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Student Writing Performance: Identifying the Effects when Combining Planning and Revising Instructional Strategies

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Student Writing Performance: Identifying the Effects when Combining Planning and Revising Instructional Strategies

by

Amanda K. Schnee

A DISSERTATION

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Student Writing Performance: Identifying the Effects when Combining Planning and Revising Instructional Strategies

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University of Nebraska, 2010

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The purpose of the current study is to identify the impact of teaching students to revise their stories on writing production (Total Words Written; TWW), writing accuracy (Percent Correct Writing Sequences; %CWS), number of critical story elements included in stories, and quality of writing. Three third-grade and one fourth-grade student who were experiencing difficulties in the area of writing were involved in the study. The students were first taught to plan their stories using the evidence-based program, Self-Regulated Strategy Development (SRSD), which has frequently been implemented to teach students to plan their stories. Students were then taught to revise their stories using SRSD procedures modified for instruction in revision strategies. Student progress was evaluated through a multiple-probe design across tasks and a multiple-probe design across participants, which allowed for experimental control over time and across story probes. In addition to the previously mentioned variables, student’s acceptability of the intervention and their attitudes toward writing were also assessed. Results indicated that instruction in revising increased student writing accuracy beyond the effects of instruction in planning. Additionally, although instruction in planning was shown to increase writing production, number of critical story elements, and quality of writing, instruction in revising produced additional improvement in these variables as well. Finally, results indicated that students liked the intervention and their attitudes toward
writing generally increased. Implications for practice and future research directions will be discussed.
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Chapter 1

Introduction

Writing is a fundamental skill that facilitates communication among individuals. As children proceed in formal education, writing is employed as a form of communication which demonstrates knowledge and creativity. Over time, the ability to effectively write becomes increasingly important. In fact, writing has been identified as a threshold skill for employment and promotion (National Commission on Writing [NCW], 2004). Thus, it is critical that educators supply students with the necessary writing skills and strategies to succeed throughout their educational and professional experiences.

Findings from the National Assessment of Educational Progress (NAEP) suggest that a majority of our nation’s students are not supplied with, or do not employ, the skills and strategies that are necessary to succeed. Specifically, the results of the 2002 and 2007 NAEP studies indicated that sufficient writing skills and knowledge were demonstrated by only twenty-five percent of fourth, eighth, and twelfth-grade students (Persky, Danne, & Jin, 2003). Findings from the 2007 NAEP study demonstrated that eighth graders had improved beyond the 2002 results, although this improvement was not statistically significant. Additionally, performance for 12th graders in 2007 was similar to 2002 data, and fourth-graders were not assessed (Salahu-Din, Persky, & Miller, 2008). Thus, our nation’s students do not appear to be making significant growth in their writing skills.

Writing processes.

The writing process requires several skills, including planning, generating content, organizing the composition, translating content into written language, revising,
and utilizing self-regulation skills (Graham & Harris, 2003). All of these skills are encompassed within three broader processes that were originally identified by Flower and Hayes (1980). These three processes include planning, translating, and revising. Planning typically refers to generating and organizing content, (Flower & Hayes, 1981; Graham, 2006; Kellogg, 1987; Vallecorsa, Ledford, & Parnell, 1991) while translating is the process of producing text, and revising implies such terms as critical analysis (Vallecorsa et. al., 1991) and detection and diagnosis of text problems (Hayes, 1996).

While many instructional practices for teaching writing focus on more than one process of writing, very few of these programs use the same procedures to teach strategies for both planning and revising. Other programs or techniques may focus instruction on only one writing skill. Clearly, if we want to instruct our students to be successful writers, we must teach them all of the components of writing using a sound instructional approach.

Self-Regulated Strategy Development.

Self-Regulated Strategy Development (SRSD) is an approach that has commonly been examined to determine the impact of planning in the absence of revising. Self-Regulated Strategy Development (SRSD) is recognized for combating difficulties with self-regulation, generation of content, and organization of ideas. The major goals of SRSD include helping writers to master the processes of writing, to develop self-regulated use of effective writing strategies, and to form positive attitudes about writing and about their writing abilities (Harris, 1982).

Self-Regulated Strategy Development (SRSD) is one of the most highly researched writing programs to date and has demonstrated writing improvements for
students of all abilities and ages. Specifically, using SRSD, improvements in writing have been found for students experiencing multiple disabilities and learning difficulties (Lienemann, Graham, Leader-Janssen, & Reid, 2006; Saddler, Moran, Graham, & Harris, 2004) as well as students who were considered high-achieving (De La Paz, 1999). Additionally, students from the second-grade (Harris, Graham, & Mason, 2006; Lienemann et al., 2006; Saddler, 2006; Saddler et al., 2004) to students in the tenth-grade (Chalk, Hagan-Burke, & Burke, 2005) have improved their writing performance through instruction that focused solely on planning and writing using SRSD.

**Purpose of the study.**

There are many differences among the primary processes of writing that were originally identified by Flower and Hayes (1980; planning, translating and revising). Specifically, these processes are all thought to occur during different phases of the overall writing process and all require different skills to complete. Although these processes are dissimilar, SRSD appears sufficient for teaching all three processes.

SRSD has not been applied to the process of revision although it has demonstrated effectiveness when utilized for teaching students to plan and write their stories. Additionally, mixed results have been identified when examining the instructional approaches that have been used to teach students to revise. Therefore, it appears necessary to instruct students to revise their stories using a model that has already been validated for teaching other writing processes. The additive effects of instruction in revising were investigated within this study by first using SRSD to teach students to plan stories and then using SRSD to teach students to revise, and identifying changes in performance between the two phases.
The purpose of this study was to empirically examine the additive effects of teaching students to revise their writing in terms of the impact on written products and to examine the level of generalization obtained through instruction in planning and revising. As both processes of writing were instructed using SRSD procedures, both phases of instruction were as similar as possible to ensure that the only difference between the phases was the instructed process and skills. The objectives of the study included (a) implementing evidence-based strategies to promote planning and revising; (b) identifying the additive effects of instruction in revising skills on student writing performance; (c) identifying the writing performance indicators that are affected by instruction in revising; (d) assessing written products to determine whether increases in writing are evident and whether generalization is established; (e) identifying implications for future research and educational practices.

Specifically, this study aimed to answer the following questions:

1. Does Planning + Revising Instruction produce effects on writing production beyond Planning Instruction alone?

2. Does Planning + Revising Instruction produce gains on writing accuracy beyond Planning Instruction alone?

3. Does Planning + Revising Instruction produce effects on the number of story elements beyond Planning Instruction alone?

4. Does Planning + Revising Instruction produce gains on writing quality beyond Planning Instruction alone?
5. Do subsequent story probes require fewer instructional sessions than previous story probes, thereby indicating generalization of instruction across story probes?

The chapter that follows critically reviews current literature regarding the importance of writing, the processes involved in writing, effective instructional practices for teaching planning and revising, and the instructional and motivational components that can be used to teach both planning and revising. Overall, the literature highlights the necessity of using evidence-based practices to teach students to plan and revise their writing.

The method used within this study is then presented in Chapter 3. Specifically, three third-grade and one fourth-grade student from a Midwestern suburban community participated in the study. These students were identified as experiencing difficulties in the area of writing and referred by their school’s principal and their individual classroom teachers. The Test of Written Language – Third Edition, Writing Attitude Survey, as well as story starter writing probes were used to assess student writing performance throughout four phases within this study.

A multiple-probe across tasks, multiple-probe across students design was implemented in which different story starter probes served as the tasks. Students completed phases including baseline, Planning Instruction, Planning + Revising Instruction, and maintenance. The variables measured within the story starter probes included Total Words Written, Percent Correct Writing Sequences, number of story elements, and quality of writing. These measures were examined to identify the additive
effects of teaching students to revise their writing above and beyond teaching them to plan their writing.

Results of the study are presented in Chapter 4, and indicate that Planning + Revising Instruction appears to have an impact on student writing performance. Specifically, although noteworthy increases were not demonstrated with Total Words Written, writing accuracy and quality of writing were positively impacted by Planning + Revising Instruction. It was also identified that all but one student increased their score on the Test of Written Language Third Edition and the Writing Attitude Survey from the beginning of the study to the end of the study.

Finally, a discussion including an analysis of the results is included in Chapter 5. Each hypothesis included in the study is discussed in detail within this chapter. Additionally, limitations of the current study, implications for practice, and future research directions are included.
Chapter 2

Review of the Literature

The importance of writing.

Examinations by The National Assessment of Educational Progress (NAEP) indicate that a majority of our nation’s students do not demonstrate adequate writing skills (Persky et al., 2003; Salahu-Din, et al., 2008). The last evaluations by the NAEP, conducted in 2002 and 2007, demonstrated that seventy-five percent of our students demonstrate poor to substandard writing abilities. Significant differences were not found between 2002 and 2007, indicating that our youth’s writing skills are not improving over time.

Many students with learning disabilities (LD) experience difficulties with writing. In a recent clinical study with children experiencing various psychological disorders, the Wechsler Intelligence Scale for Children- third edition (WISC-III; Wechsler, 1991) and the Wechsler Individual Achievement Test (WIAT; Psychological Corporation, 1992) were used to identify students with learning disabilities. Results indicated that sixty-five percent of the 485 investigated children met criteria as a child with a learning disability, and ninety-two percent of these identified children experienced LD in the area of writing (Mayes & Calhoun, 2007). These results are remarkable and pose many questions about prevalence rates among the general public, as these rates are inconsistent due to the state-to-state variation in criteria of LD. However, it has been suggested that between five- and thirty- percent of people experience LD in any given academic area (Harwell, 2001).

Students with learning disabilities in the area of writing appear to struggle with several aspects of the writing process. Particularly, these students experience difficulty
with self-regulation, mechanics, generating content, and revising. Additionally, these students are known to overestimate text production skills and underestimate the importance of the writing process (Graham & Harris, 1999). Although this list of writing skills deficits appears difficult to overcome, it is not exhaustive of the difficulties that students with writing LD may experience, as writing is a complex task that requires multiple skills (Saddler et al., 2004).

The ability to write is a requirement that is frequently required within classrooms and deficits in writing can cause students to struggle in school (Graham & Perin, 2007). However, difficulties with writing do not end when students exit school. Specifically, poor writing skills may decrease the likelihood of college admittance (Graham & Perin, 2007) and subsequently decrease the chance of being hired, retained, and/or promoted when entering the workforce (NCW, 2004). Thus, writing LD and writing difficulties appear to pose numerous problems for individuals throughout the duration of their lives.

**The processes of writing.**

When the complexity of the writing process is considered, it is not surprising that a great number of students experience difficulties with writing. Planning, generating content, organizing the composition, translating content into written language, revising, and utilizing self-regulation skills are all skills that are required within the writing process (Graham & Harris, 2003). These skills are all encompassed within three broader processes that were originally identified by Flower and Hayes (1980), including; planning, translating, and revising. Planning typically refers to generating and organizing content, (Flower & Hayes, 1981; Graham, 2006; Kellogg, 1987; Vallecorsa et al., 1991) while translating is the process of producing text, and revising implies such terms as
critical analysis (Vallecorsa et. al., 1991) and detection and diagnosis of text problems (Hayes, 1996). Currently, researchers are familiar with planning, translating and revising. However, it is important to determine how these processes became recognized.

A thorough examination of the writing process is the first step in understanding writing. Researchers have used protocol analysis to examine the writing process in depth. Specifically, protocol analysis requires writers to think aloud while engaging in writing activities. Researchers examine the writer’s verbalized thoughts, written products, and notes to identify the critical components of the writing process (Berninger, Whitaker, Feng, Swanson, & Abbott, 1996; Flower & Hayes, 1981; Hayes & Flower, 1986). These analyses have helped to identify three primary components regarding the method of writing for expert writers. Specifically, for experts, writing is goal directed, their writing goals are hierarchically organized, and they use three major processes, including planning, translating, and revising (Flower & Hayes, 1981). In essence, writers identify major goals, hierarchically identify subgoals, and utilize specific strategies such as planning, translating and revising to meet their writing goals (Flower & Hayes, 1981; Hayes & Flower, 1986).

