Nurturing Young Students' Writing Knowledge, Self-Regulation, Attitudes, and Self-Efficacy: The Effects of Self-Regulated Strategy Development (SRSD)

Sharon Zumbrunn

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NURTURING YOUNG STUDENTS’ WRITING KNOWLEDGE, SELF-REGULATION, ATTITUDES, AND SELF-EFFICACY: THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT

By

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A DISSERTATION

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The Graduate College at the University of Nebraska
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Major: Psychological Studies in Education

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The purpose of this study was to investigate the effectiveness of implementing the Self-Regulated Strategy Development (SRSD) model of instruction (Graham & Harris, 2005; Harris & Graham, 1996) on the writing skills and writing self-regulation, attitudes, self-efficacy, and knowledge of 6 first grade students. A multiple-baseline design across participants with multiple probes (Kazdin, 2010) was used to test the effectiveness of the SRSD instructional intervention. Each participant was taught an SRSD story writing strategy as well as self-regulation strategies. All students wrote stories in response to picture prompts during the baseline, instruction, independent performance, and maintenance phases. Stories were assessed for essential story components, length, and overall quality. All participants also completed a writing attitude scale, a writing self-efficacy scale, and participated in brief interviews during the baseline and independent performance phases. Results indicated that SRSD can be beneficial for average first grade writers. Participants wrote stories that contained more essential components, were longer, and of better quality after SRSD instruction. Participants also showed some improvement in writing self-efficacy from pre- to post-instruction. All of the students maintained positive writing attitudes throughout the study.
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Chapter 1

Introduction

The Self-Regulated Strategy Development (SRSD) model of instruction (Graham & Harris, 2005; Harris & Graham, 1996) teaches students strategies for planning and organizing their writing, as well as self-regulation procedures, such as monitoring and goal-setting. Studies have shown that SRSD instruction has had positive effects on students’ writing in grades as low as second grade (for reviews, see Graham, 2006b; Graham & Harris, 2003). The effectiveness of SRSD instruction has not been empirically tested with first grade writers (K. Harris, personal communication, April 22nd, 2009). Testing the effectiveness of writing instruction programs with young writers is important, as preventive measures have the potential to catch struggling writers before they fall (Graham, Harris, & Larsen, 2001). This study extended research on the effectiveness of the SRSD model of instruction to average first grade writers.

Challenges of First Grade Writers

Writing can generate significant cognitive processing demands, based on the need to plan, organize, and revise throughout the writing process (Bereiter & Scardamalia, 1987; Flower & Hayes, 1981; Hayes, 1996). In addition to these demands, writers must also set goals for the writing task and manage any negative affective responses that might arise while composing (Flower & Hayes, 1981; Hayes, 1996). Young or struggling writers often will lack the skills and metacognitive strategies required to manage the complex cognitive processes of writing (Bangert-Drowns, Hurley, & Wilkinson, 2004; Bereiter & Scardamalia, 1987; Flower & Hayes, 1981; Hayes, 1996; McCutchen, 2006).
For instance, it can be difficult for young students to manage multiple attention-demanding skills and strategies (McCutchen, 1988).

In addition to metacognitive demands, Coker (2007) recently outlined specific challenges that emergent writers (pre-school to early elementary school) face. Included in this list were: understanding how writing is used to communicate, developing knowledge of the world and text genres, unlocking the conventions or concepts of print, discovering that the alphabet is used to represent speech sounds, and writing or typing well enough to express fluently. As children learn about the world around them, they gain personal experiences and knowledge. They also begin to realize that writing is a means to communicate their ideas, but this understanding can be highly dependent on children’s exposure to the uses and practices of writing (Purcell-Gates, 1996; Purcell-Gates & Dahl, 1991). Once children understand the general purposes of writing, they must then learn the basic rules of writing and break the alphabetic code. Despite their working understanding of writing, children must also learn to transcribe their ideas with fluidity and automaticity. Mastering basic handwriting, spelling, and grammar skills can help students to manage the cognitive and metacognitive demands of writing tasks. Research has shown that deficiencies in writing fluency often lead to lower quality writing (Graham, Berninger, Abbott, Abbott, & Whitaker, 1997). Emergent writers clearly face a myriad of challenges to overcome in the writing classroom. Encouragingly, results from a number of studies indicate that young writers are able to hone basic writing and self-regulation skills, given a supportive instructional context (Berninger, et al., 1997; Berninger, et al, 1998; Cameron, Hunt, & Linton, 1996; Page-Voth & Graham, 1999).
Schunk (2001) has recommended explicitly teaching skills in the classroom such as planning, goal-setting, and self-evaluation, as many young children typically do not naturally use self-regulation procedures (McCutchen, 1988). Others advocate that these skills need to be taught early in the schooling years to help circumvent future writing problems for students (Graham, Harris, & Larsen, 2001). In their review, Graham, et al. (2001) posited that prevention programs are more often promising than remediation programs. To date, the majority of research aimed at preventing the writing struggles of very young students has focused on improving students’ handwriting and spelling skills (Berninger, et al., 1997; Berninger, et al., 1998; Graham, Harris, & Fink, 2000; Jones & Christensen, 1999). Findings from these studies illustrated that early supplemental handwriting and spelling instruction can improve composition fluency. In line with this research, a national survey (Graham, Harris, MacArthur, & Fink-Chorzempa, 2003) found that primary-grade teachers spend nearly twice as much time teaching basic writing skills as they spend teaching planning and revising. Graham, et al. (2001) suggested that additional research is necessary to identify other prevention approaches for early writers. Arguably, this research should focus on developing young writers’ self-regulation skills.

**Self-Regulated Strategy Development**

The Self-Regulated Strategy Development (SRSD) model of instruction (Graham & Harris, 2005; Harris & Graham, 1996) was originally designed to teach writing strategies and improve the writing self-regulation and motivation of struggling elementary school students with learning disabilities. SRSD instruction includes six stages (Harris & Graham, 1996): (1) Develop Background Knowledge, (2) Discuss It, (3)
Model It, (4) Memorize It, (5) Support It, and (6) Independent Performance. A description of each of the stages is presented in Table 1. Instruction following these stages explicitly guides students through the writing process, teaching students to monitor and manage their progress and affective responses while they compose.

Table 1

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop Background Knowledge</td>
<td>Existing prior knowledge is activated and discussed to ensure students have pre-requisite knowledge and skill necessary for the writing task.</td>
</tr>
<tr>
<td>2. Discuss It</td>
<td>Students’ current writing performance is examined. The new strategy is introduced and discussed. Students commit to mastering the new strategy.</td>
</tr>
<tr>
<td>3. Model It</td>
<td>Using “think-alouds” and visual aids, the teacher models the new strategy for students.</td>
</tr>
<tr>
<td>4. Memorize It</td>
<td>Students use mnemonic devices and visual aids to memorize the new strategy.</td>
</tr>
<tr>
<td>5. Support It</td>
<td>Students practice the writing strategy with scaffolded assistance.</td>
</tr>
<tr>
<td>6. Independent Performance</td>
<td>Students independently use the writing strategy.</td>
</tr>
</tbody>
</table>

Stage 1: Develop Background Knowledge. During the first stage of SRSD, instruction focuses on ensuring that students have the pre-requisite skills necessary for strategy instruction. For example, students might read example texts and identify key components (e.g., parts of a story). The self-regulation procedures of goal-setting and self-monitoring also typically are introduced during this stage. Students are taught how
these procedures are used and why each is important throughout the writing process. For instance, students might learn that good writers set specific goals for their writing based on the general requirements and their personal goals for the writing task.

*Stage 2: Discuss It.* A specific SRSD strategy, such as a story writing strategy, is introduced during the second stage of SRSD instruction. The focus strategy is chosen to meet individual student needs. Students are explicitly taught procedures for the new strategy. Instructional discussions also emphasize the self-regulation skills of goal-setting and self-instructions. For example, students might identify weaknesses in their current writing and set specific goals for future pieces. Students might also learn how positive self-statements such as, “I can do this if I take my time,” can help them manage their frustrations throughout the writing process. In addition, students might also discuss how self-reinforcement can help them focus on their progress and success during the writing process.

*Stage 3: Model It.* During the third stage of SRSD instruction, the instructor explicitly models the procedures of the new strategy as well as the self-regulation procedures used throughout the writing process. “Think alouds,” visual aids, and graphic organizers often are used to aid in acquiring the procedures.

*Stage 4: Memorize It.* Each SRSD strategy is designated by an acronym, such as the story writing strategy, POW+WWW What=2, How=2, in which each letter represents a step or component of the strategy procedures. The acronym serves as a mnemonic to help students memorize the strategy components, but some students need extra practice for complete memorization. For example, some students might practice using strategy
cue cards until they are able to independently recite the strategy steps. Complete memorization of the specific components is essential to fluid use of the strategy.

Stage 5: Support It. Scaffolded, collaborative practice with the writing strategy is the focus of the fifth stage of instruction. Working together, the instructor and student use the strategy and practice developing self-regulation skills. During this stage, students demonstrate an increased understanding of the strategy procedures and improved self-regulation of goal-setting, self-monitoring, self-instructions, and self-reinforcement. As more independence is gained, instruction and scaffolding fades and students take the lead in the writing process.

Stage 6: Independent Performance. In the final stage of the SRSD model, students demonstrate their learning by independently using the new strategy. At this stage, students might choose to only use the mnemonic and self-regulation strategies when necessary. Sometimes, booster sessions to review the strategy and self-regulation procedures are necessary.

The new strategy and self-regulation procedures are introduced and developed throughout the six stages. The self-regulation procedures emphasized in SRSD instruction typically include goal-setting, self-monitoring, self-instruction, and self-reinforcement (Graham & Harris, 2005; Harris & Graham, 1996). Modeling and scaffolding are key components in the model that help students experience more success and gain independence in their writing. The six stages of SRSD provide a framework to guide students in developing and applying effective strategies in their writing; however,
the stages are designed to be re-ordered and modified to meet individual student needs. Students work through the stages at a pace appropriate for their needs.

Over the last 25 years, a growing body of research has shown the positive effects of SRSD instruction on the writing and self-regulation of students ranging from second grade through high school (Graham & Harris, 2003). Research has yet to explore the effects of SRSD instruction on students in grades 1 and younger, however. Although some researchers posit that young students struggle with coordinating the cognitive and metacognitive processes necessary for accomplishing complex tasks (McCutchen, 1988; Pressley, Forrest-Pressley, Elliott-Faust, & Miller, 1985; Winne, 1997; Zimmerman, 1990), as is required by SRSD instruction, more recent research suggests that even young children (kindergarten through third grade) can learn to regulate their learning behavior (Perry & Vandekamp, 2000; Graham & Harris, 2003). Findings from this research show that many young students are able to plan, monitor, problem solve, and evaluate during learning tasks. Given these encouraging findings, it is reasonable to assume that strategy instruction following the SRSD model could have a positive effect on beginning writers. Based on this assumption, the aim of this study was to examine the effectiveness of providing SRSD instruction to first grade students, a population of students that SRSD research has yet to explore.

Purpose of Study

The purpose of this study was to assess the effects of SRSD instruction on first graders’ story writing performance, attitudes, self-efficacy, and knowledge. This was the first study to examine the effects of SRSD on average first grade students and was an
attempt to extend a large body of work highlighting the powerful effects of SRSD writing instruction with students with learning disabilities and low-achievers in grades 2nd through high school (Graham & Harris, 2003). Six first grade students with average writing ability participated in this study, which used a multiple baseline with multiple probes design (Kazdin, 2010; Kennedy, 2005).

As part of their instruction, students were taught a story writing strategy using the SRSD instructional model. Students wrote stories in response to picture prompts during baseline, instruction, independent performance, and maintenance phases and students learned self-regulation procedures (e.g., goal-setting, self-monitoring, self-instruction, and self-reinforcement) throughout the instructional phase. Students’ stories were assessed for essential story components, length, and overall quality. All participants also completed writing attitude and self-efficacy scales and participated in brief interviews’ during the baseline and independent performance phases.

Research Questions

The following research questions were addressed in this study.

1. Does SRSD instruction change the number of essential story components included in the stories written by average first grade graders immediately following instruction and at maintenance?

2. Does SRSD instruction change the length of stories written by average first grade writers immediately following instruction and two weeks later at maintenance?

3. Does SRSD instruction change the quality of stories written by average first grade writers immediately following instruction and at maintenance?
4. Does SRSD instruction change the writing attitudes of average first grade writers immediately following instruction and at maintenance?

5. Does SRSD instruction change the writing self-efficacy of average first grade writers immediately following instruction and at maintenance?

6. Does SRSD instruction change the writing knowledge of average first grade writers immediately following instruction and at maintenance?

Definition of Terms

Several terms are key to understanding the current study. Among them are self-regulation, strategy instruction, and Self-Regulated Strategy Development.

**Self-Regulation.** Zimmerman and Schunk (1994) defined self-regulation as “the process whereby students activate and sustain cognitions, behaviors, and affects, which are systematically oriented toward their goals” (p. 309). In their review, Graham and Harris (2000) identified a number of self-regulation strategies that writers use throughout the composition process. Among these strategies, the following were listed and used in the writing intervention used in this study: goal-setting, planning, record keeping, organizing, self-monitoring, self-evaluating, revising, and self-verbalizing.

**Strategy Instruction.** Reid and Leineman (2006) defined strategy instruction as a series of ordered steps that guide students through tasks. Writing strategy instruction often focuses on improving students’ self-regulation skills such as goal-setting, planning, organizing, and revising (Graham, 2006a).
Self-Regulated Strategy Development. The Self-Regulated Strategy Development (SRSD; Graham & Harris, 2005; Harris & Graham, 1996) instructional model systematically teaches students strategies and skills to become independent and successful writers. The intervention used in this study incorporated all six stages of this model: 1) Develop Background Knowledge, 2) Discuss It, 3) Model It, 4) Memorize It, 5) Support It, and 6) Independent Practice.
Chapter 2
Literature Review

As students develop and improve their metacognitive skills, their writing skill and proficiency also improve (Garner, 1990). For some writers, especially young and struggling writers—who often lack basic transcription skills and metacognitive strategies such as planning and monitoring (Annevirta & Vauras, 2006)—the composition process can pose a significant challenge (Bereiter & Scardamalia, 1987; Flower & Hayes, 1981; Hayes, 1996). Research has shown that direct, early interventions focused on building students’ writing skills can prevent future writing difficulties for many students (Page-Voth & Graham, 1999). The Self-Regulated Strategy Development (SRSD) model of instruction (Graham & Harris, 2005; Harris & Graham, 1996) has been shown to teach older students the composition and self-regulation procedures necessary for effective writing. As students build their writing skill repertoire and gain knowledge of the composition process, they are more apt to experience writing success, which can improve students’ motivation for writing (Bruning & Horn, 2000). The current study was designed to extend past work demonstrating the effectiveness of the SRSD model of instruction to average first grade writers.

The effects of SRSD instruction have been demonstrated in a number of empirical studies. Instruction following the SRSD model has been shown to improve students’ writing performance (Graham & Harris, 2003; Saddler, 2006; Saddler, Moran, Graham, & Harris, 2004), writing knowledge (Graham, Harris, & Mason, 2005; Graham, Schwartz, & MacArthur, 1993; Harris, Graham, & Mason, 2006), and motivation
(Graham & Harris, 2003; Graham, et al., 2005). Although research has shown the positive effects of SRSD instruction on relatively young writers (second and third graders), there is no evidence documenting the use and effectiveness of this model of instruction with even younger writers. Emergent writers are apt to face writing failure as early as school begins, thus it is imperative that strategic writing interventions be introduced early on. This study was the first to examine the effects of SRSD instruction on average first grade students’ writing performance, attitude, self-efficacy, and knowledge.

Chapter 1 outlined many of the challenges that young writers face. In this chapter, a review of the relevant literature is presented to frame these issues and challenges. Cognitive processes in writing are presented first. Specifically, the cognitive writing models of Flower and Hayes (1981), Hayes (1996), and Bereiter and Scardamalia (1987) are considered. These sections present many of the cognitive demands that writers—especially young writers—may encounter throughout the writing process. Second, the role of motivation, self-regulation, and knowledge in writing is reviewed to summarize the affective responses, writing strategies, and knowledge that writers must manage as they compose. Next, a review of strategy instruction and Self-Regulated Strategy Development (SRSD; Graham & Harris, 2005; Harris & Graham, 1996) is presented. These sections present a variety of systematic approaches for helping students become independent writers. Finally, this chapter concludes with an overview of the current study and specific hypotheses for this study.
Cognitive Processes in Writing

Fluent writing can be a cognitively demanding process for even skilled writers (Flower & Hayes, 1981). For over 30 years, cognitive psychology has examined the specific process involved in the development of children’s writing. The models developed from these studies have revolutionized much of the way we think about writing and have led to many changes in writing instruction in the classroom (Graham, 2006b). The following sections review the seminal models of cognitive writing processes. These models include Flower and Hayes’ writing cognitive process model (Flower & Hayes, 1981), Hayes’ revision of the original Flower and Hayes model (Hayes, 1996), and the Bereiter and Scardamalia writing models (Bereiter & Scardamalia, 1987).

*Flower and Hayes Writing Cognitive Processes Model (1981)*

In a study designed to reveal the cognitive and motivational processes of writing, Flower and Hayes (1981) asked adults to “think aloud” while composing. The findings were used to construct a comprehensive model of the writing process, which included three fundamental components: (1) the task environment, (2) cognitive processes, and (3) the writer’s long term memory. Flower and Hayes (1981) posited that the task environment is composed of the text produced as well as the different elements that make up the writing task, which generally include the topic, audience, and motivational cues. The second component proposed by Flower and Hayes was cognitive processes, which details the mental activities that writers engage in throughout the composition process. These processes often include the self-regulation procedures of setting goals, generating and organizing ideas, along with planning, transcribing, reviewing, and improving the
written text. The final component proposed, long-term memory, is a component that stores the writer’s knowledge about the topic, writing process, intended audience, and general goals and plans for performing the writing task at hand.

Using this model, Flower and Hayes (1981) organized their findings into four key hypotheses:

1. Writers use a set of distinctive thinking processes throughout the writing process.
2. The cognitive processes of writing are organized hierarchically and contain sub-processes.
3. Writing is goal-directed.
4. Writers generate and revise goals and sub-goals throughout the writing process.

Writers use a set of distinctive thinking processes throughout the writing process. Writers begin the composition process by defining and reacting to the rhetorical problem, such as a school assignment or writing a letter. Flower and Hayes (1981) posited that the audience, motivational cues, and the writer’s own goals are included within the rhetorical problem. The authors emphasize the importance of accuracy and completeness of the rhetorical problem definition, as exactness in these areas might foster or hinder writing success. The creative writing process then is guided by the text generated, the writer’s life experiences and knowledge, as well as external resources, such as books. Throughout this process, Flower and Hayes (1981) proposed that an internal representation of the written text and writing goals are developed and refined.
Flower and Hayes (1981) called the process of converting abstract ideas into text translating. As young writers translate, they often must manage the demands of handwriting, spelling, and grammar (Graham & Harris, 2000). Throughout the writing process, writers also must evaluate and revise what has been written, as well as monitor the process and their progress (Graham & Harris, 2000; Zimmerman & Kitsantas, 1999).

*The cognitive processes of writing are organized hierarchically and contain sub-processes.* Flower and Hayes (1981) posited that writers do not move through the composition process in a linear fashion. Instead, the processes of writing are fluid and embedded within other processes. A writer might begin by planning and translating, for example, but while composing she might review the written text and revise her plan and writing goals before continuing to translate her ideas again.

*Writing is goal-directed.* Similar to the cognitive process, Flower and Hayes (1981) proposed that writers’ goal-setting also is hierarchical, beginning with setting abstract higher-level goals such as “write an essay on polar bears.” These then often include sub-goals such as “describe the habitat of polar bears.” Although goals often provide organization for the text to be produced, Flower and Hayes (1981) posited that goals continue to be created and evolve throughout the composition process. Findings from their study (Flower & Hayes, 1981) suggest that the goals of experienced writers are more elaborate and complex than those of inexperienced writers.

*Writers generate and revise goals and sub-goals throughout the writing process.* Guiding writers through the composition process are goals such as, “start with an introductory paragraph,” and related sub-goals such as “get the reader’s attention.” As
writers compose, they might revise their initial goals to better fit their overall writing plan. Flower and Hayes (1981) described three typical patterns of goal generation for a particular writing task: explore and consolidate, state and develop, and write and regenerate. Writers might begin the writing process with the first pattern, explore and consolidate, for instance. This pattern often begins with high-level goals, such as identifying the writing task at hand (Flower & Hayes, 1981). Using these high-level goals, writers can begin to explore their knowledge and produce associations. For instance, if the writing task is to compose a cover letter for a job application, the writer might begin with a high-level goal to describe his past achievements. During the planning process, he might develop sub-goals to support the high-level goal. In this example, the writer might decide to describe his prior work experience and education. After exploration, however, the writer might examine the text generated in relation to the top-level goal and consolidate, creating a new, more complex goal. For example, perhaps our writer in pursuit of a new job realizes that his first draft, which originally only described his past achievements, is not sufficient. In this case, he might decide to detail his future potential in the cover letter, ultimately elaborating his original top-level goal.

The second pattern presented by Flower and Hayes (1981), state and develop, is a straight-forward process. General top-level goals are developed, which include more specific sub-goals that guide the text production. A traditional outline with planned categories and sub-categories characterizes this pattern well. Referring to the cover letter writer in the earlier example, he might begin composing with a top-level goal of describing his past achievements and future potential. This plan might also include sub-
goals such as detailing specific projects that he has led as illustrations of his technical skill set.

The final pattern, write and generate, closely resembles the *explore and consolidate* pattern (Flower & Hayes, 1981). Instead of re-creating a formal plan, actual writing now is being produced. This writing represents a general plan of the writer’s ideas, from which the writer continuously plans and writes as a reciprocal process. Writers’ ever-changing goals throughout the composition process highlight the dynamic learning process that skilled writing demands (Flower & Hayes, 1981).

The model proposed by Flower and Hayes (1981) exemplifies the intricate and hierarchical nature of most writing. The authors posit that writers continuously plan, translate, and revise their goals and text throughout the composition process.

*Hayes Revised Writing Cognitive Processes Model (1996)*

In 1996, Hayes updated his and Flower’s original 1981 model to better describe the advances in writing research and cognitive psychology. For example, the label *translation* was changed to *text generation* to reflect more current language. Several components of the model also were revised. These included the task environment, motivation/affect, long-term memory, working memory, and planning.

The first component, *task environment*, was revised to include the social and physical aspects involved in the writing process. During the writing process, writers generally consider whom they are writing to or with. The specific audience and writing collaborators might also influence the tone and direction of a writing task (Hayes, 1996).
The physical writing environment also potentially influences what is written. As writers compose and re-read, the writing environment changes as a result of the written text. Whether using a pen and paper or word processor, writers might also prefer a particular composition medium. Thus, the specific writing medium potentially also affects the physical environment.

In addition to the task environment, a writer’s *motivation and affect* for the task has the potential to play an important role in the writing process (Bruning & Horn, 2000). In the revised model, Hayes (1996) added a motivation/affect component to exemplify the influential role that writers’ goals, beliefs, and attitudes play throughout the writing process. Writers can have many goals while working on writing tasks. These might include the purpose and rationale, as well as the length and tone for the task. Often, these goals interact and the writer must ultimately prioritize and balance writing goals (Flower & Hayes, 1981).

As writers determine and balance their writing goals, their beliefs and attitudes potentially influence the progress and success of a writing task (Bruning & Horn, 2000; Graham, Berninger, & Fan, 2007; Shell, Colvin, & Bruning, 1995). For example, research has shown that writers with higher efficacy beliefs have greater writing achievement than their peers (Pajares & Johnson, 1994; Shell, et al., 1995). Although the research is somewhat more limited, findings from other recent studies continue to demonstrate the positive relationship between positive writing attitudes and writing success (Graham, Berninger, & Fan, 2007; Kear, Coffman, McKenna, & Ambrosio, 2000; Zumbrunn, Bruning, Kauffman, & Hayes, 2010).
Hayes (1996) also modified the *long-term memory* component of the earlier model to include task schemas, knowledge of audience, and the impact of extended practice. First, task schemas—which generally include the task goals, the cognitive processes and sequencing of those processes for accomplishing the task, and criteria for evaluating the end product—provide specific procedural information for a writing task (Hayes, 1996). Examples of task schemas include schemas for planning and revision. Second, writers also must consider their audience while composing. In doing so, the writer might reflect on the appropriateness of what has been written for a particular group of people. In addition to task schemas and audience knowledge, extended writing practice can also inform writing knowledge (Hayes, 1996). Examples of this informational function include improved writing strategies and gains in ability to write in a specific genre (Hayes, 1996). As with most anything else, better performance is the result of sufficient practice (Ericsson, 2006).

