

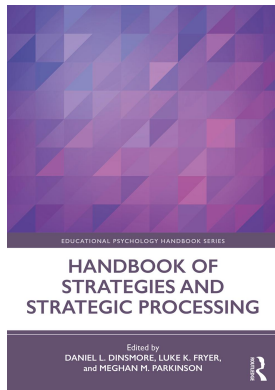
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Daniel L. Dinsmore, Luke K. Fryer, Meghan M. Parkinson

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Steve Graham, Gerardo Bañales, Silza Ahumada, Pamela Muñoz, Prisila Alvarez, Karen R. Harris

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9

WRITING STRATEGIES INTERVENTIONS

Steve Graham

ARIZONA STATE UNIVERSITY AND UNIVERSITY ANDRES BELLO, CHILE

*Gerardo Bañales, Silza Ahumada,
Pamela Muñoz, and Prisila Alvarez*

UNIVERSITY ANDRES BELLO, CHILE

Karen R. Harris

ARIZONA STATE UNIVERSITY, USA

When describing how they write, many professional writers indicate they are very strategic. They apply strategic processes to help them manage the writing task, their writing behavior, and the writing environment (Zimmerman & Risemberg, 1997). For instance, John Irving indicated that before writing *Cider House Rules*, he invested a considerable amount of time and effort in planning, gathering information, making notes, observing, witnessing, and studying (Plimpton, 1958). Similarly, when writing *The Naked and the Dead*, Norman Mailer created an extensive dossier and charts on each character, outlining their actions and interactions (Plimpton, 1967). Truman Capote reported that he was constantly monitoring and evaluating what he wrote, repeatedly reworking his papers, creating and revising a first draft by hand, revising again at the typewriter, and revising once again after letting the paper sit for a week or more (Cowley, 1958).

While strategic writing is a trademark of professional writers (Graham & Harris, 2000), it is also evident in the writing of children. Consider below the description from a fifth-grade student of what good writers do when they write. It is reflective of the sophisticated strategies described by more skilled writers above.

They brainstorm ideas ... then think about it and then write about it ... look it over to see how to make it all fit in right ... then they do a final copy and go over that. And then if it is still not right, they do it again.

(Graham & Harris, 1996, p. 347)

These examples illustrate some of the strategic processes that skilled and developing writers apply: planning, seeking information, record keeping, organizing, monitoring, evaluating, and revising. They are only the tip of the iceberg though (Zimmerman & Risemberg, 1997), as writers also set goals (rhetorical and content goals as well as tactics for achieving them), self-instruct (e.g., telling themselves what needs to be done), rehearse (e.g., try out a scene in their head before writing it), structure the environment (e.g., find a quiet place to write), self-reinforce (e.g., provide themselves with a reward for completing one or more aspects of a writing task), seek help (e.g., ask another person to provide feedback on the text produced so far), emulate models of good writing (e.g., use another piece of writing as a guide), and manage time (e.g., estimate how much time to spend on each aspect of the writing task).

Young children, in contrast, commonly use an approach to writing that minimizes the use of highly demanding strategic behaviors. They convert writing into tasks of telling what one knows (Scardamalia & Bereiter, 1986). They draw information from memory that seems topic appropriate and write it down, with each new phrase or sentence serving as the stimulus for the next idea. They devote little attention to the constraints imposed by the topic, the development of rhetorical goals, the needs of the audience, or the organization of text. The role of planning, revising, and other strategic processes are minimized, as this retrieve-and-write process acts almost like an encapsulated and automated program, operating with little metacognitive control (McCutchen, 1988). This knowledge telling approach is not necessarily thoughtless though, rather it is forward moving, with little to no recursive interplay among writing processes.

While the knowledge telling approach remains a useful and viable option for some types of writing throughout life, an important goal of schooling is to help develop writers to become more strategic writers (Harris, Graham, MacArthur, Reid, & Mason, 2011). The adaptability of the knowledge telling approach is one barrier to this process. Even though it is basically a one-trick pony involving content generation, it serves an adaptive function. It allows children to produce text while minimizing or eliminating other cognitively demanding processes like planning. For beginning writers this is useful, as other aspects of writing like spelling and handwriting, which cannot be eliminated when writing by hand, are also cognitively demanding (Graham & Harris, 2000). Further complicating the situation, the knowledge telling approach works quite well for many of the types of writing assigned to young children in school, such as writing a personal narrative (Cutler & Graham, 2008). Consequently, it can be challenging to get young writers to take up a more demanding and sophisticated approach to composing when they already have a method that is relatively successful and requires less effort.

Another complication in helping developing writers become more strategic is that writing is not a single thing (Bazerman et al., 2018). Stories, arguments, poems, and informative text differ in important ways. They have different purposes, traditions, and organizing elements (Rijlaarsdam et al., 2012). Moreover, how well one writes in one genre is not a good predictor of how well one writes in another genre (Graham, Harris, & Hebert, 2011). Thus, teaching students to be a more strategic

story writer does not mean they will automatically become a more strategic informative writer. Making this situation even more challenging is that the same writing task can vary depending on how it is conceptualized within different communities. For example, a biology and social studies teacher may emphasize the same structural elements for building a written argument (claim, grounds, warrant, support, rebuttal, qualifications; Smagorinsky & Mayer, 2014), but these elements may not appear in the same form or even to the same degree in these two classes (e.g., what counts as legitimate support can differ from one discipline to the next). This means that context must also be taken into account when teaching students to be more strategic writers.

