided with opportunities to revisit an earlier stage of instruction as needed. With this criterion-based approach, SRSD instruction ends for each student when he or she can independently apply and manage the targeted writing and self-regulation strategies successfully.

Fifth, multiple procedures that promote long-term maintenance (the desire and ability to continue using strategies after instruction ends) and generalization (appropriately and effectively applying strategies to other writing tasks and settings) are integrated throughout the stages of instruction. Here are some examples of how teachers facilitate maintenance and generalization:

- Helping students understand the purpose and benefits of using a strategy
- Providing booster sessions to review, discuss, and support strategy use as needed
- Facilitating students' critical consideration of when and how they should use a newly learned strategy and then evaluating these experiences
- Exploring how to adapt a strategy for different writing tasks and settings

- Creating a variety of peer support opportunities that target generalization and maintenance
- Bolstering strategy use through collaboration with other school professionals (e.g., other teachers, specialists) and family members

Finally, SRSD instruction should occur across genres and grade levels, allowing students to continue developing their use of writing and self-regulation strategies. Teachers lay the foundation for this developmental growth by helping students understand and appreciate the meaning and benefits of a particular strategy, along with its inherent limitations or weaknesses. Then, as students improve, they are provided with opportunities to refine and expand previously learned strategies, as well as learn new strategies that are aligned with evolving writing goals and tasks.

### The SRSD Instructional Process

The framework for SRSD instruction consists of six instructional stages: (1) develop background knowledge, (2) discuss it (the strategies and writing process), (3) model it, (4) memorize it, (5) support it (gradual release of control), and (6) independent performance. A detailed outline is provided in Table 6.2. The six stages of SRSD instruction are a flexible set of guidelines intended to be thoughtfully combined, modified, and revisited in response to students' and teachers' needs. For example, stages 1 and 2 typically are integrated together in the early lessons rather than being taught as distinctly different lessons. Advanced writers at any grade level may need individualized instruction and more challenging goals and strategies, whereas we have learned that struggling writers need to be able to write a complete sentence (even if it is simple, e.g., "The dog ran.") in order for SRSD to be appropriate for them.

SRSD lessons typically last 20–45 minutes and occur three to five days a week, depending on the students and time available for instruction. The total time required for students to learn and independently use targeted writing and self-regulation strategies will, of course, vary; however, it often takes less time than teachers anticipate. With elementary-age students, 8–15 lessons conducted over four to eight weeks is often sufficient to reach independent performance when addressing a writing genre.

#### Table 6.2. Self-Regulated Strategy Development Stages of Instruction

Stages 1 and 2 are often combined in instruction; a stage or combination of stages may take several lessons to complete; Stages 3 and 5 typically take the most time in instruction; instruction is often recursive across stages, and students should progress across stages as they meet criteria for doing so.

#### 1. Develop and Activate Knowledge Needed for Writing and Self-Regulation

- Read and discuss works in the genre being addressed (persuasive essays, reports, etc.) to develop declarative, procedural, and conditional knowledge (e.g., "What is an opinion?" "What are the parts of a persuasive essay, and are they all here?" "How do you think the author came up with this idea, and what would you do?" "What might the author have done to organize the ideas?" "What might the author do when he/she gets frustrated?"); appreciation of characteristics of effective writing (e.g., "How did the writer grab your interest?"); and other knowledge and understandings targeted for instruction. Continue development through stage 3 as needed until all key knowledge and understandings are clear.
- Discuss and explore both writing and self-regulation strategies to be learned; typically, begin development of self-regulation, introducing goal setting and ageappropriate means of self-monitoring (e.g., rocket graphs for elementary students, bar graphs for older students).