*Working memory* also plays an important role in the writing process. This component was included to illustrate the connection between cognitive processes, motivation, and long-term memory. For this revision in the framework, Hayes (1996) drew on the model of working memory proposed by Baddeley (1986), which emphasizes the limited storage capacity and cognitive processing of working memory. Specifically, working memory is briefly used to store knowledge and process information as skilled writers engage in the writing process.

Finally, the cognitive processes component was revised to include *planning* as a subcomponent in a new reflection category, which originally included problem solving,
inferencing, and decision-making (Hayes, 1996). In this model, skilled writers continuously engage in goal-oriented planning and revision throughout the writing process.

In summary, the updated model presented by Hayes (1996) included important revisions, with the added components of working memory and motivation as perhaps the most influential (Graham, 2006b). Both models—the original model of Flower and Hayes (1981) and Hayes’ (1996) revision—clearly show the complex nature of the composition process. Likewise, the models proposed by Bereiter and Scardamalia (1987) illustrate how the writing process can pose significant demands on the writer, especially writers with limited writing experience and background knowledge.

**Bereiter and Scardamalia Writing Models (1987)**

Bereiter and Scardamalia (1987) described two models for writing that differentiate the writing processes of novice and skilled writers. They argued that while expert writers tend to approach writing as a knowledge transforming task, novice writers rely on a process that more resembles knowledge telling.

The knowledge telling model was developed to describe a process by which children use writing to communicate what they know about a specific topic (Bereiter & Scardamalia, 1987). This model has been supported by their own and others’ observations of both novice and struggling writers (Graham, 2006b). Similar to the Flower and Hayes (1981) model, the knowledge telling model includes three components: (1) mental representation of the task, (2) long-term memory, and (3) the knowledge telling process. Bereiter and Scardamalia (1987) proposed that writers begin
with a mental representation of the task in which the topic and purpose of the writing task is defined. Next, both writing and content knowledge is stored in the long-term memory. Whereas writing knowledge represents writers’ understanding of the writing process and different writing genres, content knowledge represents writers’ understanding of the writing topic. Drawing on their knowledge, many novice writers then engage in what Bereiter and Scardamalia (1987) call a knowledge telling process, where they probe for and decide on important information to be conveyed to the reader. When writers depend on the knowledge telling process, compositions are typically shorter, less complete, and lower in quality (Graham & Harris, 2000, 2003).

In contrast to the knowledge telling model, Bereiter and Scardamalia (1987) describe features of a knowledge transforming model, which reflects the processes that expert writers engage in while composing. Knowledge telling is not abandoned by more expert writers, but embedded as a sub-process in the knowledge transforming model. Thus, knowledge transforming is a more cognitively complex model. Using the knowledge transforming approach, writers begin by developing a mental representation of the task (similar to knowledge telling). From there, writers plan their ideas and set goals using relevant content and writing knowledge necessary for completing the writing task. Next, writers engage in the knowledge telling process as described earlier. Writers analyze the transcribed text and set appropriate goals throughout this process. In knowledge transforming writing, as they consider the problem, gather and analyze information, and transcribe text, writers’ thinking develops and changes as a result. This model proposes that writing is a recursive process in which the writer’s knowledge
informs what is written and is changed as a result of reflection (Bereiter & Scardamalia, 1987).

Motivation, Knowledge, Self-Regulation, and Writing

All of the major cognitive processing models—Flower and Hayes (1981), Hayes (1996), and Bereiter and Scardamalia (1987)—suggest that writing can be a difficult and demanding process that challenges writers’ motivation to write and continue writing. After students choose to undertake a writing task, which might be an accomplishment in itself, students rely on their attitudes, beliefs, knowledge, and self-regulation skills to carry them through the writing process. It is not hard to imagine how negative attitudes and beliefs or limited writing knowledge and self-regulation skills might hinder students’ writing progress and ultimate achievement. On the other hand, positive attitudes and beliefs, as well as sufficient writing knowledge and capable self-regulation skills, are likely to be more productive. The following sections explore the current literature on students’ writing attitudes, self-efficacy beliefs, knowledge, and self-regulation strategies.

Writing Attitudes

Writing attitudes encompass affective dispositions involving how the act of writing makes the author feel, ranging from happy to unhappy (Graham, Berninger, & Fan, 2007). Traditionally, attitudes are conceptualized along a continuum of extremes from positive to negative (Graham, et al., 2007; Kear, et al., 2000; Knudson, 1991). In line with this conceptualization, students’ writing attitudes often are measured using Likert-type scales (Graham, et al., 2007; Kear, et al., 2000; Knudson, 1991).
Although writing attitudes have received relatively little attention in the literature (Graham, et al., 2007), research suggests that students who display a positive attitude toward writing are more likely to write more often and expend more effort on writing tasks than their peers who hold negative attitudes toward the same tasks (e.g., McKenna, Kear, & Ellsworth, 1995). This may partly be due to the possibility that writing attitudes have been shown to affect cognitive processing (Graham, 2006b). It is possible that students’ negative writing attitudes are more cognitively demanding and thus require more cognitive resources than positive attitudes (e.g., Perkun, 1992). This factor is important for both researchers and instructors to consider, as writing already can be a cognitively taxing process and reduced resources may lead to limited writing success (Hayes, 1996).

Research also has shown that students’ writing attitudes influence writing self-efficacy. This relationship is important to note, as research has demonstrated the link between writing self-efficacy and writing performance (Jones, 2008; Pajares & Johnson, 1996; Pajares & Valiante, 1997; Shell, et al., 1995). In a study highlighting the positive relationship between students’ writing attitudes and writing self-efficacy beliefs, Zumbrunn and colleagues (Zumbrunn, et al., 2010) observed a positive significant relationship between elementary students’ writing attitudes and writing self-efficacy. Students with more positive attitudes toward writing had higher efficacy beliefs than their peers with more negative attitudes toward writing. The findings from this study and others suggest that writing attitudes can influence students’ perceptions of writing competence and subsequent achievement (Kear, et al., 2000; Knudson, 1995). Graham and colleagues (2007) examined the writing attitudes and writing achievement of
elementary students with average ability and found that students with more positive writing attitudes had greater writing achievement than their peers with less favorable attitudes toward writing. In a similar study with first and third grade average writers, Graham, et al. (2007) also found that writing attitudes significantly predicted writing achievement.

Only one study has addressed the effects of strategy instruction on students’ writing attitudes. Zumbrunn and Murphy-Yagil (2009) examined the effects of SRSD instruction on elementary students’ writing attitudes. Findings showed that individualized strategy instruction positively influenced students’ attitudes about writing; however, more research is clearly needed to examine the impact of strategy instruction on students’ writing attitudes. The current study examined the effects of SRSD instruction on average first grade students’ writing attitudes.

**Self-Efficacy for Writing**

In addition to writing attitudes, self-efficacy beliefs also are likely to influence students’ writing performance. Self-efficacy beliefs are defined as one’s beliefs about his or her capabilities in completing a specific task (Bandura, 1995). In short, self-efficacy is a person’s beliefs about their ability to succeed at a specific task. These beliefs often make a difference in how people feel, think, and act. Individuals with higher self-efficacy tend to get involved in activities and demonstrate confidence, whereas individuals with lower self-efficacy tend to avoid activities they believe surpass their abilities (Bandura, 1977).
In general, students’ self-efficacy beliefs come from a variety of sources: mastery experiences, social persuasion, modeling, and emotional states (Bandura, 1986). Perhaps the most influential source of self-efficacy is how students have judged themselves in past performances or mastery experiences. Students’ judgments of whether or not the outcome of past efforts was successful can either enhance or diminish their willingness to engage in similar activities in the future. Students who feel successful and satisfied with their past performances tend to have stronger efficacy beliefs than their peers who judge themselves to have been less successful and are less satisfied with their performance. Teachers can guide their instruction to help build students’ self-efficacy. In the writing classroom, for example, writing tasks can be broken down into realistic and manageable goals to help ensure success.

Social persuasion also affects students’ self-efficacy beliefs, according to Bandura (1977) and others (Schunk, 1982; Usher & Pajares, 2008). Feedback from teachers, parents, and peers has the potential to strengthen or weaken students’ efficacy for specific tasks. Whereas positive evaluations can encourage efficacy beliefs, negative evaluations can more easily defeat those beliefs. It is important for teachers to consider the sensitive nature of writing when providing feedback to students. Writing can be a very personal act and harsh criticism has the potential to squelch students’ writing efficacy beliefs (Zumbrunn, et al., 2010). Providing students with ample praise directed at their effort and persistence at tasks can help students feel more efficacious (Schunk, 2003).

Modeling also has shown to impact students’ efficacy beliefs, especially when tasks are modeled by a peer that the student considers to have similar ability (Bandura,
1977; Schunk, 2003). When students see peers succeed at a particular task, they are more likely to anticipate comparable success. When peers fail, however, students are more likely to anticipate comparable failure. With specific regard to the writing classroom, groups of students with similar ability might receive scaffolded instruction to help ensure more opportunities for students to observe the writing successes of their peers.

Finally, students’ emotional states affect their self-efficacy beliefs, as students draw conclusions about their anticipated success or failure from their emotional reactions (Bandura, 1977; Usher & Pajares, 2008). Negative thoughts and anxiety can weaken students’ efficacy beliefs and increase stress related to the task. For example, a student might feel anxious about an upcoming writing task and the negative affective responses that arise might confirm his already low writing self-efficacy and hinder his overall success at that task.

Research has shown self-efficacy for writing to be a reliable predictor of students’ writing performance (Jones, 2008; Parjares & Johnson, 1996; Pajares & Valiante, 1997; Shell, et al., 1995). For example, Pajares and Johnson’s (1994) research with college students showed that writing self-efficacy beliefs correlated with writing performance. Research also has shown that writing self-efficacy is related to students’ achievement goal orientations (Pajares, Britner, & Valiante, 2000), perceived value of writing (Shell, et al., 1995), and their use of strategies throughout the composition process (Pintrich & DeGroot, 1990). Findings from these studies suggest that self-efficacy mediates between what students believe they can write and what they actually write. Students’ with higher writing efficacy beliefs likely outperform their less efficacious peers largely because they
enjoy and value writing, put more effort into writing tasks, persist longer with writing challenges, and write more inside and outside of the classroom.

Only a few studies have examined the influence of SRSD instruction on students’ self-efficacy beliefs (Graham, et al., 2005; Page-Voth & Graham, 1999) and the results of these studies are mixed. For example, Page-Voth and Graham (1999) studied the effects of SRSD instruction on the writing self-efficacy of seventh and eighth grade students with writing and learning disabilities. Findings showed that students’ efficacy beliefs were not influenced by instruction. Graham, et al. (2005) found similar results with struggling, third grade writers. Other studies have shown, however, that strategy instruction can have a positive impact on students’ self-efficacy (Gaskill & Murphy, 2004; Harris, Graham, & Freeman, 1988). The current study examined the effects of SRSD instruction on average first grade students’ writing efficacy beliefs.

Knowledge of Writing

Knowledge about the process of writing and different writing genres is a critical component of writing development (Graham, 2006b; McCutchen, 1986, 2000, 2006). Features of this knowledge base include an understanding of the characteristics of different writing genres, procedural and strategic knowledge of how to complete writing tasks, and general knowledge of writing mechanics (Olinghouse & Graham, 2009). When knowledge is automatic, it frees up working memory space, enabling rapid processing during writing tasks (Benton & Kiewra, 1986; Benton, Kraft, Glover, & Plake, 1984, Kellogg, 1987).
Research findings suggest that proficient writers are more knowledgeable about the writing process than their less skilled peers (Graham, 2006b; Graham & Harris, 2005; Harris & Graham, 1996). For example, in a study with both normally achieving students and students with disabilities in elementary and middle school, Graham, et al. (1993) found that students with learning disabilities had less sophisticated conceptualizations of the writing process than their normal achieving peers. Results showed that the writing conceptualizations of normally achieving students included a greater emphasis on planning and revision strategies, whereas students with learning disabilities were more likely to emphasize surface-level features such as neatness and spelling. Other research findings call attention to the differences in writing knowledge between skilled and unskilled writers. For example, Olinghouse and Graham (2009) interviewed second and fourth grade writers and found that older students not only were more knowledgeable about the characteristics of good writing, but also more knowledgeable about the writing process in general and the role of effort and motivation necessary for completing writing tasks. These findings and those of others (e.g., Donovan & Smolkin, 2006; Graham, 2006b) suggest that similar to planning skills, writing knowledge improves with age, instruction, and practice.

More skilled and less skilled writers also differ in their understanding of the value and purposes of writing (Graham, et al., 1993). For example, Saddler and Graham (2007) interviewed skilled and struggling fourth grade writers and reported that skilled writers were twice as likely to describe the role writing plays in academics and more than four times as likely to comment on the ways in which writing would influence their future occupational success. In another study, Lin and colleagues (2007) found that when
elementary and middle school writers were asked about the writing process, more experienced writers focused on conveying meaning to the reader, whereas struggling writers generally concentrated on the physical characteristics of writing products.

Research findings also suggest that writing knowledge predicts writing performance (Benton, Corkill, Sharp, Downey, & Khramtsova, 1995; Kellogg, 1987; McCutchen, 1987; Saddler & Graham, 2007). In a series of studies by Benton and colleagues (Benton & Kiewra, 1986; Benton, et al., 1984), high school and college students were asked to solve tasks requiring writers to unscramble letters, words, sentences, and paragraphs. Participants with greater writing knowledge performed tasks with greater fluency and accuracy than participants with limited writing knowledge. Similar results have been found with younger writers as well. In a recent study with sixth-grade students, Fidalgo and colleagues (Fidalgo, Torrance, & Garcia, 2009) found that students’ writing knowledge accounted for 31% of the variance in writing quality.

Considering the influence of writing knowledge on writing quality, research also has demonstrated that increasing students’ writing knowledge can lead to improved writing performance (Fitzgerald & Markham, 1987; Fitzgerald & Teasley, 1986; Wallace, et al., 1996). For example, Fitzgerald and colleagues (Fitzgerald & Markham, 1987; Fitzgerald & Teasley, 1986) showed that writing interventions designed to increase students’ writing knowledge improved the quality of students’ writing. The extant literature on knowledge and writing emphasizes that writing instruction aimed at increasing students’ writing knowledge is an important component of effective writing programs (Saddler & Graham, 2007).
Increasing students’ writing knowledge is a primary goal of SRSD instruction. Previous investigations have shown that SRSD instruction typically has a positive impact on students’ writing knowledge (Graham & Harris, 2003; Saddler & Graham, 2007). In a recent study (Graham, et al., 2005), third grade students were taught how to write stories and persuasive essays using the SRSD instructional model. Findings showed that students’ writing knowledge was significantly boosted as a result of individualized strategy instruction. Similar results were found with second grade writers as well (Harris, et al., 2006). This study extended previous research by assessing the effects of SRSD instruction on first grade students’ writing knowledge.

**Self-Regulation and Writing**

Even when writing tasks are assigned, self-regulation is critical to writing success, given that composing is generally self-planned and self-sustained (Zimmerman & Riesemberg, 1997). Self-regulation has been defined as the “process whereby students activate and sustain cognitions, behaviors, and affects, which are systematically oriented toward their goals” (Schunk & Zimmerman, 1994, p. 309). Planning is a self-regulation skill essential to skillful writing (Bereiter, & Scardamalia, 1987; Graham & Harris, 1994; Zimmerman & Riesemerg, 1997). Research has demonstrated that novice and struggling writers use planning strategies much differently than skilled writers (Bereiter & Scardamalia, 1987; Graham, 2006a; Graham & Harris, 2000; McCutchen, 2006). The development of planning skills is described in the following sections.

**Planning.** For skilled writers, the writing process involves adequate planning before and during the composition process (Flower & Hayes, 1981; Graham, 2006b).
Knowledgeable writers set goals for themselves, generate ideas for their writing, and organize a writing plan (Flower & Hayes, 1981). In fact, skilled and knowledgeable writers spend much of their writing time planning (Gould, 1980; Kellogg, 1986, 1987). For example, Kellogg (1987) found that college students spent nearly a quarter of their writing time planning. In contrast to skilled writers, novice and struggling writers are less knowledgeable about planning and organizing their writing (Graham & Harris, 2000; Englert, Raphael, Fear, & Anderson, 1988) and spend very little, if any, time planning prior to engaging in writing tasks (Graham, 1990; McCutchen, 1988; 1995; 2006). For example, MacArthur and Graham (1987) found that struggling sixth-grade writers spent less than 30 seconds planning in advance of writing.

Limited spelling and transcriptions skills might reduce young or struggling writers’ ability to attend to the many cognitive demands throughout the writing process (Berninger, 1999). As writers—especially novice writers—experience considerable cognitive demands throughout the writing process (Flower & Hayes, 1981; Bereiter & Scardamalia, 1987), planning can serve as an external memory that enables writers to store ideas while writing. With instruction, students in as early as the primary grades can learn to exercise more planning behaviors (Cameron, et al., 1996). In their review, Graham and Harris (2003) illustrated the powerful effects of strategic writing instruction on struggling writers’ planning behavior. One study (De La Paz & Graham, 1997), for example, examined the effectiveness of teaching a SRSD planning strategy on the writing of fifth grade students’ with learning disabilities. Findings showed that students’ writing improved as a result of the instruction. The current study included explicit instruction in planning as a component of the SRSD instructional model.
Writing Development and Instruction of First Grade Students

The writing of young children undergoes several changes as they explore and experiment with language (Bissex, 1980). For example, students develop audience awareness and begin to write more coherently during the elementary school years (Bissex, 1980; Dyson & Freedman, 1991). Over time, students’ writing also increases in length and complexity (Dyson & Freedman, 1991). In order for writing instruction to be most effective, special consideration must be given to the developmental needs of students. The following section explores instruction of primary grade students in general and first grade students in particular.

In a national study, Cutler and Graham (2008) examined the writing instructional practices of 174 primary grade teachers, including 58 first grade instructors. Seventy-two percent of all teachers surveyed reported using a combined process and traditional skills approach in which students are taught specific strategies to plan, draft, and revise their writing, as well as basic spelling, handwriting, and grammar skills. Although there was considerable variability among the teachers sampled, the majority of teachers in the study indicated that they spent over half of their time teaching with whole groups, with the other half of the time devoted to small group or individual instruction. The most common writing activities included story writing, drawing a picture and writing something, writing personal letters, journal writing, completing worksheets, composing personal narratives, responding in writing to material read, and writing poems.

When asked about the practices used to support student writing, the majority (84%) of the teachers surveyed indicated that they encouraged student use of invented
spellings at least half of time or more, and 63% also reported that students were allowed to select their own writing topics. In addition, the majority of teachers (range: 56-75%) indicated that they use graphic organizers, writing prompts, writing conferences, and planning at least weekly or more and revising at least several times a month or more to support student writing. Follow-up analyses revealed that first grade teachers were less likely to use graphic organizers than third grade teachers, however.

Over one-third of the teachers surveyed by Cutler and Graham (2008) reported that basic writing skills such as spelling, grammar, punctuation, and capitalization skills were taught daily. Post hoc analyses showed that first and third grade teachers taught handwriting more than second grade teachers. Also, the majority of teachers reported teaching handwriting and sentence construction skills at least several times a week (22% and 28%, respectively). Eighty percent of teachers reported using mini-lessons and modeling to teach writing skills and strategies (e.g., text organization, planning, revising, etc.) several times a week.

Over 80% of the teachers surveyed indicated that students were allowed to work on assignments at their own pace at least half of the time or more. When asked about assessing student writing, the majority of teachers reported frequent formative assessment. Sixty-nine percent indicated that they monitored student writing progress to make decisions about writing instruction at least weekly. Follow-up analyses revealed that first and third grade teachers were more likely to monitor students writing than second grade teachers. Sixty-three percent of the teachers also reported that they encourage their students to monitor their own writing progress at least weekly. Findings
from Cutler and Graham’s (2008) work suggest that primary grade teachers use an eclectic approach to writing instruction, although there is variability among teachers on the specific practices used most often in their classrooms.

In a similar study with a specific focus on effective and engaging literacy instruction in first grade classrooms, Pressley and colleagues (Pressley, et al., 2001) observed 28 first grade classrooms with evidence of high literacy achievement. Findings showed that the most effective literacy classrooms shared many key characteristics. These characteristics included high academic engagement and competence, excellent classroom management, a positive, reinforcing, and cooperative environment, explicit teaching of literacy skills (i.e., word-level, comprehension, writing skills), an emphasis on literature, many challenging reading and writing practices with appropriate scaffolding, encouragement of self-regulation, and strong connections across the curriculum. Pressley and colleagues (Pressley, et al., 2001) found that students in the most effective first grade literacy classrooms wrote often—alone, with buddies, and with adults. Findings also showed students in high-effective literacy classrooms engaged in daily drafting, revising, and publishing writing activities.

In a more recent summary of their research in the previous decade, Pressley and colleagues (Pressley, Mohan, Fingeret, Reffitt, & Raphael-Bogaert, 2007) suggested classroom practices for effective elementary writing instruction. First, Pressley et al. (2007) suggested that teachers follow a process model approach (Pritchard & Honeycutt, 2006). Specifically, it was proposed that students should be taught to plan, draft, and revise with self-regulation. Second, daily instruction and practice across the elementary
school years was emphasized. “It takes a very long time for the young writer to develop all the competencies of skilled writing and that requires writing instruction to be a whole-school act” (Pressley, et al., 2007, p. 25). Third, it was recommended that instruction be challenging for every student. To help students succeed in these challenges, however, individual needs must be recognized and met using appropriate scaffolding. Next, the authors advocated for cross-curriculum connections, suggesting that writing instruction and activities should be infused throughout the school day, similar to how writing occurs in many real-world tasks. For example, students might describe their observations of a science demonstration. Finally, a case was made for the effects of positive, supportive, and enthusiastic writing environments. Although the recommendations by Pressley and colleagues (Pressley, et al., 2007) apply to writing instruction throughout the elementary years, these suggestions seem to promote the development of first grade writers in particular. Environments with high expectations, choices, consistent feedback, purposeful and authentic writing tasks, and the celebration of improvement can encourage young writers’ enthusiasm and success.

Taken together, the findings from Cutler & Graham (2008) and Pressley et al. (2001) suggest that encouraging self-regulation while providing students with ample challenging, yet developmentally-appropriate and scaffolded writing opportunities can promote writing development. SRSD instruction can be used to help students develop specific writing strategies and self-regulation procedures (Graham & Harris, 2000, 2003, 2005; Harris & Graham, 1996).
Strategy Instruction

Teaching students systematic approaches for working on academic tasks can help them become independent learners (Schunk & Zimmerman, 1998). Learning strategies are often described as such approaches. Generally, strategies include a series of ordered steps that guide students through tasks (Reid & Leinemann, 2006). Typically, writing strategy instruction emphasizes goal-setting, planning, organizing, and revising (Graham, 2006a). The following sections outline the current literature on strategy instruction as specifically implemented in the SRSD instructional model.