This chapter examines how teachers and schools can help writers become more strategic. We first examine the theoretical role of strategies and strategic processing in writing as well as evidence that supports fostering these skills with developing writers. We then examine approaches for teaching developing writers how to become more strategic writers, providing an example using the Self-regulated Strategy Development model (SRSD; Harris & Graham, 2018). Finally, we consider issues that need to be addressed in future research.

THEORETICAL ROLE OF STRATEGIES AND STRATEGIC PROCESSING IN WRITING

The earliest cognitive models of writing (Hayes & Flower, 1980) to the most recent (see Graham, 2018a) emphasize strategies and strategic process as critical elements of writing. The earliest of these conceptualizations, the Hayes and Flower model, provided a description of the mental operations that skilled writers employ when writing (planning [goal setting, generating ideas, organizing ideas], translating plans into text, and reviewing [reading and editing]). A subsequent model by Hayes (2012) took a different approach, focusing on control processes such as goal setting (for planning, drafting, and revising) as well as task schemas for carrying out various aspects of writing such as revising, collaborating, summarizing, and so forth. In contrast, a model by Zimmerman and Risemberg (1997) concentrated on how writers use self-regulation strategies for managing the writing process, writing behaviors, and the writing environment.

The recent Writer(s)-within-Community (WWC) model by Graham (2018b, 2018c) represents a departure from these previous conceptualizations. It places writing and the cognitive resources writers and their collaborators bring to writing within the context of writing communities (consistent with the argument above about the importance of context in strategic writing). It also draws on both executive control and self-regulation to describe the strategic processes writers use when composing. The WWC model proposes that writing is simultaneously shaped and bound by the characteristics, capacity, and variability of the communities in which it takes place and by the cognitive characteristics, capacity, and individual differences of those who produce it as well as the interaction between community and individuals. The model further proposes that writing development is a consequence of participation in writing

communities and individual changes in writers' capabilities, which interact with biological, neurological, physical, and environmental factors.

The WWC model conceptualizes writing as a social activity that is situated within specific writing communities. A writing community is defined as a group of people who share a basic set of goals and assumptions and use writing to achieve their purposes. Examples of writing communities include a science class where students use writing as a tool for learning, an online website where writers share and support each other's writing efforts, and a child and grandparent who send emails to each other to keep in touch. Skilled and developing writers are typically members of multiple writing communities at any point in time.

The *purpose* of each writing community determines the type of writing undertaken, its intended audiences and stances, norms for writing, and identity (including the identity of its *members* who will differ in terms of levels of affiliation, participation, roles and responsibilities, presumed value to the community, and power). A writing community further shapes writing through its use of *tools* and *reoccurring typified actions* that members apply to meet a community's writing goals. Moreover, the writing produced by community members does not happen by chance, as it is molded by a *collective history*, the *social and physical context of the community* (e.g., on-line versus brick and mortar) as well as the other writing communities in which members are currently or previously engaged (e.g., writing practices learned at school are brought home). Thus, what is written and how it is written (strategies, schemas, and strategic processes) is embedded and dependent on the context in which it is produced.

While context shapes what is written, the members of a writing community exercise intentionality over what and how they write, including the degree of personal ownership they take for specific writing tasks. In essence, members of a writing community apply their cognitive capabilities and resources to achieve community and personal writing goals. These capabilities and resources include *long-term memory resources* (e.g., specialized writing knowledge and knowledge of the writing community as well as beliefs about the value/utility of writing, one's competence as a writer, and reasons for writing), *text production processes* (conceptualization, ideation, translation, transcription, and reconceptualization), *control mechanisms* for orchestrating and directing the process of writing (attention, working memory, and executive functioning), and *modulators* that influence writing (emotions, personality traits, and physical states).

The *control mechanisms* proposed in the WWC model specify the strategic processes applied during writing. Attentional processes allow writers to choose what is attended to and what is ignored, and involve focusing, maintaining, switching, and inhibiting attention during all stages of the text *production processes*. This includes what a writer does in solitude, in conjunction with the tools selected for writing, and the actions undertaken with collaborators in the writing community.

Working memory provides a limited and temporary storage system where the internal work of writing occurs. It provides a space where all non-automated composing activities take place. Knowledge and beliefs from *long-term memory* and external information are brought into working memory, processed, and acted upon in order to regulate attention, production processes, writing tools, motivations,

emotions, personality traits, and the environmental and social context in which writing takes place.

The third *control mechanism* in the WWC model is executive control. This involves the process of setting goals (formulating intentions), initiating actions to achieve them (plans), evaluating goals and their impact (monitor), and modifying each of these as needed (react). These processes are the mechanisms by which writers and collaborators establish agency and control over the writing process, and they are applied to all aspects of writing (e.g., defining the writing assignment, developing a writing plan, gathering possible writing content, organizing it, constructing sentences, transcribing sentences into text, integrating visual and verbal features into text, reading and rereading plans and text for evaluative purposes, reformulating plans or text based on these evaluations, and editing and creating a polished final product). They are not separate from the confines of the writing community but operate in conjunction with them, as they are used to manage interactions with collaborators, use of selected writing tools, and arranging the writing environment.