#### 2. Discuss It (Discourse is critical!)

- Discuss students' current writing and self-regulation abilities, their attitudes and beliefs about writing, what they are saying to themselves as they write, and how these factors might help or hinder them as writers; emphasize the roles of both effort and learning powerful strategies in becoming a better writer.
- Graphing the number of genre-specific essay elements and other targeted goals included in pretest or prior essays may be done; this will assist with goal setting (graphing prior writing can be skipped if students are likely to react negatively).
- Further discuss writing and self-regulation strategies to be learned: purposes, benefits, and how and when they can be used or might be inappropriate (begin generalization support).
- Introduce a graphic organizer for the writing genre and task being addressed.
- Analyze good, grade-appropriate model papers, taking notes from these papers on the graphic organizer to assist students in learning to make notes.
- Analyze poor essay models, take notes on a graphic organizer for a better essay, and write this essay collaboratively.
- Establish students' commitment to learning strategies and acting as collaborative partners; establish the roles of student effort and strategy use in becoming an effective writer.

(continued)

# Table 6.2. Self-Regulated Strategy Development Stages of Instruction (Continued)

#### 3. Model It

- Use interactive teacher modeling and/or collaborative modeling of writing and self-regulation strategies (including self-statements).
- Analyze and discuss strategies and the model's performance; make changes as needed.
- Students develop and record personal self-statements to assist them when writing.
- Model self-assessment and self-recording through graphing of modeled, collaboratively written compositions.
- Promote student development of self-regulation strategies across other tasks and situations; discuss use in other settings (generalization support).

#### 4. Memorize It

- Although begun in earlier stages, require and confirm memorization of strategies, the meaning and importance of each step in each strategy, any mnemonics, and self-instructions as appropriate.
- Continue to confirm and support memorization in following stages, making sure students have memorized the mnemonics, what they mean, and the importance of each step before stage 6.

#### 5. Support It

- Teachers and students use writing and self-regulation strategies collaboratively to achieve success in composing, using prompts such as strategy charts, personal selfstatements sheets, word lists (e.g., linking words, "million dollar words"/effective vocabulary), and graphic organizers.
- Challenging initial goals for genre elements and characteristics of writing are established collaboratively with students and individualized as needed; criterion levels are increased gradually until final goals are met.
- Prompts, guidance, and collaboration are faded individually (e.g., graphic organizer replaced with student creating mnemonic on scratch paper) until the student can compose successfully alone.
- Self-regulation components (goal setting, self-instructions, self-monitoring, and self-reinforcement) are all being used by this stage; additional forms of self-regulation, such as managing the writing environment and using imagery, may be introduced.
- Discuss plans for maintenance; continue support of generalization.

#### 6. Independent Performance

- Students are able to use writing and self-regulation strategies independently; teachers monitor and support/enhance as needed.
- Fading of overt self-regulation may begin (e.g., graphing may be discontinued, self-statements sheets may not be out during writing).
- Plans for maintenance and generalization continue to be discussed and implemented.

### SRSD for POW + TREE + TWA

Here, we present a brief description of how Chambers and Houston (the third and fourth authors of this chapter) recently taught small groups of fourth- and fifth-grade students to write persuasive essays using informational source text, as required by the Common Core. Each group consisted of three students; each student scored below the 25th percentile on a normed writing test but was able to write complete sentences when given a pretest. These students wrote strongly improved persuasive essays using source text after SRSD instruction, as we will illustrate.

It is unusual to ask fourth and fifth graders to write persuasive essays using source text. Typically, students in grades 2–5 have worked on writing opinion essays in which they take a stand on a topic, provide reasons and elaborations of these reasons in support of their opinion, and finish with a strong ending. They write these essays without source text, using their own ideas and experiences. A large body of research indicates that using SRSD to teach strategies referred to as POW + TREE has been very successful for teaching second through fifth graders to write opinion essays. POW (pick an idea, organize notes, and write and say more) guides students through the writing process and makes them a "POWerful" writer. TREE (topic sentence [Tell what I believe.], reasons [three or more; Why do I believe this? Will my readers believe this?], ending [Wrap it up right!], and examine [Do I have all of my parts?]) assists students in making and organizing notes for persuasive writing.