Within the process of planning, individuals are said to develop internal representations of the information that will be used in the composition, generate ideas from memory, and generate meaning by organizing their thoughts and keeping writing goals in mind (Flower & Hayes, 1977, 1981; Hayes & Flower, 1986; Kellogg, 1987). Thus, this writing process requires that the writer be able to identify content knowledge and organize their thoughts in a logical manner so as to meet the goals of the composition. The process of translating involves explicitly describing the ideas
generated during the planning process while conforming to the structure of the writing task (Hayes & Flower, 1986). Therefore, translating requires the writer to express their thoughts on paper while including structural components such as leading and concluding paragraphs and sentences. Finally, revising involves being cognizant of the goals of the composition, being cognizant of the audience of the composition, and identifying ways to better meet the goals of the composition while satisfying the audience (Flower & Hayes, 1977; Hayes & Flower, 1986). Therefore, an important aspect of revising includes being aware of the audience and making changes that will meet audience needs while conveying the writer’s message and making sense.

It is apparent that these three writing processes include complex tasks that are dissimilar from one process to the next. Although these processes may appear linear, they generally blend together throughout the progression of writing in a recursive fashion (Flower & Hayes, 1981; Hayes & Flower, 1986; Kellogg, 1987). This recursive fashion may pose difficulties for struggling writers who must manage several unfamiliar tasks simultaneously. In fact, it has been suggested that struggling writers exhibit and verbalize much less knowledge about the processes of writing than do more typically developing writers (Lin, Monroe, & Troia, 2007; Scardamalia & Bereiter, 1987). The complexities and differences among the processes of writing likely contribute to the difficulties imposed upon these writers. As a result of the dissimilarities of the processes of writing and the complexities involved in writing, it appears that providing instruction in each of the processes of writing would increase students’ knowledge and competence with writing.
Planning. Planning is typically viewed as the process of generating and organizing content (Flower & Hayes, 1981; Graham, 2006; Kellogg, 1987; Vallecorsa et al., 1991). This writing process is commonly judged to be tremendously difficult and important (De La Paz & Graham, 2002; Reid & Lienemann, 2006; Troia & Graham, 2002). Specifically, planning requires the writer to complete several complex tasks including identifying content knowledge, generating ideas, organizing ideas in a logical manner, and focusing on the goals of the composition (Flower & Hayes, 1977, 1981; Hayes & Flower, 1986; Kellogg, 1987). Although planning has been identified as a fundamental skill for effective writing (De La Paz & Graham, 2002; Vallecorsa et al., 1991), students frequently do not spend time planning their compositions (MacArthur & Graham, 1987), nor do they develop adequate plans (Berninger et al., 1996) even when prompted to do so. Given the complexity and importance of planning, it is imperative that instructional practices be strengthened to ensure skill development in this area.

There are several reasons for teaching students how to generate and organize relevant writing content. Specifically, adequate instruction in the area of planning can increase student writing performance, thereby reducing the previously stated consequences of poor writing (i.e., poor grades, unemployment). Specific benefits of providing effective instruction in planning are provided herein.

Self-Regulated Strategy Development. The Self-Regulated Strategy Development (SRSD) approach is one of the few instructional models for writing that commonly examines planning in the absence of revising while combating difficulties with self-regulation, generation of content, and organization of ideas. SRSD instruction emphasizes interactive learning between teachers and students in which students’
responsibility for employing strategies is gradually increased. Instruction in SRSD includes teaching background knowledge necessary for using the strategy, discussing the strategy and its benefits, modeling the use of the strategy, introducing self-instruction, supporting student mastery/memorization, providing time for independent practice, and promoting generalization and maintenance (Graham, Harris, & MacArthur, 2006). Self-regulation strategies are also instructed through the use of self-instructions.

Self-Regulated Strategy Development (SRSD) is one of the most highly researched instructional models for writing available to date, and multiple studies have been conducted to evaluate its effectiveness. A common strategy for teaching story writing through SRSD is to use the POW mnemonic, which was designed to help students organize the planning and writing process through Picking their ideas, Organizing their notes, and Writing and saying more. Another important component of teaching story writing through SRSD are story elements, which are outlined through the use of the mnemonic WWW What =2, How = 2 (i.e., Who are the main characters? When does the story take place? Where does the story take place? What do the main characters want to do? What happens when the main characters try to do it? How does the story end? How do the main characters feel?). Finally, a discussion of the characteristics of a good story is generally included. The characteristics of a good story are that it should make sense, it should be fun to write and read, it should use “million-dollar” words, and it should include all seven story parts.

Two studies that incorporated all of the above components were utilized with students with various special education verifications including writing difficulties or concerns (Saddler, 2006; Saddler et al. 2004). Results indicated increased story length
and story quality following instruction, and these gains were maintained up to six weeks following instruction. Additionally, number of story elements and planning time were found to increase following instruction in both investigations, although gains were only maintained in the Saddler (2006) study. Generalization to an uninstructed genre, personal narratives, was also investigated and it was found that students who completed generalization probes increased story quality and length from baseline to post-instruction (Saddler et al., 2004).

Two additional studies incorporating all of the discussed components were implemented with students who were identified as at-risk according to their performance on the Story Construction subtest of the *Test of Written Language-3 (TOWL-3)* (Hammill & Larsen, 1993) falling at or below the twenty-fifth percentile as compared to the normative sample (Lienemann et al., 2006; Reid & Lienemann, 2006). A majority of the participants in both studies were diagnosed with a variety of academic and behavioral disorders, although two regular education students were also included. Results of both investigations indicated increases in story length, number of story elements and quality of writing following instruction. Additionally, studies indicated maintenance of these effects two and four weeks (Lienemann et al., 2006) and three and six weeks (Reid & Lienemann, 2006) following instruction.

SRSD appears to be an effective and viable model by which to teach planning strategies to students with various disabilities and disorders. However, SRSD has not generally been applied to the process of revision. Specifically, only one study was identified that used SRSD strategies to teach revising as well as planning strategies. This study compared SRSD to the social cognitive model of sequential skill acquisition and
found no significant difference between the two programs (Jesús-Nicasio, García-Sánchez, & Fidalgo-Redondo, 2006). Although SRSD appears useful for teaching planning strategies, the methods used in the program do not appear to be validated for teaching revision. The narrow focus on only one process of writing is seen as a limitation.

Although SRSD is criticized for not including commensurate instruction in revising, it has demonstrated significant improvements in student writing. Particularly, it has demonstrated a significant impact of planning on the inclusion of necessary story elements (Lienemann et al., 2006; Reid & Lienemann, 2006; Saddler, 2006; Saddler et al., 2004; Tracy, Reid & Graham, 2009). Furthermore, quality of compositions has been demonstrated to increase through instruction in SRSD (Graham, Harris, & Mason, 2005; Harris et al., 2006; Tracy et al., 2009). Additionally, maintenance of the effects of quality (Chalk et al., 2005; De La Paz, 1999, 2001; Graham & Harris, 1989a; Lienemann et al., 2006; Reid & Lienemann, 2006; Saddler, 2006; Saddler et al., 2004) as well as generalization to different settings (Graham & Harris, 1989a; Sexton, Harris & Graham, 1998) were found in several SRSD studies.

The length of compositions has also been examined to evaluate the effectiveness of instruction in planning. Specifically, several studies have found a significant impact of planning on the length of compositions, such that employing planning strategies has increased story length (Graham et al., 2005; Harris et al., 2006; Sexton et al., 1998; Tracy et al., 2009; Troia, Graham & Harris, 1999). Furthermore, several researchers have found sustained effects in length during maintenance phases (Chalk et al., 2005; Danoff, Harris & Graham, 1993; De La Paz, 2001; Lienemann et al., 2006; Reid & Lienemann,
2006; Saddler, 2006; Saddler et al., 2004) which demonstrates instruction in planning strategies has a lasting effect on student writing performance. Additionally, generalization to an uninstructed genre has been indicated (Saddler et al., 2004; Tracy et al., 2009). Therefore, not only does instruction in planning increase story length over time, but also across writing genres.

Finally, planning time was examined in several SRSD studies and many found a significant effect on the amount of time spent planning for post-instruction writing probes, as students spent more time planning their stories when they learned strategies for planning (Graham et al., 2005; Harris et al., 2006; Saddler, 2006; Saddler et al., 2004; Troia et al., 1999). Additionally, an increase in planning time during maintenance has been identified (Saddler, 2006). Thus, sustained increases in the amount of time spent planning have been found subsequent to instruction in planning.

Of all of the models of instruction, SRSD is one of the most prominent approaches that has been studied in isolation. The effects of this approach are distinguished and recognized among scholars in the area of writing. Specifically, using SRSD, improvements in writing have been found for students experiencing multiple disabilities and learning difficulties (Lienemann et al., 2006; Saddler et al., 2004) as well as students who were considered high-achieving (De La Paz, 1999). Additionally, students in the second-grade (Harris et al., 2006; Lienemann et al., 2006; Saddler, 2006; Saddler et al., 2004) as well as students in the tenth-grade (Chalk et al., 2005) appeared to improve their writing performance through instruction that focused solely on planning and writing using SRSD.
Although research on SRSD has answered many questions about the effectiveness of planning in the writing process, questions regarding the impact of the revising process have not been answered through SRSD investigations. It is clear that effective planning strategies increase writing quality, length of compositions and planning time, although little if anything is known about the effects of a commensurate instructional program on the critical process of revising.

**Revising.** Revising has been defined by Fitzgerald (1987) as “making any changes at any point in the writing process. It involves identifying discrepancies between intended and instantiated text, deciding what could or should be changed in the text and how to make the desired changes, and operating, that is, making the desired changes. Changes may or may not affect the meaning of the text, and they may be major or minor” (p.484). Since Fitzgerald adopted this definition, particular components of the definition have been researched. Particularly, although Fitzgerald identifies revision as a process that can be implemented “at any point in the writing process,” it has been found that students revise more when revision occurs after writing the composition or the next day, as compared to revising as they write (Chanquoy, 2001). Use of revising techniques subsequent to writing the composition illustrates the cognitive load theory, such that cognitive demands are reduced by focusing on one process of writing at a time. Specifically, after student writers have finished using their attentional processes to write their compositions, their attentional processes can be shifted to focus on reading and reflecting on what they have written. Thus, the definition of revising, which will be used throughout this manuscript, will include strategies used following termination of planning
and translating activities. Revising strategies will include identifying problems with the text, determining the necessary changes, and implementing the changes.

The theory supporting the idea that revision is more effective following translating is the same theory that supports the reasons why beginning writers perform few meaningful revisions (Scardamalia & Bereiter, 1987) and why these revisions are primarily superficial (Fitzgerald, 1987; Fitzgerald & Markham, 1987). Specifically, it is hypothesized that novice writers focus their attentional resources on planning and generating sentences, and are too overloaded cognitively to pay attention to the revising process (Glynn, Britton, Muth, & Dogan, 1982).

Several explanations for inadequate revising or lack of revising among students have been suggested. These explanations include difficulty managing goals, difficulty taking the perspective of the reader, difficulty identifying where or how changes need to be made, and difficulty determining intentions (Fitzgerald, 1987). Difficulty determining intentions (i.e., the purpose and goals of the text) encompasses several of the other previously specified difficulties encountered in revision. Specifically, it has been suggested that specific cues, such as the inconsistency between intentions and the resulting text, trigger the process of revising (Butterfield, Hacker & Albertson, 1996; Hayes & Flower, 1986). This inconsistency allows the problem to be discovered and the necessary change to be implemented. However, if students do not clearly establish intentions for their text, it is unlikely that adequate revision will occur (Fitzgerald, 1987). The establishment of intentions can be inhibited when students experience difficulty managing goals, do not know what their reader expects, or do not know where or how to
make changes (Fitzgerald, 1987). These difficulties can occur as a result of being cognitively overloaded, or being overwhelmed by the writing process.