The WWC model further proposes that communities and writers develop schemas (or strategies) for carrying out the writing process. These include schemas for setting goals, gathering and organizing possible writing content, drafting text, and evaluating and revising plans and text. It also includes schemas for controlling thoughts, behaviors, inclinations, and the writing environment. For example, a writer may use a schema for brainstorming to help generate possible writing ideas. However, if a writer cannot draw the needed schema from *long-term memory* or one is not available in their writing community, a new plan can be generated through problem solving or by modifying an existing schema that appears somewhat relevant. Of course, a writer may also take action with a poorly articulated schema.

As the WWC model illustrates, writers employ specific schemas (which we will refer to as strategies from this point forward) to accomplish community/personal writing goals. These strategies are beneficial for at least three reasons. One, they direct attention to what needs to be done to carry out a particular aspect of writing. Two, they are efficient, as they provide a structure or set of mental operations which can be used repeatedly, as when a professor uses a particular strategy or structure for writing letters of recommendation. Three, they can reduce cognitive load, as they can break a demanding task like writing into smaller and more manageable tasks (e.g., write by planning, drafting, editing, and revising).

The use of writing strategies does not mean that writers stop engaging in strategic processes involving reasoning, monitoring, evaluating, making interpretations, or solving problems. If a known writing strategy is applied, writers can (and hopefully do) monitor, evaluate, and react accordingly to its use. Further, strategies known to a writer do not provide a solution to every problem he or she faces. For instance, the seemingly simple act of forming an idea into a written sentence requires making decisions about which words and sentence structure best convey the writer's intentions. Even though strategic processing can be purposefully reduced, as when a knowledge telling approach is applied, writing always has the potential to be highly strategic, and as the WWC model illustrates, writers need to become strategic writers in multiple communities.

EMPIRICAL EVIDENCE SUPPORTING STRATEGIC WRITING

The road to writing competence is long and never fully achieved (Bazerman et al., 2018), as there are many different forms of writing, approaches to writing, and ways to continually improve as a writer within different communities. Movement along this road arises, at least in part, from changes in strategic writing behaviors. Graham (2006) examined if the available empirical evidence with students in grades 1 to 12 supported this proposition, and has returned to examine it multiple times in the ensuing years (e.g., Graham et al., 2019). He argues that the following tenets should be supported if strategic writing is important to writing development: (1) skilled writers are more strategic than less skilled writers, (2) developing writers become more strategic with age and schooling, (3) individual differences in strategic writing behaviors predict individual differences in writing performance, and (4) instruction designed to increase strategic writing behaviors improves writing performance.

While it is important to remember that Graham's analyses involved school writing and were mostly focused on planning and revising, his review and subsequent analyses provided evidence which supports each of the four tenets. In terms of the first tenet, Graham (2006) found that skilled writers are more planful and better at revising than less skilled writers. For example, in a study by Bereiter and Scardamalia (1987), college students planned their entire composition during a scheduled preplanning period, generating multiple and abbreviated lists of ideas that were connected by lines or arrows. They also included conceptual planning notes, evaluative statements, and structural markers. Less skilled writers primarily generated content when asked to plan. Similarly, less skilled writers devote little attention to revising, and the nature of their revising differs from that of more skilled writers, as their revisions are mostly superficial, aimed at making small word changes and correcting errors (Chanquoy, 2001)

Graham (2006) also found that the planning and revising of developing writers becomes increasingly sophisticated with schooling and experience (tenet two). This was the case in Bereiter and Scardamalia (1987) above, as the number of planning notes students produced between grades four and six doubled, and conceptual planning increased from grades four and eight. Likewise, students' revising becomes more sophisticated over time, as older writers revise more often, revise larger units of text, and make more meaning-based revisions (MacArthur, Graham, & Harris, 2004).

Graham (2006) indicated that the available data mostly supported one aspect of the third tenet: individual differences in planning behavior predict writing performance. He found, however, that revising behavior is generally unrelated to overall writing performance until high school or later, probably because younger children do not revise much (Fitzgerald, 1987). Subsequent research by Graham and colleagues (e.g., Graham et al., 2019) provide even greater support for the positive relation between strategic behavior and writing, showing that intermediate grade students who are more planful and strategic are better writers than students who are less planful and strategic, even after controlling for writing knowledge, writing motivation, writing skills, reading skills, and gender.

The fourth tenet, teaching strategic behaviors improves writing, was strongly supported in Graham (2006) and subsequent analyses (e.g., Graham, Kiuahara, McKeown, & Harris, 2012). In a meta-analysis by Graham and Harris (2017) involving 42 true- and quasi-experiments conducted with students in grades 1 to 12, teaching students strategies for planning, revising, or both had a strong impact on improving

overall writing quality (effect size = 1.26). A separate meta-analysis involving 53 single subject-design studies (Graham, Harris, & McKeown, 2013) also found positive effects of writing strategy instruction for writing quality, structural elements, and number of words written.

Another meta-analysis by Santangelo, Harris, and Graham (2013) provided further support for the importance of strategic behavior in writing. They reported that a variety of instructional procedures designed to support or enhance one or more strategic behaviors improved the quality of writing produced by students in grades 1 to 12. This included goal setting (effect size = 0.73), self-evaluation (effect size = 0.51), emulating models of good writing (effect size = 0.30), forming mental images (effect size = 0.76), and prewriting activities for generating and organizing information (effect size = 0.55). Graham and Harris (2017) also found that the process writing approach, which stresses the importance of engaging in planning, drafting, revising, and editing, improved the quality of grade 1 to 12 students' writing (effect size = 0.34).