In a review of the extant literature on writing strategies, Graham (2006a) posited that the purpose of writing strategy instruction “is to change how writers compose by helping them employ more sophisticated composing processes when writing” (p. 118). Thirty-nine studies with students ranging from those with learning disabilities to high-achievers in grades second through high school were included in the review. Overall, findings from this meta-analysis showed the effectiveness of strategy instruction on students’ writing performance. Mean effect size for the group comparison studies was 1.15. Specifically, the effect sizes for strategy instruction focusing on writing quality, essential components, and length ranged from 0.95 to 1.89. In his review, Graham specifically suggested that research is needed to extend strategy instruction research down into first grade. This study assessed the effects of individualized strategy instruction on students’ writing performance, knowledge, and attitudes.
Self-Regulated Strategy Development

The Self-Regulated Strategy Development (SRSD) model of instruction (Graham & Harris, 2005; Harris & Graham, 1996) can help students develop specific writing strategies and skills related to planning, writing, and revising, while allowing students to maintain control over their writing and learning. As described in Chapter 1, this model includes six stages: (1) develop and activate background knowledge, (2) discuss the strategy, (3) model the strategy, (4) memorize the strategy, (5) support the strategy, and (6) independent performance. The SRSD model of instruction was designed with three overarching goals: (1) To teach students how to effectively plan, produce, revise, and edit their writing, (2) to teach students how to monitor and manage their writing, and (3) to encourage students to maintain a positive writing attitude and self-concept (Harris & Graham, 1996).

Research examining the effectiveness of SRSD has illustrated that instruction following this model improves the writing performance of students over a wide range in ages (2nd grade through high school) and ability (students with learning disabilities to gifted writers). SRSD instruction has been shown to improve students’ writing knowledge, self-regulation, and motivation (Graham & Harris, 2003; 2005; Harris & Graham, 1996). Students’ writing knowledge improves as a result of the instruction of specific writing skills. As students’ writing knowledge increases and self-regulation improves, writing becomes an achievable goal and students’ writing motivation also improves.
In a meta-analysis of SRSD studies, Graham and Harris (2003) presented the effect sizes for group design studies and percentage of non-overlapping data (PND) points for single-participant design studies. PND is one indicator that quantifies the impact of an intervention in a data series (Scruggs, Mastropieri, & Casto, 1987). Mathur and colleagues (Mathur, Kavale, Quinn, Forness, & Rutherford, 1998) suggest that PNDs over 50% indicate intervention effectiveness. Graham and Harris (2003) drew several conclusions from the findings of the meta-analysis. The following questions are addressed in this review:

1. Does SRSD improve students’ writing performance?
2. Are SRSD effects maintained?
3. Is SRSD effective with younger and older students?

*Does SRSD improve students’ writing performance?* In general, SRSD instruction produced large effect sizes. Across all studies considered, average effect sizes at posttest for group design studies were 1.47 for quality, 1.78 for completeness, and 2.0 and above for length and story grammar. Similarly, average PNDs for single-participant design studies were all above 90%. Taken as a whole, SRSD instruction has been shown to have a strong and positive effect on the completeness, quality, and length of students’ writing.

*Are SRSD effects maintained?* Although maintenance effect sizes across studies for quality, completeness, and length considered were moderate to large, they were less robust when compared to post-test results. Overall, the average effect size for group design studies ranged from 0.74 to 1.60. For single-participant design studies, average
PNDs ranged from 89% to 100%. In general, these results show that the effects of SRSD instruction maintains over time.

*Is SRSD effective with younger and older students?* Average effect sizes were calculated for writers in two groups: grades 2 through 6 (younger writers) and grades 7 and 8 (older writers). For both groups considered, average effect sizes at posttest for group design studies exceeded 1.21, whereas the average PNDs for single-participant design studies ranged from 71% to 96%. At maintenance, the average effect size for group design studies was above .80, and the average PNDs ranged from 85% to 100%. These findings illustrate that SRSD instruction is effective with both younger and older students.

In general, numerous studies have demonstrated the strong effects of SRSD on young students’ writing. A variety of studies have shown that SRSD instruction often helps young students write longer stories (Graham, Harris & Mason, 2005; Lane, Harris, Graham, Weisenbach, Brindle, & Morphy, 2008; Lienemann, Graham, Leader, Janssen, & Reid, 2006; Saddler, 2006; Saddler & Asaro, 2007), include more composition components (Glaser & Brunstein, 2007; Harris, et al., 2006; Lane et al., 2008; Saddler, 2006; Saddler & Asaro, 2007; Saddler, et al., 2004), and produce qualitatively better writing (Glaser & Brunstein, 2007; Harris, et al., 2006; Lane et al., 2008; Lienemann, et al., 2006; Saddler, 2006; Saddler & Asaro, 2007; Saddler, et al., 2004).

Research also has shown that implementing the SRSD model of instruction can improve students’ writing knowledge (Graham, et al., 2005; Harris, et. al, 2006; Saddler & Graham, 2007), writing attitudes (Zumbrunn & Murphy-Yagil, 2009), and student
motivation (Graham, et al., 2005) by providing students with the cognitive and pragmatic tools necessary for writing success. Encouragingly, recent findings also revealed that SRSD story writing instruction effects can transfer to other writing genres, such as personal narrative (Saddler, et al., 2004).

**SRSD Studies Closely Related to Current Study**

Two studies that illustrate the effects of SRSD instruction on the writing performance of young students and are closely related to the current study are summarized in this section. Each of these studies included young writers (second grade) as participants and examined the effects of SRSD instruction on students’ writing performance. This section concludes with a summary of a recent pilot study conducted by the present author.

*Saddler, Moran, Graham, and Harris (2004)*. In a study with second grade students, Saddler and colleagues (Saddler, et al., 2004) used a multiple-baseline design to assess the effects of SRSD instruction on students’ writing performance in the genres of story writing and personal narrative. Participants included three male and three female African American students. All participants were identified as struggling writers.

Before instruction began, students wrote three or more stories to establish baseline performance trends. After baseline data were collected, students learned how to plan and write a story using the SRSD POW + WWW What=2, How=2 story writing strategy. Following instruction, students independently wrote stories and personal narratives, which were assessed for length, number of story components, and overall quality. Findings showed that students’ stories were longer, more complete, and with the
exception of one student, qualitatively better. In addition, data showed similar effects in all but one of the students’ personal narratives, an uninstructed genre.

*Saddler (2006).* In a similar study, Saddler (2006) replicated the design, instruments, materials, and procedures used in the Saddler et al. (2004) study and extended the study by including second grade writers with lower levels of writing ability. Findings showed that following SRSD instruction, students’ stories were longer, more complete, and qualitatively better. In addition, students also spent substantially more time planning during the post-intervention phase.

*Zumbrunn (2009).* A pilot study conducted by the present author examined the effects of SRSD strategy instruction on to-be first grade students’ writing performance and attitudes. An additional purpose of the pilot study was to assess possible changes that might be needed to address the developmental needs of first grade students.

Three female and three male Caucasian children enrolled in a summer learning camp located in the Midwest participated in the pilot study. Participants met with the researcher 3 times weekly as a group for approximately 30 minutes and were taught a story writing strategy. Instruction took place in an empty classroom away from camp activities. This area was quiet and free from distractions. Signed parental consent and student assent was obtained prior to the start of the study.

Of the initial six participants, two students were eliminated due to their infrequent attendance. After the first two weeks of the study, a considerable range in writing ability among the four students became increasingly apparent and began to interfere with group instruction. Two students, both struggling with learning the writing strategy and having
difficulty engaging in instructional activities, were eliminated to alleviate the instructional gap among the other participants. Two participants continued with the group through the majority of the intervention. In the second to last week of the study, one of the two remaining participants left the summer camp and was therefore eliminated from the study; thus, only one child participated in every step of the pilot study. This student, Jack (a pseudonym), was a 6-year-old Caucasian boy, with no documented disabilities. He was an only child and lived with both of his parents. According to his kindergarten teacher, Jack was an average writer, but had many creative ideas and could tell colorful stories. His past teacher also described Jack as having limited ability to focus and write for long periods of time.

Jack was taught the POW+WWW What = 2, How = 2 story writing strategy using the Self-Regulated Strategy Development (Graham & Harris, 2005; Harris & Graham, 1996) instructional model (see Figure 1). Using this model, Jack was taught specific strategies for writing a complete story, as well as how to set goals, monitor his understanding and writing, and talk himself through tasks. Strategy instruction included all six stages of the model: (1) develop background knowledge, (2) discuss the strategy, (3) model the strategy, (4) memorize the strategy, (5) support the student’s use of the strategy, and (6) independent performance. Throughout the intervention, Jack set goals for his performance, developed specific self-instructions for himself, and self-assessed his writing.
It was hypothesized that pilot study participants would benefit from SRSD instruction, although the researcher anticipated changes likely would be necessary due to the young participants' developmental ability. All instructional modifications were tracked and recorded throughout the pilot study. These changes included shortening the instructional sessions to approximately 20 minutes each and extending lessons over more sessions until skill mastery reached the level of independence. Personalized prompts, children’s picture storybooks, and quiz games over essential story parts were also used to maintain high participant interest and engagement throughout the instructional intervention.

Jack’s writing ability was assessed both before and after the instructional phase of the study, by his writing a story in response to a picture prompt. Jack was told to do his
best and that he could take as long as he needed, but the researcher could not help him.
Similar to studies by Saddler and colleagues (Saddler, 2006; Saddler, et al., 2004), Jack’s writing was assessed for the number of essential story components included, number of words, and overall writing quality. His writing attitude also was assessed using the Writing Attitude Survey (WAS; Kear, et al., 2000). All assessments were administered by the primary investigator.

Findings from the pilot study showed that SRSD instruction had a positive effect on the completeness, length, and quality of Jack’s writing. Whereas prior to SRSD instruction, Jack included three of the seven components in his story (characters, setting, and actions of the main character), his final story, completed independently, included seven of seven essential story components. Similarly, Jack included 18 words in his story prior to SRSD instruction; however, he included 40 words in his final story, a percentage increase of 122%. The overall writing quality of Jack’s writing also improved after SRSD instruction. His baseline story received an overall writing quality rating of 3 points out of a possible 17. Following instruction, Jack received an overall writing quality rating of 8 on his final story written independently.

SRSD instruction did not positively influence Jack’s attitude toward writing. The Writing Attitude Survey used a four-point Likert scale ranging from (1) very upset to (4) very happy. Prior to SRSD instruction, Jack scored a mean writing attitude score of 2.61 on the Writing Attitude Survey. Following SRSD instruction, Jack’s mean attitude score was 2.32.
Overall, SRSD had a positive impact on the completeness, length, and quality of Jack’s writing, but the intervention did not appear to improve his attitude toward writing. Although he made great gains in writing performance, the evidence did not indicate that his writing had become any more of an enjoyable task for him. It is also possible that Jack’s attitude for writing did not improve because the study took place in a summer day camp—during the time when his peers were participating in exciting activities such as arts and crafts—rather than in a school setting. It also is possible that Jack gave favorable responses at the outset when asked questions about his writing attitudes to gain approval from the researcher. This phenomenon is known as satisficing (Krosnick, 1991). Studies have shown that sometimes participants—especially pre-adolescents—provide answers to questions simply to please the researcher (e.g., Benson & Hocevar, 1985; Marsh, Craven, & Debus, 1991).

The results from the pilot study provide initial evidence of the effectiveness of SRSD instruction on emerging writers’ writing performance. These findings were extended in the current study through a more systematic examination of the effectiveness of SRSD instruction on first grade students’ writing performance, attitudes, self-efficacy, and knowledge, an area of research that had yet to be explored.

The Current Study

The effects of SRSD instruction on the writing performance, attitudes, self-efficacy, and knowledge of average first grade writers were examined in this study. The procedures of the current study followed many of the same procedures used in the pilot study and earlier research; however, some changes were made. First, a multiple baseline
design, including baseline, independent performance, and maintenance phases, was used. These phases were not explicitly incorporated in the pilot study. A multiple-baseline design is more appropriate than a pre-post design for this study, as visual analysis of each student’s results allows the researcher to pay careful attention to students’ progress throughout the study stages. Second, to establish data trends (Kazdin, 2010), a minimum of three writing samples were gathered during the baseline, independent performance, and maintenance phases to establish stable trends in the data. Third, two additional raters, independent of the primary investigator, rated the overall writing quality of students’ stories. This was done to ensure reliability and limit the possibility of scoring bias. Fourth, a different scale was used to assess students’ writing attitudes. This new attitudes scale featured the same response format and many of the same items as the scale used in the pilot study; however, the new scale was more concisely written and thus more appropriate for first grade students. Finally, the effects of SRSD instruction on students’ writing self-efficacy and knowledge also were assessed in this study, as it was hypothesized that SRSD instruction can improve their confidence for writing success as well as increase their overall knowledge of writing and the writing process.

Research Hypotheses

Previous studies had shown that SRSD instruction improves students’ writing performance (Graham & Harris, 2003; Saddler, 2006; Saddler et al., 2004) and similar effects were expected in the current study. Specifically, it was hypothesized that SRSD instruction would increase the number of essential components included and improve the
length and overall quality of average first grade students’ stories both immediately following instruction and at maintenance.

Fewer studies have shown the positive effects of SRSD instruction on students’ writing attitudes and no studies could be found by this writer illustrating the effects of SRSD instruction on students’ writing self-efficacy. However, because SRSD has shown to have such powerful effects on students writing performance, it was hypothesized that SRSD instruction would improve students’ writing attitudes and self-efficacy immediately following instruction.

Finally, as previous studies have illustrated that students writing knowledge can be positively influenced by SRSD instruction (e.g., Graham & Harris, 2003; Graham, et al., 2005; Harris, et al., 2006), it was hypothesized that SRSD instruction would improve students’ writing knowledge immediately following instruction.
Chapter 3

Method

SRSD instruction has been shown to be effective with students ranging from those with learning disabilities to high-achievers in grades second through high school (Graham, 2006a; Graham & Harris, 2003). In the current study, it was hypothesized that systematic application of SRSD instruction would improve average first graders’ writing performance. In addition, it was hypothesized that these students’ writing, attitudes, self-efficacy, and knowledge would also improve as a result of SRSD instruction.

In the following sections, the methods for the current study are presented. First, the setting and participants are described. The next sections explain experimental design, procedures, and measures for the study. The chapter concludes with a description of visual data analysis procedures.

Setting

The study was conducted during the spring semester at a mid-sized, predominantly middle-class elementary school from a large school district in the Midwest. At the time of the study, the school was serving 514 students in kindergarten through fifth grade and had a mobility rate of 5%. The school population consisted of 10% minority students, and 6% of the student body qualified for Special Education services. Thirteen percent of the students qualified for free or reduced-price lunch. The participating class of this study had 14 students. The participating classroom teacher reported that all students were either average (86%) or above average (14%) writers.
Intervention and assessment procedures took place during the school day in a small classroom outside of the teacher’s classroom.

Participants

Teacher. Although only one first grade teacher needed to participate in this study, seven teachers from different schools in the same district were queried to participate in the study. Schedule availability and willingness to participate determined the teacher that was chosen. She was a Caucasian teacher with a Bachelor’s degree in Elementary Education and 17 years experience in the classroom. The primary investigator was known to this teacher, recruited her (see Appendix A), and obtained her informed consent (see Appendix B) for her participation in the study.

Students. Six first grade participants with average writing skills were purposely selected for this study from the same general education classroom. All students in the first grade class were screened for this study, with participant selection based on several criteria. Teacher recommendation was used as the initial screening assessment. Students who were recognized as average first grade writers (in the areas of handwriting, spelling, and overall composition) and as students who would benefit from additional writing instruction were considered for this study. Second, students who scored “average” on middle-of-the-year first grade writing report cards were considered. A rating of “average” indicated that students were able to write independently about self-selected topics or in response to a writing prompt, express a main idea with some details, use a variety of descriptive words and phrases, identify and write complete sentences, use correct punctuation at the end of sentences, and proofread and correct for spelling errors. Third,
the Story Construction Subtest of the Test of Written Language – Third Edition (TOWL - 3; Hammill & Larsen, 1996) was used to measure students’ ability to write a complete story. To ensure developmentally-appropriate instruction, students who were able to write at least one sentence and scored at the mean of the group on the TOWL - 3 were judged as available to participate in the study. Finally, none of participants had a record of disability and all were willing participants. The participating teacher (hereafter, “first grade teacher”) recruited families (see Appendix C) and gathered consent and assent forms. Family consent and student assent forms are available in Appendices D and E, respectively.

Seven first grade students (4 males) were recruited for study and all students signed and returned consent and assent forms. Four male and 2 female average first grade writers were chosen to participate in this study. The seventh participant, a female, did not participate as she already spent considerable time outside the classroom in a number of additional interventions. The participating teacher thought it was best that she stayed in the classroom as much as possible. The remaining 6 students ranged in age from 6.9 to 7.5 years (average = 7.3 years). Five students were Caucasian; one male student was a native of Greece. None of the students selected for this study qualified for reduced-lunch prices or special education services. Students were randomly paired into one of three groups, as follows: Pair 1: Tanner and Nathan; Pair 2: Camden and Seth; and Pair 3: Lindsey and Cassie (pseudonyms).
Experimental Design

A multiple-baseline design across participants with multiple probes (Kazdin, 2010; Kennedy, 2005) was used to monitor the overall effectiveness of SRSD instruction. Students received SRSD instruction in groups of two, 3 to 4 times per week for 20 – 30 minutes. Experimental conditions included baseline, independent performance, and maintenance phases. A strength of this design is that it ensures that changes in students’ writing performance, attitudes, self-efficacy, and knowledge are the result of the intervention rather than some extraneous event coincidentally occurring at the same time of the intervention (Kennedy, 2005).

Procedures

Baseline phase procedures. During the baseline phase, a trained female research assistant, unfamiliar with the purpose and design of the study, met with students individually and administered the writing attitudes and self-efficacy scales, as well as the qualitative writing interview protocol. A research assistant, rather than the primary investigator, administered the attitudinal scales and asked interview questions to minimize the potential for respondent satisficing (Krosnick, 1991). The primary investigator asked students to write stories related to picture prompts. These stories constituted the primary data for this study. Order of picture prompts was randomized prior to use, but all participants responded to the same prompts in the same order during the baseline phase. Students were told to do their best and to take as long as they needed to finish, but the researcher would not be able to help them.
At least three samples of students’ writing were collected to establish a stable trend of data (Kazdin, 2010; Kennedy, 2005) representing typical story writing ability. The collection of baseline data continued for each participant until the data indicated a pattern of independent ability. In particular, students’ stories were assessed for completeness. Once a stable baseline for completeness was established for students in Pair 1, SRSD instruction began for that group. Instruction was staggered for each participant group. Students in Pairs 2 and 3 continued to respond to baseline probes until students in Pair 1 established the criterion performance, which was defined as the ability to independently write a story, complete with all seven essential components, without any prompts. Once criterion performance was established for the participants in the group, students moved into the independent performance phase. These procedures were repeated with each pair of students. This multiple-baseline across participants approach with staggered start for participant groups allowed for controlled comparison to other students, as the intervention had not yet begun for participants in the latter groups. Essentially, comparisons of students’ writing performance could be made across and within the participants at any point in the study period.

Instruction phase procedures. The SRSD instructional model (Graham & Harris, 2005; Harris & Graham, 1996) was used to teach a story planning and writing strategy. The specific instructional model used is represented by the POW + WWW What =2, How =2 mnemonic (see Figure 1, Chapter 2). Using this model, students were taught specific strategies for planning and writing a complete story, as well as how to set goals, monitor their understanding and writing, and how to talk themselves through tasks. Instruction was divided into 6 lessons, which sometimes extended over multiple sessions.
The number of instructional sessions varied for each of the groups. Whereas Pair 1 participated in 12 instructional sessions, Pairs 2 and 3 participated in 10 and 11 sessions, respectively.

Detailed lesson plans and supporting materials (available in Appendix F) were used to teach the POW+WWW What=2, How=2 strategy. These lesson plans and supportive materials were taken directly from the Project Write website, which is maintained at Vanderbilt University (http://hobbs.vanderbilt.edu/projectwrite/). Originally, the lesson plans used in this study were designed for young, struggling writers in early elementary grades (i.e., grades 2-3).

Instruction included the following five stages of SRSD: develop background knowledge, discuss it, model it, memorize it, and support it (Harris & Graham, 1996; see Table 1). These stages provided a framework that guided students in developing and applying effective strategies in their writing, however, the stages are designed to be re-ordered and modified to meet individual student needs. Students worked through the stages at a pace appropriate for their needs. The last SRSD stage, independent performance, was assessed following completion of the instruction phase.

Develop Background Knowledge. Prior to explicit strategy instruction, students were introduced to the strategy components, the seven essential components of a story, and the importance of word choice to develop necessary background knowledge. During the first stage of instruction, students were introduced to the POW planning mnemonic (P = Pick my idea, O = Organize my notes, W = Write and say more) and the importance of each step in the planning process was discussed. The instructor explained that each
letter in the mnemonic represents a key component in planning for a writing task. The instructor and students then discussed why planning is essential to effective or POWerful writing. To ensure understanding, students were asked to verbally recall each step. Next, the group discussed the components of a good story. The instructor emphasized that good stories: a) make sense, b) are fun to read, c) are fun to write, d) include interesting details, and e) include all necessary story parts.

Following the discussion of planning, students were introduced to the WWW, What=2, How=2 story writing mnemonic (see Figure 1, Chapter 2). The story mnemonic was described as a way to remember the seven components of a story. Each component was explained with relevant examples. For instance, to help students understand the story component of setting, students were guided in a discussion of the different locations where stories could take place. Next, students were asked to identify each of the story components as the instructor read a sample story. As each component was identified, the instructor wrote students’ responses in the appropriate section of the story reminder organizer (see Figure 2). Next, students were introduced to million dollar words (MDWs). MDWs were described as exciting vocabulary words that are used infrequently. Students were given examples and then asked to think of examples of their own. After instruction focused on MDWs, students were asked to find MDWs in the sample story. The process of identifying story components and MDWs was then repeated with additional stories. Finally, students were reminded of the importance of memorizing each of the seven story components and told that there would be a quiz over story components at the next session.
Figure 2. POW + WWW What=2, How=2 Story Reminder Organizer.

*Discuss It, Model It, Memorize It.* The next three stages of instruction focused on the importance and use of the story writing and self-regulation strategies. During these stages, the instructor continued *discussions* of the strategy components, the seven essential story components, and the importance of word choice. In addition, discussions focusing on self-regulation procedures were initiated. The instructor also explicitly *modeled* using the strategy and self-regulation procedures and emphasized the importance of *memorizing* the strategy mnemonic throughout these stages.
First, students reviewed the planning and story writing mnemonic, POW + WWW What=2, How=2. Students were encouraged to memorize the mnemonic for fluent use during writing. Students practiced the mnemonic until they were able to independently identify each component. If students needed extra practice with the mnemonic, then they were given cue cards to review outside of the instructional sessions.

Next, self-statements (see Figure 3) were introduced. Self-statements were described as things writers say to themselves before, during, and after the writing process. The instructor modeled using specific self-statements for each part of the POW mnemonic. For example, the instructor said, “Ok, (need to) take my time. What ideas do I see in the picture?” to give students example self-statements for idea selection.

Figure 3. Self-statements organizer.
The instructor then modeled the entire process of writing a story using POW + WWW What=2, How=2, being careful to use self-statements, re-read writing, and monitor the inclusion of the story components from the organizer as they were written. When the story was complete, the group discussed the self-statements the instructor used throughout the writing process. Students also discussed the self-statements they used in the past and recorded possible self-statements they might use before, during, and after the writing process (see Figure 3).

Finally, students discussed the importance of goal-setting and were introduced to the Rocket Story Graphing Sheet (see Figure 4). Each rocket on the graphing sheet is divided into seven parts—one for each of the seven essential story components. The graphing sheet also includes outlines of star shapes for students to shade in for each MDW included in their writing. The instructor explained and modeled how the graphing sheet could be used to graph the seven story parts and MDWs. Students then determined and graphed the number of story parts and MDWs included in the story modeled by the instructor. Finally, the group discussed the meaning and importance of goal-setting and set goals for the next writing session.
Support It. Appropriate scaffolding that meets the individual needs of each student is key to the SRSD instructional model. Instruction during the Support It stage emphasizes scaffolded, collaborative practice with the SRSD strategy and self-regulation procedures. This stage began with collaborative writing. Students and the instructor set a goal to write a good story with all seven parts and to use MDWs. Next, they planned and organized a story using POW + WWW What=2, How=2. Students were encouraged to lead the process, but the instructor prompted students as much as needed. After they had completed their planning and organization, students wrote stories using their WWW What=2, How=2 organizer as a guide. As students wrote, they monitored whether each component was included in the story. After stories were written, students graphed the number of story components and MDWs included in the writing and determined if their goals were reached. Following the first collaborative writing experience, students read
one of their stories written during baseline and graphed the number of story parts included. Together, the students and instructor discussed how the stories could be improved. In particular, the instructor emphasized the need to include all seven story parts and MDWs. Instruction concluded with a discussion of the importance of goal-setting and the students set goals for the next story. Collaborative writing sessions continued until students were able to individually write a story complete with all seven parts. Throughout the sessions, students were weaned off of the story reminder organizer and taught to make their own WWW What=2, How=2 notes on blank paper. Students received less instructional support and prompting as they demonstrated independence.