Many students experience difficulties learning to revise, and revising is not generally emphasized in classrooms (Fitzgerald & Markham, 1987). Existing revising interventions have focused on direct instruction and reducing cognitive load. In this review, these interventions will be discussed, followed by a summary of this research and the overall impact of revising on student writing.

*Compare, Diagnose, and Operate (CDO).* In an attempt to decrease the cognitive load imposed upon student writers, Scardamalia and Bereiter (1983) developed and investigated a simplified procedure for coordinating and managing the decisions involved in revising. The procedure was based on a model of revising using three elements including compare, diagnose, and operate, or CDO. Compare consisted of detecting differences between the writer’s intentions and the actual written text. Diagnose involved determining the cause of such differences, and operate included determining the necessary changes and implementing them. This process was hypothesized to reduce cognitive load by making the steps of revising concrete through the use of a mnemonic, and by decreasing student decisions by including only three primary steps in which to make decisions.

A modified CDO procedure which investigated the effects of two phases of revision has been examined (De La Paz, Swanson, & Graham, 1998). Specifically, one phase emphasized the overall representation and structure of the text and the other phase focused on specific segments of text that necessitated modification. Additionally, a procedure using similar evaluative and directive phases as the CDO strategy with
students with learning disabilities has been investigated (Reynolds, Hill, Swassing, & Ward, 1988). In addition to using the phases in this investigation, students also revised using the COPS (Capitalization, Overall appearance, Punctuation, Spelling) strategy for mechanical revisions (Schumaker et al., 1981).

A problem-solving approach to revising. One other investigation was found in which the effects of revision were examined exclusive of instruction in planning, peer editing or word processing. Specifically, this investigation examined the effects of teaching revision as a problem-solving process (Fitzgerald & Markham, 1987). This approach included identifying disparities between intended meaning and written text, deciding how changes should or could be made, and making changes. Thus, both the compare and operate stages from CDO were utilized in this investigation. Instruction in this investigation included defining aspects of the revision process, modeling the revision process, leading the group in revising an example, writing a story, revising a portion of a story supplied by the teacher and finally revising the story they had written.

Besides the numerous peer editing (Brakel Olson, 1990; Karegianes, Pascarella, & Pflaum, 1980; MacArthur, Schwartz, & Graham, 1991; Reese-Durham, 2005) and word processing (Grejda & Hannafin, 1992; Morton, Lindsay, & Roche, 1989; Nuvoli, 2000; Steelman, 1994; Wong, Wong, Darlington, & Jones, 1991; Zammuner, 1995) studies of revising, the CDO procedure as well as similar procedures, are some of the only revising procedures that have been examined independent of planning procedures.

Summary of revising research. Results of studies investigating the CDO procedure indicate that students who are taught this procedure generally express that CDO made revising easier (De La Paz et al., 1998; Graham, 1997; Scardamalia &
Bereiter, 1983). However, results were mixed regarding the effect of the CDO procedure on length and quality of writing. Specifically, length of compositions decreased in one investigation (Graham, 1997), while length increased in another (De La Paz et al., 1998). Additionally, while quality of writing did not improve significantly in two of the investigations (De La Paz et al., 1998; Graham, 1997), quality did improve through the use of the problem-solving process with direct instruction (Fitzgerald & Markham, 1987). Problem-solving and direct instruction also increased student knowledge of the revision process and enhanced revision efforts (Fitzgerald & Markham, 1987). Furthermore, when CDO was used in conjunction with the COPS strategy, mechanics improved although content did not (Reynolds et al., 1988).

Overall, studies examining revising in isolation from planning demonstrate mixed results in terms of length and quality of compositions. All studies examining the effects of revising in isolation from planning appear to have employed similar procedures. Additional studies are necessary to determine the effects that instruction in revising has on student writing.

**Effective instruction.**

*Cognitive-behavioral view of learning.* For any writing instruction or strategy to be used independently, learning must occur. Within this project, learning is viewed as a dynamic phenomenon that occurs through an interaction of both cognitive and behavioral processes. Based on this perspective, learning takes place only within an environment that stimulates active learning and includes such components as modeling of appropriate behavior and reinforcing successive approximations of academic achievement. These components are believed to promote learning and increase the likelihood that these
behaviors will continue to occur (Maag, 2004; Magliaro, Lockee, & Burton, 2005; Miltenberger, 2004). Additionally, learning is seen as a process that can only be understood and observed through student performance on specific tasks. Therefore, the behavioral approach to learning is considered to be of utmost importance in understanding and promoting learning.

Information retrieval and storage also play critical roles in the process of learning. As previously discussed, students can become cognitively overloaded if they are required to attend to multiple stimuli at one time, or to stimuli that are too difficult for them to understand. When this occurs, even in a stimulating environment, learning cannot take place and students will struggle. According to the information-processing theory of learning, information passes through memory structures in a very specific way and information can be lost at any time if it is not attended to (Berk, 2006). Thus, it is necessary and important for students to utilize and actively work with information to ensure that the information is not lost. Therefore, providing an adequate but not overwhelming amount of information to students allows for sufficient processing of information, which promotes and sustains the learning process. Thus, the specific method by which knowledge is gained is considered to rely upon cognitive processes. In this way, it is important that strategies are instructed in such a way that they are explicit and do not overwhelm or cognitively overload students. Instruction in both SRSD and CDO have a basis in cognitive theory, as they provide for explicit instruction that breaks learning apart, providing students with the opportunity to gain knowledge through a systematic process that does not cognitively overload them. Two additional approaches
to instruction are described herein and also adhere to both behavioral and cognitive frameworks of learning.

*Direct instruction.* More than a quarter of a century ago, the tenets behind direct instruction began to appear. Specifically, a meta-analysis of the research examining the relationship between instruction and academic outcomes found that within the most effective instruction, teachers used structured materials, asked specific questions of students, provided immediate feedback, and monitored student practice (Rosenshine, 1976). Several important components of instruction have been identified through examining the relationship between instruction and academic outcomes. For example, when teaching new and difficult material to struggling and novice writers, research indicated that instructors should state learning goals, review previous learning, gradually present new material, provide clear instructions, provide practice opportunities, guide student practice, ask students questions to probe for understanding, provide immediate feedback, and evaluate student performance (Rosenshine, 1986). More recent literature suggests that the direct instruction components proposed by Rosenshine (1986) are still considered effective to this day (Graham & Perin, 2007; Magliaro, et al., 2005; Swanson, Hoskyn, & Lee, 1999).

An illustration of the effectiveness of implementing direct instruction to teach writing was offered by the previously identified Fitzgerald and Markham (1987) investigation. Specifically, Fitzgerald and Markham (1987) examined the use of CDO through direct instruction components by gradually increasing the demands placed on students, and by providing clear instructions, examples, guided practice, review of previous learning, modeling, and practice opportunities. By incorporating these
instructional procedures, students’ knowledge of the revising process was increased and most notably, so was the quality of their writing. Improvement in quality of writing is especially interesting, considering that in all other identified investigations of CDO in isolation, quality of writing did not improve as a result of the procedure (Graham, 1997; De La Paz et al., 1998; Reynolds et al., 1988). Additionally, the previously identified and effective SRSD model incorporates all of the direct instruction components and has demonstrated effectiveness with teaching students to write. Thus, the provision of direct instruction appears to have positively impacted student writing performance.

*Strategy instruction.* Direct instruction appears to be a viable and effective method of instruction. However, strategy instruction has also been identified as an effective form of instruction for teaching students with LD (Swanson et al., 1999) and particularly for teaching writing (Graham & Perin, 2007). In fact, the previously discussed and effective SRSD model has been identified as an effective model for teaching strategies using this approach. Strategy instruction is very similar to direct instruction, as both forms of instruction are systematic and focus on mastery (Graham, & Perin, 2007). However, while direct instruction is an overarching instructional model, strategy instruction focuses on instructing students on the use of specific strategies to increase their knowledge of the particular topic. Specifically, within direct instruction, different skills can be taught to students, provided that the skills are taught using the tenets of direct instruction (e.g., modeling, practice, performance feedback etc.). However, within a strategy instruction model, there are specific methods employed to teach particular strategies to students, including the much emphasized mnemonics that
are incorporated in SRSD instruction. Therefore, many strategy instruction methods also employ principles of direct instruction.

_Direct and strategy instruction._ Direct instruction and strategy instruction appear to have roots in both behavioral and cognitive theories of learning. Specifically, both forms of instruction focus on the environment of the learner and the observable outcomes of learning, while gradually increasing the demands placed on the student so as to make the amount of presented information manageable for working memory (Rosenshine, 1986). Additionally, both approaches promote active learning, which, within the behavioral perspective is seen as important because it provides a method by which students can demonstrate and gain reinforcement for their learning behaviors. Within the cognitive framework, active learning is considered important because it increases the likelihood that information will be retained in long-term memory and knowledge will be established (Berk, 2006; Pressley & Harris, 2006). Thus, a connection between cognitive and behavioral theories of learning and direct and strategy instruction is clear.

In Swanson et al.’s (1999) meta-analysis of instruction for students with LD, it was found that the combination of direct instruction and strategy instruction was more effective than either instructional practice alone for increasing the academic performance of students with LD. Graham and Perin’s (2007) meta-analysis of effective writing instruction also identified the combination as increasingly effective as compared to either program alone. As a result, both analyses made similar instructional recommendations to gradually increase the complexity of writing tasks and provide modeling during instruction (i.e., scaffold learning). Additionally, Swanson, et al. (1999) identified frequent evaluation of student skills, review and practice, frequent feedback, and asking
questions to probe for understanding as recommendations for ameliorating the affects of LD. Furthermore, Graham and Perin (2007) recommended teaching strategies for planning, revising, and editing, and setting clear goals for student writing.

Evidence for instructional components. Integration of a majority of the instructional components previously identified has been demonstrated through two manualized direct instruction programs. Specifically, Reasoning and Writing (Engelmann and Silbert, 1991) has been investigated with students with learning disabilities and behavioral disorders (Anderson & Keel, 2002) as well as with gifted students (Ginn, Keel, & Fredrick, 2002), while Expressive Writing (Engelmann & Silbert, 1983) has been investigated with high school students with learning disabilities (Walker, Shippen, Alberto, Houchins, & Cihak, 2005). Both instructional programs include the components of reviewing previous learning, teacher modeling, asking questions to probe for student understanding, evaluation of progress, and practice (Walker et al., 2005). Instruction in Reasoning and Writing has yielded substantial improvements on the Spontaneous Writing Scale of the Test of Written Language-2 (TOWL-2; Hammill & Larsen, 1988) from baseline to post-instruction assessments after only six weeks (Anderson & Keel, 2002). Additionally, two of the fourth grade students who were administered the TOWL-3 (Hammill & Larsen, 1993) at the beginning of the next school year continued to make gains in their writing performance. Furthermore, using the same program, gifted students in the fifth grade also made significant improvements on the TOWL-3 (Ginn et al., 2002). Finally, using Expressive Writing (Engelmann & Silbert, 1983), it was found that immediately following instruction and during a maintenance phase up to six weeks following instruction, three high school students with learning
disabilities substantially increased the number of correct writing sequences they wrote in three minutes, while also increasing their scores on the TOWL-3 (Walker et al., 2005). Thus, the integration of several of the previously identified instructional components has demonstrated effectiveness when applied with several types of students.