While the findings from the reviews above do not address all aspects of strategic writing behavior or the impact of such behavior in a broad range of different writing communities (as they are mostly limited to school contexts), they do support the contention that strategies and strategic processes are an important ingredient in becoming a stronger writer. They also provide strong evidence that instructional procedures aimed at enhancing one or more strategic behaviors can lead to better writing, especially when students are taught strategies for carrying out specific aspects of writing. This approach to improving students' strategic writing behavior is commonly called writing strategy instruction, and it is examined next.

WRITING STRATEGY INSTRUCTION

Writing strategy instruction involves teaching developing writers strategies (i.e., schemas) for carrying out one or more aspects of the writing process. According to Alexander, Graham, and Harris (1998), a strategy can be understood as procedural or "how to" knowledge. They can take the form of a heuristic (e.g., general rules for writing a summary) or more step-by-step procedures (i.e., construct an outline of main points and details). Strategies are purposeful (goal-directed or intentional), willful (must be applied), effortful (cognitively demanding), and facilitative (designed to enhance performance). They vary in terms of their generality, as some writing strategies have broad utility (e.g., brainstorming, semantic webs), whereas others are designed for a specific domain (e.g., the science writing heuristic; Hand & Prain, 2002) or task (TREE for writing an opinion essay, see below). Strategies can facilitate metacognition, as when a strategy prompts writers to reflect on their performance and use any acquired awareness to guide subsequent thoughts and actions. Strategies can further be paired together in a variety of ways to help writers initiate, orchestrate, maintain, and evaluate mental operations used to regulate the writing task, behaviors, processes, and environment as well as writers' motivations.

As children learn and grow as writers, the writing strategies they use and the ways they use these strategies change (Alexander, Graham, & Harris, 1998). With experience and schooling, children's strategic behavior becomes more efficient, effective, flexible, and inventive (old writing strategies are modified and new strategies created).

While these shifts in strategic behavior provide a general picture of the course of strategy development, development patterns are truly individualistic, as developing writers with a similar level of writing experience and schooling may use different strategies to solve the same writing task. As the WWC model illustrates (Graham, 2018b, 2018c), strategic behavior and strategy use not only varies from one person to the next but from one writing community to another.

Strategy development does not occur in isolation but happens in conjunction with other aspects of cognitive development, including advances in a writer's knowledge, motivation, and foundational writing skills (Alexander, Graham, & Harris, 1998; Graham & Harris, 2000). Because writing strategies must be intentionally evoked, their use is directly tied to a writer's beliefs, goal, and sense of agency. As developing writers gain a deeper and richer knowledge base about writing, they can use writing strategies more efficiently and effectively. As foundational writing skills such as handwriting and spelling become more automatic, they are less likely to interfere or impede strategy use.

There are multiple ways that developing writers can acquire new writing strategies (Graham, 2018c). They can acquire new writing strategies by participating in a specific writing community, adopting the sanctioned actions the community uses to carry out writing tasks. They can also learn new strategies or adapt old ones through observation (e.g., watching a teacher write), collaborative writing (e.g., adopting a strategy a collaborator uses), as a consequence of action (e.g., deciding to adapt a strategy to make it effective in a new situation), or deliberate agency (e.g., designing a new strategy). To date, the most scientifically tested means for acquiring new writing strategies involves directly teaching them (Graham & Harris, 2017).

Teaching Writing Strategies

Before the cognitive revolution in writing was fully underway, scholars such as Young, Becker, and Pike (1970) promoted the use of heuristics as a mechanism for college students to understand writing topics and audience. With the publication of Hayes and Flower's (1980) cognitive model of writing, researchers began designing intervention studies to determine the effectiveness of explicitly teaching writing strategies to school-aged students. The very first writing strategy instructional studies involved students with special needs (Harris & Graham, 1985; Moran, Schumaker, & Vetter, 1981), but by the 1990s researchers were studying the effects of such instruction on typically developing writers as well (Englert et al., 1991).

Over the course of four decades, writing strategy instruction has become the most empirically investigated teaching approach in writing (Graham, Harris, & McKeown, 2013). Most of the writing strategy studies conducted to date focus on teaching one or more genre specific strategies (starting with Harris and Graham in 1985), but many studies also teach such strategies in conjunction with more general writing strategies and self-regulation procedures (e.g., Harris & Graham, 2008).

There are many similarities in the instructional approaches used to teach writing strategies to grade 1 to 12 students. Most approaches (Deshler & Schumaker, 1986; Englert et al., 1991; Harris & Graham, 2009; Olson & Land, 2007) apply a gradual release model where strategies are first modeled and writers are supported until they can apply the strategies successfully and independently. Dialogue between teacher and students is also commonly used in these approaches as a way of strengthening students'

knowledge and control over the writing strategies taught. There are differences, however, as some approaches specifically include instructional procedures for enhancing maintenance and generalization (Deshler & Schumaker, 1986; Harris & Graham, 2009), others teach writing and reading strategies conjointly (Olson & Land, 2007), and still others stress criterion-based learning principles, teaching the knowledge and self-regulation procedures needed to use the target writing strategies successfully, and using procedures to enhance students' beliefs about writing (Harris & Graham, 2009).