SRSD with other, more complex strategies for persuasive writing has been successful with middle and high school students (Harris et al., 2008; Mason, Davison, Hammer, Miller, & Glutting, 2013). These strategies for middle and high school students require both close reading of text and refuting opposing positions. We believed these strategies to be too difficult for struggling fourth- and fifth-grade writers. Because POW + TREE does not incorporate use of source text, we turned to another validated strategy for close reading of text referred to as TWA (think before reading, while reading, and after reading; Mason et al., 2013) and modified it to work for fourth and fifth graders in conjunction with POW + TREE. The resulting SRSD instruction for POW + TREE + TWA (see Figure 6.1) is described next. (Sample lesson plans and additional materials will be posted on the SRSD website when it launches.)

Prior to instruction, we read an informational text on being fit aloud with the students and then asked them to write a pretest essay responding to the following prompt: "Write an essay to your classmates persuading them to be fit kids." This pretest essay was written by a 9-year-old fourth grader named Avery (spelling is corrected) and was typical of these students' essays:

You should get fit because you will be fat unless you eat healthy foods. If you are not fit you might not be able to play sports. If you don't like sports, it is OK, you don't have to play sports. People play sports to get fit. It helps them lose weight faster. You should work out for 1 hour because you will be in shape. If you don't have money to go the gym, it is OK just run around the block or walk your dog. When you're done doing all of that go outside and just sit in the front of your house for now. If you have any questions for me, just ask me. Thank you for reading my story. Hope you enjoyed. Go outside. Don't play games all the time. Get outside. Play football, any sports. Have fun being a fit kid. Hope you like being fit.

# Stages 1 and 2: Develop Background Knowledge and Discuss It, POW + TREE

After the pretest, the first lessons combined developing background knowledge and discussing it (see Table 6.2). The initial focus was on POW + TREE for opinion essays on topics such as, "Should children your age get an allowance?" Persuasive essay writing (with informational text) using TWA was not introduced until later in instruction, as we believed it was important for these students to first understand and write opinion essays, providing a foundation for moving to persuasive writing using source text. Instruction included discussion of what students knew about opinion essay writing and foundational knowledge and concepts such as, What is an opinion? What does it mean to persuade someone? and What are the differences between facts and opinions? Students learned about a trick that all good writers use whenever they write (POW) and a trick for remembering the critical parts of a good persuasive essay (TREE; see Figure 6.1). Students discussed that good persuasive essays are fun to write and fun for others to read; make sense; and can convince your reader to agree with you. With their teacher, students found the parts of TREE in model opinion essays (one or two paragraphs in length and with three or more reasons included) and discovered the linking words that told the reader another reason was coming. A record of good linking words was started and added to throughout instruction. A graphic organizer for TREE was introduced (see Figure 6.2) and used to take notes from the sample essays with teacher guidance; this activity was critical because these students needed to develop the ability to take notes rather than write out full sentences when they planned. Students also read poor essays, discussed

Т	Topic Sentence: Tell what you believe.
R E	Reasons – 3 or more. Explain each reason further.  Reason:
	Explanation:
8	Reason:
	Explanation:
	Reason:
3.0	Explanation:
E	Ending: Wrap it up right.

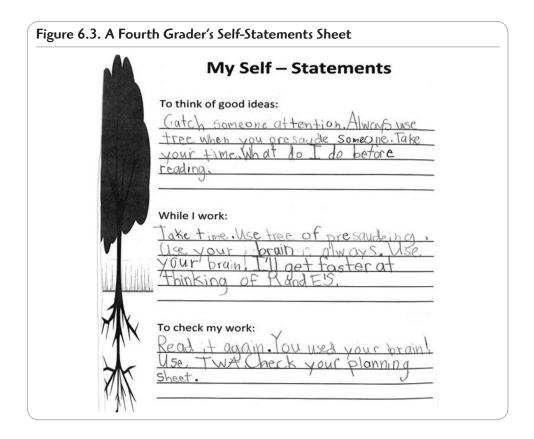
what was wrong with them, and made notes on a graphic organizer for better parts. Together with their teacher, they wrote new essays that had all the necessary parts and were persuasive.