Independent Performance Procedures

Procedures for the independent performance phase were identical to the procedures followed during the baseline phase. In this stage, which followed strategy instruction, a research assistant trained by the primary investigator met with each student individually and began by administering the writing attitudes and self-efficacy scales as well as conducting the qualitative writing interview protocol. The primary investigator also asked students to write stories related to picture prompts. At least 3 samples of students’ writing were collected over a number of days to establish a stable trend of data (Kazdin, 2010; Kennedy, 2005) in order to represent each student’s typical story writing ability. All participants responded to the same prompts in the same randomly-determined order during the independent performance phase. Students were told to do their best and to take as long as they needed to finish, but the researcher would not be able to help them.
Maintenance Procedures

To determine maintenance effects, the researcher met with students in their groups and asked them to write a story related to a picture prompt independently 2 weeks following the independent performance phase. Instructions were identical to those given during baseline and independent performance phases.

Measures

Teacher Measures

Two teacher measures were used to determine the instructional writing practices used by the teacher and school district participating in the study. The Primary Grade Writing Instruction Survey (Cutler & Graham, 2008) and an observational checklist (Graham, 2009) were administered at the beginning of data collection.

Primary Grade Writing Instruction Survey. The Primary Grade Writing Instruction Survey (Cutler & Graham, 2008; Appendix G) was used to examine the instructional writing practices used by the teacher and district participating in the study. The questionnaire consists of seven sections of items that ask the teacher to provide information about herself, the students she teaches, her attitudes and opinions about writing and writing instruction, and her writing teaching practices.

The first section of the survey asks the teacher to provide demographic information about herself and her students, as well as her opinions of the quality of her pre-service training preparation to teach writing. The remaining six sections include 46 items using Likert-type scales (6- to 8-point ranges) assessing the teacher’s attitudes and
opinions about writing and her effectiveness as a writing teacher, the instructional writing practices she uses, and the writing skills that she teaches her students. Sample items were “How much of your instructional time in writing involves whole group instruction?” and “Circle how often your students engage in ‘planning’ before writing (response format ranges from ‘never’ to ‘several times per day’).” Cutler and Graham (2008) reported coefficient alpha ratings between .62 and .85 for items in these sections.

The Primary Grade Writing Instruction Survey was given to the teacher to complete at her convenience. She returned the survey within the first two weeks of the study. The teacher’s survey responses to individual items were used to help the researcher describe the instructional setting and writing environment of the students participating in the study.

*Primary Writing Practices Observational Checklist.* The Primary Writing Practices Observational Checklist (Graham, 2009; Appendix H) also was used to examine the instructional writing practices used by the teacher participating in the study. The checklist consists of two sections of items that asked the observer to provide information about writing practices used in the participating classroom.

The first section of the checklist presents a number of general teaching behaviors or activities. These included: 1) Skills and Strategies Taught (e.g., planning strategies, handwriting), 2) Common Instructional Activities in Process Writing (e.g., teacher conferencing with students, teacher model enjoyment of writing), 3) Instructional Assessment Procedures (e.g., assigned homework, student (peer) assessment), and 4) Alternative Modes of Writing (e.g., computer, dictation).
The second section of the checklist presents SRSD-related teaching behaviors or activities similar to the procedures used in the SRSD Model. Checklist items require teachers to report whether students are taught a strategy for timed writing, a strategy for planning, the specific parts of a genre, how to write for the state or district writing tests, how to set goals to include all parts of genre in their paper, and assess their use of genre parts in their paper and graph results.

The primary investigator assessed the writing practices of the participating first grade teacher using the Primary Grade Writing Practices Checklist. Two, 30-minute observations were made throughout the study. Like the instructional survey, the observational findings were used to help frame the instructional setting and writing environment of the students participating in the study.

Student Measures

Several student measures were used to determine the effects of SRSD on participants’ story writing skills, attitudes, self-efficacy, and knowledge. In a manner similar to previous research on SRSD (Saddler, et al., 2004), all participants wrote stories in response to black and white picture prompts during the baseline, instruction, independent performance, and maintenance phases. Stories were assessed for essential story components and for their length and overall quality. All participants also completed a writing attitude scale, a writing self-efficacy scale, and participated in brief interviews during the baseline and independent performance phases.

Picture prompts. Black and white picture prompts used in previous studies to assess the effects of SRSD instruction (e.g., Reid & Lienemann, 1996; Saddler, et al.,
2004) were used during all phases of this study. Prior to the beginning of the study, the order of administration of all prompts was randomized. All participants responded to the same prompts in the same, randomized order.

Assessment administration. All measures were administered by either the primary investigator or a trained research assistant, with all writing prompts administered by the primary investigator. A research assistant, blind to the purpose and design of the study, administered all other measures. Students’ writing performance was assessed in small groups and other assessments were administered individually in a quiet space outside of the general classroom. All assessments were scored by the primary investigator and two trained assistants.

Essential story components. The completeness of each story was scored by tabulating if participants included the seven essential story components, which included character(s), setting, time, goals and actions of the main character, ending, and the characters’ feelings components. The Story Elements Scoring Rubric is available in Appendix I. A point was awarded for each element present in students’ stories. Scores could range from 0 – 7. Completeness scores were used to determine stability and make decisions about phase changes.

Overall writing quality. Overall writing quality was assessed using anchor papers that represented quality categories ranging from 1 (lowest quality) to 7 (highest quality). Anchor papers representing low, average, and high quality, and directions for scoring are available in Appendix J. Anchor stories were obtained through procedures similar to those used in related studies (e.g., Graham & Harris, 1989; Saddler, et al., 2004). First,
anchor stories were drawn from stories written by first grade general education students attending the same school in which the study took place. Next, three anchor points were determined by two elementary education teachers. Anchor points were low (2 points), average (4 points), and high (6 points) quality on a 7-point scale. The teacher raters independently read and rated each story and placed them into categories of low, average, and high quality. Raters then compared their ratings for each story and discussed any differences. Finally, the raters selected one story that they judged as best representing each quality category (i.e., low, average, and high), which then served as anchor papers for training. Anchor papers are available in Appendix J.

Scoring of story components and writing quality. Participants’ stories were read and scored for completeness and quality by two research assistants. All identifying information was removed from students’ assessments to minimize potential scoring bias. As a further check against scoring bias, students’ stories also were typed, and spelling, punctuation, and capitalization errors were corrected.

Raters were trained to assess each measure to establish accuracy and reliability. Rater training included a detailed description of assessment procedures, controlled practice, and independent scoring. Raters received a 1-hour training session that included reviewing the Story Components Scoring Rubric (see Appendix I), anchor papers (see Appendix J), and practice stories. Recommendations suggested by Graham (1999) were used to guide the story scoring procedures. Raters were asked to read each story attentively to get an overall impression of writing completeness and quality and then, using the Story Components Scoring Rubric and anchor papers as references, score the
stories. Raters practiced until 80% agreement on each of the 7-point scales (completeness and quality) was achieved. That is, in cases of exact agreement, both raters assessed the same score to a student’s writing on a given component (e.g., rater 1 and rater 2 agreed that student X should get 5 out of 7 completeness score for his third independent performance writing sample).

Following successful training, raters received participants’ stories in random order; no indication of phase in the research design was provided. After independently rating students’ writing, the two raters met with the researcher and discussed the scores for completeness and quality. During this discussion, the two raters made an attempt to reach consensus in the event of a disagreement in the scoring. Final scores for completeness and quality were agreed upon by both raters. The researcher observed score disagreement discussions, but did not participate. Inter-rater reliability for all assessments was calculated as agreements divided by agreements plus disagreements, multiplied by 100. Prior to consensus, inter-rater reliability for story completeness and quality was .74 and .67, respectively.

**Number of words.** The length of each story was calculated by summing the total number of words written, regardless of spelling. After writing each story, participants read their stories aloud to the researcher. Words indecipherable or those added while the students read their stories aloud were eliminated from the final typed copy. Each story was recorded and typed. Number of words was calculated by the word count function of the word processor, *Microsoft Word*. Thus, reliability was not calculated for length.
Treatment integrity. To ensure fidelity of treatment, detailed lesson plans were followed for every session. All lessons also were audio recorded. A trained assistant listened to a random sample of 25% of the sessions and used the lesson plans and an associated checklist (see Appendix N) to evaluate if each component of the lessons was implemented as planned. The lesson completion percentage for this study was 100%.

Visual data analysis procedures. Visual data analysis procedures were based on recommendations by Kennedy (2005). After each observational session, data were scored and charted on a graph. The primary investigator then visually inspected the data, looking for within- and between-phase patterns and trends. To examine the within-phase patterns of change, the level or mean of data for each participant was first calculated for each phase. Second, data trends for each participant were estimated for each phase. Finally, trend variability was observed for each participant in each phase.

Data patterns also were observed for between-phase changes. First, immediacy of effect was estimated by examining changes in the level and trend of the data. Second, the percent of overlapping data between phases also was measured. Visual inspection of the data allowed the researcher to make decisions about phase changes for the participants in this study. Using figures, students’ results are presented in Chapter 4.

Writing Attitude Scale. The questions used to assess students’ writing attitudes were taken from a recent study by Graham, Berninger, and Fan (2007; Appendix K), in which items were adapted from a study measuring reading attitudes (McKenna, et al., 1995) to examine the writing attitudes of first and third grade students receiving SRSD instruction. The Writing Attitude Scale consists of 7 items that asks students to rate their
opinions about writing. This scale was designed specifically for students in grades 1 – 4 and provides an age-appropriate and attractive response format for students. Its response incorporates pictures of the cartoon character, Garfield, displaying emotions ranging from (1) very upset to (4) very happy. Graham and colleagues (2007) reported coefficient alpha reliability of .85 for this scale. Sample items are: “How do you feel about writing instead of playing?” and “How do you feel when you write in school during free time?”

The Writing Attitude Scale was administered to individual students by a trained research assistant. All items were read aloud by the administrator, and students were asked to indicate their responses on the Likert-type scale. To familiarize students with the scale, 2 practice items were presented first. Administration of the Writing Attitude Scale took approximately 5 minutes for each student. Scores for the Writing Attitude Scale were calculated by summing the score of each item and dividing by the number of items. Final scores could range from 1 to 4, with a final score of 4 indicating a positive writing attitude and a score of 1 indicating a negative writing attitude.

**Self-Efficacy for Writing Scale.** The questions used to assess students’ self-efficacy for writing attitudes were adapted from the Self-Efficacy Subscale of the Early Literacy Motivation Scale (ELMS; Wilson & Trainin, 2007; Appendix L). The Self-Efficacy Subscale of the ELMS was developed to measure young students’ perceived ability for reading, writing, and spelling tasks. Wilson and Trainin (2007) reported coefficient alpha of .77 for this scale. For the current study, the scale was adapted to assess students’ perceived ability for story writing. The adapted scale included 4 items that scored students on 3 dimensions: (1) self-efficacy for naming the 7 essential story...
components (1 item); (2) self-efficacy for writing a story of a given length (2 items), and (3) self-efficacy for adding details to a story (1 item). Two items with different topics were included for the second dimension (length) to limit possible gender effects. Items asked students to rate their confidence for writing a story of 1 to 5 lines or more about a lost puppy (length item 1) or a dinosaur (length item 2). The scale provided the same age-appropriate response format used in the ELMS for students. A sample item from the adapted scale is: “How about if I asked you to write a story about a lost puppy? Think about whether you would be able to write a story telling what happens to the lost puppy. Point to the bar on the chart about whether you could write a long story that’s five lines or longer about the puppy, or a three to four line story, or only one or two lines, or if you would have a hard time even writing one line about the lost puppy.”

The Self-Efficacy for Writing Scale was administered to individual students by a trained research assistant. All items were read aloud by the administrator and students were asked to indicate their agreement on the Likert-type scale. To familiarize students with the scale, practice items were presented first. Administration of the Self-Efficacy for Writing Scale took approximately 5 minutes for each student. Item scores for Self-Efficacy for Writing Scale were individually calculated and graphed. Final item scores could range from 1 to 4, with a final item score of 4 indicating high writing self-efficacy and a score of 1 indicating low writing self-efficacy.

Writing interview. A writing interview was used to qualitatively assess students’ knowledge about writing, as well as their attitudes, opinions, and efficacy toward writing tasks (available in Appendix M). Questions probing students’ knowledge about writing
were taken from a recent study by Olinghouse and Graham (2009), which examined the writing knowledge of elementary students. These questions, presented orally to each student, probed their knowledge of the characteristics of good writing and writing strategies, the factors that make writing difficult, the writing process, and the components of a story. Sample questions included: “What do good writers do when they write” and “When you are asked to write for your teacher, what kind of things can you do to help you plan and write well?”

Additional questions in the writing interview probed students’ opinions about writing and their efficacy for different writing tasks. These items were adapted from a study by Zumbrunn and Murphy-Yagil (2009), which examined the writing attitudes and self-efficacy of elementary students. Sample questions include: “Do you like to write? Why or why not?” “When is writing the most fun?” and “Do you think you’re a good writing? Why or why not?” Students’ answers to these questions extended and explained the quantitative writing attitude and self-efficacy scale scores.

The writing interview was administered to individual students by a trained research assistant. If students had difficulty interpreting questions, then questions were rephrased. The administrator prompted students for additional details if students gave vague or general answers during the interview. Administration of the Writing Interview took approximately 10 minutes for each individual student. All interviews were audio-recorded and transcribed verbatim. After the interview transcription process, interviews were read and coded to determine themes among the young writers. Within-case and
cross-case analyses were performed to assess salient and diverse themes within and across the cases.

*Anecdotal Notes*

Anecdotal notes were used to qualitatively assess students’ progress throughout the study. Students’ writing behavior and their responses to the instruction were recorded. Also noted were students’ comments and general progress throughout the study phases. Following the maintenance phase, anecdotal notes were read and key impressions were noted. These findings are presented qualitatively for each student.
Chapter 4

Results

The Self-Regulated Strategy Development (SRSD) story writing strategy, POW+WWW What=2, How=2 (Graham & Harris, 2005; Harris & Graham, 1996), was taught to 6 average first grade writers. It was hypothesized that the overall completeness, length, and quality of their stories would improve as a result of instruction. It also was hypothesized that instruction would have a positive effect on participants’ overall writing attitudes and self-efficacy. Finally, it was hypothesized that students’ writing knowledge would improve as a result of instruction. Results of the current study are presented in this chapter. To illustrate students’ classroom writing environment, results of teacher data are presented first. Next, student data results for number of story elements, story overall quality ratings, and number of words are presented. Results of students’ writing attitudes and self-efficacy beliefs are then presented. This chapter concludes with a summary of the qualitative results from the writing interview.

Teacher Results

To frame the writing instruction and environment of the students participating in the study, their first grade teacher completed the Primary Grade Writing Instruction Survey (Cutler & Graham, 2008). In addition, the researcher used the Primary Writing Practices Observational Checklist (Graham, 2009) to observe two writing lessons in the participating teacher’s classroom. The teacher’s responses to the items on the Primary Grade Writing Survey and the classroom observation data gathered by the researcher
using the Primary Writing Practices Observational Checklist were analyzed to get a sense of the students’ writing environment and instructional practices of the teacher. The findings from this analysis are divided into the following two sections: (1) the classroom writing environment, and (2) teaching practices.

The Classroom Writing Environment

It was clear that writing was both important and celebrated in the first grade classroom observed in this study. Students’ writing and numerous writing posters were displayed throughout the room. For instance, an entire classroom wall was filled with WOW Words, or exciting words to use in writing. All students had their own personalized writing folders that were filled with pieces of writing that they were drafting, a free-writing journal, and tools to help them throughout the writing process, such as a list of writing ideas and a personal list of WOW Words.

Teaching Practices

In the Primary Grade Writing Survey, the first grade teacher was asked which best described her approach to writing instruction. She indicated that she used a process writing approach (Calkins, 1995; Graves, 1983) and reported that her students spent approximately 200 minutes planning, drafting, revising, and editing their writing each week. She indicated that students engaged in planning activities several times each month, revising activities approximately monthly, and publishing activities several times each year. Forty percent of instructional writing time was reported to involve the whole class and the remaining 20 and 40 percent of instructional time was devoted to small groups or individualized instruction, respectively. Observations confirmed the teacher’s
self-report. During both observations, the teacher taught a specific mini-lesson that lasted approximately 10 minutes. After the mini-lesson, students were encouraged to incorporate the specific lesson skill/strategy into their writing and quickly engaged in individual or paired writing.

When asked to identify the writing activities her students typically participated in, the teacher indicated on the survey that students wrote stories, personal narratives, letters, poems, lists, summaries, book reports, plays, alphabet books, completed worksheets, drew a picture and wrote something to go with it, and wrote in response to their reading. The teacher reported that students were almost always allowed to select their own writing topics, work at their own pace, and use invented spellings. The teacher also indicated that she conferenced with her students several times each week. Individually, she met with students to conference about their writing during both observations. The teacher also was observed taking anecdotal notes during student writing conferences. When asked about her notes, the teacher mentioned that during each conference she records the compliment given to the student about his or her writing, a suggestion given for improvement, and any notes on any specific areas that the student was struggling on. The teacher then used these notes to adjust her whole- and small-group instruction.

The teacher was observed to be enthusiastic about writing and learning. She modeled writing-related behaviors, questioned, and encouraged her students multiple times throughout each observation. For example, at one point in the lesson, the teacher thought aloud, “Hmm, next I’m going to think in my head of what I want to say next. I’m having a hard time thinking of something to write. I think I will re-read what I’ve written
so far to give me a clue.” Students responded very well to her instruction. In fact, one student was overheard to say, “Ooh, I’m going to do that [re-read] right when I sit down!”

Student Results

Students independently wrote stories in response to picture prompts during baseline, independent performance, and maintenance phases. All students wrote two stories during the maintenance phase except those in the third group. Lindsey and Cassie only had one maintenance data point because the school year came to an end. Students’ stories were scored for completeness (number of essential story components), length (number of words), and overall quality (holistic story quality rating). Students also completed writing attitude and writing self-efficacy scales, and participated in brief writing interviews. The researcher recorded anecdotal notes throughout the study phases. Student results of essential story components, number of words, story quality ratings, writing attitudes, and writing self-efficacy are presented first. Qualitative results from the writing interview are presented next. This section concludes with a summary of the anecdotal notes recorded for each participant.

Number of Essential Story Components

Figure 5 shows the number of essential components included in each student’s story. Prior to instruction, all students demonstrated stable baselines. Mean scores for the number of essential story components for students’ writing during each experimental condition are shown in Table 2. During the instruction phase, all students met criterion
Table 2

*Participants’ Average Completeness Scores during Each Experimental Condition*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Baseline</th>
<th>Independent Performance</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathan</td>
<td>4.25</td>
<td>6.50</td>
<td>6.50</td>
</tr>
<tr>
<td>Tanner</td>
<td>3.75</td>
<td>6.75</td>
<td>7.00</td>
</tr>
<tr>
<td>Seth</td>
<td>4.71</td>
<td>6.25</td>
<td>6.50</td>
</tr>
<tr>
<td>Camden</td>
<td>2.29</td>
<td>6.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Lindsey</td>
<td>4.27</td>
<td>6.33</td>
<td>7.00</td>
</tr>
<tr>
<td>Cassie</td>
<td>4.45</td>
<td>6.00</td>
<td>7.00</td>
</tr>
</tbody>
</table>

*Note.* Completeness scores were on a scale of 0 – 7.

Performance, independently writing at least two stories containing all seven essential story components. Students were inconsistent in their ability to include all essential components at independent performance, however. Nonetheless, even though no student included all essential components in all stories during the independent performance phase, students’ percentage increases in the total number of story components included were substantial, 53%, 80%, 33%, 162%, 48%, and 35% for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie, respectively. Percentage of Non-Overlapping Data (PND), which is one indicator that quantifies the impact of an intervention in a data series (Scruggs, Mastropieri, & Casto, 1987), was calculated for students’ data in independent performance and maintenance phases. Mathur and colleagues (Mathur, Kavale, Quinn, Forness, & Rutherford, 1998) suggest that PNDs over 50% indicate intervention effectiveness. PND for the independent performance phase for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie was 100%, 100%, 25%, 100%, 33%, and 0%, respectively.
Figure 5. Effects of SRSD instruction on number of essential story components in students’ stories.
At the 2- and 4-week maintenance points, each student wrote at least one story with all essential components. At the 2-week maintenance point, Lindsey and Cassie each included all 7 essential components in their stories. With percentages all over 50%, PND between baseline and maintenance phases illustrates stronger instructional effects compared to independent performance findings. PND for the maintenance phase for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie was 100%, 100%, 50%, 100%, 100%, and 100%, respectively.

**Number of Words**

Figure 6 shows the length (i.e., number of words) included in each student’s story. Mean scores for the number of words for students’ writing during each experimental condition are shown in Table 3. These means represent percentage increases of 47%, 262%, 18%, 309%, 30%, and 102% for each of these students, respectively. PND

<table>
<thead>
<tr>
<th>Participant</th>
<th>Baseline</th>
<th>Independent Performance</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathan</td>
<td>42.75</td>
<td>63.00</td>
<td>38.50</td>
</tr>
<tr>
<td>Tanner</td>
<td>22.50</td>
<td>81.50</td>
<td>48.00</td>
</tr>
<tr>
<td>Seth</td>
<td>30.57</td>
<td>36.00</td>
<td>26.00</td>
</tr>
<tr>
<td>Camden</td>
<td>11.43</td>
<td>46.75</td>
<td>44.00</td>
</tr>
<tr>
<td>Lindsey</td>
<td>46.64</td>
<td>60.67</td>
<td>61.00</td>
</tr>
<tr>
<td>Cassie</td>
<td>35.82</td>
<td>73.00</td>
<td>69.00</td>
</tr>
</tbody>
</table>
between baseline and independent performance phases illustrate the variability among students’ data. PND for the independent performance phase for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie was 25%, 100%, 25%, 100%, 0%, and 100%, respectively.

At the 2- and 4-week maintenance points, effects were inconsistent. Again, PND between baseline and maintenance phases revealed variable effects. PND for the maintenance phase for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie was 0%, 100%, 0%, 100%, 0%, and 100%, respectively.
Figure 6. Effects of SRSD instruction on number of words in students’ stories.
Story Quality Ratings

Figure 7 shows the quality ratings for each student’s story. Following instruction, quality ratings for all students’ stories improved dramatically over baseline performance. Mean quality scores for students’ writing during each experimental condition are shown in Table 4. Mean percentage increases were 58%, 167%, 20%, 300%, 49%, and 62% for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie, respectively. PND between baseline and independent performance phases illustrate the variability among students’ data. PND for the independent performance phase for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie was 75%, 100%, 25%, 100%, 33%, and 100%, respectively.

Table 4
Participants’ Average Quality Scores during Each Experimental Condition

<table>
<thead>
<tr>
<th>Participant</th>
<th>Baseline</th>
<th>Independent Performance</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathan</td>
<td>3.00</td>
<td>4.75</td>
<td>3.50</td>
</tr>
<tr>
<td>Tanner</td>
<td>2.25</td>
<td>6.00</td>
<td>4.50</td>
</tr>
<tr>
<td>Seth</td>
<td>2.71</td>
<td>3.25</td>
<td>3.00</td>
</tr>
<tr>
<td>Camden</td>
<td>1.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Lindsey</td>
<td>3.36</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Cassie</td>
<td>3.09</td>
<td>5.00</td>
<td>6.00</td>
</tr>
</tbody>
</table>

Note. Quality scores were on a scale of 0 – 7.
Figure 7. Effects of SRSD instruction on holistic story quality of students’ stories.
At the 2- and 4-week maintenance points, effects were maintained by all of the children. For Nathan, Tanner, and Seth, however, scores were slightly below the levels at independent performance, although still higher than levels at baseline. Again, PND between baseline and maintenance phases revealed variable effects. PNDs for the maintenance phase for Nathan, Tanner, Seth, Camden, Lindsey, and Cassie were 0%, 100%, 0%, 100%, 0%, and 100%, respectively.