The writing strategy instructional approach that has been researched the most often is the SRSD model developed by Karen Harris. Over 100 studies from around the world have tested the effectiveness of this approach to writing strategy instruction (Graham, Harris, & McKeown, 2013). In addition, when compared to other approaches to teaching writing strategies (effect sizes = 0.56), SRSD is more effective in enhancing the quality of writing for school-aged students (effect size = 1.59; Graham & Harris, 2017). Consequently, to illustrate writing strategy instruction, we provide an example involving SRSD. To demonstrate the global reach of this approach, our example involves a case study of SRSD conducted in Chile.

SRSD

Self-regulated strategy development is an approach for teaching learners task-specific strategies for carrying out composing processes like planning, drafting, and revising. Developing writers learn to apply specific writing strategies; acquire the knowledge needed to use these strategies successfully; learn to regulate the use of these strategies as well as the process of writing; and develop positive beliefs about their writing capabilities and the strategies taught (Harris, Graham, Mason, & Friedlander, 2008). SRSD involves six recursive stages of instruction: develop background knowledge, discuss it, model it, memorize it, support it, and independent performance. Teachers first model how to use the target strategies and self-regulation procedures, but move deliberately to independent learner application, and stress maintenance and generalization of the procedures taught.

Context. The case study presented here took place in Chile and involved teaching opinion essay writing to 20 sixth graders in a private school (average age = 11 years, 67% girls). The teacher in this study (the fifth author of this chapter) is 35 years old with nine years teaching experience. She received professional development in how to deliver SRSD over a one-month period. This included an online course on SRSD and a manual with detailed instructions on how to provide SRSD instruction with the target strategies. All instructional materials needed by the students were provided by the school.

The emphasis in this case study of teaching students strategies for planning, drafting, and reviewing their opinion essay is a departure from the learning objectives in many Chilean schools where little emphasis is placed on such instruction. Instruction was also delivered in the context of a private school. Public school classrooms often contain 35 or more students. The smaller number of students in this private school class made it possible for the teacher to be more attentive to individual needs during instruction. Moreover, the families of students in this class were affluent, and enjoyed greater linguistic and material resources than many students in public schools. Additionally, the teacher modified SRSD instruction as specified in Harris, Graham, Mason, and Friedlander (2008) to make instruction fit her classroom and a Chilean context (e.g., emphasis was placed on peer-evaluation as well as self-evaluation). Lastly, instruction was delivered at the

end of the school year. This had two consequences, it was necessary at times to extend a writing class beyond the allotted 45 minutes to accommodate SRSD instruction. It also made it impossible to apply a criterion-based approach to SRSD instruction as is recommended. As a result instruction was time-based (i.e., ten lessons), and less time was devoted to two stages of SRSD: support it and independence performance. This was also influenced by other teaching demands in other subject areas. This meant that students had less time to practice applying the strategies learned, use of the graphic organizers for strategy use were not replaced by student designed organizers, and little attention was devoted to strategy maintenance and generalization. As a result, we will address how these would have been addressed if more time had been available.

Writing Strategies. Students were taught a three-step process for planning and drafting their opinion essay (see Table 9.1). This included first thinking about audience and purpose, and then applying a general writing strategy (POW) for planning and drafting as well as a genre-specific strategy (TREE) for generating ideas and notes for their composition based on the basic parts of an opinion essay. These strategies (or schemas) were used in previous SRSD research (e.g., Harris et al., 2012). While they structure or regulate how students carry out the processes of planning and drafting an opinion essay, they require thoughtful use. As they carry out specific steps, students must make and evaluate the decisions they make. For example, when picking an idea to write about they are encouraged to generate possible ideas and make decisions about which will be most suitable given their purpose and audience. Likewise, when organizing their notes, they generate possible reasons to support their ideas, make decisions about which ones are most convincing, and consider how best to organize them to obtain the maximum argumentative effect. Thus, for each step of these two strategies, students are engaged in making multiple decisions, evaluating them, and modifying them as necessary to achieve their goals.

Develop and Activate Prior Knowledge. At the start of the first class, the teacher began asking students what they knew about opinion essays, including the parts of an opinion essay and the differences between arguments and reasons. To facilitate the development and activation of knowledge about these issues, students reviewed examples of daily argumentation, based on two comic vignettes presented by the teacher. Additionally, students read, first individually and later in turn, a model text entitled “What time should we rest?” Then, students were asked to underline the opinions of the author in the text read, and then to give reasons and explanations to justify their opinion. Finally, the teacher proposed that students reflect and briefly write about what they learned during the lesson, the functions of arguments, and the topics they would like to debate or argue.

During the second class, students read and discussed a model text titled “Should children be paid for their homework?” To facilitate the analysis of the parts of this opinion (thesis, reasons, and explanations), the teacher posed a series of questions and had students annotate these parts directly on the text. Afterwards, the teacher asked students to use these parts to write an opinion essay on the topic: “Should homework be sent home?” The generated texts were collected by the teacher as an initial indication of students’ opinion writing performance (pretest). Some of the text produced by students was read and analyzed by the class, using an evaluation guide for the parts of an opinion essay. Students evaluated text alone and together. At the end of class,

Table 9.1 Strategies and Steps for Writing of POW + TREE

Step 1: Think, who will read this, and why am I writing it?
Step 2: Plan what to say using POW
<ul style="list-style-type: none"> • P = Pick an idea to start with – this is an idea in our heads. • O = Organize my notes • W = Write and say more
Step 3: Organize my notes using TREE
<ul style="list-style-type: none"> • T = Topic sentence – tells the reader what you believe • R = Reasons • E = Explain – Explain each reason • E = Ending – Wrap it up right

students completed a reflection activity based on the questions: What was it that you liked most about writing the opinion text? What was the hardest part of writing the opinion essay?