Throughout these lessons and stage 3, memorization of the strategy mnemonics POW + TREE and the meaning and importance of each step was emphasized. Students can also learn to evaluate and graph their performance on a pretest at this time (see Table 6.2); we delayed this until later, however, just before we introduced TWA.

## Stage 3: Model It, POW + TREE

Next, the teacher modeled using POW + TREE to write a good opinion essay, with the students helping her as she decided on each element, made notes on the graphic organizer, and then wrote the essay, adding more ideas as she wrote. She began by setting her goals: to include all the parts of a good opinion essay, to write an essay that is fun to read and fun to write, and to try hard to persuade the reader. While modeling, she offered a running think-aloud to help students understand the internal thoughts, dialogue, and actions that good writers use when they compose. For example, she used self-statements to help focus her attention and use the strategy steps ("What is the first thing I need to do?"), stay on task ("Don't think about other stuff. Stay focused!"), monitor performance ("Will this introduction catch my reader's attention?"), cope with frustration ("I can do this. Take a deep breath and try again."), and reinforce effort ("I knew I could think of a better explanation for that reason.").

Self-monitoring of writing performance was introduced by having students evaluate each essay written together, count the number of parts included, and record this number on a rocket graph. Each student received their own sheets of rocket graphs on which to record first the group performance on essays written together and later their independent performance each time they wrote alone (see Figure 6.3). A basic essay should have eight parts: the topic sentence, three reasons with an explanation for each (six total parts), and an ending. When essays included more than one explanation for a reason or more than three reasons (and corresponding explanations), students "busted the rocket" and wrote the total number of parts at the top. Finally, a star by the rocket was colored in for each linking word used in the essay.



## Stage 4: Memorize It, POW + TREE

Students had worked to memorize the strategy steps and their importance, along with the corresponding mnemonics POW + TREE, throughout the previous lessons, using peer practice, rapid fire games, and so forth. At this point, the teacher simply made sure that each student had these down, or provided further practice if needed.

# Stages 5 and 6: Support It and Independent Performance, POW + TREE

As can be seen in Table 6.2, the teacher initially wrote collaboratively with students, providing as much guidance and support as needed. As students became more confident and capable, the teacher gradually released control to them until they were able to write opinion essays with eight parts or

more on their own. Students used scratch paper to note the parts of TREE and make notes, rather than a graphic organizer. In addition, students now evaluated and graphed their performance on the pretest that they had taken. As noted previously, we had delayed this until students learned TWA. They were given the pretests that they had written with the use of source text, and each student scored and graphed their pretest essay using the rockets and guidelines that they had learned. This activity was done in a positive, supportive manner to emphasize how much students had learned and how much their writing was improving. Such visual representations of progress promote motivation.

At this point, it was time to move on to persuasive writing using source text. We began the six stages of SRSD instruction again, but this time we moved into incorporating TWA for use with POW + TREE as described next.

# Stages 1 and 2: Develop Background Knowledge and Discuss It; Add TWA and Making Notes Using Source Text

Students were introduced to the TWA strategy for close reading (see Figure 6.1). We developed the texts used with these struggling writers to control for length, reading level, and complexity, as recommended by Mason et al. (2013) for initial development of the TWA strategy with students. The teacher guided discussion of the characteristics and purpose of informational text; helped students understand that informational text includes main ideas, details, and facts; and discussed how the TWA strategy would help them identify information from text that can be used in writing to persuade. The teacher and students discussed how main ideas, details, and facts can help us think about how to persuade our readers. The big/main ideas can help us with reasons, and the details can help us with explanations or even reasons. Facts can help persuade a reader, too.

The importance of also using your own ideas for reasons and explanations was emphasized strongly, as good writers do both. The teacher and students read several informational texts together until students were comfortable with marking texts for ideas for reasons and explanations. Students were offered highlighters to mark the source text for potential reasons and explanations but preferred to underline selected parts of text and mark them with Rs and Es instead.