Although the integrated instructional components found throughout the *Reasoning and Writing* (Engelmann & Silbert, 1991) and *Expressive Writing* (Engelmann & Silbert, 1983) programs have demonstrated effectiveness, neither program includes all of the components that have been previously mentioned. Furthermore, neither program specifically examines the planning phase of writing beyond drafting, nor has either program evaluated the effects of planning and revising in isolation. Thus, although these programs employ several of the same instructional components proposed throughout this manuscript, the programs do not examine the vital skill of planning a composition, which is a critical element of this project.

**Motivational components.** Although several of the identified components have been examined through the previously acknowledged studies, the motivational components used within this study are also supported by research indicating their effectiveness. For example, multiple experimental analyses of reading instruction have identified the effectiveness of setting goals and providing performance feedback (Bonfiglio, Daly, Martens, Lin, & Corsaut, 2004; Daly, Bonfiglio, Mattson, Persampieri, & Foreman-Yates, 2005; Daly, Persampieri, McCurdy, & Gortmaker, 2005; Duhon et al., 2004). Specifically, it has been hypothesized that certain students experience skill deficits in which instructional procedures are required to reduce concerns, and other students experience performance deficits which require motivational components to
increase performance. Investigations of this hypothesis have revealed that the students who experience skill deficits benefit more from instructional components and the students who experience performance deficits benefit more from motivational components (Daly, Persampieri, et al., 2005; Duhon et al., 2004). Additionally, investigations that have included package programs including both types of components have found that the combination of instructional and motivational procedures produces greater effects than either motivational or instructional components alone (Bonfiglio et al., 2004), and that these effects may be generalized to novel stimuli (Bonfiglio et al., 2004; Daly, Bonfiglio, et al., 2005).

The use of performance feedback and goals has also received some support in the area of writing, although not to the degree examined in the reading literature. Specifically, feedback on rate of writing through public posting has been investigated with the inclusion of goals (Van Houten, Morrison, Jarvis, & McDonald, 1974) as well as with the inclusion of social reinforcement based on the accomplishment of goals (Scriven & Glynn, 1983). Results of both studies indicated that performance feedback and goals resulted in clear increases in writing production. Additionally, writing accuracy increased as a result of performance feedback and goals in the Scriven and Glynn (1983) investigation, and writing quality increased as a result of performance feedback and goals in the Van Houten et al. (1974) investigation. Similar results were found when fourth grade students graphed the number of words they wrote, proofread their own stories, shared their stories with their class, and counted the number of words written in each other’s compositions (Kasper-Ferguson & Moxley, 2002). Results of this investigation indicated that writing production and writing quality increased for all students through
the provision of performance feedback. Overall, the results of these three studies suggest that motivational components have a positive effect on writing performance. Specifically, writing accuracy, production and quality have been demonstrated to increase as a result of such components.

Although the focus of these three investigations has been on performance feedback, goals are also an important motivational component that has been demonstrated to increase the effectiveness of performance feedback (Schunk & Swartz, 1993a, 1993b). In fact, goals have been identified as “integral components of motivation and learning” (Schunk, 2003, p. 163). Specifically, goals appear to be moderators of self-efficacy, which, in turn, influence academic performance. The most effective goals appear to be those that are proximally close and moderately difficult (Schunk, 2003). For example, an appropriate goal for a student who generally writes fifteen words would be to write twenty words on the next writing assignment, as opposed to a goal of writing sixty words at the end of a two week instructional phase. Additionally, goals that are specific allow students to monitor their performance toward the goal, and are thus seen as more effective than non-specific goals (Schunk, 1990). Such goals have shown effectiveness for increasing writing performance when paired with performance feedback (Graham, MacArthur, Schwartz, & Page-Voth, 1992; McCurdy, Skinner, Watson, & Shriver, 2008; Schunk & Swartz, 1993a, 1993b).

A summary of an effective instructional package. From the previous review, it is apparent that components of direct instruction and strategy instruction, as well as motivational strategies have demonstrated success increasing writing performance. Furthermore, the combination of direct instruction and motivational components has
demonstrated an impact on multiple writing indices (McCurdy, et. al 2008). A list of components that have been identified by Graham and Perin (2007) and/or Swanson et al. (1999), as well as additional components which have been previously identified as effective for increasing academic performance, is included in Appendix A. These components are supplemented by other sources that have been identified throughout this manuscript and have also identified the components as effective.

All of the components that have been previously identified are components that are inherent within the SRSD model. Thus, SRSD appears to be an appropriate model by which to teach students to write. The lesson plans that include these components within the SRSD model can be found in Appendices B and C. Not only do these components satisfy a majority of the recommendations asserted through two seminal meta-analyses reviewing both effective interventions for teaching students with LD (Swanson et al., 1999) and useful writing instruction strategies (Graham & Perin, 2007), but they also satisfy the proposed reasons why students struggle with academics. Specifically, Daly, Witt, Martens, and Dool (1997) identified providing incentives, providing opportunities for practice, providing immediate feedback, providing models, and using appropriate teaching materials as the effective components for combating the factors that impede student academic performance. As all of these components are included within the list of previously identified components, it appears that these components have the potential to prevent the difficulties that most frequently impede academic success. Specifically, these components are known for aiding students in overcoming motivational difficulties, limited practice opportunities, limited assistance, generalization difficulties and problems with inappropriately leveled materials (Daly et al., 1997).
Generalization. Generalization is a primary concept examined within this study and one that has been studied for years. In fact, over thirty years ago, generalization was identified as a fundamental concept of applied behavior analysis, and it was identified that for a behavioral change to be effective, the change must occur over time, persons, and settings (Stokes & Baer, 1977). In this same literature review, nine techniques designed to assess or program generalization were identified.

The nine techniques identified for assessing or programming generalization include “Train and Hope” in which a behavior is trained and generalization across responses, settings, experimenters, and time is documented but not actively promoted. Another technique is “Sequential Modification” in which a behavior is trained and if generalization is absent or deficient, systematic sequential modifications across responses, subjects, settings, and experimenters are implemented until generalization is established. A third technique is to “Introduce to Natural Maintaining Contingencies.” Within this technique, a behavior is trained and the behavior occurs outside of the training environment as a result of exposure to naturally occurring reinforcement. An example of this technique would include teaching a child social skills and observing generalization of these skills outside of the classroom due to naturally occurring responses from peers.

Additional techniques for promoting generalization include training sufficient exemplars, training loosely, using indiscriminable contingencies, programming common stimuli, mediating generalization, and training to generalize. To train sufficient exemplars, multiple exemplars of responses, subjects, and settings are taught to ensure generalization across these areas. To train loosely, teaching is conducted with relatively
little control over the stimuli presented so as to expose the learner to multiple dimensions in which the behavior can occur. In using indiscriminable contingencies, the behavior is intermittently reinforced, as intermittent schedules of reinforcement have been demonstrated to be resistant to extinction. Thus, generalization is intermittently reinforced to ensure the continual use of the behavior under this schedule of reinforcement. Another approach is to program common stimuli such that the stimuli present in the training setting are the same as the salient stimuli in the generalization setting. To mediate generalization, a response is evoked in the generalization setting that is similar to the response evoked during training. Finally, when training to generalize, reinforcement is offered upon generalizing the behavior across responses, settings, experimenters, and time. The many and varied approaches for promoting generalization provide support that generalization is a valued concept that has received much attention.

Basically, generalization is the ability to demonstrate a learned behavior or skill when the task varies from the task that was initially instructed (Daly, Martens, Barnett, Witt, & Olson, 2007). Any modification to the task can provide an opportunity for generalization to occur. For example, teaching students to fluently read a particular passage and then assessing their fluency on a different passage with similar words is a measure of generalization.

Generalization is important because it provides evidence that students have learned the skills or behaviors that are being taught and can transfer these skills to different circumstances. The ability to generalize learning is an indicator of the effectiveness of an instructional practice. Generalization can be inferred when similar
results are found under instructional conditions and under circumstances different from
the initial instruction (Johnston & Pennypacker, 1993).

Research has demonstrated that the effects of instruction in SRSD have
generalized to different settings (Danoff et al., 1993; Graham & Harris, 1989a; Graham &
Harris, 1989b; Sexton et al., 1998) and to uninstructed genres of writing (Graham &
Harris, 1989a; Saddler et al., 2004; Tracy et al., 2009). Specifically, the effects on
number of elements (Danoff et al, 1993; Graham & Harris, 1989a; Graham & Harris,
1989b; Sexton et al., 1998) and writing quality (Graham & Harris, 1989a; Sexton et al.,
1998) generalized to students’ regular classroom environment. Additionally, after
teaching students to write stories, Saddler et al. (2004) found that the effects on number
of elements, quality, and length generalized to personal narratives. Finally, after teaching
students to write essays, Graham and Harris (1989a) discovered that the effects on length
generalized to stories. Such generalization provides evidence of skill acquisition and the
ability to perform learned skills beyond the demands of the intervention. SRSD appears
to be a practice under which students may be able to generalize their learning.

Self-Regulated Strategy Development is appropriate for teaching students how to
write. Particularly, all of the identified components are suitable for teaching both of the
previously specified processes of writing, including planning and revising. Finally, it is
viable to integrate the usage of all ten components in a simple instructional format.

**Purpose of this study.**

It is clear that the three primary processes of writing that were originally
identified by Flower and Hayes (1980; planning, translating and revising) require very
different processes and are dissimilar from one another. Specifically, within the process
of planning it is necessary to generate and organize content (Flower & Hayes, 1981; Graham, 2006; Vallecorsa et al., 1991). Translating (i.e., writing) involves producing text and translating content into written language (Chenoweth & Hayes, 2001), and revising requires the ability to reflect upon the text (Englert et al., 1991) and critically analyze it (Vallecorsa et al., 1991). Although these processes are dissimilar, one model of instruction appears sufficient for teaching all three processes.

It is evident that SRSD has been effectively utilized to teach students to plan and write their stories. However, SRSD has not been used to teach students to revise their writing, and the instructional approaches that have been employed for teaching students to revise have yielded mixed results in terms of their effectiveness. Since SRSD has already been validated for teaching students to write, it appears that it would be effective for teaching students to revise as well. The additive effects of instruction in revising were examined by first using SRSD to teach students to plan and then using SRSD to teach students to revise, and identifying changes between the two phases. Accuracy, length, number of story elements and quality of writing, as well as the time spent writing compositions were analyzed to determine the additive effects of instruction in revision.

Although it has been demonstrated that the effects of SRSD are generalized to different settings (Danoff et al., 1993; Graham & Harris, 1989a; Graham & Harris, 1989b; Sexton et al., 1998) and uninstructed genres (Graham & Harris, 1989a; Saddler et al., 2004), generalization to uninstructed story probes has not been examined. Additionally, previous investigations have not identified the amount of instruction necessary for generalization to occur. Nor have these investigations examined generalization across more than one story probe to determine whether the effects of
instruction are differentially generalized across story probes. An examination that can answer these questions using several writing variables will allow for a clear demonstration of the level of generalization obtained following instruction, and of the specific areas in which writing improves following instruction. Thus, examination across instructed and uninstructed story probes appears warranted.

For this project, generalization was assessed by using one story probe to teach students to plan their writing and subsequently assessing writing performance on that story probe as well as two other story probes that had not been used for instruction. When performance on either of the two uninstructed story probes improved beyond baseline performance on those probes, it was determined that generalization had occurred. Specifically, students were given the same instructions for each story probe, and writing production, accuracy, number of story elements, and quality of writing were assessed on all story probes to assess for generalization across story probes.

The purpose of this study is to critically analyze the additive effects of teaching students to revise their writing in terms of the impact on written products and to examine the level of generalization obtained through instruction in planning and revising. As a function of being grounded in one program of instruction across processes, both phases of instruction will be as similar as possible to ensure that the only difference between the phases will be the instructed process and skills. The objectives of the study include (a) implementing evidence-based strategies to promote planning and revising; (b) identifying the additive effects of instruction in revising skills; (c) identifying the writing performance indicators that are affected by instruction in revising; (d) assessing written products to determine whether increases in writing are evident and whether
generalization is established; (e) identifying implications for future research and educational practices. The project is significant because it allows for the explicit effects of the processes of writing to be identified.