During the third class the teacher presented the students with two “writing tricks” or strategies: POW + TREE (see Table 9.1). These are mnemonics that specify a series of mental activities or steps underlying the target strategies for planning and drafting opinion essays. The teacher presented these strategies on the blackboard in the form of graphic organizers with the meaning of each step specified. Drawing on the analysis of model texts reviewed in previous classes, the teacher described how Carlos, an ideal student, used these strategies to write his opinion essay. During this process, students focused on identifying the parts of each strategy and learned how to use the graphic organizers to generate planning ideas and notes. At the end of class, the class discussed the importance of using the strategies to write good opinion texts.

In the fourth class, the teacher taught and explained the purpose of two additional tricks students would use to improve their essays: million pesos words and self-regulation strategies. For million pesos words, students received a copy of commonly used words to signal opinion essay ideas or connect them when writing an opinion text (e.g., opinion, order, cause, consequence). The teacher also introduced and modeled self-regulation procedures students would use while writing (i.e., goal setting and self-instruction). For example, she generated and modeled with students help self-instructions that can be usefully applied before, during or after writing. To facilitate this process, students had a table illustrating different types of self-instructions “good writers” use: *task definition* (“What do I need to do?”), *task planning* (“I need to make plan”; “If I stay focused, I can do this”), *implementation and strategy use* (“I need to write down my POW + TREE reminder”; “I need to set a goal to include all of the parts”; “I did the first step and now the second step is ...”), *self-assessment* (“How am I doing?”), and *self-reinforcing* (“This is pretty good!”; “I’m getting better at this!”). The teacher and students then discussed the importance of using the million pesos words and self-regulation procedures.

The lessons provided during this stage gave students an introduction to POW + TREE strategies as well as how self-talk can direct one’s behavior during writing. In subsequent stages (see below), the teacher will model how to use POW + TREE in a flexible and strategic manner, and apply self-talk to direct the use of these strategies as well as their writing behaviors and thoughts. The teachers will further introduce how

to use goal setting, self-monitoring, and self-evaluation for these same purposes. Students then receive practice applying these strategic processes as they write their own essays. As they are learning to use these different strategic tools, the teacher emphasizes that these tools can be used flexibly and intelligently, as they will need to be adapted to different writing topics, tasks, and situations.

Discuss It. During the fifth class, the teacher asked students to help her examine an opinion text to identify if all the elements in the TREE strategy were present. Using a previously written opinion essay, the teacher identified each of these parts, with students help, and made notes for each of these parts on the graphic organizer presented during the third class. She also reminded them that it was important to ask who would read the text and if the arguments made sense. The students then analyzed a new opinion essay, placing the parts they identified in note form on the graphic organizer.

At the start of the sixth class, students reviewed an opinion essay that did not include all of the elements included in TREE. Individually, students read the essay and completed the graphic organizer. As students worked, the teacher reminded them to determine if the writer included all the parts, but also to evaluate if provided reasons made sense. Once the task was completed, the class discussed deficiencies in the essay analyzed. Students then worked in pairs to improve the essay they evaluated, adding new arguments and reasons that made sense. At this point students had acquired the knowledge needed to move to the next step: seeing how the target strategies can be applied.

Model It. In the seventh class, the teacher modeled how to use POW and TREE and the other tricks presented to students in previous lessons. She first provided a review of the strategies and self-regulation procedures presented in prior lessons. Next, using the three-step strategy presented in Table 9.1, she identified the writing topic (“The use of social networks and children’s sedentary lifestyle”), making her thinking visible while talking aloud, referring to the appropriate step of POW (Pick an idea to start with), and making notes on the graphic organizer (including setting a goal to include all the basic parts of an opinion essay in her composition). She then began planning her essay aloud, referring to the second step in POW (Organize my notes) and using TREE to guide the idea generation process, as she wrote notes on the graphic organizer. Students were encouraged to provide help by letting the teacher know if the arguments being put forward made sense, the order of ideas was logical and appropriate, and if ideas were relevant. While modeling the use of the target strategies, the teacher used self-instructions to regulate the writing strategies, writing task, and her writing behavior (e.g. “How am I doing?”; “Am I following all the steps?”), making visible how the teacher managed the process of writing.

After planning and drafting the essay as well as checking to see if it had all of the parts, the teacher introduced the idea of collaborative planning. Students were asked to work in pairs to apply all of the procedures used by the teacher during the seventh class with one exception. Once they collaboratively planned their text, each student drafted an essay of their own using the collaborative plan. The teacher then modeled how to evaluate the completed essay using a rubric. Students then evaluated their partner’s text using the rubric and provided evaluative comments directly on the text.

During the eighth class, students generated self-instructions they would apply to their own writing. After revising the importance of self-statements, the teacher asked students to generate and record in a table self-instructions they each planned to apply.