Writing Attitudes

The Writing Attitude Scale was administered to each participant before and after SRSD instruction by a trained research assistant, who was unfamiliar with the design and purpose of the study. Table 3 shows mean Writing Attitude Scale individual scores for each student before and after SRSD instruction. Students’ writing attitudes were

Table 3

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathan</td>
<td>2.67</td>
<td>3.00</td>
</tr>
<tr>
<td>Tanner</td>
<td>3.33</td>
<td>2.92</td>
</tr>
<tr>
<td>Seth</td>
<td>3.58</td>
<td>3.25</td>
</tr>
<tr>
<td>Camden</td>
<td>3.67</td>
<td>3.67</td>
</tr>
<tr>
<td>Lindsey</td>
<td>2.92</td>
<td>2.75</td>
</tr>
<tr>
<td>Cassie</td>
<td>3.67</td>
<td>3.33</td>
</tr>
</tbody>
</table>

Note. Writing attitude scores were on a scale of 1 – 4.
generally positive both before and after instruction. Overall mean for students’ writing attitudes was 3.31 on a 4-point scale prior to instruction. After the intervention, results indicated that writing attitudes were not as positive as baseline scores for most participants. Collectively, the mean for students’ writing attitudes was 3.15 following instruction. Scale scores for all students except two (Nathan and Camden) slightly dropped after instruction.

*Writing Self-Efficacy*

Each participant was administered the Self-Efficacy for Writing Scale before and after SRSD instruction by a trained research assistant, unfamiliar with the design and purpose of the study. Table 4 shows each student’s item scores for their self-efficacy on 3 dimensions: (1) self-efficacy for story completeness, (2) self-efficacy for writing stories of a given length, and (3) self-efficacy for story quality (adding details) before and after instruction. Dimensions 1 and 3 were measured with 1 item, and dimension 2 was measured with 2 items.

On average, students’ efficacy for writing a complete story increased slightly from pre- to post-instruction. Collectively, the mean for students’ efficacy for writing a complete story was 3.16 on a 4-point scale before SRSD instruction. Nathan believed he could name most of the 7 story parts, Tanner, Seth, and Camden believed they could name all of the parts, and Lindsey and Cassie believed they could name some of the parts. Following instruction, students’ efficacy scores for writing a complete story either increased or remained at ceiling levels. All students believed they could name all of the story parts after instruction, rating their ability as a 4.
Table 4

Writing Self-Efficacy Scale Item Scores

<table>
<thead>
<tr>
<th></th>
<th>Story Completeness Self-Efficacy</th>
<th>Story Length 1 Self-Efficacy</th>
<th>Story Length 2 Self-Efficacy</th>
<th>Story Details Self-Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Nathan</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Tanner</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Seth</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Camden</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lindsey</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Cassie</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*Note.* Writing attitude scores were on a scale of 1 – 4.

To assess students’ efficacy for writing stories of a given length, two items with different topics were included. Items asked students to rate their confidence for writing a story of 1 to 5 lines or more about a lost puppy (length item 1) or a dinosaur (length item 2). Scores for these items could range from 1 to 4. The students collectively exhibited moderate efficacy for writing stories of a given length. Whereas a score of 4 indicated that the student believed he or she could write a story of 5 or more lines, a score of 3 indicated a student’s belief that he or she could write a story of 3 to 4 lines. With respect to both story length efficacy items, the mean for students’ efficacy for writing a complete story was 3.67 prior to instruction and 3.75 following instruction. Nathan, Seth, Camden, and Lindsey had the highest efficacy beliefs after instruction. Ironically, the two students
scoring the lowest, Tanner and Cassie, wrote longer stories on average than the other participants during the independent performance phase.

Compared to the other efficacy items, students’ efficacy for adding details (quality) varied the most. Recall that scores for this item could range from 1 to 4 (1 = hard time thinking of details to add, 4 = could write a story with lots of details). Collectively, the mean for students’ efficacy for adding details to a story was 3.17 prior to instruction. Following instruction, students’ efficacy scores for adding details to a story improved and were less variable. The group mean for writing a detailed story was 3.83, indicating a high degree of confidence for performing this task.

**Qualitative Interview**

To better understand students’ writing knowledge, attitudes, opinions, and efficacy, a qualitative interview was conducted before and after SRSD instruction. The qualitative data supported and expanded the other findings of this study. Interview data revealed a more descriptive picture of students’ perceptions of writing.

*Writing knowledge.* Qualitative interview data illustrated students’ knowledge of writing and writing strategies both before and after SRSD instruction. Participants were asked, “What is good writing?” Before the intervention, 4 out of 6 students commented on the importance of neat handwriting and appropriate punctuation. Nathan described, “To be a good writer, you have to make sure you add a period when you’re done with a sentence.” Also, almost all students agreed that including details and exciting words was important. Camden captured this well, “You want your reader to feel like they’re there. You want your story to reach their heart.” Following instruction, many of the students
still agreed that details were important; however, 5 of the 6 participants also mentioned SRSD components or procedures in their responses. Specifically, students mentioned including all 7 essential story components, including million dollar words, and enjoying and monitoring their writing. Nathan said during the post-interview, “Good writers always re-read and make sure they have everything—you know—all of the parts [essential story components].” Also interesting was the way students described the parts of a story before and after the intervention. Whereas all 6 participants correctly identified that stories have a beginning, middle, and end, after instruction, all students listed the 7 essential story components taught using the SRSD POW WWW What=2, How=2 mnemonic. It appears the students’ classroom teacher taught them the general parts of a story—beginning, middle, and end—but the SRSD intervention seemed to add and clarify their story schemas.

Writing attitudes and opinions. Similar to students’ writing attitude scale scores, students’ qualitative responses indicated that students generally had positive attitudes toward writing both before and after SRSD instruction. When asked if they liked to write, all students responded “yes” during the pre- and post-interviews. During pre-interview sessions, participants’ specific responses indicated that they enjoyed writing because it was fun and it helped them learn. Cassie commented, “Writing is fun. I like to remember things and write about them. It’s fun to tell them [my memories] to other people.” Students’ responses were similar during the post-interview. Tanner said, “I like writing because I have good stories. It’s fun.” Before and after the intervention, 5 of the 6 participants also told the interviewer that they enjoyed sharing their writing with others. Lindsey described in the pre-interview, “Yes, [I like to share my writing] because it’s an
opportunity. I want everyone to know what my story is about. I like it when my teacher reads my writing to the class.” Camden added in his interview, “Sometimes the teacher does a celebration—like everyone claps in a funny way—after I read my writing to the class. That’s pretty cool.” Although Tanner replied that he did not like others to read his writing, his responses changed from a flat “No. [I don’t like people to read my writing.]” during the pre-interview to “Not really. Well, I guess I like other kids to read it sometimes.” during the post-interview. Overall, the participants seemed to enjoy the writing process and sharing their writing with others both before and after SRSD instruction.

*Writing self-efficacy.* Students’ positive responses to writing efficacy interview questions supported their responses to the items on the Self-Efficacy for Writing Scale. Generally, students’ comments revealed that they believed in their ability as writers. Before and after SRSD instruction, participants were asked if they were good at writing. Five of the 6 students responded positively to this question before the intervention. Participants told the interviewer that length, details, and practice all contributed to their writing confidence beliefs. Seth described, “I’m a good writer. I practice lots at home. I practice in the afternoon. I practice before I go to bed.” Lindsey did not share her peers’ high efficacy beliefs before the intervention, however. She commented, “Sometimes I’m a good writer. I’m OK. Sometimes I misspell words. Like yesterday, I wrote a poem and I wrote a lot of words wrong.” Interestingly, Lindsey’s efficacy score on the item that related to adding details to her writing was a 1 (have a hard time adding details to a story) before SRSD instruction. After the intervention, however, all students—including Lindsey—indicated high efficacy beliefs. Students had different reasons for these beliefs,
ranging from believing they had good ideas and including many details or million dollar words in their writing to entertaining their friends. Nathan commented, “Yeah, I’m good at writing. Lots of people teach me about writing. I know all about the seven parts [of a story], million dollar words, [adding] dialogue, and using exciting words.” In general, qualitative self-efficacy data supported students’ item scores on the Self-Efficacy for Writing Scale. Participants seemed to believe themselves to be capable writers both before and after SRSD instruction.

*Anecdotal Notes*

In addition to the other assessments, anecdotal notes on each student’s writing behavior, their responses to SRSD instruction, and their general progress were recorded throughout instruction.

Nathan (Pair 1) joined the writing group as an eager writer. He always was excited to begin writing or instruction. Seldom distracted while working, Nathan typically was a focused writer. He seemed to respond well to the SRSD instruction. Nathan was able to memorize all 7 essential story components by the second session. He rarely had any struggles writing, but did need additional prompting to add details to his story throughout the intervention. Nathan also seemed rushed to finish his writing during the last few instructional sessions and throughout the independent performance and maintenance phases. These points are illustrated in the mediocre quality ratings of his stories written during these phases. Nathan’s teacher mentioned that although she believed he was capable of writing better, he had grown as a writer since the intervention.
She noted that he took direction more easily and that his writing was more descriptive after the intervention.

Tanner (Pair 1) generally was a somewhat timid student, but like his writing partner, Nathan, he was always excited to join the writing group. Tanner made great progress throughout the phases of the study. By the second session, he had memorized all of the essential story components. Quickly learning the SRSD procedures, Tanner needed little prompting to write complete stories early in the instructional process. Although timid, Tanner had a true “writer’s voice.” Each of the stories he wrote independently were very descriptive. His teacher noticed Tanner’s writing improvements as well. In particular, she commented that after the SRSD instruction, he had “gone to town” with his writing and had grown tremendously as a writer. She noted that his confidence had greatly improved and his classroom writing was longer and more detailed.

Writing was somewhat labored for Seth (Pair 2) throughout the study phases. Although he always joined the writing group willingly, he often seemed eager to return to his classroom, even during the first few sessions. When asked if he wanted to go back to his class, Seth always declined, albeit reluctantly. This was the case even when he was reassured that he didn’t have to stay in the group if he didn’t want to. Seth often responded, “[My teacher] is reading a really good book to the class, but it’s ok, I’ll stay here.” He also had a few problems at home. Seth mentioned early on that his parents were getting a divorce. I later learned that his parents separated and he had moved the week just before he entered the instructional phase of the study. Despite these challenges, Seth did make improvements in his writing after SRSD instruction. He seemed to learn the
strategies easily and memorized the 7 story components by the fourth day of instruction. Seth did, however, sometimes struggle to clearly communicate his ideas and needed occasional prompting to re-read his work. Seth’s classroom teacher noted that he had not made much progress in his writing in the classroom after the intervention. She also mentioned that she saw his writing habits and the quality of his writing diminish. It is unclear which variable or variables—the SRSD instruction, Seth’s family struggles, or some other unknown variable—might have been responsible for his lack of writing progress.

Camden (Pair 2) seemed to enjoy the writing group more than any of the other participants, but he also seemed to have the lowest confidence in the group. During the baseline phase, Camden consistently wrote 1-sentence stories that simply described the picture prompt. He therefore usually finished well before Seth, his writing partner. Camden also struggled to understand the seventh story component, feelings of the main character. Even after instruction, he included adjectives such as “sweaty” as emotional feelings in his stories. Throughout the instructional sessions, Camden quickly learned how to add length and detail to his stories and he was able to memorize all of the essential story components by the third instructional session. Regardless of this progress, he still occasionally expressed doubt about his writing ability. Camden learned how to use self-statements and used them well to manage his self-doubt. The use of self-statements coupled with additional encouragement from the researcher, however, helped Camden approach new writing challenges head-on. He sometimes appeared to surprise himself with his success saying, “I did it, I really did it!” after finishing a piece of writing. Camden’s classroom teacher also noticed his improved confidence and writing
ability. She mentioned that his confidence had grown more than any of the other participants and that he often seemed excited to share his writing with his classmates, whereas before SRSD instruction, he was reluctant.

Lindsey (Pair 3) always seemed eager to join the writing group and share her ideas. Despite her excitement, Lindsey had the most difficult time learning the strategies and seemed the most frustrated compared to the other participants. To help her memorize the components, she and the researcher reviewed the mnemonic every session and flash cards of the story components were sent home. In addition, the researcher taught Lindsey a song with body actions to help her memorize the components. Lindsey was able to recite the 7 story parts independently by the ninth session, but struggled to remember all of the parts throughout the instruction, independent performance, and maintenance phases. Frustrated with her difficulty in memorizing the story components, Lindsey was often overheard using self-statements like, “Come on, Lindsey. Keep on trying.” Independently, she also made a point to set additional goals for herself. When she met these goals, her pride was apparent. After the last independent performance writing session, Lindsey beamed and said, “I used 5 million dollar words! I beat my score!” Successes like these seemed to keep her encouraged throughout the phases of the study. Similar to Camden, Lindsey also had difficulty understanding the concept of feelings. For example, she wrote the phrases “uh-oh” and “in trouble” as feelings on her story organizer while planning her writing. Lindsey had few problems with this, however, after a short lesson on feelings and emotions. Lindsey’s teacher also noticed her occasional struggles. She commented that although Lindsey showed great potential in her writing, she sometimes had difficulty with writing in the classroom. Specifically, Lindsey’s
teacher noted that she seemed to have a hard time balancing all of the new strategies taught in her class. “It’s almost like Lindsey gets hung up because she tries to do everything. After a mini-lesson on details, she adds too many [details]. After a mini-lesson on commas in lists, her whole story is a list. Her writing is sometimes very incoherent and I think she struggles with processing and putting it all together,” her teacher said at the end of the study. Although Lindsey made progress in her writing after SRSD instruction, her teacher’s comments illustrate that there is still potential for further growth in her writing.

Cassie (Pair 3) was a highly focused writer with a quiet demeanor. Each session, she seemed thoughtful about her writing and often labored over fine details. Cassie always spent considerable time planning and adding details to her story organizer before beginning writing. This diligence and attention to detail likely helped her to be successful and progress well throughout the intervention. Cassie was quick to memorize the story components by the second day of instruction. She was a good writer before instruction, but her writing became much more consistent in completeness, length, and quality as she progressed through the intervention. Although Cassie rarely showed any signs of struggle while writing, she often switched from the third to first person in her stories. Her teacher commented that this might be because the class had been writing personal narratives—stories about themselves—during the time she participated in SRSD instruction. When asked about Cassie’s writing progress, her teacher mentioned that she had noticed an increase in her confidence and that her writing was much more detailed and coherent after her participation in the intervention. In general, almost all of the students seemed excited to join the writing group every session. Although some students had difficulty
memorizing the 7 essential story components and adding details, each of the participants made progress as writers throughout the study. The students’ use of self-statements and goal-setting appeared to help most of them be more successful and confident in their writing.
Chapter 5

Discussion

The purpose of the current study was to assess the effectiveness of SRSD instruction with average first grade writers. This chapter presents discussion of the findings of the study and their implications. Findings related to the research questions posed in Chapter 1 are addressed first. Next, limitations of the study are presented. This chapter concludes with implications for teaching and a discussion of the overall conclusions for this study.

Research Questions

*Story Writing Effects*

Research questions 1 through 3 addressed the effects of SRSD instruction on the story writing of average first grade students. Participants wrote stories independently during baseline, independent performance, and maintenance phases. To measure changes in students’ writing performance, stories were assessed for completeness (number of essential story components), length (number of words written), and overall quality (holistic quality rating). Completeness scores were used to determine stability and make decisions about phase changes.

*Essential components.* Students’ stories were more complete after SRSD instruction. All participants wrote stories with more essential story components during independent performance, with all students making additional progress at maintenance. Although students had mean completeness scores that ranged from 2.29 to 4.71 (7-point
scale) at baseline, it is possible that additional guided instruction could have boosted students’ completeness scores at independent performance and maintenance. As several students had average levels of completeness at baseline, they had limited progress to make. For the students with lower scores, it is possible that these students’ cognitive processing abilities played a role (McCutchen, 1988). As noted in the anecdotal notes section in Chapter 3, some students had difficulty understanding and memorizing the components.

*Number of words.* Although length was not a focus of instruction, students’ stories in general were longer after SRSD instructional sessions. All students had longer stories on average during independent performance. Percentage increases for number of words written in stories from baseline to independent performance each were over 100% for Tanner, Camden, and Cassie. Camden had the most impressive changes with a percentage increase of 309% for his stories written before and after instruction. With percentage increases of 47% and 30% from baseline to independent performance, Nathan and Lindsey’s gains were less pronounced. These students wrote stories that were on average longer than the stories of their peers at baseline and thus had arguably fewer improvements to make. The average number of words Nathan and Lindsey included in their stories at independent performance was in line with the other participants whom made greater gains. Seth’s stories increased by 18% on average from baseline to independent performance. As noted in the anecdotal notes section in Chapter 3, Seth often revealed an eagerness to return to his classroom, as his teacher generally read “a really good book” to the class during the time that our writing group met for each session. Also mentioned in the anecdotal notes section, Seth’s parents recently had separated and
he had moved with his mother during this study. It is possible that his mind was focused on the issues of his home-life more than writing.

Maintenance effects for number of words written were inconsistent. Saddler et al. (2004) found similar results with struggling second grade writers. In the present study, Tanner, Camden, Lindsey, and Cassie averaged more words written in their stories from baseline to maintenance, but these averages dropped slightly from independent to maintenance. Nathan had an average of 10% fewer words in his stories from baseline to maintenance; however, similar to his writing at independent performance, the average number of words included in his stories at maintenance was again in line with his peers. Seth did not make gains in the average number of words included in his stories from baseline to maintenance and his stories averaged the least amount of words compared to the other participants. Again, however, it should be noted that these findings could be the result of his hesitancy to participate in the intervention, his issues at home, or a combination of both.

Overall quality. Students’ stories were rated as being of better overall quality after SRSD instruction. Similar results have been found in other studies examining the effects of SRSD instruction with older students (e.g., Glaser & Brunstein, 2007; Graham, et al., 2005; Lane et al., 2008; Lienemann, et al., 2006; Saddler, 2006; Saddler & Asaro, 2007; Saddler, et al., 2004). In this study, quality scores for students’ stories were higher, on average, for all participants at independent performance. Quality scores were based on anchor paper ratings of 1 (low quality) to 7 (high quality). Camden made the greatest gains in the quality of his stories. During baseline, each of his stories was scored as low
in quality. All of Camden’s stories written at independent performance improved to consistent, average quality. The average quality of Tanner and Seth’s stories at baseline was low. Tanner made significant improvement from baseline to independent performance with high quality scores for stories written after instruction. The quality of Nathan’s stories was average during baseline, improved to high-average quality at independent performance. Mean quality scores for the stories written during baseline also were average for both Lindsey and Cassie, but improved to the high range following instruction. Seth’s gains were inconsistent, however. Seth’s stories received quality ratings ranging from low to average during baseline and from low to high quality at independent performance. At maintenance, improvements in quality were not as pronounced, but still were maintained for all students except Seth.

Average quality scores for students’ stories seemed to correlate with the average number of words included in each story at each phase. For example, with few exceptions, students with shorter stories (31 words or fewer) typically averaged low quality scores, whereas students with stories of medium (32 – 48 words) to long (60 words or more) length generally had mean quality scores of average to high, respectively.

Attitudes

Research question 4 addressed the effects of SRSD instruction on the writing attitudes of average first grade students. Using the Writing Attitude Scale (WAS; Graham et al., 2007), participants rated their opinions about writing. Writing attitude scores could range from 1 (low/negative) to 4 (high/positive). Students also responded to qualitative interview questions about their writing attitudes. With baseline writing attitude scores
ranging from 2.67 to 3.67 and independent performance writing attitude scores ranging from 2.75 to 3.67, all participants generally had positive writing attitudes before and after instruction. Harris et al., (2006) also found that second grade students had not yet developed negative writing attitudes sometimes demonstrated to older students. In this study, Nathan’s average writing attitude score was the only one to increase from pre- to post-instruction (from 2.67 to 3.00). At 3.67, Camden’s average writing attitude score stayed the same from pre- to post-instruction. Interestingly, writing attitude scores dropped slightly from baseline to independent performance—from 3.31 to 3.15 for the remaining 4 participants.

Previously, only one other study (Zumbrunn & Murphy-Yagil, 2009) has addressed the effects of strategy instruction on students’ writing attitudes. Findings from that study showed that specific strategy instruction positively influenced students’ attitudes about writing. Thus, it is unclear why the majority of students’ attitude scores did not increase from pre- to post-instruction for the present study. Overall, students seemed to enjoy the SRSD instruction they received with the writing group, and their classroom teacher indicated that all of the students enjoyed writing in her class as well. There are a few factors that could explain students’ weaker writing attitudes after instruction. First, it is possible that students’ already positive writing attitudes at baseline influenced their limited improvement after instruction. On all WAS items except 1, means at baseline were 3.17 or above (4-point scale). The scale item with a lower mean (2.17) was “How do you feel about writing instead of playing?” Student’s lower responses to this item seem reasonable, given their young age. It should also be noted that this item also had a lower mean score (1.67) of over a half-point following instruction.
Second, it is possible that satisficing could have been a factor. Students perhaps gave more positive ratings during the baseline phases because it was the first time they met the research assistant whom administered the survey and they may have wanted to please her. Third, it is possible that students’ writing attitudes might not have improved as a result of missing attractive classroom activities because of participation in the writing intervention. More than one of the students commented that their teacher read exciting books aloud to the class or that their classmates enjoyed extra free-time while the study participants met with the writing group. Fourth, it is possible that the scale was not fine-tuned enough for first grade students. Perhaps a Likert-scale with more than four response options would measure students’ writing attitudes more precisely. Finally, only 6 students participated in this study, likely contributed to the limited changes in writing attitudes. The small sample makes these findings impossible to generalize.

Self-Efficacy

Question 5 addressed the effects of SRSD instruction on the writing self-efficacy of average first grade students. Students responded to qualitative interview questions about their writing efficacy and also, using the Self-Efficacy for Writing Scale, rated their perceived ability for story writing. The Self-Efficacy for Writing Scale scored students in three efficacy dimensions: (1) self-efficacy for naming the 7 essential story components; (2) self-efficacy for writing a story of a given length, and (3) self-efficacy for adding details to a story. Scale scores could range from 1 (low writing self-efficacy) to 4 (high writing self-efficacy). In general, students had slightly higher writing self-efficacy beliefs after SRSD instruction. On the item that asked students to rate their self-efficacy for
naming the essential story components, ratings ranged from low average (2) to high (4) writing self-efficacy prior to instruction. The high pre-test scores (4) of Tanner, Seth, and Camden are suspect, however, considering that the 7 essential story components are specific to SRSD instruction and students had yet to receive SRSD instruction. After SRSD instruction, however, all students were fully confident (ratings of 4) that they could name all 7 essential story components.

Self-efficacy for writing a story of a given length, was measured with 2 items. In item 1, students were asked to rate their confidence for writing a story of 1 to 5 or more lines about a lost puppy. Item 2 asked students to rate their confidence to write a story of 1 to 5 or more lines about a dinosaur. Results were mixed with respect to these 2 items. Both before and after instruction, students’ scores ranged from high average (3) to high (4) for both items. Students believed they could write a story about a puppy or a dinosaur with 3 to 5 or more lines. Nathan, Seth, and Lindsey believed they could write a story that was 5 lines or longer for either topic before and after SRSD instruction. Camden and Cassie believed they could write a 3 to 4 line story about a puppy during baseline. Their efficacy scores increased to high (4) at independent performance. Whereas Camden had high efficacy for writing a story about a dinosaur with 5 or more lines before and after instruction, Cassie only believed she could write a story with 3 to 4 lines about this topic both before and after instruction. This is surprising, considering Cassie’s consistently lengthy stories at independent performance and maintenance (68 – 81 words, each). It is possible that Cassie’s efficacy was influenced by the topic, writing a story about a dinosaur. Tanner was the only student who had a slightly lower efficacy score for this factor following instruction. Tanner believed he could write story that was 5 or more
lines about a puppy during baseline, but was only confident that he could write 3 to 4 line story about this same topic during independent performance. Tanner believed he could write a story of 3 to 4 lines about a dinosaur both before and after instruction. This finding also was surprising, as Tanner’s stories written at independent performance were generally long (59 – 122 words, each). Again, the topic, writing a story about a dinosaur, may have influenced his efficacy for writing a longer story.