Research identified throughout this chapter has provided the basis for the hypotheses of this study. First, inconsistent results on writing production have been identified through instruction in revising (De La Paz et al., 1998; Graham, 1997), while several studies have identified an impact of instruction in planning on writing production (Graham et al., 2005; Harris et al., 2006; Sexton et al., 1998; Tracy et al., 2009; Troia et al., 1999). Second, no studies were identified that examined the impact of planning on writing accuracy, but it has been identified that instruction in revising influences writing accuracy (Reynolds et al., 1988). Third, it has been identified that students can reach criterion for number of story elements through instruction in planning (Lienemann et al., 2006; Reid & Lienemann, 2006; Saddler, 2006; Saddler et al., 2004), while no studies were identified that examined the impact of instruction in revising on number of story elements. Fourth, while it has been identified that instruction in planning (Graham et al., 2005; Harris et al., 2006) and instruction in revising (Fitzgerald & Markham, 1987) influence quality of writing, it was also identified that novice writers focus their attention on planning and neglect the quality of their writing (Glynn et al., 1982). Finally, it has been identified that a combination of instructional and motivational procedures increases generalization (Bonfiglio et al., 2004; Daly, Bonfiglio, et al., 2005). Therefore, the following hypotheses were formed.

1. It is hypothesized that Planning + Revising Instruction will produce effects on writing production that are not different than Planning Instruction.
2. It is hypothesized that Planning + Revising Instruction will produce gains on writing accuracy beyond Planning Instruction.

3. It is hypothesized that Planning + Revising Instruction will produce effects on number of story elements that are not different than Planning Instruction.

4. It is hypothesized that Planning + Revising Instruction will produce gains on writing quality beyond Planning Instruction.

5. It is hypothesized that subsequent story probes will require fewer instructional sessions than previous story probes, thereby indicating generalization across story probes.
Chapter 3

Method

Participants and setting.

Participants were three third grade and one fourth grade student. Jonny was a 9-year, 3-month old Hispanic male. Sam was a 10-year old European American female, Lolo was an 8-year, 9-month old European American female, and Helen was an 8-year, 11-month old European American female at the beginning of the study. (All names provided are pseudonyms. See Table 1 for participant characteristics.)

Table 1

Participant Information

<table>
<thead>
<tr>
<th>Student</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Age</th>
<th>Grade Level</th>
</tr>
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<td>*Jonny</td>
<td>Male</td>
<td>Hispanic</td>
<td>9-3</td>
<td>3</td>
</tr>
<tr>
<td>*Sam</td>
<td>Female</td>
<td>European American</td>
<td>10-0</td>
<td>4</td>
</tr>
<tr>
<td>*Lolo</td>
<td>Female</td>
<td>European American</td>
<td>8-9</td>
<td>3</td>
</tr>
<tr>
<td>*Helen</td>
<td>Female</td>
<td>European American</td>
<td>8-11</td>
<td>3</td>
</tr>
</tbody>
</table>

Note. *All names provided are pseudonyms

Students were recruited from an elementary school in a Midwestern suburban community of approximately 13,000 people. The elementary school serves approximately 860 students from grades second through fifth. Eighty-five percent of the student population are European American, eight percent are Hispanic, five percent are African American, and two percent are Asian.

Students recruited for the study were identified as experiencing difficulties in the area of writing and were referred for this study by the school’s principal and each
student’s classroom teacher. None of the students were diagnosed with a special education diagnosis. All phases of the investigation occurred in the participants’ elementary school in the spring of 2009. Specifically, individual sessions were conducted in a resource room in an area which was quiet and free from distraction.

**Materials.**

As this investigation included an intervention component with repeated assessment, materials for both activities (i.e., instruction and assessment) were required to complete the investigation. To conduct the assessments, the *Test of Written Language - Third Edition* (TOWL – 3; Hammill & Larsen, 1993), the Writing Attitude Survey, story starter writing probes, and the Children’s Intervention Rating Profile (CIRP; Witt & Elliott, 1985) were used. To protect test security, the TOWL-3 protocol is not included in the Appendices. However, all other assessment materials can be found in Appendices D, E, and F, respectively. Additionally, a stop watch was required to determine the length of time students spent writing. To ensure that interrater agreement was accurate and not biased by the primary investigator’s written scores on the original writing products, a scanner was used to scan student writing products before scoring the products. For use during intervention, scripts for both the Planning Instruction and the Planning + Revising Instruction lessons were needed. These scripts can be found in Appendices B and C. As part of these lessons, paper, pencils, folders, and a red pen were needed. Additionally, mnemonic charts, story examples, graphic organizers, a transfer chart, and graphs, which can be found in Appendix G, were also needed.

**Screening material.** The Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good & Kaminski, 2002) Oral Reading Fluency (ORF) subscale was used for
screening within this study. Specifically, the ORF subscale examines students’ ability to read grade-level text with accuracy and fluency. Alternate form reliability and concurrent validity of this measure are moderate to high with ranges from .89 to .94 and .52 to .91, respectively (Elliott, Huai, & Roach, 2007). Specific instructions for the reading probes can be found in Appendix H.

**Dependent variables.**

*Test of Written Language Third Edition (TOWL -3).* The Spontaneous Writing portion of the TOWL-3 (Hammill & Larsen, 1993) was administered individually to students prior to inclusion in the investigation and at termination of the investigation. The subtests measured within the Spontaneous Writing portion of the TOWL-3 include Contextual Conventions, including spelling, capitalization and punctuation; Contextual Language, including vocabulary, syntax and grammar; and Story Construction including the plot, character development and overall composition. Administration of the subtests involved providing the examinee with a booklet including a picture and space on which to write a story relating to the picture. Examinees were provided with fifteen minutes to write their story. The story was later scored by the examiner on all of the previously identified subtests and a percentile rank was calculated, comparing the examinee’s performance with the performance of other examinees their age. The TOWL-3 was standardized with over 2,000 second- through twelfth-grade students in both public and private schools in the United States (Hammill & Larsen, 1993). Coefficient alphas for these subtests ranged from .88 to .90 for 9- to 11- year olds (Hammill & Larsen, 1993; Saddler & Graham, 2007).
**Story starter writing probes.** Curriculum-based measurement (CBM) was the primary method for evaluating student writing performance within this investigation. CBM consists of a brief, direct, and objective measurement system that can be administered using students’ regular curriculum materials (Watkinson & Lee, 1992). Story starter probes were used for these assessments, as story starters are the primary method by which assessments are conducted using CBM (Shapiro, 2004). Specifically, the story starters were randomly chosen from the list of narrative story starter prompts that have been developed nationally through the AIMSweb online program (NCS Pearson, 2008) which can be found in Appendix E. Narrative stories are one genre taught within SRSD and the first genre of writing to which students are exposed. Children are seen as continually developing their skills in narrative text through age twelve (McKeough, Palmer, Jarvey, & Bird, 2007). Thus, when working with third and fourth grade students who struggle with writing, it appeared that focusing on this genre was most appropriate.

Multiple investigations of the reliability and validity of story starter prompts have been conducted. Strong alternate-form reliability has been found for both production and accuracy scoring indices using story starter prompts (McMaster & Campbell, 2008). Additionally, interscorer agreement for measures of Correct Writing Sequences (CWS) and Total Words Written (TWW) have ranged from 86% for CWS with students in third and fourth grade (Gansle, Noell, VanDerHeyden, Naquin, & Slider, 2002) to above 99% for TWW with students in first through sixth grades (Malecki & Jewell, 2003). Additional information on the reliability and validity of TWW and %CWS can be found in their respective sections.
*Total Words Written (TWW).* Total Words Written has been identified as a primary dependent variable for evaluating student writing performance in this study. Using the TWW measure, any group of letters separated by a space is counted as a word, even if the word is misspelled or is a nonsense word (Shapiro, 2004). Total Words Written (TWW) is a measure of writing production.

Total Words Written has been identified as a valid and reliable measure for assessing student writing production, especially with elementary age students (Deno, Marston, & Mirkin, 1982; Deno, Mirkin, & Marston, 1980; Marston & Deno, 1981). Specifically, Deno et al. (1980, 1982) found TWW to significantly correlate with written language criterion measures such as the *Test of Written Language (TOWL)*; Hammill & Larsen, 1978; \( r = .69 \) to .82) and the *Stanford Achievement Test* (Madden, Gardner, Rudman, Karlsen, & Merwin, 1978; \( r = .41 \) to .88). Furthermore, in an investigation by Marston and Deno (1981), the test-retest reliability coefficients, parallel-test correlations, split-half reliability coefficients, and interrater correlations of TWW were all moderate to high (\( r = .57 \) to .99), indicating acceptable reliability for TWW. Additionally, correlations between TWW and teachers’ holistic ratings of student writing have yielded correlations between .42 for 2,522 second though sixth, eighth, and eleventh grade students (Parker, Tindal, & Hasbrouk, 1991) to .85 for 50 general education students in grades three through six (Videen, Deno, & Marston, 1982). Cronbach’s alpha has also been reported at .87 for TWW for students in grades one through six (Marston & Deno, 1981). Finally, a thorough review of the literature concluded that TWW adequately differentiates students of differing skill levels (McMaster & Espin, 2007).
Percent Correct Writing Sequences (%CWS). Percent CWS (%CWS) is an indicator of writing accuracy (Jewell & Malecki, 2005). Specifically, a correct writing sequence consists of two adjacent correctly spelled words that are correct within the context of the sentence according to a native English speaker (Videen et al., 1982). Thus, %CWS is the percentage of writing sequences that are correct within the composition. To obtain %CWS, the number of CWS are divided by the total number of writing sequences and the result is multiplied by 100 to obtain a percentage. Tindal and Parker (1989) identified that %CWS was strongly correlated with teachers’ holistic ratings of student writing (r = .75), which indicated that %CWS is an acceptable indicator of student writing performance. Furthermore, internal consistency reliability has been demonstrated to be high (r = .77), and the reliability of scores from fall to spring within one school-year has shown moderate coefficients (r = .45 to .75; Parker et al., 1991).

Number of story elements. The number of story elements measure assesses the writer’s proficiency to use all seven of the critical story elements in their story. The seven elements include: Who are the main characters? Where does the story take place? When does the story take place? What do the main characters do or want to do? What happens next? How does the story end? How do the main characters feel? Number of story elements has been used in previous research (Lienemann et al., 2006; Reid & Lienemann, 2006; Saddler, 2006; Saddler et al., 2004) to determine whether students independently practiced what they learned following SRSD instruction. As these are the story elements that are taught using SRSD instruction, this measure is a direct measure of skill acquisition. To assess student performance on this measure, two independent raters
read and scored the number of elements independently and then consensus was determined.

**Quality of writing.** Quality of writing is a measure which takes many components of writing into account, including vocabulary, mechanics, and organization. To gather information on quality, each composition was typed and corrected for spelling and punctuation errors. Two independent raters read each composition to obtain a general impression of quality based on the components previously specified. The rating given to each composition ranged from 1 to 8 and was compared to anchor papers from general education classrooms with ratings of 1, 4, and 8. It has been noted that when scoring methods involving the rating of student writing are paired with appropriate rater training, reasonably high interrater reliability results (Calfee & Miller, 2007). Such holistic rating scales have been used frequently in prior research to judge overall quality of writing and have proven to be sensitive to student learning outcomes (Deatline-Buchman & Jitendra, 2006; Lienemann, et al., 2006; Reid & Lienemann, 2006; Saddler, 2006; Saddler, et al., 2004; Sawyer, Graham & Harris, 1992). The purpose of typing the papers and correcting for errors was to minimize any bias that may occur when examiners score papers. Previous research has demonstrated that the appearance of the text- or surface-level features (e.g., handwriting legibility or number of spelling errors) can influence judgments about writing quality (Graham, 1999). Thus, by correcting for mechanical errors, the quality of the writing content could be assessed.