Memorize It and Support It. At the start of the ninth class, students played games to ensure they had easy mental access to the steps in POW and TREE. For example, they gathered in a circle and the teacher threw a ball indicating the first letter of the POW strategy, the student receiving the ball had to point out the keyword associated with the letter indicated and throw it to another student to explain the purpose of this step. This same activity was repeated for TREE.

The teacher applied a collaborative activity where students were to apply everything they had learned about writing an opinion essay on “Is it appropriate to give technological toys to six-year-olds?” As collaborative writing occurred, the teacher circulated around the room providing the level of support specific children needed.

If more time had been available, students would have practiced writing essays until they could do so without help from the teacher or peers. This would include fading the graphic organizer, with students creating their own personal graphic organizer they could generate on a separate sheet of paper.

Independent Performance. During the tenth class, students planned and wrote an essay on a topic of their choice. The teacher encouraged students to use their self-instructions, the strategies they were taught, million pesos words, and so forth. Students shared their completed essays with the class and conducted assessments of the quality of their work with another student.

If more time had been available, the class would have held a discussion on how what was learned could be modified to make it work better. In addition, students would have identified other situations where they could apply the strategies and identify how they would need to be modified in those situations. Finally, students would have set goals for using what they learned over time and in other situations.

Impact. As a result of SRSD instruction, students evidenced changes in the way they wrote (e.g., planning in advance) and what they wrote. An example illustrating typical changes in students’ writing is provided in Table 9.2. Statistically significant improvements were found for the class as a whole from pretest to posttest on essay

Table 9.2 Example of Performance Before and After SRSD Instruction

Pretest

Writing Prompt: Should homework be sent home?

I think not, because probably having problems in the house or even not having time to do them, and not doing homework, we lost out, unable to give our reasons or explain the reasons why we could not do the homework. At the same time, I also think yes because it helps us to continue with our learning because despite the difficult, being willing, we still managed to solve or understand the task. It is also dependent on the amount of the task, such as writing, because if it is too much, not everyone will be motivated to do it.

Posttest

Writing Prompt: Do you think it is useful to wear a uniform at school?

No, since not having a uniform is highly favorable for students. My first reason is that it is very boring for all students, because having dark and opaque colors does not allow us to express ourselves.

Second, I think that by forcing us to do it all week, we have less motivation to do it correctly.

Lastly, I think it is more comfortable to use “colored clothes,” since the uniform is tighter because it has a lot of elastic. In conclusion, I think that the school should not force us to wear the uniform, no matter how much it represents the school; no child feels comfortable doing it.

length, number of essay elements (e.g., reasons), and essay quality (using a five-point holistic quality measure). While orally expressing their opinions was a common part of the participating students' daily lives, they evidenced difficulty doing this effectively with writing before SRSD instruction. They found it especially difficult to organize their written argument effectively and make clear connections between ideas. As a result of SRSD instruction, students' writing became progressively more organized and complete (containing all of the basic parts of an opinion essay), with students using discourse markers associated with persuasive texts (e.g., "one reason why ... ") to signal transitions between ideas, resulting in qualitatively stronger text.

ISSUES AND FUTURE RESEARCH

What Writing Strategies Are Applied within and across Contexts?

Presently, we do not have a clear picture of the types of writing strategies applied or valued in different writing communities. Even in schools, where National, State, or local guidelines favor certain types of writing (e.g., Common Core State Standards, 2010), we know very little about how these types of writing are actualized from one classroom to the next, or if students are taught strategies for carrying out one or more aspects of these writing tasks. In addition, we possess only the haziest pictures of the types of writing strategies taught or the form they take across and within schools. There is some evidence, however, from survey and observational studies that many teachers do not spend enough time teaching writing process or strategies (Graham, 2019), even though there is considerable evidence that such instruction is effective (Graham & Harris, 2017).

This lack of evidence about writing tasks, writing strategies, and writing strategy instruction stems in part from the types of questions asked by researchers when they query teachers about their writing practices in surveys (e.g., Graham, Cappizi, Harris, Hebert, & Morphy, 2014). Questions are broad in their orientation asking about the types of writing students are assigned (e.g., story, persuasive, informative) and how frequently planning and revising strategies are taught. This does not allow researchers to develop a fine-grained sense of what writing or strategy instruction looks like on the ground so to speak. Additional research is also needed to determine if teachers and learners view writing strategy instruction as acceptable (e.g., Troia & Graham, 2017), and explore why teachers do and do not apply such instruction.

Future research needs to examine more broadly how writing and writing strategies differ across writing communities as well as cultures. For example, the forms and purposes of persuasive writing differ in China and the United States, with the former using a less direct approach to presenting an argument, resulting in different strategies for writing in the two cultures (Cai, 1993). Greater knowledge about how writing and strategy instruction is conceptualized and viewed in different writing communities and cultures, will provide a richer base for evaluating and advancing writing strategy instruction, including the development and testing of new writing strategies and approaches for teaching them.

Why Is Writing Strategy Instruction Not More Common in Schools?