Results on the item measuring self-efficacy for adding details to a story also were somewhat mixed. Students’ scores ranged from low (1) to high (4) prior to instruction and from high-average (3) to high (4) following instruction. Nathan and Lindsey both made gains from baseline to independent performance in their efficacy for adding details. At independent performance, Nathan had a gain of 1 point (3 – 4) and Lindsey had a gain of 3 points (1 – 4). The other students believed they could add many details to their story (score of 4) both before and after instruction.

Overall, with few exceptions students had fairly high self-efficacy beliefs for all dimensions of efficacy for writing both before and after instruction. Qualitative findings generally were consistent with the pattern of findings from the Self-Efficacy for Writing Scale. Again, satisficing might explain students’ high efficacy beliefs prior to SRSD instruction, but it seems more likely that students’ young age played a greater role. Although some researchers (e.g., Wilson & Trainin, 2007) have found that students as young as first grade can gauge their efficacy with accuracy, others (Gaskill & Murphy, 2004; S. Graham, personal communication, December 1st, 2009; Graham, et al., 2005) have posited that students in the primary grades are not able to accurately assess their
own capabilities, which raises the concern about whether self-efficacy is a viable construct for young children. The mixed results of the current study are similar to the findings from other studies, which have shown that strategy instruction inconsistently influences young students’ self-efficacy beliefs (Gaskill & Murphy, 2004; Graham et al., 2005; Harris et al., 1988; Page-Voth & Graham, 1999).

Knowledge

The final research question addressed the effects of SRSD instruction on the writing knowledge of average first grade students. A writing interview (Olinghouse & Graham, 2009) was used to qualitatively assess students’ knowledge about writing. As indicated in their interviews, all students revealed that they had gained knowledge about writing and specific writing strategy knowledge as a result of SRSD instruction. Participants were more complete and detailed in their post-interview responses. In particular, students mentioned including all 7 essential story components, million dollar words, and enjoying and monitoring their writing. These results are consistent with findings from other studies that have examined the effects of SRSD instruction on students’ writing knowledge (Graham & Harris, 2003; Graham et al., 2005, Harris, et al., 2006; Saddler & Graham, 2007).

Conclusions

The composition process can pose a significant challenge for young writers (Bereiter & Scardamalia, 1987; Flower & Hayes, 1981; Hayes, 1996), given their limited transcription and metacognitive skills (Annervirta & Vauras, 2006; Bangert-Drowns, et al., 2004; McCutchen, 1988). To date, the majority of studies aimed at preventing the
writing struggles of young children have focused on the effects of extra handwriting and spelling practice (e.g., Berninger, et al., 1997; Graham, Harris, & Fink, 2000; Jones & Christensen; 1999). In addition to teaching basic writing skills, however, Graham et al., (2001) have advocated the need to teach young students self-regulation procedures to ameliorate early writing difficulties. SRSD has proven to be an effective instructional model for improving the writing performance (Graham & Harris, 2003), writing knowledge (Graham, et al., 2005; Harris, et al., 2006; Saddler & Graham, 2007), writing attitudes (Zumbrunn & Murphy-Yagil, 2009), and motivation (Graham, et al., 2005) of students in second grade through high school. Findings of the current study show that SRSD instruction can be beneficial for first grade writers as well. Students wrote stories that contained more essential components, were longer, and of better quality after SRSD instruction. Although, it is possible that extended or additional instructional sessions could have helped these young writers become even more proficient. Some students also showed some improvement in writing self-efficacy from pre- to post-instruction. All of the students maintained positive writing attitudes throughout the study.

Although this study shows promise in that it produced positive effects with average first grade students, the findings need to be replicated with different samples of students, in a variety of settings, and over longer periods of time. Some limitations of the current study include the restricted population sampled, limited instructional conditions, its focus on a single genre, and few maintenance data points.

First, this study was conducted with a restricted sample of students. This study was the first to empirically test the effectiveness of SRSD instruction with first grade
students; however, only average students were included as participants. Compared to many of their peers, these students were relatively good writers with positive writing attitudes and efficacy beliefs. The writing performance, attitudes, and self-efficacy of young, struggling writers are likely to differ considerably. Also, it is unknown is whether or not young struggling writers would benefit from the instruction, given the likelihood of more limited metacognitive and strategic skills of students in this population (Bangert-Drowns, et al., 2004; McCutchen, 1988). Future research is needed to determine the effectiveness of SRSD instruction with struggling writers in the first grade. For example, teaching only a few components of SRSD instruction, such as goal setting or self-statements, might be effective in scaffolding emergent writers in their development. Knowing whether this is true is important as preventive measures have the potential to help struggling writers early in their development, before their struggles become more pronounced (Graham et al., 2001).

It also should be noted that participants of this study received general instruction from a first grade classroom teacher for whom writing seemed to be a priority. She taught and modeled writing daily and stressed the importance of students’ writing by often conferencing with them about their progress and celebrating their successes. Not every writing classroom has such an enthusiastic teacher or supportive environment (Pressley, et al., 2001). It is possible that without such an environment, students might not have responded as positively to SRSD instruction. Future research is needed to study the effectiveness of SRSD with students in classrooms where writing is less prioritized.
Second, the instructional condition in which SRSD instruction was provided to students in groups of two also presents limitations. This approach is only one of many possibilities for delivering SRSD instruction to children in classrooms. Future research is necessary to determine the effectiveness of SRSD instruction with this population in both individualized and whole-class environments. It is possible that even greater instructional effects could have been found in this study if students had received individualized instruction. In addition, it is important to test the effectiveness of SRSD instruction in whole-class settings, as this is where most young students receive the majority of their writing instruction (Cutler & Graham, 2008).

A third limitation of this study was its focus on a single writing genre. Story writing was the only genre addressed in this study. Although this type of writing is frequently taught in the primary grades (Cutler & Graham, 2008), other genres such as expository writing also are important (Duke, 2000). Future research is necessary to determine the effectiveness of SRSD instruction in other genres with first grade students.

Finally, maintenance data was limited in this study, with maintenance probes only taken 2 and 4 weeks after students received SRSD instruction. Given this relatively limited data, it was impossible to determine long-term maintenance effects. Future research including more maintenance probes over a longer period of time is necessary to determine first grade students’ maintenance of SRSD strategies.
References


Dear Instructor,

I am a graduate student researcher in the Educational Psychology department at the University of Nebraska – Lincoln. I am asking for your help with a research project that will look at the effects of writing strategy instruction on students’ writing performance, knowledge, attitudes, and efficacy. The purpose of this activity is to teach writing strategies to young students. Before beginning writing strategy instruction with students, I would like to better understand the writing instruction in your classroom.

If you agree to participate, we would ask you to:

- complete a survey of your writing instructional practices and opinions. This will take approximately 20 minutes of your time.
- allow the researcher to observe your writing instruction for approximately 15 class periods.

The benefits of participation:

- you will receive a $15.00 gift card to Barnes & Noble.

I hope that you can participate. I know that personal time is incredibly valuable and I will do my best to see that any time you give is well used. If you would like to participate in this activity, please sign and return the attached form. Please contact me for more information or with any questions by calling (402.440.0612) or emailing (szumbrunn@huskers.unl.edu).

Sincerely,

Sharon Zumbrunn
Ph.D. Candidate
114 Teachers College Hall
University of Nebraska – Lincoln
szumbrunn@huskers.unl.edu
Appendix B

Teacher Consent Form

Identification of Project: Nurturing Young Students' Writing: The Effects of SRSD

Purpose of the Research:

The purpose of this study is to investigate the effectiveness of a writing intervention based on the Self-Regulated Strategy Development (SRSD; Graham & Harris, 2005; Harris & Graham, 1996) model. The SRSD instructional model teaches students planning, revision, and self-regulation strategies to improve their writing performance and motivation. This model of instruction has been proven effective with both normal-achieving students and those with disabilities in grades second through high school (for reviews, see Graham & Harris, 2003; Graham, 2006).

This study was the first to empirically assess the effectiveness of the SRSD instructional model with first grade students. It is hypothesized that SRSD instruction will improve writing performance, knowledge, attitudes, and beliefs. Before beginning writing strategy instruction with students, I would like to better understand the writing instruction in your classroom.

Procedures:

If you agree to be part of this study, researchers will ask you to do the following: (1) complete a survey of your writing instructional practices and opinions, and (2) allow the researcher to observe your writing instruction for approximately 15 class periods. You will spend approximately 20 minutes completing the questionnaire at a place and time that is convenient for you. All data collection instruments were available for review before the study and throughout the 2009-2010 school year.

There are no known risks associated to your participation in this study. All questions asked pertain to your opinions and practices related to writing instruction.

The survey will include a total of 46 items. Prior to completing the scales, please read the instructions carefully. We ask that you answer each item honestly. After completing the questionnaire, please return all documents to Sharon Zumbrunn.

Benefits:

You will receive a $15.00 Barnes and Noble gift card for participating in this project.
Confidentiality:

Any information obtained during this study which could identify you will be kept strictly confidential. Your name will be assigned a pseudonym. Your true name will only be available to the principal investigator (Sharon Zumbrunn) of this study. One file with participant names will be maintained ONLY for the purpose of a master copy. This file were burned to a CD and stored in the office of the principle investigator located at the University of Nebraska—Lincoln. All other files will contain only student numbers or pseudonyms with no other identifiers. The information obtained in this study may be published in scientific journals or presented at scientific meetings, but the data were free of all identifiers.

Opportunity to Ask Questions:

You have the right to ask questions and to have those questions answered before and at any point during the study. Please contact Sharon Zumbrunn with any questions or concerns (402.440.0612) or email (szumbrunn@huskers.unl.edu). Sometimes participants have questions about their rights in research studies. If you do, you should call the UNL Institutional Review Board, telephone 402-472-6965.

Freedom to Withdraw:

You can decide not take part in this study. Even if you agree to take part in this study, you can change your mind at any time. If you decide not to be in the study, there will be no penalty for you from your school or the University of Nebraska - Lincoln.

Consent, Right to Receive a Copy:

By signing, you are agreeing that you understood this information and that you agree to be part of the study. We will give you a copy of this form to keep.

Signature: ____________________________________________   Date: ______________

Name and Phone number of researchers

Sharon Zumbrunn, Researcher                   Office: (402) 440-0612
Roger Bruning, Researcher                     Office: (402) 472-2225
Dear Families,

I am a graduate student researcher in the Educational Psychology department at the University of Nebraska – Lincoln. I will be working with writers in your son or daughter’s class at school after lunch three to four times each week. Your child has been chosen to participate in this activity.

The purpose of this activity is to teach writing strategies to young students. Throughout our time, I will test the effectiveness of the writing strategy instruction using writing prompts, interview questions, and writing attitude and beliefs surveys.

Your voluntary response to this request constitutes your informed consent to your child’s participation in this activity. Your child will also be asked if he or she would like to participate. Your child is not required to participate. If you or your child decide not to participate, your decision will not affect your current or future relationship with Lincoln Public Schools or the University of Nebraska – Lincoln.

If you would like your child to participate in this activity, please sign and return the attached form. Please contact me for more information or with any questions by calling (402.440.0612) or emailing (szumbrunn@huskers.unl.edu).

Sincerely,

Sharon Zumbrunn
Ph.D. Candidate
114 Teachers College Hall
University of Nebraska – Lincoln
szumbrunn@huskers.unl.edu
Appendix D
Parental Consent Form

Identification of Project: Nurturing Young Students' Writing: The Effects of SRSD

Purpose of the Research:

The purpose of this study is to investigate the effectiveness of a writing intervention based on the Self-Regulated Strategy Development (SRSD; Graham & Harris, 2005; Harris & Graham, 1996) model. The SRSD instructional model teaches students planning, revision, and self-regulation strategies to improve their writing performance and motivation. This model of instruction has been proven effective with both normal-achieving students and those with disabilities in grades second through high school (for reviews, see Graham & Harris, 2003; Graham, 2006).

This study will be the first to empirically assess the effectiveness of the SRSD instructional model with first grade students. It is hypothesized that SRSD instruction will improve writing performance, knowledge, attitudes and beliefs.

Procedures:

All assessment and instruction will take place during your child’s school day. At each instructional session, students were taught planning, revision, and self-regulation strategies and given time to practice the strategies both as a group and individually. Throughout the sessions, students will also respond to writing picture prompts. There were no risks or discomforts that may result from being a participant in this study.

Assessment for this study will take place before and after strategy instruction. There were three components of the assessments. One component will involve surveys about your child’s attitudes and confidence about writing. The second component will involve writing prompts through which your child will write a general story. The final component will involve a brief interview questioning your child about his or her writing beliefs and knowledge. There were a total of approximately 15 instructional sessions.

Benefits:

The precise benefits of participating in this study cannot be guaranteed, but if benefits exist they may include an increased awareness of writing strategies and skills and improved writing attitudes and beliefs.
Confidentiality:

Any information obtained during this study which could identify your child will be kept strictly confidential. Student names and performance data will only be available to the principal investigator (Sharon Zumbrunn) of this study. Names were transformed and assigned a number. One file with student names will be maintained ONLY for the purpose of a master copy. This file were burned to a CD and stored in the office of the principle investigator located at the University of Nebraska—Lincoln. All other files will contain only student numbers with no other identifiers. The information obtained in this study may be published in scientific journals or presented at scientific meetings, but the data were free of all identifiers.

Opportunity to Ask Questions:

You have the right to ask questions and to have those questions answered before and at any point during the study. Please contact Sharon Zumbrunn with any questions or concerns (402.440.0612) or email (szumbrunn@huskers.unl.edu). Sometimes parents have questions about their rights in research studies. If you do, you should call the UNL Institutional Review Board, telephone 402-472-6965.

Freedom to Withdraw:

You can decide that your child will not take part in this study. Even if you agree that your child will take part in this study, you can change your mind at any time. If you decide that your child will not be in the study, there will be no penalty for you or your child from your school or the University of Nebraska - Lincoln.

Consent, Right to Receive a Copy:

By signing, you are agreeing that you understood this information and that you are allowing your child to be part of this study. We will give you a copy of this form to keep.

Your child’s name ____________________________________________________________

Signature of Parent/Guardian: ___________________________ Date: ______________

Name and Phone number of researchers

Sharon Zumbrunn, Researcher Office: (402) 440-0612
Roger Bruning, Researcher Office: (402) 472-2225
Appendix E

Student Assent Form

Identification of Project: Nurturing Young Students' Writing: The Effects of SRSD

Researchers are asking you to be in this study because you are a first grade student at Morley Elementary School.

In this study, researchers will try to learn more about students’ writing. The researcher will ask you to write and answer some questions about how you feel about writing. You will learn better ways to write and be asked to write short stories.

Your parents also have been asked to give their permission for you to take part in this study. You can talk about this study with your parents before you decide if you will participate.

You do not have to be in this study if you do not want to. If you decide to be in this study, you can stop any time. Your decision to participate or not to participate will not affect how anyone feels about you.

If you have any questions at any time, please ask one of the researchers.

If you tell the researcher to sign this form, it means that you have decided to be in the study, and that you have understood everything on this form. You and your parents were given a copy of this form to keep.

_______________________________________  ________________________
Acknowledgement of Participant Verbal Assent  Date

Name and Phone number of researchers

Sharon Zumbrunn, Researcher  Office: (402) 440-0612
Roger Bruning, Researcher  Office: (402) 472-2225
Lesson 1.1

Purpose: Develop Background Knowledge, Discuss It

Objectives: Introduction to POW, story parts, and story parts reminder. Identification of story parts in story examples.

Materials needed: Mnemonic charts and story examples (Albert the fish), WWW graphic organizer WITH PICTURES, paper, pencils, scratch paper, student folder

I. Introduce Yourself

Introduce yourself. Tell students you’re going to teach them some of the “tricks” for writing. First, we’re going to learn a strategy, or trick, that good writers use when they write. Then we are going to learn the trick, or strategy, for writing good stories.

II. Introduce POW

A. Display the POW + WWW chart so that only POW shows.

B. Emphasize: POW is a trick good writers often use, for many things they write.

C. Practice parts of POW, discussing each. (P = Pick my idea; O = Organize my notes; W = Write and say more). Describe and discuss the concept of notes. Use examples; “Your teacher uses notes when she creates a web on the board; Your parents use notes when they write things on a calendar or a grocery list.” Have students generate some examples on their own. Emphasize that a good way to remember POW is to remember that it gives them POWer when they write.

D. Practice POW; Turn the mnemonic over. Practice reviewing what each letter in POW stands for and why it is important (good writers use it often, for many things they write). Demonstrate and help as needed. Repeat until each student knows what POW stands for and why it is important.

III. Introduce WWW

Introduce WWW – uncover more of the chart so that the WWW shows. “Let’s find out what the parts of a good story are.” Have the student view the chart. Briefly discuss each W. Use the word “character” for Who ask the student to give examples of who – mom, teacher, police officer, brother, alien, pirate, and so on; for When, ask the student to tell you “how does a person tell you when in a story?” –Once upon a time….A long time
ago….. Yesterday….. Wednesday afternoon at 4:00….. One night…… and so on. Have the student generate examples. Next go over Where. Give examples such as Nashville, at school, in Africa… have the student give examples.

IV. Find WWW in a story (Albert)

A. Say, “Now we are going to read a story to find out if the writer used WWW in the story.” (Leave out the partially covered story parts reminder sheet where the student can see it.) Quickly review what the WWW stands for.

B. Give each student a copy of the story (Albert). Ask the student to follow along silently while you read the story out loud. Tell the student to be listening for the who, when, and where in the story. Read the story a second time and ask the student to say when he/she hears a story part. Remind the student that he/she might not hear the parts in that order. As the student identifies the parts, who, when, and where; write each part on the appropriate space on the graphic organizer. Do not use complete sentences – do this in note form! Be sure that the student knows you are writing in note form. Be explicit.

V. Introduce What = 2

Uncover each What=2. Explain briefly and discuss each what. Give examples of how a writer might tell each. (Use a story the student would know ~ 3 little pigs ~ what did the wolf want? What happens in the story?)

VI. Introduce How = 2

Uncover How=2. Explain briefly and discuss each how. Give examples of how a writer might tell each. (How does the story of the 3 little pigs end? How do the characters feel throughout the story ~ when the wolf knocks at the door?)

VII. Find What=2 and How=2 in a story (Albert)

Tell the student that he/she is now looking for 2 whats and 2 hows. Briefly review what each means and reread the story. Stop and have the student name the parts. Write each part in note form on the graphic organizer. (The organizer helps us organize our notes and get ready to write.) Point out that we might put more than one note in each part. A good story may have more than 2 whats. Also, good writers tell how the characters feel in different parts of the story. If the student has not identified all the parts, go back over the story and help as needed. Be encouraging and positive throughout.

VII. DISCUSS and Find Million Dollar Words in a story (Albert)

Discuss million dollar words (MDW). Million dollars words are good vocabulary words – WORDS THAT WE DON’T HEAR OR USE ALL THE TIME - They make the
story or sentence more interesting. Discuss some examples (i.e. “freezing” instead of cold; try a few more – WHAT WOULD BE A MDW FOR “HOT” (ROASTING, ETC). WHAT WOULD BE A MDW FOR “SCARED” (TERRIFIED, ETC.) FOR “RAN” (SPRINTED, SCAMPERED, ETC), FOR “CRIED” (BAWLED; WEEPED, ETC). SEE IF STUDENT CAN THINK OF ONE OR TWO MORE. Tell student “Let’s see if the writer included any million dollar words in our story about Albert. Work with student to find MDWs. B. BEGIN A MDW LIST FOR THE STUDENT IN HIS/HER FOLDER – RECORD WORDS THE STUDENT LIKES AS MDWs.

IX. Practice Story Parts Reminder

Turn over the WWW chart and the student’s papers. Have the student practice telling you the 7 parts to a good story. Have the student write the reminder, WWW What=2 How=2 on scratch paper. Repeat several times till the student gets comfortable. If you have extra time, use POW cards for extra practice.

X. Lesson Wrap Up

A. Announce test! (No grade-for fun!) next session. The student will come and write out POW and the story parts reminder and tell what they mean from memory.

B. Give each student his/her own folder and a copy of the story parts reminder chart. Have student put today’s work and charts in his/her folder and give the folder back to you ~ explain you will bring the folder to every class.
Albert the Fish

On a warm, sunny day two years ago, there was a huge gray fish named Albert. He lived in a big, icy pond near the edge of town. Albert was swimming around the pond when he spotted a big, juicy worm on top of the water. Albert knew how wonderful worms tasted and wanted to eat this one for dinner. So he swam very close to the worm and bit into him. Suddenly, Albert was pulled through the water into a boat. He had been caught by a fisherman. Albert felt sad and wished he had been more careful.
Albert the Fish

On a warm, sunny day two years ago (When), there was a huge gray fish named Albert (Who). He lived in a big icy pond near the edge of town (Where). Albert was swimming around the pond when he spotted a big, juicy worm on top of the water. Albert knew how wonderful worms tasted and wanted to eat this one for dinner (What He Wanted To Do). So he swam very close to the worm and bit into him. Suddenly, Albert was pulled through the water into a boat (What Happened). He had been caught by a fisherman (Ending). Albert felt sad (Feelings) and wished he had been more careful.

Possible MDW: icy, huge, juicy, and wonderful
Lesson 1.2

Purpose: Develop Background Knowledge, Discuss It

Objectives: Review and practice POW, story parts, and story part reminder; identification of story parts in story examples

Materials Needed: Mnemonic charts and story example (The Lion and the Mouse), WWW graphic organizer WITH PICTURES, practice cards, paper, pencils, scratch paper, student folder

I. Test POW and WWW What = 2, How = 2

Test to see if the student remembers POW and the story parts reminder.

A. Ask the student to what each letter of POW stands for, and why it is important for writing stories. If student has trouble remembering POW, practice it using rapid fire with the cue cards.

Rapid Fire Practice
Give the student a set of cue cards (for WWW, start practice with cue cards with picture cues then wean the student to cards without picture cues). Say, “To help you remember the parts, we are going to do an exercise called rapid fire. We will take turns saying the parts. This is called rapid fire because you are trying to name the parts as rapidly as you can. If you need to look at the cue card, you may; however, don’t rely on the card too much because I am going to put the card away after several rounds of rapid fire.” Allow the student to paraphrase but be sure intended meaning is maintained. Do with cue cards and without. If response is correct, make brief positive comment. If incorrect, prompt by pointing to cue card.

B. Remind the student that O needs a trick for organizing. Ask the student what the trick is for organizing my notes for stories. Ask student to tell you the story parts reminder mnemonic/trick. The student should tell you: W-W-W; What = 2; How = 2. If the student has trouble, be supportive and help as needed.

C. Now ask the student what each part of the story part reminder stands for, help as needed.

D. It is essential that the student memorize the reminder. If the student is having trouble with this, spend a few minutes practicing it using rapid fire with the cue cards.

E. Tell the student you will test him/her on it each day to make sure he/she has it. Remind the student that he/she can practice memorizing it.
II. Find Parts in a Second Story (The Lion and the Mouse).

A. Leave out chart. As before, remind the student to raise his/her hand when he/she hears a part. Be sure each part is identified. As the student identifies who, when, and where; you write each in the appropriate space on the graphic organizer: do not use full sentences – do this in note form. Be sure that the student understands that you are writing in note form!

B. Find the MDWs as you do the parts. Add to the student’s MDW list.

III. Lesson Wrap Up

A. Announce test! (no grade!) next session. He/she will come tell what POW = WWW means from memory.

B. Give the student his/her folder and a copy of the story parts reminder chart. Have the student put today’s work in his/her folder and give the folder back to you – explain that you will bring the folder to every class.
The Lion and the Mouse

One sunny day a long time ago a big strong lion was taking a walk in the forest near his home. He walked into a huge net. “Help!” he yelled. “I can’t get out. I am scared.” A cute little mouse came running along. She cried, “I’ll help you!” “Oh!” said the lion. “How could you help? You’re too little.” The mouse said, “I can too help! You’ll see.” And the mouse began biting the net into tiny bits. The lion was able to get out of the net. When the lion got out he grinned. He said, “You may be a little mouse. But you’re a big help.” The mouse felt proud that she had helped the lion.
The Lion and the Mouse

One sunny day a long time ago (When) a big strong lion (Who) was taking a walk in the forest near his home (Where). He walked into a huge net. “Help!” he yelled. “I can’t get out. I am scared (Feelings).” A cute little mouse (Who) came running along. She cried, “I’ll help you!” (What He Wanted to Do) “Oh!” said the lion. “How could you help? You’re too little.” The mouse said, “I can too help! You’ll see.” And the mouse began biting the net into tiny bits (What Happened). The lion was able to get out of the net (Ending). When the lion got out he grinned. He said, “You may be a little mouse. But you’re a big help.” The mouse felt proud (Feelings) that she had helped the lion.