### Stage 3: Model It; Add TWA

As described previously and further detailed in Table 6.2, the teacher now modeled again with collaboration from the small group of students, using TWA in conjunction with POW + TREE. Two or more essays were written together, the teacher and students evaluated each essay for the number of elements included, and students graphed the scores on rockets as described previously. In addition, students now also colored a star for each linking word used and for each element developed from the source text. Finally, students generated personal self-statements to use with the steps of TWA and wrote these on their self-statements sheets.

# Stages 4 and 5: Memorize It and Support It; Add TWA and Evaluate Pretest Performance

These stages again mirrored the earlier descriptions.

### Stage 6: Independent Performance; POW + TREE + TWA

As the teachers gradually released control to the students (see Table 6.2), each student reached independent performance and was ready for posttesting. These students reached independent performance in approximately twenty 35-minute lessons. Although this is longer than typical for elementary-age students and SRSD, these students learned more strategies than is typical as well. Avery's posttest, which follows, provides an illustration of the gains made in this relatively short period of instruction. Informational text was provided and the prompt was, "Write an essay to your classmates persuading them that teamwork is a good idea." Avery read, planned, and then wrote the following:

Listen up! You should have teamwork. Teamwork is fun. One of my major reasons is teams are good for people. A team can help you meet new kids. Next, you can split chores at home or school. Each kid can do a chore. The strong kid can lift heavy trash bags. The smaller kid can clean under the beds. My third reason is you can make new friends on teams. That makes teamwork fun. Finally, people are working together. People can work together in sports, home, and school. That is why you should have team work so you can split up chores, work together, and make new friends. That is good for people.

In addition to this pretest and posttest example, we provide further illustrations using the work of another student, Taurean. Figure 6.3 includes the self-statements that Taurean developed during the POW + TREE phase of SRSD instruction. Figure 6.4 captures his marking of possible reasons and explanations on source text, and Figure 6.5 illustrates the notes he made for this essay in a graphic organizer created on scratch paper. Figure 6.6 is the essay that Taurean wrote independently after completing his notes on

Figure 6.4. "Rainforests" Text Marked by Taurean

#### Rainforests

Rainforests are forests that get lots of sun and lots of rain. Many kinds of tall trees and many kinds of plants live in the rainforests. Millions of animals and insects live in rainforests. Scientists say there may be more than a million plants and animals in the rainforest we have not discovered yet. Some people live in the rainforests too.



Rainforests are very important. They help people and the Earth in many ways. Rainforests help make rain clouds and the Earth needs rain. R Rain also helps the rainforest to stay healthy. People need rain so that they have water to drink and use. Rainforests also make lots of the R oxygen we have on Earth. People and animals need oxygen to live. Rainforests also help keep our air clean and healthy.

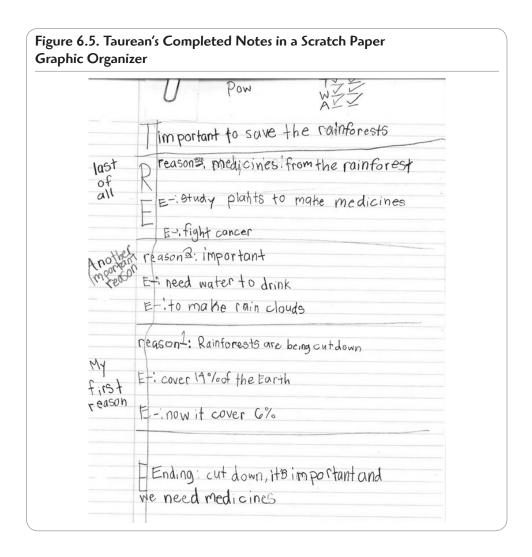


Many plants only grow in rainforests. Scientists study these plants and learn how to make new medicines people need. Over 70% of the E3 medicines we have to fight cancer come from rainforest plants. Many more medicines people need come from rainforest plants. Scientists believe we will discover thousands of new medicines by studying rainforest plants. Many foods come from rainforest plants too, like chocolate and bananas.