While most teachers indicate they teach strategies for planning and revising text, neither writing, writing instruction, nor writing strategy instruction in particular are allocated sufficient time in most classrooms (see Graham, 2019). One likely reason for this is that many teachers' worldwide indicate that their preparation to teach writing is not adequate (e.g., De Smedt, Van Keer, & Merchie, 2016). As the SRSD example from Chile illustrated, writing strategy instruction is demanding and complex. Teachers are less likely to apply such teaching techniques if they are not properly prepared to do so or do not have needed support material. In the United States, several organizations now exist that provide teachers and school systems with training and support to carry out writing strategy instruction (e.g., thinkSRSD and SRSD Online).

There is surprisingly little research investigating professional development (PD) methods for teaching writing strategies. In fact most available strategy instructional studies provide little information about PD for writing strategy instruction. One exception is the work of Harris and colleagues (e.g., Harris et al., 2012), where a practice-based professional development model is used to (1) create a supportive community where teachers can learn to apply SRSD effectively; (2) help teachers modify their own classroom environment so that it is conducive to SRSD instruction; (3) provide teachers with the knowledge, understanding, skills, and beliefs needed to teach SRSD effectively and efficiently in their classrooms; (4) create opportunities for active learning, practice, and feedback in applying SRSD with peers before applying it in the classroom; (5) use materials and other artifacts during PD identical to those teachers will use in the classroom; and (6) provide ongoing classroom support in applying SRSD (see Graham and Harris, 2018 for a detailed explanation as well as how this approach is consistent with the WWC model).

If the promise of writing strategy instruction is to be realized, additional attention to teacher preparation must be undertaken. Such preparation may fall mostly on schools and individual teachers, as colleges of education have proven to be unreliable partners in preparing teachers to teach writing (Graham, 2019). Research is also needed to determine how to bring writing strategy instruction to scale, so that it is a more prominent and effective feature of writing instruction in schools.

How Can Flexible and Sustained Use of Writing Strategies Be Promoted?

Three criticisms of writing strategy instruction are that students use strategies in a non-thoughtful and robotic manner, strategy effects fade over time, and generalization of strategy effects are limited (Alexander, Graham, & Harris, 1998). While any strategy can be used in a non-thoughtful and inflexible manner, instructional approaches to teaching writing strategies, like SRSD, stress intelligent and adaptable use of writing strategies. We provide three examples to illustrate ways in which this is done (Graham & Harris, 2018). One, once students learn how to apply strategies, they discuss as a group how they might be modified to make them better. Two, students practice applying the strategies with different relevant tasks. Three, students identify other situations where they can use inculcated strategies and decide how they need to be adapted for those situations.

While concerns about maintaining learning effects are common across education, writing strategy instruction is one of the few areas in writing research where maintenance

is commonly measured. While not all students maintain the effects of writing strategy instruction and the overall effects of writing strategy instruction across students diminishes over time, maintenance effects are actually quite promising. This was evident in a meta-analysis of SRSD in writing, where the average effect size for writing quality immediately following instruction was 1.75 and 1.30 at maintenance (Graham, Harris, & McKeown, 2013). The maintenance probes ranged from two weeks to 28 months. The likely reason for these relatively positive effects is that many writing strategy instructional approaches include mechanisms for facilitating maintenance (e.g., making students aware of gains from using taught strategies, setting goals for continued strategy use). Even so, there is a need to investigate the impact of writing strategy instruction over longer time periods, especially when students receive a year or more of writing strategy instruction.

Generalizability of writing strategy instruction can be challenging. Most writing strategies scientifically tested to date are genre specific (e.g., Graham & Perin, 2007). Take for instance the TREE strategy described earlier. It is likely adaptable for other persuasive writing tasks but not suitable for writing most stories. However, generalizability effects are quite robust (effect size for writing quality = 1.00; Graham, Harris, & McKeown, 2013) when generalization is assessed to a similar genre (e.g., story to personal narrative or persuasive to informative writing). These effects are based on a relatively small number of studies though, and there is little information on the instructional mechanisms responsible for such generalizability effects (see Harris, Graham, & Mason, 2006).

Final Considerations

In closing, we would like to identify several other areas in need of additional investigation. While there are many different writing strategies designed and scientifically tested (see Harris, Graham, Mason, & Friedlander, 2008), they address only a small fraction of the possible writing strategies that might be useful at school, work, and home. There is also a need to develop and test a more comprehensive suite of writing strategies that can be applied in schools or other settings where multiple types of writing occur. This should include considering how one or more writing strategies can be usefully adapted to serve multiple purposes (such as how to adapt a persuasive writing strategy so that it can be applied in different content classrooms). Further, writing strategy instruction is one aspect of teaching writing and there is a need to test how it can be effectively integrated into different approaches to teaching writing (see MacArthur, Schwartz, Graham, Molloy, & Harris, 1996).

There has been surprisingly little research examining which components of strategy instruction are responsible for learners' gains in writing. With SRSD, prior research demonstrated that the self-regulation procedures of goal setting and self-monitoring, included in most SRSD studies (but not in Chilean case study shared earlier), account for one-half a standard deviation in SRSD writing gains (see Graham & Perin, 2007). Other studies examined when in SRSD instruction improvements in writing performance start to occur (Danoff, Harris, & Graham, 1993). Given that such analyses are uncommon, more component analysis research is surely needed.

Finally, teaching writing strategies is just one way of improving strategic behavior in writing. We need to examine and test other methods for promoting strategic writing behavior, including students' designing their own strategies. Such an approach was applied by Butler (1988), but little research has occurred since.

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