**Writing Attitude Survey.** The effects of the writing program on student’s attitudes toward writing were assessed by administering the Writing Attitude Survey (Kear, Coffman, McKenna & Ambrosio, 2000) prior to the investigation and following
each phase within the investigation. The survey incorporates pictures of Garfield ranging from a very happy Garfield to a very upset Garfield on a four-point Likert scale. Students were asked to demonstrate their attitudes toward writing by circling the Garfield that best corresponded to how they felt about specific statements about writing. This attitude survey was administered prior to the start of the writing intervention and on the last day of each phase of the study to determine whether attitudes toward writing changed during instruction. The Writing Attitude Survey instructions can be found in Appendix D.

The writing survey was standardized on a sample of 974 students in grades 1 to 12 in the east, central, and west regions of the United States. Five hundred and nine males and four hundred and sixty-five females completed the survey. The sample consisted of 75.7% European Americans, 16% African Americans, and 8.3% Latino/as. The survey was found to have a high degree of reliability. Cronbach’s alpha (Cronbach, 1951) for internal consistency ranged from .85 to .93 for each grade level and both genders, and reliability for the total sample was .88 (Kear et al., 2000).

**Independent variables.**

**Planning Instruction.** The first phase of the investigation involved teaching students to plan using the research-based SRSD model (Graham et al., 2006). This model includes six instructional stages, including Develop Background Knowledge, Discuss It, Model It, Memorize It, Support It, and Independent Performance (Graham and Harris, 1999; Graham et al., 2006). In addition to these instructional strategies, motivational strategies including goal setting and performance feedback were also incorporated. Two mnemonics were taught to students to help them remember how to write a good story.
These mnemonics were POW (Pick my idea; Organize my notes; Write and say more) and W-W-W What=2, How = 2 (Who are the main characters? Where does the story take place? When does the story take place? What do the main characters do or want to do? What happens next? How does the story end? How do the main characters feel?). A script for Planning Instruction can be found in Appendix B.

Planning + Revising Instruction. The second phase of the investigation involved teaching students to revise the stories planned and written during Planning Instruction using a newly developed protocol. A review of planning strategies was completed, followed by instruction in revising that used the six instructional phases of SRSD (i.e., Develop Background Knowledge, Discuss It, Model It, Memorize It, Support It, and Independent Performance) as well as goal-setting and performance feedback. The additional mnemonics for revising that were taught during this phase included FIX (Find the problems; Identify what is wrong; eXercise the changes) and COPS (Capitalization; Overall appearance; Punctuation; Spelling). The FIX mnemonic was developed to emulate the research-based CDO procedure. The letters were changed to use more comprehensible words for children and to form a word that would be easier to remember when revising. The COPS mnemonic was used because it is a research-based method to help students edit their papers. Instructional scripts for Planning + Revising Instruction can be found in Appendix C.

Experimental design.

A multiple-probe design across tasks (Wolery, Bailey, & Sugai, 1988) was used to evaluate the effects of planning and the combination of planning and revising on writing production (e.g., TWW), writing accuracy (e.g., %CWS), quality of writing, and
number of story elements. Over the course of the study, students revised three previously written stories to determine the additive effects of teaching planning and revising and to evaluate generalization of instructed skills. Specifically, during the screening phase, students wrote three stories prior to instruction. Each student was then taught to plan one story, then, while being taught to revise that story, they were taught to plan their second story. They were then taught to revise their second story while learning to plan their third story. In addition, students began the phases of the intervention in a staggered fashion within a multiple-probe design across students.

Within this design, experimental control was established when a change in level occurred only for story probes of the student who was receiving instruction and baseline story probes for the other students remained stable. For each student, treatment was introduced sequentially across probes. For example, when one story probe was being instructed in the Planning Instruction phase, the other story probes were either in the baseline phase, the Planning + Revising Instruction phase, or maintenance. When treatment was terminated for a specific story probe, subsequent assessments provided information regarding the maintenance of treatment effects for that story probe.

Generalization was observed when performance on story probes that were still in baseline increased in response to another story probe being instructed with the same student. This method of assessing for generalization limited the level of experimental control across story probes. However, experimental control was expected across participants and across time, as instruction for each student began at distinct times.

This design appeared to control for most threats to internal validity, including history and maturation effects as well as assessment-related threats, thereby allowing for
high levels of experimental control and for treatment effects to be attributed to the writing intervention. However, this design did not control for the threats to internal validity that can occur as a result of repeated assessment. This study alone could not control for threats to external validity although the replication of this study could improve the generalizability of the results. Thus, replication could lend to the validation of the use of these procedures with additional groups of students. In addition to the data gained from student stories, data regarding students’ attitudes toward writing and student acceptability of the intervention phases were collected following each phase of the study.

**Procedures.**

**Informed consent.** Approval for the proposed study was obtained from the University of Nebraska-Lincoln’s Institutional Review Board and the elementary school in which the study was conducted. Written informed consent was obtained by the parents and/or guardians of the students involved in the study and students were provided written child assent. Parents and/or guardians were then asked to sign a consent form approved by University of Nebraska – Lincoln’s Institutional Review Board. Parents and/or guardians were informed that individual results would be confidential, that their child would not be personally identified, and that they could withdraw their consent at any time without penalty. Prior to the first assessment session, the researcher explained the risks and benefits associated with participation and described confidentiality procedures individually with each child. Participating students were required to read and sign a child assent form in order to participate in the study. Students were informed that their participation was voluntary despite parental/guardian consent to participate, and they
could discontinue at anytime without penalty. Students completed the documents independently.

**Screening.** The researcher screened participant writing skills on an individual basis to ensure that the students were experiencing writing skill deficits. Students were selected for the investigation using the TOWL – 3 Story Construction subtest. Each student’s performance, as compared to other students their age, was calculated. Only those students obtaining scores below the 30th percentile as compared to peers their age were eligible for project participation. The 30th percentile was identified as appropriate criteria to determine necessity for additional support in writing.

Additionally, reading was screened using the DIBELS ORF subscale to ensure that the students had obtained the most basic reading skills. Appropriate grade-level ORF passages were chosen, and students with fluency scores at or above the 15th percentile as compared to a national sample of same-age peers, were eligible for project participation, as basic reading skills are believed to be acquired at this percentile level.

Finally, story probes were screened to identify appropriate story probes for the study. Between five and ten randomly chosen story probes from the AIMSweb story starter list in Appendix E were completed by each student over the course of four days. These story starters differed for every student in the study. Then, three of the stories were chosen for each student, based on similar writing performance across the stories for each student. Three stories were chosen due to the nature of the design used in this study. The script for screening assessments can be found in Appendix I.

**Baseline.** During the baseline phase, students were provided with an opportunity to modify their previously completed story probes from the screening phase. The story
was typed and students were told they could make changes to their story based on skills learned from instruction on previous stories. However, instruction was not provided on these stories while in the baseline phase. Students were given 10 minutes and allowed to rewrite the entire story or to make changes on the typed copy. The script for baseline assessment can be found in Appendix I. Due to the experimental design, the number of baseline data points differed for each story for each student, ranging between one and six data points.

**Planning Instruction.** The next phase of the investigation involved teaching students to plan using SRSD procedures. Scripts for Planning Instruction can be found in Appendix B. Students met with the researcher approximately four times per week in their school. The time of each session depended upon student need, but never exceeded forty-five minutes. Approximately six lessons were taught in this phase for the first story probe. For each subsequent story probe, it was expected that students would require fewer and fewer instructional sessions to demonstrate their best performance. As such, students were not instructed in lessons in which they demonstrated full understanding of the lesson prior to instruction. However, when a student was experiencing difficulty with a particular lesson, that lesson was repeated until the student mastered the lesson. Additionally, for every story probe, all students were instructed in Lesson 2, as, within this lesson, students practice skills using their story probes.

Following instruction in the planning phase, students were provided with each of the selected stories from the screening phase, one at a time, and the same procedures as for baseline assessments ensued over the course of one to two sessions. The script for assessments can be found in Appendix I.
**Planning + Revising Instruction.** The second phase of the investigation involved teaching students to plan and revise. A review of planning SRSD strategies was completed, followed by instruction in revising that used the same components as SRSD planning. Scripts for Planning + Revising Instruction can be found in Appendix C. Students met with the researcher approximately four times per week in their school. The time of each session depended upon student need, but never exceeded forty-five minutes. Five lessons were taught in this phase for the first story probe. For each subsequent story probe, it was expected that students would require fewer and fewer instructional sessions to demonstrate their best performance. As such, students were not instructed in lessons in which they demonstrated full understanding of the lesson objective prior to instruction. For every story probe, all students were instructed in Lesson 2, as, within this lesson, students practiced revising using their story probes.

Following instruction in the planning and revising phase, students were provided with a typed copy of the story they modified following the planning phase and the same procedures as for baseline assessments ensued, occurring over one to two sessions. The script for assessments can be found in Appendix I.

**Maintenance.** The final phase of the investigation involved assessing the degree to which the effects of instruction were maintained following instruction in both the Planning Instruction and Planning + Revising Instruction phases. Maintenance of skills was examined by assessing student writing performance on a particular story probe up to two times following the assessment subsequent to the Planning + Revising Instruction phase for that story probe. In this phase, students were provided with their previously written stories and given the same instructions as in baseline. They were allowed to
change the story based on what they had learned. Each student participated in one to three maintenance sessions.

**Treatment integrity, interrater agreement and social validity.**

**Treatment integrity.** Treatment integrity has been defined as “the degree to which a treatment is implemented as planned” (Gresham, Gansle, Noell, Cohen, & Rosenblum, 1993, p. 254). Thus, treatment integrity was examined to ensure that intervention procedures were completed as intended. The researcher tape recorded all sessions and 33% of the sessions were randomly selected to be scored for treatment integrity by a trained graduate student. Separate treatment integrity checklists for each phase of instruction were used to check treatment integrity. These treatment integrity checklists can be found in Appendix J. It was determined that the level of treatment integrity with the intervention steps was 98.69% during the study.

**Interrater agreement.** The consistency between the ratings of two independent observers is considered interobserver agreement (Watkins & Pacheco, 2000). Similarly, the consistency between the ratings of two independent raters is considered interrater agreement. This measure of consistency was used in the current investigation to ensure the reliability and validity of the writing scoring indices included in the study. Specifically, two graduate students who were blind to experimental conditions were trained to score the TOWL Story Construction subtest. The graduate students read the instructions for scoring the TOWL and co-scored several writing examples. The raters demonstrated 95% interrater reliability with the researcher during training before scoring student TOWLs. The graduate students were also trained to score writing probes. The researcher provided verbal and written explanations of the definitions of %CWS and
TWW. Then, the raters scored examples of writing probes for %CWS and TWW. For quality of writing, the raters received examples of student writing (i.e., anchor papers) that received a score of 1, a score of 4, and a score of 8. The raters then scored examples of writing probes for quality ratings. The raters demonstrated 98%, 96% and 99% interrater reliability with the researcher on TWW, %CWS, and quality ratings respectively during training before scoring student writing probes. The independent raters scored 33% of all writing probes for TWW, %CWS, number of story elements, and quality. Interrater agreement was calculated by dividing the lower of the two scores by the higher of the two scores and multiplying the result by 100 to obtain a percentage. Interrater agreement of 95.34%, 87.59%, 92.38%, and 97.33% were obtained for TWW, %CWS, number of story elements, and quality of writing, respectively.