Rainforests are being cut down. They use to cover 14% of the Earth's surface. Rainforests now cover only 6% of the Earth's surface. RySoon we may have no rainforest at all! People cut down and sell the Ey trees. People dig up and sell minerals from the ground. They make roads to get to the trees and minerals. Roads help people take away more and more trees. Plants and animals die. Some people lose their homes.

A

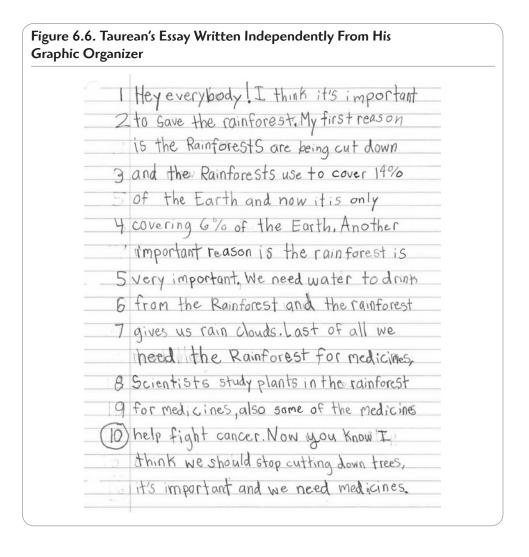
What will happen if we keep cutting down rainforests? When the plants are gone, we cannot find new medicines. Will we have enough rain? Will we have enough oxygen and clean air? Will foods we like be hard to get? What else can you think of that will be a problem if we keep cutting down rainforests?



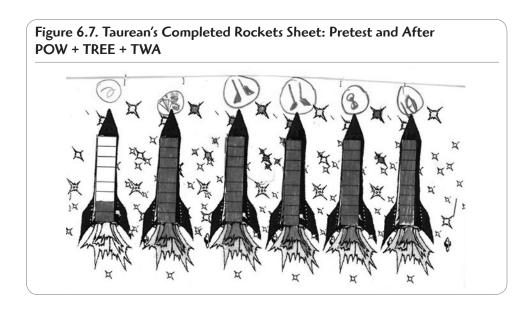
his graphic organizer. Finally, Figure 6.7 is his sheet of completed rockets, beginning with his pretest and showing the number of parts (see the number above each rocket) in essays written in stages 5 and 6.

### Conclusion

In approximately 10 hours of instructional time, spread over 35-minute lessons held four times a week, these struggling 9–10-year-old writers made



remarkable gains. Are they done learning and developing as persuasive writers? Of course not. SRSD provides a beginning, as we have long argued. These students now have a strong foundation on which they can build as they learn to set new goals, write longer and more persuasive essays using revising strategies and more sophisticated persuasive writing strategies, read and analyze more complex text, use more than one source text, and rebut opposing viewpoints (see Harris et al., 2008; Mason et al., 2012). All of this takes time and development, and we hope the time and



instruction that these students need to become competent writers will be provided as they progress through the grades to come.

Further, SRSD for writing is neither a complete writing program nor a silver bullet. Many more components of evidence-based instruction in writing are important in building strong writers, and each student and class will have differing needs (see Chapter 2 in this book). Much more research is needed on SRSD; additional strategies for differing genres at different grade levels need to be developed. More research on effective professional development for SRSD (cf. Harris et al., 2012, 2014) is also needed. For now, the evidence base allows us to encourage you to learn more and use the validated SRSD instructional approach and validated writing strategies with your students.

#### REFERENCES

Baker, S.K., Chard, D.J., Ketterlin-Geller, L.R., Apichatabutra, C., & Doabler, C. (2009). Teaching writing to at-risk students: The quality of evidence for self-regulated strategy development. Exceptional Children, 75(3), 303–318.