Possible MDW: huge, cute, tiny, grinned, and proud
Lesson 2

Purpose: Review POW + Story Parts Reminder; Model; Record Self-Instructions

Objectives: Review POW and story parts reminder; model self-instructions; model story writing; have student establish personal self-instructions; introduce rockets

Materials Needed: Mnemonic Chart, practice cards, 2-WWW graphic organizers- WITH PICTURES, scratch paper, pencils, lined paper, student folder, story (Farmer’s Story), practice picture, self-instruction sheets, one blank graph, student folder

I. Test POW and WWW What = 2, How =2

A. Test to see if the student remembers POW and the story parts reminder. Spend some time practicing the parts out loud. Use the rapid fire cards to play a game. Tell the student you will test him/her on it each day to make sure he/she has it. Be sure the student remembers that the story parts reminder is the trick for O.

II. Find Parts in a Story

A. Practice finding parts of a story (Farmer’s Story) and taking notes on the graphic organizer. Point out to the student how and why you are taking notes. Give the student opportunities to orally state the parts in note form.

B. Find MDWs as you do the parts. Add to the student’s MDW list.

III. Model Using Self-Statements for “P” in POW

Have a copy of your self-statement sheet available. Use problem definition, planning, self-evaluation, self-reinforcement, and coping statements as you work. Use statements that are similar to those employed by the student. Ask the student to help you with ideas, but be sure you are in charge of the process. Say: “Remember that the first letter in POW is P – pick my idea. Today we are going to practice how to think of a good story idea and come up with good story parts. To do this we have to let our minds be free and creative.”

A. Look at the practice picture. Model things you might say to yourself when you want to think of a good idea. For example, “Take my time and a good idea will come to me.” “What ideas can I see in this picture?” You can also start with a negative statement and model how a coping statement can help you get back on track. For example, “I can’t think of anything to write! Ok, if I just take my time, a good idea will come to me.” Explain to the student that things you say to yourself out loud and in your head help you get through the writing process. I might think in my head, what is it I have to do? I have to write a good story. A good story makes sense and has all 7 parts.
B. Ask the student to come up with things he/she might say in his/her head to help him/her think of good story ideas and good parts. If the student is having trouble, help him/her create a statement or let him/her “borrow” one of yours until he/she come up with his/her own. Have the student record 1-2 things he/she can say to help think of good ideas on his/her self-statement sheet. DISCUSS WITH THE STUDENT HOW HE/SHE USED SELF-STATEMENTS BEFORE, AND HOW THEY HELPED. THE STUDENT CAN USE, HERE AND LATER, THE SAME SELF-STATEMENTS IF HE/SHE WANTS TO AND THE SELF-STATEMENTS ARE APPROPRIATE.

___ IV. Discuss Using “O” in POW

Remind the student the second letter in POW is O –ORGANIZE my notes. Explain that you are going to write a story today with his/her help. I need a trick for O. The trick is my story part reminder WWW What = 2 How = 2. Put out your graphic organizer and your story reminder sheet. Briefly review the 7 parts to a good story and point out their places on the graphic organizer. Review, what your goals should be – Write a good story, with all 7 parts, that makes sense, is fun to read, and fun to write. Now I can do O in POW – Organize my Notes. I can write down story part ideas for each part. I can write ideas down in different parts of this page as I think of ideas (be sure to model moving out of order during your planning). What ideas do I see in this picture? (Now – talk out and fill in notes for who, when where). For “who” I see…For “when” I can write…Let’s see, for “where” – it’s …Good! I like these parts! Now I better figure out the 2 whats and 2 hows. Let my mind be free, think of new, fun ideas. (Now talk out and briefly write notes for the 2 whats and 2 hows – not in full sentences - use coping statements at least twice.) Let’s see, for the story question of “what does the main character want to do “I think…For the next “what” question, “what happens when she tries to do it” I think… I can add more action by writing about…For the “ending” I can say…For the “feeling” story part I can write about…(After generating notes for all the story parts say – Now I can look back at my notes and see if I can add more notes for my story parts – actually do this – model it – use coping statements). I can also look for ideas for good word choice or million dollar words – do this.
V. Model Writing a Story Using POW and WWW.

A. Keep the POW and story parts graphic out; also the student’s self statement sheet.

B. Model the entire process: writing an actual story as you go (using the practice picture and your graphic organizer). (Please print so student can easily follow.) Now I can do W in POW – write and say more. I can write my story and think of more ideas or million dollar words as I write. Now – talk yourself through writing the story; the student can help. Use a clean piece of paper and print. Start by saying “How shall I start? I need to tell who, when, and where.” Then pause and think, then write out sentences. Do be sure to add 1-2 more ideas and million dollar words on your plan as you write. Don’t hurry, but don’t slow it down unnaturally. Also, at least 2 times, ask yourself, “Am I using good parts and, am I using all my parts so far?” As you write and include ideas from your plan, model checking yourself as you write by checking off the story parts that you have used. This is also a good opportunity to use encouraging and positive self-statements. Be sure to use coping statements. Also ask yourself, “Does my story make sense?” When story is done, say “Good work, I’m done. It’ll be fun to share my story with others.”

VI. Self-Statements for Story Writing

DISCUSS WITH THE STUDENT HOW HE/SHE USED SELF-STATEMENTS BEFORE, AND HOW THE SELF-STATEMENTS HELPED. THE STUDENT CAN USE, HERE AND LATER, THE SAME SELF-STATEMENTS IF HE/SHE WANTS TO AND THE SELF-STATEMENTS ARE APPROPRIATE. Add to student’s self-statements lists. Ask the student if he/she can remember: 1) the things you said to yourself to get started? 2) things you said while you worked (try to get some creativity statements, coping statements, statements about remembering the parts, and self-evaluation statements) 3) things you said to yourself when you finished. (Tell the student if he/she can’t remember and discuss the statements as you organize your notes or write and say more.) Make sure each student adds these to his/her list:

- what to say to think of good ideas. This must be along same lines as “What is it I have to do? I have to write a good story with good parts, and with all 7 parts.” – but in student’s own words.

- 1-2 things to say while you work: self-evaluation, coping, self reinforcement, and any others he/she likes (in student’s own words).

-1-2 things to say to check my work (do I have all my parts? Does my story make sense?)

Remind the student that we don’t always have to think these things out loud; once we learn them we can think in our heads or whisper to ourselves. DISCUSS WITH THE STUDENT: SOMETIMES YOU WILL WRITE WITHOUT ME HELPING YOU, AND SOMETIME YOUR TEACHER WILL ASK YOU TOWRITE A STORY IN YOUR
CLASSROOM. WHAT WOULD YOU LIKE TO SAY TO YOURSELF WHEN I CANNOT HELP OR I AM NOT THERE?
The student can select some of the self-statements already listed, or list 1-2 new statements.

VII. Introduce Graphing Sheet/Graph the Story

Introduce Rocket Graphing Sheet. Have the student shade in the graph to equal the number of story parts they included – have students determine- does the story have all seven parts - then fill in graph. Reinforce students. Using stars, circle or fill in a star around this rocket for each million dollar word used.

VIII. Lesson wrap-up

A. Keep your story and graph.

B. Remind of POW and story parts reminder test again next time.
The Farmer’s Story

Many years ago there was an old farmer who lived near the woods. He owned a stubborn donkey. The farmer wanted to put his donkey in the barn. First he pushed him, but the donkey would not move. Next, the farmer tried to frighten the donkey into the barn. So he asked his dog to bark at the donkey, but the lazy dog refused. Then the farmer thought that his cat could get the dog to bark. So he asked the cat to scratch the dog. The dog began to bark angrily. The barking frightened the donkey and he jumped into the barn. The farmer was very proud of himself.
The Farmer’s Story

Many years ago (When) there was an old farmer (Who) who lived near the woods (Where). He owned a stubborn donkey. The farmer wanted to put his donkey in the barn (What He Wanted To Do). First he pushed him, but the donkey would not move. Next, the farmer tried to frighten the donkey into the barn. So he asked his dog to bark at the donkey, but the lazy dog refused. Then the farmer thought that his cat could get the dog to bark. So he asked the cat to scratch the dog. The dog began to bark angrily (What Happened). The barking frightened the donkey (Feelings) and he jumped into the barn (Ending). The farmer was very proud of himself (Feelings).

Possible MDW: stubborn, frighten, lazy, and angrily
Lesson 3

**Purpose:** Review POW & Story Parts Reminder, Self-Instructions, Collaborative Writing

**Lesson Overview:** The student and teacher will collaboratively write a story using POW + WWW What=2, How=2. The teacher will need to provide the support needed to insure that student is successful in writing a story that has all 7 parts. The teacher should reinforce the student’s use of self-instructions, good word choice, a story that makes sense, and “million dollar” words.

**Objectives:** Review and practice POW, story parts, and story part reminder; identification of story parts in story examples; and write collaboratively

**Materials Needed:** Mnemonic charts and story example (Smokey), WWW graphic organizers- WITH PICTURES, Self-Instructions Sheet, Rocket Graphing Sheet, story prompt, paper, pencils, scratch paper, student folder

**I. Test POW and WWW What = 2, How =2**

**Ask questions at the beginning of the memory check (What is the trick for everything we write? What is the trick we use to write stories? What do each of these letters mean?)**

Test to see if the student remembers POW + WWW What=2, How=2. It is essential that the student memorize these. If student has trouble, practice using rapid fire cue cards. Tell the student you will test him/her on it each day to make sure he/she has it.

**II. Find Parts in a Story (if needed); practice MDWs**

A. Practice finding parts of a story (Smokey) and taking notes on the graphic organizer. Point out to the student how and why you are taking notes. Give the student opportunities to orally state the parts in note form.

B. Have the student change some of the words in Smokey to MDWs. Add to the student’s MDW list.

**III. Collaborative Writing**

Give student a blank graphic organizer and ask him/her to take out his/her self-statements list. Put out the practice picture. This time let the student lead as much as possible, but prompt and help as much as needed. It should be a collaborative process.

1. Say, “Remember that the first letter in POW is P - PICK my IDEA.” Refer student to his/her self-statements for creativity or thinking free. Help the student get an idea.
2. Say, “The second letter in POW is O - ORGANIZE my NOTES. Remind the student to use the story parts reminder to help - the “trick” for organizing notes when writing a story. Encourage the student to say, “I will use this page to make my notes and organize my notes.” Review – “What should our goal be?” “We want to write a good story - a good story has all seven parts, makes sense, is fun for me to write and for others to read.” After you have both generated notes for all the story parts (have student write as much as possible), say – “Remember to look back at our notes and see if we can add more detail or description” - help the student actually do this. Make sure all the parts are filled in on the notes sheet. Identify at least 2 things the student did really well.

3. The last letter in POW is W - WRITE and SAY MORE. Encourage and remind the student to start by saying “What is it I have to do here? I have to write a good story - a good story has all 7 parts and makes sense. I can write my story and think of more good ideas or million dollar words as I write.” Help student as much as he/she needs to do this, but try to let the student do as much as he/she can alone. Encourage the student to use other self-statements of his/her choice while writing. If the student does not finish writing today, he/she can continue at the next lesson.

___ V. Graph Story Parts

Continue the Rocket Graphing Sheet for the student. Have the student shade in the graph to equal the number of story parts he/she included – have the student determine- does the story have all 7 parts - then fill in graph. Reinforce the student for reaching 7. Tell the student, “You blasted your rocket!” HAVE THE STUDENT COLOR A STAR FOR EACH MDW.

___ VI. Lesson Wrap Up

A. Have the student put her/his work and charts in the folder.

B. Remind student of the POW + WWW What=2, How=2 test again next time.
Smokey

Smokey was an old gray horse. Lisa used to ride Smokey, but now Smokey stays in his field on the farm. He was happy. One hot summer day Lisa came to see Smokey. She brought him red apples. Smokey liked the red apples. Lisa liked to run through the meadow and fields. Lisa thought Smokey would like to run so she opened the gate. But Smokey didn’t go out because he didn’t want to run. Lisa said, “You don’t have to run with me. You stay here and I will give you an apple every day.” And she gave him an apple everyday from that day on.

Both Lisa and Smokey were happy.
Smokey was an old gray horse (Who). Lisa (Who) used to ride Smokey, but now Smokey stays in his field on the farm (Where). He was happy (Feeling). One hot summer day (When) Lisa came to see Smokey. She brought him red apples. Smokey liked the red apples. Lisa liked to run through the meadow and fields. Lisa thought Smokey would like to run so she opened the gate (What she wanted to do). But Smokey didn’t go out because he didn’t want to run (What happened next). Lisa said, “You don’t have to run with me. You stay here and I will give you an apple every day.” And she gave him an apple everyday from that day on (Ending). Both Lisa and Smokey were happy (Feeling).
Lesson 4

Purpose: Review POW & WWW, Compare Prior Performance to Current Writing Behavior

Objectives: Review and practice POW, story parts, and story part reminder; discuss pretest story and compare to current writing

Materials Needed: Mnemonic charts, WWW graphic organizer – NO PICTURES IF READY, Self-Instructions Sheet, Rocket Graphing Sheet, pretest story, collaborative story, pencil, scratch paper, student folder

I. Test POW and WWW What = 2, How = 2

Test to see if the student remembers POW and the story parts reminder. **Ask questions at the beginning of the memory check (What is the trick for everything we write? What is the trick we use to organize our notes when we persuade someone? What is the trick we use to write stories? What do each of these letters mean?) It is essential that the student memorize these. If student has trouble, practice using rapid fire cue cards. Tell the student you will test them on it each day to make sure they have it.

III. Establish Prior Performance

Say, “Remember the stories you wrote before we learned POW and WWW?” Pull out a story the student wrote during pretesting/baseline. Have the student read his/her story and identify which parts he/she has. (You need to have worked out ahead of time what parts the student had and which ones the student didn't have.)

Briefly note with the student which parts he/she has and which he/she doesn't. Emphasize with the student that he/she wrote this story before learning the “tricks” for writing. Now that he/she knows the “tricks” his/her writing has already greatly improved. Compare the pretest story to the collaborative story and talk about what the student has learned about good story writing. If the student is exhibiting frustration or is upset about his/her pretest story, encourage him/her to use a self-statement.

Have the student look for million dollar words in their pretest story. Be supportive if there are not any, he/she hadn’t learned the trick yet! Help the student find 2-3 words that he/she could change to million dollar words. Add these words to the student’s MDW list.
Spend some time talking about how to improve the pretest story and if the student would like, and time allows, give him/her the opportunity to redo the story or to do a graphic organizer for the story, now that he/she knows the “tricks” for writing a good story. Help the student make a commitment to use the strategies (tricks) to write better stories. Set a goal to continue writing better stories. Remind the student that good stories: are fun to write and for others to read, have all 7 parts, that each part is well done, good stories make sense, and good stories use MDWs.

Say, “Our goal is to have all of the parts and ‘better’ parts the next time we write a story.”

IV. Lesson Wrap Up

**If this lesson goes fast and you have time, use an extra picture and do a graphic organizer**

A. Have the student put his/her work and charts in his/her folder.

B. Remind student of the POW + WWW What=2, How=2 test again next time. Remind the student that when WWW is done, his/her teacher will ask him/her to write a story in the classroom.
Lesson 5

Purpose: Review POW & Story Parts Reminder, Collaborative Practice; Review Self-Instructions

Objectives: Review and practice POW, story parts, and story part reminder; individual collaborative practice

Materials Needed: Mnemonic charts, WWW graphic organizers – NO PICTURES, Self-Instructions Sheet, Rocket Graphing Sheet, story picture prompt, pencil, paper, student folder

___ I. Test POW and WWW What = 2, How =2

**Ask questions at the beginning of the memory check (What is the trick for everything we write? What is the trick we use to organize our notes when we persuade someone? What is the trick we use to write stories? What do each of these letters mean?)

Test to see if the student remembers POW + WWW What=2, How=2. It is essential that the student memorize these. If student has trouble, practice using rapid fire cue cards. Tell the student you will test him/her on it each day to make sure he/she has it.

___ II. Individual Collaborative Writing

Give student a blank graphic organizer and ask him/her to take out his/her self-statements list. Put out the picture prompt. This time let the student lead as much as possible, but prompt and help as much as needed. REMIND THE STUDENT TO USE MDWs.

1. Say, “Remember that the first letter in POW is P - PICK my IDEA.” Refer student to their self-statements for creativity or thinking free. Help the student get an idea IF NECESSARY.

2. Say, “The second letter in POW is O - ORGANIZE my NOTES. Remind the student to use the story parts reminder “trick” to help. Encourage the student to say, “I will use this page to make my notes and organize my notes.” Review – “What should your goal be?” “You want to write a good story - a good story has all seven parts, makes sense, is fun for you to write and for others to read.” After the student has generated notes for all the story parts, say – “Remember to look back at your notes and see if you can add more detail or description” - help the student actually do this. Make sure all the parts are filled in on the notes sheet. Identify at least 2 things the student did really well. THE STUDENT CAN ALSO NOTE MDWs HE/SHE WOULD LIKE TO USE IN HIS/HER NOTES.
3. The last letter in POW is W - WRITE and SAY MORE. Encourage and remind the student to start by saying “What is it I have to do here? I have to write a good story - a good story has all 7 parts and makes sense. I can write my story and think of more good ideas or million dollar words as I write.” Help the student as much as he/she needs to do this, but try to let the student do as much as he/she can alone. Encourage the student to use other self-statements of his/her choice while writing. If the student does not finish writing today, he/she can continue at the next lesson.

III. Graph Story Parts

Have the student shade in the graph to equal the number of story parts included – have the student determine- does the story have all 7 parts - then fill in graph. If the student misses a part, talk about how to revise the story and set a goal for next time. HAVE THE STUDENT COLOR A STAR FOR EACH MDW. ADD MDWs TO THE STUDENT’S LIST.

VI. Lesson Wrap-Up

Have the student put his/her work and charts in his/her folder.

*** Repeat this lesson if the student appears to have difficulty with any of the story parts, with taking notes on the graphic organizer, using MDWs, or is having difficulty transferring notes to the actual story writing.
Lesson 6

Purpose: Review POW & Story Parts Reminder, Wean Off Graphic Organizer

Objectives: Review and practice POW, story parts, and story part reminder; individual collaborative practice; wean off graphic organizer

Materials Needed: Self-Instructions Sheet, Rocket Graphing Sheet, story picture prompts, pencil, scratch paper, student folder

I. Test POW and WWW What = 2, How =2

**Ask questions at the beginning of the memory check (What is the trick for everything we write? What is the trick we use to organize our notes when we persuade someone? What is the trick we use to write stories? What do each of these letters mean?)

Test to see if the student remembers POW + WWW What=2, How=2. It is essential that the student memorize these. If student has trouble, practice using rapid fire cue cards. Tell the student you will test him/her on it each day to make sure he/she has it.

II. Wean Off Graphic Organizer

Explain to the student that he/she won’t usually have a story parts reminder page when he/she has to write stories, but he/she can make his/her own notes on blank paper. Model how to write down the reminder on scratch paper, write: WWW What =2 How =2 down the side of the page. Have the student make a space for each story part on his/her notes page.

III. Individual Collaborative Writing

Give the student a blank piece of paper and ask the student to take out his/her self-statements list. Put out the picture prompt. This time let the student lead as much as possible, but prompt and help as much as needed. This time the student will make notes on blank paper ~ no graphic organizer! Go through the following processes but let the student do as much as possible with prompting.

1. Say, “Remember that the first letter in POW is P - PICK my IDEA.” Refer student to his/her self-statements for creativity or thinking free. Help the student get an idea IF NECESSARY.
2. Say, “The second letter in POW is O - ORGANIZE my NOTES. Remind the student to use the story parts reminder “trick” to help. Encourage the student to say, “I will use this page to make my notes and organize my notes.” Review – “What should your goal be?” “You want to write a good story - a good story has all seven parts, makes sense, is fun for you to write and for others to read.” After the student has generated notes for all the story parts, say – “Remember to look back at your notes and see if you can add more detail or description” - help the student actually do this. Make sure all the parts are filled in on the notes sheet. Identify at least 2 things the student did really well.

3. The last letter in POW is W - WRITE and SAY MORE. Encourage and remind the student to start by saying “What is it I have to do here? I have to write a good story - a good story has all 7 parts and makes sense. I can write my story and think of more good ideas or million dollar words as I write.” Help the student as necessary to do this, but try to let the student do as much as he/she can alone. Encourage the student to use other self-statements writing. If the student does not finish writing today, he/she can continue at the next lesson.

IV. Graph Story Parts

Have the student shade in the graph to equal the number of story parts included – have the student determine- does the story have all 7 parts - then fill in graph. If the student misses a part, talk about how to revise the story and set a goal for next time.

V. Lesson Wrap-Up

A. Have the student put his/her work and charts in his/her folder.

B. REMIND THE STUDENT THAT HE/SHE WILL HAVE A TIME WHEN HE/SHE WILL NEED TO WRITE USING WWW IN THE CLASSROOM.

C. Remind student of the POW + WWW What=2, How=2 test again next time IF YOU ARE REPEATING THIS LESSON. IF YOU ARE NOT REPEATING THE LESSON THEN DO NOT TELL THE STUDENT THAT HE/SHE WERE TESTED ON THE STRATEGIES AND THEIR MEANINGS.

D. Tell students you have done a great job, IF APPROPRIATE, next time we will take a practice test.

*** Repeat this lesson until the student can write a story independently. Select from remaining pictures.
POW + WWW What=2, How=2 Support Materials

POW WWW Mnemonic

**POW**

*Pick my Idea*

*Organize my Notes*

*Write and Say More*

---

**WWW What=2 How=2**

*Who* is the main character?

*When* does the story take place?

*Where* does the story take place?

*What* does the main character do or want to do; what do other characters do?

*What* happens then? What happens with other characters?

*How* does the story end?

*How* does the main character feel; how do other characters feel?
WWW Flash Cards

<table>
<thead>
<tr>
<th>POW + W-W-W, What? = 2 How? = 2</th>
<th>Who is the main character?</th>
</tr>
</thead>
<tbody>
<tr>
<td>When does the story take place?</td>
<td>Where does the story take place?</td>
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<tr>
<td>What does the main character do or want to do; what do other characters do?</td>
<td>What happens then? What happens with other characters?</td>
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<tr>
<td>How does the story end?</td>
<td>How does the main character feel; how do other characters feel?</td>
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WWW Graphic Organizer without Pictures

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POW + WWW
Appendix G
Primary Grade Writing Instruction Survey

Section I: Please complete the following questions.

1. Please circle your gender: male female

2. Please circle your ethnicity: Hispanic Black White Asian Other

3. Please circle your highest educational level:
   - Bachelor’s
   - Bachelor’s + Master’s
   - Master’s + Doctorate

4. Please circle your evaluation of the quality of the preparation you received for teaching writing within your teacher certification program. If you did not attend a teacher certification program, check here._____
   - exceptional
   - very good
   - adequate
   - poor
   - inadequate

5. How many years have you taught? ____________

6. What grade(s) do you currently teach? ____________

7. How many children are in your classroom? ____________
8. How many children in your classroom receive a free or reduced lunch? ______ don’t know ______

9. How many of the children in your classroom are: ______ Hispanic ______ White ______ Black ______ Asian ______ Other

10. How many of the children in your classroom receive special education services? ______

11. What is your assessment of the overall writing achievement level of all students in your classroom?

   Write the number of students who fit within each classification. Write 0 if you have no students within a particular classification. The combination of your answers should total the number of students in your classroom.