**Social validity.** The researcher assessed social validity by administering the Children’s Intervention Rating Profile (CIRP; Witt & Elliott, 1985) on the last day of each writing intervention phase. The CIRP was developed using items from the Intervention Rating Profile (IRP; Witt & Martens, 1983). The CIRP is composed of 7 statements and asks students to rate the items on a scale of “1” to “5” with “5” indicating “I disagree very much.” Students read each statement and circled the number corresponding to their opinion. Cronbach’s alpha (Cronbach, 1951) coefficient is .75 for the CIRP (Turco & Elliott, 1986). It has also been demonstrated that students can adequately discriminate their preferences using the CIRP, thus lending to the validity of this measure for use with children. (Elliott, 1988; Turco & Elliott, 1986). The version of the CIRP provided during assessment was slightly modified to include language referring to the intervention. This modified CIRP can be found in Appendix F.
Chapter 4

Results

Within this study, data on student writing performance included scores on the TOWL-3, Total Words Written, Percent Correct Writing Sequences, number of story elements, and quality of writing. Additionally, the Writing Attitude Survey and the Children’s Intervention Rating Profile (CIRP) were administered to evaluate students’ attitudes toward writing and their impressions of the writing intervention. The results of each of these assessments are provided within this section.

Experimental control.

Experimental control is an important component within any investigation. Experimental control is necessary to support the conclusion that the independent variables within a study influenced the dependent variables within the study and that changes in the dependent variable were not due to extraneous variables. Within a single-case design, experimental control is demonstrated through stable baseline data followed by increases or decreases in data upon the introduction of the independent variable(s). Within this investigation, experimental control was expected for the initial instructional story probe, as it was expected that increases on writing variables would occur during baseline for subsequent story probes as a function of generalization after learning to write with the initial story probe. As such, experimental control is demonstrated through four multiple-probe across students graphs, which are displayed in Figures 1-4.

The multiple-probe across students graph for TWW demonstrates stable baselines for Lolo and Helen and an increase in performance upon the introduction of instruction in planning. These data indicate that experimental control was achieved for Lolo and
Helen. Only one baseline data point was collected for Jonny, followed by no increase in TWW upon instruction in planning, which demonstrates limited experimental control. Sam’s baseline data increased, which also demonstrates limited experimental control. All four students demonstrated increases in TWW after learning to revise their writing.

Sam, Lolo, and Helen demonstrated stable baselines on the %CWS measure, while Jonny again only had one baseline data point. Sam, Helen, and Jonny increased their performance on %CWS after learning to plan their story, and Lolo decreased her performance on %CWS after learning to plan her story. These changes in the data demonstrate adequate experimental control on this measure. Additionally, Jonny, Sam and Lolo demonstrated increased performance after learning to revise their writing, thereby further demonstrating experimental control with this variable.

Again, Sam, Lolo, and Helen demonstrated stable baselines on the number of story elements measure and Jonny had only one baseline data point. All four students increased their performance on this measure following instruction in planning, thereby demonstrating experimental control. Students again increased their performance on this measure after learning to revise their writing, except Lolo, who had already met criterion with number of story elements after learning to plan her writing.

Lolo and Helen demonstrated stable baselines on the quality measure and Jonny had one baseline data point, while Sam demonstrated an increasing trend in baseline with only two data points. Lolo was the only student who increased performance on this measure following instruction in planning, and Jonny and Sam demonstrated increases in performance after learning to revise. Inconsistent data patterns for this measure indicated limited experimental control.
Figure 1: Student TWW Performance in a Multiple-Probe Design Across Students
Figure 2: Student %CWS Performance in a Multiple-Probe Design Across Students
Figure 3: Student Story Elements Performance in a Multiple Baseline Design Across Students
Figure 4: Student Quality Performance in a Multiple Baseline Across Students Design
Story starter writing probes.

Of the five to ten AIMSweb story starter writing probes completed by the students during screening, three probes were chosen for each student after the screening phase. These probes were chosen based on equivalent performance on both TWW and %CWS across probes. For each participant, the three probes which were closest in performance levels across TWW and %CWS were chosen for this examination. For example, on three of Lolo’s stories she wrote 9 words. On the same stories, performance on %CWS was 21%, 27%, and 40% which was considered to be similar levels of performance. Thus, these three stories were chosen for Lolo. As another example, three of Sam’s TWW scores were 15, 17, and 22. On the same stories, performance on %CWS was 50%, 53% and 52% which was considered to be similar levels of performance. Following screening, student performance on each story probe was assessed during baseline, after Planning Instruction, after Planning + Revising Instruction, and up to two times during the maintenance phase. Total Words Written (TWW), %CWS, number of story elements, and quality of writing were assessed using story starter writing probes.

Total Words Written (TWW). Total Words Written (TWW) measures writing production. Student performance in the area of TWW is presented in Figures 5 to 8, and Table 2.

Jonny’s performance on TWW increased on all stories from baseline (B) to maintenance phases. The largest increases in TWW were demonstrated for Story 1 after Planning + Revising Instruction for Story 1 and for Stories 2 and 3 after Planning Instruction for Story 1. On Story 1, Jonny’s writing production increased across all phases from 62 words during baseline (B) to 99 words during the final maintenance
session. On Story 2, Jonny’s performance on writing production increased from 74 words during baseline (B) to 152 words on the probe (P) after Planning Instruction for that story, and then decreased to 139 words after Planning + Revising Instruction for that story. On Story 3, Jonny’s performance on writing production increased from 78 words during baseline (B) to 170 words after Planning + Revising Instruction for Story 3. On average, Jonny increased TWW by 64.67 words from the baseline (B) phase to maintenance.

Sam’s performance on TWW also increased on all stories from baseline (B) to maintenance phases. The largest increases in TWW were demonstrated for Story 1 after Planning + Revising Instruction for Story 1, for Story 2 after Planning Instruction for Story 2, and for Story 3 after Planning Instruction for Story 3. On Story 1, Sam’s performance on writing production increased from 22 words during baseline (B) to 149 words on the probe (P) during maintenance. On Story 2, Sam’s performance on writing production increased from 15 words during baseline (B) to 93 words during maintenance. Finally, on Story 3, Sam increased her performance on writing production from 17 words during baseline (B) to 128 words during maintenance. Overall, Sam increased her performance on TWW by an average of 105.33 words from the baseline (B) phase to maintenance.

Lolo also increased the TWW on all stories from baseline (B) to maintenance phases. The largest increases in TWW were demonstrated for all stories after Planning Instruction for Story 1. Lolo wrote 9 words on each of her baseline (B) stories and increased the TWW on Story 1 to 69 words during the maintenance phase and Story 2 to 54 words during maintenance. Finally, on Story 3, Lolo increased TWW to 76 words
after Planning Instruction for Story 1 and then decreased to 58 words on the probe (P) after Planning + Revising Instruction for Story 3. Overall, Lolo increased her performance on TWW by an average of 51.33 words from the baseline (B) phase to the maintenance phase.

Helen’s performance on TWW also increased on all stories from the baseline (B) to the maintenance phase. The largest increases in TWW were demonstrated for Story 1 after Planning + Revising Instruction for Story 1, for Story 2 after Planning Instruction for Story 1, and for Story 3 after Planning + Revising Instruction for Story 3. On Story 1, Helen increased her performance on writing production from 24 words in baseline (B) to 45 words on the probe (P) after Planning + Revising Instruction for this story. On Story 2, Helen increased her performance on writing production from 26 words in baseline (B) to 63 words on the probe (P) after Planning Instruction for Story 2, decreasing to 60 words during maintenance. Finally, on Story 3, Helen increased the TWW from 19 words during baseline (B) to 58 words during the maintenance phase. Overall, Helen increased the TWW by an average of 31.33 words from the baseline (B) phase to the maintenance phase.
Figure 5: Jonny's TWW Performance in a Multiple-Probe Design Across Tasks
Figure 6: Sam's TWW Performance in a Multiple-Probe Design Across Tasks
Figure 7: Lolo’s TWW Performance in a Multiple-Probe Design Across Tasks
Figure 8: Helen's TWW Performance in a Multiple-Probe Design Across Tasks
Table 2

*Means and Standard Deviations for TWW During Each Experimental Phase*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Story Starter</th>
<th>Experimental Phase</th>
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<td></td>
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<td>Planning</td>
<td>Revising</td>
<td>Maintenance</td>
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<td>M</td>
<td>M</td>
<td>M (SD)</td>
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**Percent Correct Writing Sequences (%CWS).** Percent Correct Writing Sequences (%CWS) is a measure of writing accuracy. Student results for this measure are presented in Figures 9 to 12 and Table 3.

Jonny’s performance on %CWS increased from the baseline (B) phase to the maintenance phase for all stories. The largest increases in %CWS for all stories occurred following Planning + Revising Instruction for Story 1. Jonny increased his performance on %CWS on Story 1 from 53% during the baseline (B) phase to 89% during the maintenance phase. He increased his performance on %CWS on Story 2 from 48% during baseline (B) to 79% during the maintenance phase. Finally, on Story 3, Jonny increased the %CWS from 48% during baseline (B) to 70% during maintenance. Overall, Jonny’s performance on %CWS increased by an average of 29.33% from baseline (B) to maintenance.

Sam’s performance on %CWS also increased from the baseline (B) phase to the maintenance phase for all stories. The largest increases in %CWS occurred for Stories 1 and 3 following Planning + Revising Instruction for Story 1. On Story 2, the largest increase occurred between Planning + Revising Instruction for Story 2 and the maintenance phase. Sam increased the %CWS on Story 1 from 52% during baseline (B) to 89% on the probe (P) after Planning + Revising Instruction. Sam increased the %CWS on Story 2 from 50% during baseline (B) to 60% during the maintenance phase. Finally, Sam increased her performance on %CWS on Story 3 from 53% during baseline (B) to 67% during maintenance. Overall, Sam’s performance on %CWS increased by an average of 16.67% from the baseline (B) phase to the maintenance phase.
Lolo also increased her performance on %CWS from the baseline (B) phase to the maintenance phase for all stories. The largest increases in %CWS occurred for Stories 1 and 3 following Planning + Revising Instruction for Story 1, on Story 2 the largest increase occurred following Planning Instruction for Story 1. Lolo increased the %CWS on Story 1 from 27% during baseline (B) to 53% during the maintenance phase. She increased her performance on %CWS on Story 2 from 40% during the baseline (B) phase to 56% during maintenance. Finally, she increased the %CWS on Story 3 from 21% during baseline (B) to 53% during the maintenance phase. Overall, Lolo increased her performance on %CWS by an average of 24.33% from the baseline (B) phase to the maintenance phase.