Bangert-Drowns, R.L., Hurley, M.M., & Wilkinson, B. (2004). The effects of school-based writing-to-learn interventions on academic achievement: A meta-analysis. *Review of Educational Research*, 74(1), 29–58. doi:10.3102/00346543074001029

- Bereiter, C., & Scardamalia, M. (1987). The psychology of written composition. Hillsdale, NJ: Erlbaum.
- Festas, I., Oliveira, A., Rebelo, J., Damião, M., Harris, K.R., & Graham, S. (in press). The effects of self-regulated strategy development (SRSD) on the writing performance of eighth-grade Portuguese students. *Contemporary Educational Psychology*.
- Fitzgerald, J. (2013). Constructing instruction for struggling writers: What and how. *Annals of Dyslexia*, 63(1), 80–95. doi:10.1007/s11881-011-0063-z
- Graham, S., Bollinger, A., Olson, C.B., D'Aoust, C., MacArthur, C., McCutchen, D., & Olinghouse, N. (2012). Teaching elementary school students to be effective writers: Educator's practice guide (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Graham, S., & Harris, K.R. (2005). Writing better: Effective strategies for teaching students with learning difficulties. Baltimore, MD: Paul H. Brookes.
- Graham, S., Harris, K.R., & McKeown, D. (2013). The writing of students with learning disabilities, meta-analysis of self-regulated strategy development writing intervention studies, and future directions: Redux. In H.L. Swanson, K.R. Harris, & S. Graham (Eds.), Handbook of learning disabilities (2nd ed., pp. 405–438). New York, NY: Guilford.
- Graham, S., Harris, K.R., & Santangelo, T. (in press). Research-based writing practices and the Common Core: Meta-analysis and meta-synthesis. *The Elementary School Journal*.
- Graham, S., & Hebert, M. (2010). Writing to read: Evidence for how writing can improve reading. Washington, DC: Alliance for Excellent Education.
- Graham, S., & Perin, D. (2007). Writing next: Effective strategies to improve writing of adolescents in middle and high schools. Washington, DC: Alliance for Excellent Education.
- Harris, K.R., & Graham, S. (1996). *Making the writing process work: Strategies for composition and self-regulation* (2nd ed.). Cambridge, MA: Brookline.
- Harris, K.R., & Graham, S. (2009). Self-regulated strategy development in writing: Premises, evolution, and the future [Monograph]. British Journal of Educational Psychology, Series 2(6), 113–135. doi:10.1348/978185409X422542
- Harris, K.R., & Graham, S. (2014). Integrating reading and writing instruction. In B. Miller, P. McCardle, & R. Long (Eds.), *Teaching reading and writing: Improving instruction and student achievement* (pp. 35–44). Baltimore, MD: Paul H. Brookes.
- Harris, K.R., Graham, S., & Adkins, M. (2014). Practice-based professional development and self-regulated strategy development for Tier 2, at-risk writers in second grade. Contemporary Educational Psychology. Advance online publication. doi:10.1016/ j.cedpsych.2014.02.003
- Harris, K.R., Graham, S., Brindle, M., & Sandmel, K. (2009). Metacognition and children's writing. In D.J. Hacker, J. Dunlosky, & A.C. Graesser (Eds.), Handbook of metacognition in education (pp. 131–153). New York, NY: Routledge.
- Harris, K.R., Graham, S., & Deshler, D. (2002). *Teaching students with learning disabilities in the regular classroom* [DVD]. Alexandria, VA: Association for Supervision and Curriculum Development.
- Harris, K.R., Graham, S., Mason, L.H., & Friedlander, B. (2008). *Powerful writing strategies for all students*. Baltimore, MD: Paul H. Brookes.