   ______ students are above average writers (writing more than 1 grade level above their current grade placement)

   ______ students are average writers (writing at their grade level or within 1 grade level plus or minus their current grade placement)

   ______ students are below average writers (writing more than 1 grade level below their current grade placement)

12. Check which of the following best describes your approach to writing instruction:

   ______ traditional skills approach combined with process writing

   ______ process writing approach

   ______ traditional skills approach

   ______ Other (describe briefly): __________________________________________________________

   __________________________________________________________________________________

   __________________________________________________________________________________

   __________________________________________________________________________________
Section II: Please circle the appropriate response.

SD-Strongly Disagree
MD-Moderately Disagree
DS-Disagree Slightly
AS-Agree Slightly
MA-Moderately Agree
SA-Strongly Agree

1. I like to teach writing.  

2. I effectively manage my classroom during writing instruction.  

3. I like to write.  

4. I am effective at teaching writing.  

Section III: Please complete each question below.

1. During an average week, how many minutes do your children spend writing? (This does not include instruction. It does include time spent planning, drafting, revising, and editing text that is paragraph length or longer). ________
2. During an average week, how many minutes do you spend teaching each of the following?

- _______ Spelling
- _______ Handwriting
- _______ Revising Strategies
- _______ Grammar and Usage
- _______ Planning Strategies

3. How much of your instructional time in writing involves whole group instruction?

______% (Please give a figure from 0% to 100%)

How much of your instructional time in writing involves small group instruction or “cooperative” learning activities?

______% (Please give a figure from 0% to 100%)

How much of your instructional time in writing involves individualized instruction?

______% (Please give a figure from 0% to 100%)

4. Do you use a commercial program to teach writing, handwriting, spelling, or any other aspect of composing?  _____ Yes  _____ No

What programs?
5. Please check which of the following writing activities your students will do this year.

______ Stories      _____ Personal Narratives       _____ Journal Writing       _____ Poems

_____ Lists       _____ Book Reports       _____ Books       _____ Comic strips

_____ Plays

_____ Alphabet Books       _____ Completing Worksheets       _____ Copying Text

_____ Drawing a picture and writing something to go with it       _____ Writing letters to another person

_____ Autobiographies       _____ Biographies       _____ Writing to persuade

_____ Writing to inform       _____ Writing summaries       _____ Writing in response to material read

_____ Other types of writing (Please specify): ________________________________
______________________________________________________________________________
Section IV: Please complete the following questions.

1. Circle how often **you conference** with students about their writing.

   | I | I | I | I | I | I | I | I |
   | Never | Several | Monthly | Several | Weekly | Several | Daily | Several |
   | Times a Year | Times a Month | Times a Week | Times a Day |

2. Circle how often **students conference with their peers** about their writing.

   | I | I | I | I | I | I | I | I |
   | Never | Several | Monthly | Several | Weekly | Several | Daily | Several |
   | Times a Year | Times a Month | Times a Week | Times a Day |

3. Circle how often **students select their own writing topics**.

   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
   | Never | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
   | Half of the Time | Always |

4. Circle how often your students engage in “**planning**” before writing.

   | I | I | I | I | I | I | I | I |
   | Never | Several | Monthly | Several | Weekly | Several | Daily | Several |
   | Times a Year | Times a Month | Times a Week | Times a Day |
5. Circle how often your students “revise” their writing products.

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6. Circle how often students share their writing with their peers.

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7. Circle how often your students “publish” their writing. (Publish means to print or write it so that it can be shared with others.)

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8. Circle how often your students help their classmates with their writing.

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9. Circle how often students are allowed to complete writing assignments at their own pace.

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10. Circle how often you encourage students to use “invented spellings” at any point during the writing process.

0 1 2 3 4 5 6 7
Never Half of the Time Always

11. Circle how often you read your own writing to your students.

Never Several Monthly Several Weekly Several Daily Several
Times a Year Times a Month Times a Week Times a Day

12. Circle how often you teach sentence construction skills.

Never Several Monthly Several Weekly Several Daily Several
Times a Year Times a Month Times a Week Times a Day

13. Circle how often you teach students about ways of organizing text or how texts are organized.

Never Several Monthly Several Weekly Several Daily Several
Times a Year Times a Month Times a Week Times a Day

14. Circle how often you teach students strategies for planning.

Never Several Monthly Several Weekly Several Daily Several
Times a Year Times a Month Times a Week Times a Day
15. Circle how often you teach students **strategies for revising**.

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16. Circle how often you teach students **handwriting skills**.

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17. Circle how often you teach **spelling skills**.

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18. Circle how often you teach **grammar skills**.

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19. Circle how often you teach **punctuation skills**.

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20. Circle how often you teach **capitalization skills**.

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21. Circle how often you **provide mini-lessons** on writing skills or processes students need to know at this moment—skills, vocabulary, concepts, strategies, or other things.

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22. Circle how often you **overtly model writing strategies**.

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23. Circle how often you **model the enjoyment or love of writing** for students.

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24. Circle how often you **reteach** writing skills or strategies that you previously taught.

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25. Circle how often you assign writing homework to students in your class.

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26. Circle how often your students work at writing centers.

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27. Circle how often your writing lessons have multiple instructional goals.

0 1 2 3 4 5 6 7

Never 1 2 3 4 5 6 7

Half of the Time 1 2 3 4 5 6 7

Always

28. Circle how often you use a writing prompt (e.g., story starter, picture, physical object, etc.) to encourage student writing.

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29. Circle how often your students use a graphic organizer (e.g., story map) when writing.

0 1 2 3 4 5 6 7

Never 1 2 3 4 5 6 7

Half of the Time 1 2 3 4 5 6 7

Always
30. Circle how often you monitor the writing progress of your students in order to make decisions about writing instruction.

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31. Circle how often you encourage students to monitor their own writing progress.

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32. Circle how often students use rubrics to evaluate their writing.

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33. Circle how often students in your classroom use writing portfolios (add material to a portfolio, look at material already in it, and so forth).

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34. Circle how often you ask students to **write at home with parental help.**

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35. Circle how often you ask **parents to listen** to something their child wrote at school.

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36. Circle how often you **communicate with parents** about their child’s writing progress.

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37. Circle how often you allow one or more students in your classroom to write by **dictating** their compositions to someone else.

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38. Circle how often you allow one or more students in your classroom to use **computers** during the writing period.

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<td></td>
<td></td>
</tr>
</tbody>
</table>
39. Circle how often students use **writing to support reading** (e.g., write about something they read).

<table>
<thead>
<tr>
<th>Never</th>
<th>Several</th>
<th>Monthly</th>
<th>Several</th>
<th>Weekly</th>
<th>Several</th>
<th>Daily</th>
<th>Several Times a Year</th>
<th>Several Times a Month</th>
<th>Several Times a Week</th>
<th>Several Times a Day</th>
</tr>
</thead>
</table>

40. Circle how often students use **reading to support writing** (e.g., read to inform their writing).

<table>
<thead>
<tr>
<th>Never</th>
<th>Several</th>
<th>Monthly</th>
<th>Several</th>
<th>Weekly</th>
<th>Several</th>
<th>Daily</th>
<th>Several Times a Year</th>
<th>Several Times a Month</th>
<th>Several Times a Week</th>
<th>Several Times a Day</th>
</tr>
</thead>
</table>

41. Circle how often your students use **writing in other content areas** such as social studies, science, and math.

<table>
<thead>
<tr>
<th>Never</th>
<th>Several</th>
<th>Monthly</th>
<th>Several</th>
<th>Weekly</th>
<th>Several</th>
<th>Daily</th>
<th>Several Times a Year</th>
<th>Several Times a Month</th>
<th>Several Times a Week</th>
<th>Several Times a Day</th>
</tr>
</thead>
</table>

42. Has No Child Left Behind influenced what you do during writing instruction?  

_____ Yes  
_____ No

If yes, please explain how: ________________________________  
______________________________  
______________________________  
______________________________  
______________________________  
______________________________  
______________________________  
______________________________  
______________________________  
______________________________

If you have any additional information about your writing program that you would like to share with us, please do so here.
Before conducting the classroom observation, please complete items 1 – 3 above. For classroom, please write assigned code number for the class.

**Directions for Section 1.**

If you observe any of the behaviors or activities noted in Section 1, place a mark through that behavior or activity. The behaviors and activities are divided into the following sections:

1. **Skills and Strategies Taught (9 items)**
2. **Common Instructional Activities in Process Writing (12 items)**
3. **Instructional and Assessment Procedures (10)**
4. **Alternative Modes of Writing (2 items)**
5. **Other**

If you observe any activity that is not included in first four sections above, write a brief description of it.

**Directions for Section 2.**

If you observe any of the behaviors in Section 2, circle that activity. These activities are similar to the procedures used in the Self-Regulated Strategy Development Model.
### SECTION 1

**Teacher**
- Teacher Conferencing with Students
- Encouragement to use Invented Spellings
- Teacher Model Enjoyment of Writing
- Assigned Homework
- Teacher Assessment
- Goals of Instruction Stated

**Teacher (T+)**
- Planning Strategies
- Revising Strategies
- Sentence Construction
- Capitalization
- Punctuation
- Grammar
- Spelling
- Handwriting
- Text Organization
- Re-teaching Skills/Strategies
- Mini-Lessons
- Model Writing Strategies

**Student**
- Students Select Own Writing Topic
- Students Revising a Paper
- Students Helping Each Other
- Students Publish a Composition
- Graphic Organizers
- Students Conferencing with Each other
- Students Planning a Paper
- Students Sharing a Paper with Peers
- Student Assessment
- Computer
- Dictation

**Environmental**
- Writing Centers
- Writing Portfolios
Section 2: Activities Included in the Self-Regulated Strategy Development Model – circle any activities that you observe and provide a brief note on what happened

Students taught a strategy for timed writing.

Students taught a strategy for planning.

Students taught the parts of a specific genre.

Students set a goal to include all genre parts in their paper.

Students assess their use of genre parts in their paper and graph results.

Students taught to use self-statements.

Students taught how to write for the Nebraska State or District writing tests.
Appendix I

Story Components Scoring Rubric

Student:

Coder:

Date:

Prompt letter:

Story and phase:

Number of Story Components

☐ Main Character/Characters

☐ Setting

☐ Time

☐ Goals of the Main Character/Characters

☐ Actions of the Main Character/Characters

☐ Ending

☐ Characters’ Feelings
Appendix J

Anchor Papers

Directions: Read each story attentively, but not laboriously. Using the 3 anchor points as a guide, give the story a score of 1 to 7. A score of 1 represents the lowest quality of writing, whereas a 7 represents the highest quality of writing. Stories that simply describe the picture that served as the writing prompt should receive a low score. Higher scoring papers usually contain the basic parts of a story: a setting, characters who are trying to achieve a goal, action, and a resolution or ending. In assigning a score, ideation, imagination, organization, sentence structure, and word choice should be taken in account. No single factor, however, should receive undue weight.

Anchor Paper with High Quality (Score of 6)

One day there was a fire. They called the fireman to help. There was a boy waiting on the corner of the street waiting for the fireman to help. “Where is the fire?” he asked in a strong voice. “On Mulberry Street,” the boy said to him. He told the fireman to follow him. They walked all the way to Mulberry Street. They talked all the way there. When they got there the fireman raised his eyebrows really big at the fire. The boy asked, “Do you need a partner to help you sir?” “Yes I do,” he said in a strong voice again. The boy helped him put out the fire.

Anchor Paper with Average Quality (Score of 4)

One fine spring day, a little boy was riding a tricycle and he met a robot named Bob. The little boy said, “There’s a new store if you go left on Hill Street. It’s called the Ice Cream Shop and I’m going there on this fine spring day. You can go with me and get some ice cream and pop corn and water and cake. It will be delicious.”

Anchor Paper with Low Quality (Score of 2)

One day there was a boy and a fire fighter at the end of the street. The street’s name was Lant Track Drive. They were friends.
Appendix K

Writing Attitude Survey

Directions:

I’m interested in how you and other kids feel about writing. So, I’m going to ask you some questions. This isn’t a test, or anything you need to worry about. Just try to answer my questions as honestly as you can. You see these four Garfields? Everyone point to the first Garfield on your paper. How is Garfield feeling here? Right. He seems very happy. He has a huge smile on his face. Point to the second Garfield. He is smiling, but not as much as the first Garfield. He seems a little happy. Point to the third Garfield. He is frowning a little. He is a little upset. And now point to the fourth Garfield. See how his mouth is frowning a lot? He looks really upset.

I’m going to ask you some questions. Think about how you feel about each question. Circle the picture of the Garfield that is closest to your own feelings when you think about each question. And remember, answer the questions the way YOU feel, NOT how you think Garfield would feel.

See the letter A and the question next to it? I’ll read that question aloud. After I finish reading it, use your pencil to circle the Garfield that describes how you feel in the box with the “A”. Here’s my question: “How do you feel about eating spinach for breakfast?” If you really, really don’t like to eat spinach for breakfast, you’d circle the frowning, really upset Garfield. If you would be a little upset to eat spinach for breakfast, you’d circle the Garfield here that is a little upset. If you like eating spinach for breakfast a little, you’d circle the Garfield that’s a little happy. If you love to eat spinach for breakfast, circle the really happy Garfield. Circle the Garfield that describes how you would feel about eating spinach in the morning. Which Garfield did you circle?

Now, see the Letter B and the question next to it? I’ll read the question aloud to you. “How do you feel about playing with toys?” Circle the Garfield that shows me how you feel about playing with toys. If you like playing with toys A LOT, which Garfield would you circle? Great. You like to play with toys A LOT so you circled the really happy Garfield (if s/he chooses the wrong Garfield, give feedback). Now, if you like playing with toys a little, you would circle the second Garfield. If it upsets you a little to play with toys, circle the Garfield that is a little upset. If it really upsets you to play with toys, you circle the Garfield that is really upset.

Now I’d like you to answer some questions about writing. Remember to circle one of the four Garfields to tell me how you feel about each question.

Read the question number and then read each question aloud. While the students are thinking and answering each question, read the question again. Remind the students to turn the page when a new page is reached.
A. How do you feel about eating spinach for breakfast?

B. How do you feel about playing with toys?
1. How do you feel about writing for fun at home?

2. How do you feel when you write in school during free time?

3. How do you feel when you start to write a new paper?
4. How do you feel about writing during summer vacation?

5. How do you feel about writing instead of playing?

6. How do you feel about writing different kinds of papers?
7. How do you feel when the teacher asks you questions about what you write?

8. How do you feel about writing in school?

9. How do you feel about spending free time writing?
10. How do you feel when it's time for writing at school?

11. How do you feel about the papers you write at school?

12. How do you feel when share your writing with others?
Appendix L

Self-Efficacy for Writing Scale

Now I’m going to ask you some questions about writing. This isn’t a test and there aren’t any right or wrong answers, so there isn’t anything you need to worry about. No one in your class will know how you answered any of the questions. Your answers will just help me understand what you REALLY think about writing. Try to answer the questions as honestly as you can. Do you see these four bars? Point to the tallest bar. Point to the shortest bar. Here’s how we’re going to use this chart.

Examples for practice:

Let’s say that my friend Jean looked at some addition problems. She thought about how hard or how easy it is for her to do math. I asked her to point here (point to tallest bar) if she thinks they are easy and she won’t have any trouble figuring out the answers. If she thinks that she can answer most of the problems, I said to point here (point to next bar). If she thinks she can only answer a few of them, I said to point here (point to next bar). If she thinks that these problems are too hard and she can’t do them without help, I said to point to this one (point to smallest bar).

Let’s try this out. If I asked you to sing “Old MacDonald Had a Farm,” think about whether you would be able to sing the song. If you could sing the whole song, where would you point on the chart? How about if you only remember a little bit of the song, where would you point? If you couldn’t sing any of the song, where would you point?

(Continue with more examples until you are sure that the child understands the chart.)

If I asked you to juggle three bean bags at the same time, think about whether you would be able to do that. If it would be really easy for you to juggle three bean bags, where would you point on the chart? How about if it would be really hard for you, where would you point on the chart? If it would be sort of easy for you, where would you point?

If I asked you to jump rope three times in a row, think about how many times you would be able to do that. If you could jump rope all three times in a row, where would you point on the chart? How about if you could jump rope only one time, where would you point on the chart? If you didn’t think you could jump rope at all, where would you point?

Now I’d like you to answer some more questions about writing. Remember to point to one of the bars to tell me how you feel about each question.

Read each question aloud. While students are thinking and answering each question, read the question again.
1. There are seven parts in a story. What if I asked you to name all seven parts? Think about how many parts of a story you could name. None, some, most, or all (point to appropriate bars)? Use the chart to show me how many you think you would name.

   ____ None   ____ Some   ____ Most   ____ All

2. How about if I asked you to write a story about a lost puppy? Think about whether you would be able to write a story about the lost puppy. Point to the bar on the chart about whether you could write a long story that’s five lines or longer (point to tallest bar) about the puppy, or a three to four line story (point to next bar), or only one or two lines (point to next bar), or if you would have a hard time even writing one line (point to shortest bar) about the lost puppy.

   ____ None   ____ 1-2   ____ 3-4   ____ 5+

3. How about if I asked you to write a story about a dinosaur? Think about whether you would be able to write a story about what would happen to the dinosaur. Point to the bar on the chart about whether you could write a long story that’s five lines or longer (point to tallest bar) about a dinosaur, or a three to four line story (point to next bar), or only one or two lines (point to next bar), or if you would have a hard time even writing one line (point to shortest bar) about a dinosaur.

   ____ None   ____ 1-2   ____ 3-4   ____ 5+

4. Some kids can write stories with lots of details, but other kids have a hard time adding details. Think about if I asked you to write a story with details about a family of fish. Point to the bar on the chart about whether you could write a story with lots of details (point to the tallest bar), or a story with some details (point to the next bar), or a story with a few details (point to the next bar), or if you would have a hard time thinking about details to add (point to the shortest bar).

   ____ Hard time   ____ Few details   ____ Some details   ____ Lots of details
Appendix M

Writing Interview Protocol

1. Suppose you were asked to be the teacher of your class today and one of the other kids asked you, “What is good writing?” What would you tell that student about good writing?

2. Why do you think some kids have trouble writing? What makes writing hard for them?

3. What do good writers do when they write?

4. What if you were having difficulty or trouble with a writing assignment; what kinds of things would you do?

5. When you are asked to write for your teacher, what kind of things can you do to help you plan and write well?

6. Suppose you have a friend who had to write a story for school. If your friend asked you what kinds of things are included in a story, what would you tell him/her the parts of story are?

7. Do you like to write? Why or why not?

8. Do you have favorite things to write about?

9. When is writing the most fun?

10. Do you like others to read your writing? Why or why not?

11. Do you think you’re good at writing? Why or why not?
Appendix N
Lesson Checklist

**Lesson 1.1: Develop Background Knowledge, Discuss It**

- ☐ Introduce yourself

- ☐ Introduce and explain each part of POW
  - ☐ Practice POW until students know each part.

- ☐ Introduce and explain each part of WWW

- ☐ Find WWW in a story (Albert the Fish)
  - ☐ The teacher writes each part on the graphic organizer.

- ☐ Introduce and explain What = 2

- ☐ Introduce and explain How = 2

- ☐ Find What=2 and How=2 in a story (Albert the Fish)
  - ☐ The teacher writes each part on the graphic organizer.

- ☐ Discuss and find Million Dollar Words (MDWs) in a story (Albert the Fish)
  - ☐ Students write MDWs on their MDW Lists.

- ☐ Practice Story Parts Reminder

- ☐ Lesson Wrap Up
  - ☐ Announce test for next session.
  - ☐ Students put materials in folder.
Lesson 1.2: Develop Background Knowledge, Discuss It

☐ Test POW and WWW What=2, How=2 to see if students remember parts and why each is important.

☐ Find parts in a second story (The Lion and the Mouse)
  ☐ The teacher writes each part on the graphic organizer.

☐ Discuss and find Million Dollar Words (MDWs) in a story (The Lion and the Mouse)
  ☐ Students write MDWs on their MDW Lists.

☐ Lesson Wrap Up
  ☐ Announce test for next session.
  ☐ Students put materials in folder.
Lesson 2: Review POW + Story Parts Reminder; Model; Record Self-Instructions

☐ Test POW and WWW What=2, How=2 to see if students remember parts and why each is important.
  
  ☑ Spend time practicing the parts out loud.

☐ Find parts in a second story (Farmer’s Story)
  
  ☐ The teacher writes each part on the graphic organizer.
  
  ☐ Talk about why you are taking notes.

☐ Find Million Dollar Words (MDWs) in a story (Farmer’s Story)
  
  ☐ Students write MDWs on their MDW Lists.

☐ Model using self-statements for “Pick my Idea”
  
  ☐ Ask students to come up with (and record) things they might say to help them come up with good ideas.
  
  ☐ Discuss how students have used self-statements in the past.

☐ Model “Organize my Notes”

☐ Model the entire process of writing a story using POW and WWW

☐ Discuss the self-statements that you used while you wrote the story.
  
  ☐ Students should add possible self-statements to use in the future.

☐ Introduce graphing sheet/Graph the story

☐ Lesson Wrap Up
  
  ☐ Announce test for next session.
  
  ☐ Students put materials in folder.
Lesson 3: Review POW + Story Parts Reminder, Self-Instructions, Collaborative Writing

☐ Test POW and WWW What=2, How=2 to see if students remember parts and why each is important.

☐ If necessary, practice finding parts in a story (Smokey) and taking notes on the graphic organizer.

☐ Find Million Dollar Words (MDWs) in the story (Smokey)

☐ Collaborative Writing

☐ Give students blank graphic organizers.

☐ Ask students to take out their self-statement lists.

☐ Using the practice picture, write a story together (let students lead as much as possible, but help as needed).

☐ If necessary, remind students what each letter in POW stands for.

☐ Graph Story Parts

☐ Lesson Wrap Up

☐ Announce test for next session.

☐ Students put materials in folder.
Lesson 4: Review POW + WWW Compare Prior Performance to Current Writing Behavior

☐ Test POW and WWW What=2, How=2 to see if students remember parts and why each is important.

☐ Establish Prior Performance

☐ Using a baseline story, students should read their stories and identify story parts present.

☐ Compare the baseline story to the story written collaboratively.

☐ Discuss what the students have learned about good story writing.

☐ Have students identify MDWs in their baseline story. Also find words that could be changed into MDWs.

☐ Discuss how each student could improve their baseline story. If time permits, allow the student to rewrite the story.

☐ Discuss what the components of good stories.

☐ ** If time permits, use an extra picture and do a graphic organizer

☐ Lesson Wrap Up

☐ Announce test for next session.

☐ Students put materials in folder.
Lesson 5: Review POW + Story Parts, Collaborative Practice; Review Self-Instructions

☐ Test POW and WWW What=2, How=2 to see if students remember parts and why each is important.

☐ Individual Collaborative Writing

☐ Give students blank graphic organizers and ask them to take out their self-statement lists.

☐ Put out the picture prompt and begin the story writing process (letting students lead as much as possible).

☐ Review POW.

☐ Students and teacher collaboratively write.

☐ Graph Story Parts

☐ Lesson Wrap Up

☐ Announce test for next session.

☐ Students put materials in folder.

*** Repeat this lesson if the student appears to have difficulty with any of the story parts, with taking notes on the graphic organizer, using MDWs, or is having difficulty transferring notes to the actual story writing.
Lesson 6: Review POW + Story Parts, Wean Off Graphic Organizer

☐ Test POW and WWW What=2, How=2 to see if students remember parts and why each is important.

☐ Wean Off Graphic Organizer

☐ Explain to students that they won’t usually have the story parts reminder whey they write stores, but they can make their own notes on blank paper.

☐ Model how to write down the reminder on scratch paper.

☐ Individual Collaborative Writing

☐ Give students a blank piece of paper (instead of graphic organizer) and ask them to take out their self-statement lists.

☐ Put out the picture prompt and begin the story writing process (letting students lead as much as possible).

☐ Review POW.

☐ Students and teacher collaboratively write.

☐ Graph Story Parts

☐ Lesson Wrap Up

☐ Students put materials in folder.

☐ Remind students that they will need to write using WWW in the classroom.

☐ Remind students of the test tomorrow (IF REPEATING THE LESSON).

☐ Tell students that they will take a practice test tomorrow (IF NOT REPEATING THE LESSON).

*** Repeat this lesson until the student can write a story independently.