- Harris, K.R., Lane, K.L., Graham, S., Driscoll, S.A., Sandmel, K., Brindle, M., & Schatschneider, C. (2012). Practice-based professional development for self-regulated strategies development in writing: A randomized controlled study. *Journal of Teacher Education*, 63(2), 103–119. doi:10.1177/0022487111429005
- Mason, L.H., Davison, M.D., Hammer, C.S., Miller, C.A., & Glutting, J.J. (2013).
  Knowledge, writing, and language outcomes for a reading comprehension and writing intervention. *Reading and Writing*, 26(7), 1133–1158. doi:10.1007/s11145-012-9409-0
- Mason, L.H., Reid, R., & Hagaman, J.L. (2012). Building comprehension in adolescents: Powerful strategies for improving reading and writing in content areas. Baltimore, MD: Paul H. Brookes.
- National Commission on Writing for America's Families, Schools, and Colleges. (2006). Writing and school reform. New York, NY: College Board.
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). Common Core State Standards for English language arts and literacy in history/social studies, science, and technical subjects. Washington, DC: Authors.
- Salahu-Din, D., Persky, H., & Miller, J. (2008). The Nation's Report Card: Writing 2007 (NCES 2008-468). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U. S. Department of Education.
- Sandmel, K.N., Brindle, M., Harris, K.R., Lane, K.L., Graham, S., Nackel, J., Mathias, R., & Little, A. (2009). Making it work: Differentiating Tier two self-regulated strategies development in writing in tandem with schoolwide positive behavioral support. Teaching Exceptional Children, 42(2), 22–33.

#### **ABOUT THE AUTHORS**



Karen R. Harris is the Warner Professor in the Division of Educational Leadership and Innovation at the Mary Lou Fulton Teachers College, Arizona State University, Phoenix, Arizona, USA. Before earning her doctoral degree, she taught kindergarten and fourth-grade students

and then elementary and secondary students in special education. Her research focuses on children's writing. She developed the SRSD model of strategies instruction, and her current research focuses on professional development for SRSD for teachers working in general and special education. A former editor of the *Journal of Educational Psychology*, she also served as a coeditor of the *APA Educational Psychology Handbook* (American Psychological Association, 2012) and has authored over 200 peer-reviewed publications. She is the president of the Division for Educational Psychology of the American Psychological Association and has served as the president of the Division for Research of the Council for Exceptional Children and as an officer for the American Educational Research Association.



Steve Graham is the Warner Professor of Education at Arizona State University in Phoenix, Arizona, USA. He is the former editor of *Exceptional Children*, *Contemporary Educational Psychology*, and the *Journal of Writing Research* and the incoming editor of

the Journal of Educational Psychology. Graham served as a coeditor of the Handbook of Learning Disabilities (2nd ed., Guilford, 2013), Handbook of Writing Research (Guilford, 2008), and APA Educational Psychology Handbook (American Psychological Association, 2012). He also coauthored three Carnegie Corporation reports, all published by the Alliance for Excellent Education: Writing Next: Effective Strategies to Improve Writing of Adolescents in Middle and High Schools (2007), Writing to Read: Evidence for How Writing Can Improve Reading (2010), and Informing Writing: The Benefits of Formative Assessment (2011).



Amber B. Chambers is a doctoral student in the College of Education at Arizona State University, Tempe, USA. She is working toward her PhD in learning, literacy, and technology, with a specialization in special education. Amber's passion for working with individuals with disabilities

began when she was a camp counselor and a director for youths and teens with disabilities. She has experience in teaching students with learning disabilities, autism, intellectual disabilities, and emotional and behavioral disorders. Amber was also the director of a high school special education program. Her research interests focus on reading and writing interventions to help students with disabilities succeed in school. She is interested in strategy and self-regulation approaches to instruction for students who struggle with learning. Amber aims to use her knowledge, gained through research, to help current teachers and prepare future teachers to use effective instructional techniques when teaching struggling learners and students with disabilities.



Julia D. Houston is working toward her PhD in learning, literacy, and technology at the Mary Lou Fulton Teachers College at Arizona State University, Tempe, USA. She spent nearly 15 years as a general education classroom teacher, teaching all the content areas and all

grades, K–12, while teaching in district and charter schools, in online and on-site settings. Julia's master's degree in curriculum and instruction with an emphasis in early childhood education provides a strong foundation for her research interests, which include using instructional strategies to develop effective classrooms. Her research will enhance schools by helping educators and students understand themselves as learners and optimally utilize available technology.