Helen increased her performance on %CWS from the baseline (B) phase to the maintenance phase for all stories as well. The largest increases in %CWS occurred for Story 1 following Planning Instruction for Story 1, for Story 2 during the baseline (B) phase, and for Story 3 following Planning + Revising Instruction for Story 1. Helen increased her performance on %CWS for Story 1 from 31% during baseline (B) to 57% during the maintenance phase. She increased the %CWS on Story 2 from 33% during baseline (B) to 75% during maintenance. Finally, Helen increased the %CWS from 20% during baseline (B) to 75% during the maintenance phase. Overall, Helen increased her performance on %CWS by an average of 39.33% from baseline (B) to maintenance.
Figure 9: Jonny's %CWS Performance in a Multiple-Probe Design Across Tasks
Figure 10: Sam's %CWS Performance in a Multiple-Probe Design Across Tasks
Figure 11: Lolo’s %CWS Performance in a Multiple-Probe Design Across Tasks
Figure 12: Helen's %CWS Performance in a Multiple-Probe Across Tasks Design
Table 3

*Means and Standard Deviations for %CWS During Each Experimental Phase*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Story Starter</th>
<th>Experimental Phase</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Baseline</td>
<td>Planning</td>
<td>Revising</td>
<td>Maintenance</td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>Jonny</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>53</td>
<td>66</td>
<td>83</td>
<td>88.50</td>
<td>(.71)</td>
</tr>
<tr>
<td>2</td>
<td>48 (0)</td>
<td>60</td>
<td>71</td>
<td>76.50</td>
<td>(3.54)</td>
</tr>
<tr>
<td>3</td>
<td>50 (6.24)</td>
<td>61</td>
<td>65</td>
<td>68</td>
<td>(2.83)</td>
</tr>
<tr>
<td>Sam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>54 (2.83)</td>
<td>64</td>
<td>89</td>
<td>80.50</td>
<td>(3.54)</td>
</tr>
<tr>
<td>2</td>
<td>55.33 (4.62)</td>
<td>47</td>
<td>49</td>
<td>59</td>
<td>(1.41)</td>
</tr>
<tr>
<td>3</td>
<td>50.75 (12.28)</td>
<td>58</td>
<td>61</td>
<td>66</td>
<td>(1.41)</td>
</tr>
<tr>
<td>Lolo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>27 (0)</td>
<td>15</td>
<td>43</td>
<td>49</td>
<td>(5.66)</td>
</tr>
<tr>
<td>2</td>
<td>36.50 (5.45)</td>
<td>47</td>
<td>53</td>
<td>55.50</td>
<td>(.71)</td>
</tr>
<tr>
<td>3</td>
<td>32.60 (10.21)</td>
<td>41</td>
<td>50</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Helen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>31 (0)</td>
<td>41</td>
<td>42</td>
<td>54.50</td>
<td>(3.54)</td>
</tr>
<tr>
<td>2</td>
<td>38.25 (9.64)</td>
<td>61</td>
<td>69</td>
<td>75</td>
<td>(0)</td>
</tr>
<tr>
<td>3</td>
<td>30.60 (19.98)</td>
<td>64</td>
<td>73</td>
<td>72</td>
<td>(4.24)</td>
</tr>
</tbody>
</table>
Number of story elements. Number of story elements is a direct measure of skill acquisition of the skills instructed during Planning Instruction. The maximum number of elements possible in a given story is 7 elements. Student performance regarding the number of story elements is presented in Figures 13 to 16 and Table 4.

The number of story elements Jonny wrote increased from the baseline (B) phase to the maintenance phase for all stories. The largest increases in number of story elements for all stories occurred following Planning + Revising Instruction for Story 1 and Planning Instruction for Stories 2 and 3. Jonny increased the number of story elements on Story 1 from 3 elements during the baseline (B) phase to 7 elements on the probe (P) following Planning + Revising Instruction for Story 1. He increased the number of story elements on Story 2 from 3 elements in baseline (B) to 7 elements on the probe (P) following Planning Instruction for Story 2. Finally, he increased the number of story elements on Story 3 from 3 elements in baseline (B) to 7 elements following Planning Instruction for Story 3. Overall, Jonny increased the number of story elements by 4 elements on every story from baseline (B) to maintenance.

The number of story elements Sam wrote increased from the baseline (B) phase to the maintenance phase for all stories as well. The largest increases in number of story elements for Stories 1 and 2 occurred following Planning Instruction for Story 1. For Story 3, the largest increase in number of story elements occurred on the probe (P) following Planning Instruction for Story 3. She increased the number of story elements on Story 1 from 3 elements in baseline (B) to 7 elements on the probe (P) following Planning + Revising Instruction for Story 1. She increased the number of story elements on Story 2 from 1 element in baseline (B) to 7 elements following Planning + Revising
Instruction for Story 2 and she increased the number of story elements on Story 3 from 3 elements in baseline (B) to 7 elements following Planning Instruction for Story 3. Overall, Sam increased the number of story elements by an average of 4.67 elements from the baseline (B) phase to the maintenance phase.

The number of story elements Lolo wrote also increased from the baseline (B) phase to the maintenance phase for all stories. The largest increases in number of story elements occurred for Stories 1 and 2 following Planning Instruction for Story 1, and for Story 3 following Planning Instruction for Story 2 and Planning + Revising Instruction for Story 1. Lolo increased the number of story elements on Story 1 from 3 elements in baseline (B) to 7 elements on the probe (P) following Planning Instruction for Story 1. She increased the number of story elements on Story 2 from 3 elements during baseline (B) to 7 elements on the probe (P) following Planning + Revising Instruction for Story 2. Finally, she increased the number of story elements on Story 3 from 2 elements in baseline (B) to 7 elements on the probe (P) following Planning Instruction for Story 2 and Planning + Revising Instruction for Story 1. Overall, Lolo increased the number of story elements by an average of 4.33 elements from the baseline (B) phase to the maintenance phase.

Helen also increased the number of story elements she wrote from the baseline (B) phase to the maintenance phase for all stories. The largest increases in number of story elements occurred for all stories following Planning Instruction for Story 1. Helen increased the number of story elements on Story 1 from 4 elements in baseline (B) to 7 elements on the probe (P) following Planning + Revising Instruction for Story 1. She increased the number of story elements on Story 2 from 3 elements in baseline (B) to 7
elements on the probe (P) following Planning Instruction for Story 1. Finally, Helen increased the number of story elements from 2 elements in baseline (B) to 7 elements following Planning Instruction for Story 3. Overall, Helen increased the number of story elements from baseline (B) to maintenance by an average of 4 elements.
Figure 13: Jonny's Story Element Performance in a Multiple-Probe Design Across Tasks
Figure 14: Sam's Story Elements Performance in a Multiple-Probe Design Across Tasks
Figure 15: Lolo’s Story Elements Performance in a Multiple-Probe Design Across Tasks
Figure 16: Helen’s Story Elements Performance in a Multiple-Probe Design Across Tasks
Table 4

Means and Standard Deviations for Number of Story Elements During Each Experimental Phase

<table>
<thead>
<tr>
<th>Participant</th>
<th>Experimental Phase</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Story Starter</td>
<td>Baseline</td>
<td>Planning</td>
<td>Revising</td>
<td>Maintenance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M (SD)</td>
<td>M</td>
<td>M</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Jonny</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3 (0)</td>
<td>7</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4.33 (1.53)</td>
<td>7</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td>Sam</td>
<td>1</td>
<td>3 (0)</td>
<td>6</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2.67 (2.89)</td>
<td>6</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3.50 (.58)</td>
<td>7</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td>Lolo</td>
<td>1</td>
<td>3 (0)</td>
<td>7</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3.75 (1.50)</td>
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<td>3.40 (2.19)</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Helen</td>
<td>1</td>
<td>4 (0)</td>
<td>6</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4 (2)</td>
<td>7</td>
<td>7</td>
<td>7 (0)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3.20 (1.64)</td>
<td>7</td>
<td>7</td>
<td>7 (0)</td>
</tr>
</tbody>
</table>

Note. Scores range from 1 to 7 on this measure.
**Quality of writing.** Quality of writing is a measure of the overall quality of the story. The highest quality rating possible is a rating of 8. Student performance regarding quality of writing is presented in Figures 17 to 20 and Table 5.

The quality of Jonny’s stories increased from the baseline (B) phase to the maintenance phase for all stories. Jonny demonstrated increases in quality on all stories after learning to revise his stories. Increases were also demonstrated on Stories 2 and 3 following Planning Instruction for Story 1. Jonny increased the quality of Story 1 from a rating of 4 during the baseline (B) phase to a rating of 5 on the probe (P) following Planning + Revising Instruction for Story 1. He increased the quality of Story 2 from a rating of 3 in baseline (B) to a rating of 5 on the probe (P) following Planning + Revising Instruction for Story 2. Finally, he increased the quality of Story 3 from a rating of 3 during baseline (B) to a rating of 6 on the probe (P) following Planning + Revising Instruction for Story 3. Overall, Jonny increased the quality of his writing by an average rating of 2 from baseline (B) to maintenance.

The quality of Sam’s stories increased from the baseline (B) phase to the maintenance phase for all stories. Sam demonstrated increases in quality on all stories after learning to revise her stories. Increases were also demonstrated on Story 1 after the initial baseline (B) session and during maintenance, on Story 2 following Planning Instruction for Story 1, and on Story 3 following Planning Instruction for Story 2 and Planning + Revising Instruction for Story 1, and following Planning Instruction for Story 3. Sam increased the quality of all of her stories from a rating of 1 to a rating of 4. Thus, Sam increased the quality of all of her stories by a rating of 3.
The quality of Lolo’s stories also increased from the baseline (B) phase to the maintenance phase for all stories. Lolo demonstrated increases in quality on Stories 1 and 2 following Planning Instruction for those particular stories. Increases were also demonstrated on Story 1 during maintenance and on Story 3 following Planning Instruction for Story 1 and Planning + Revising Instruction for Story 1. Lolo increased the quality of Story 1 from a rating of 1 during the baseline (B) phase to a rating of 3 during maintenance. She increased the quality of Story 2 from a rating of 1 in baseline (B) to a rating of 2 on the probe (P) following Planning Instruction for Story 2. Finally, she increased the quality of Story 3 from a rating of 1 during baseline (B) to a rating of 2 following Planning + Revising Instruction for Story 1. Overall, Lolo’s quality of writing increased by an average rating of 1.33 from baseline (B) to maintenance.

The quality of two of Helen’s stories increased from the baseline (B) phase to the maintenance phase as well. Helen did not increase the quality of Story 1 during the investigation. Helen demonstrated an increase in the quality of Story 2 following Planning Instruction for Story 1 and an increase in Story 3 following Planning + Revising Instruction for Story 3. She increased the quality of Story 2 from a rating of 2 during the baseline (B) phase to a rating of 3 on the probe (P) following Planning Instruction for Story 1, and she increased the quality of Story 3 from a rating of 1 during baseline (B) to a rating of 2 on the probe (P) following Planning + Revising Instruction for Story 3. On average, Helen increased her quality of writing by an average of 0.67 points.
Figure 17: Jonny's Quality Performance in a Multiple-Probe Design Across Tasks
Figure 18: Sam’s Story Elements Performance in a Multiple-Probe Design Across Tasks
Figure 19: Lolo’s Quality Performance in a Multiple-Probe Design Across Tasks
Figure 20: Helen’s Quality Performance in a Multiple-Probe Design Across Tasks
Table 5

Means and Standard Deviations for Quality of Writing During Each Experimental Phase

<table>
<thead>
<tr>
<th>Participant</th>
<th>Experimental Phase</th>
<th>Story Starter</th>
<th>Baseline</th>
<th>Planning</th>
<th>Revising</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>M (SD)</td>
<td>M</td>
<td>M</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Jonny</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5 (0)</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>3.5 (0.71)</td>
<td>4</td>
<td>5</td>
<td>5 (0)</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>4.33 (1.15)</td>
<td>5</td>
<td>6</td>
<td>6 (0)</td>
</tr>
<tr>
<td>Sam</td>
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<td></td>
</tr>
<tr>
<td>1</td>
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<td></td>
<td>1.50 (0.71)</td>
<td>2</td>
<td>3</td>
<td>4 (0)</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>1.33 (0.58)</td>
<td>2</td>
<td>4</td>
<td>4 (0)</td>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td>1.25 (0.50)</td>
<td>3</td>
<td>4</td>
<td>4 (0)</td>
</tr>
<tr>
<td>Lolo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
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<td></td>
<td>1 (0)</td>
<td>2</td>
<td>2</td>
<td>2.50 (0.71)</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>1 (0)</td>
<td>2</td>
<td>2</td>
<td>2 (0)</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>1.40 (0.55)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Helen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
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<td></td>
<td>2.25 (0.50)</td>
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<td></td>
<td></td>
<td>1 (0)</td>
<td>1</td>
<td>2</td>
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</tr>
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</table>

Note. Scores range from 1 to 8 on this measure.
Test of Written Language – Third Edition (TOWL-3).

The results of the Spontaneous Writing section of the TOWL-3 are presented in Table 6. The results are presented in terms of subtest standard scores and composite scores during the baseline and maintenance phases of the study. The subtests included in this section are Contextual Conventions (CC), Contextual Language (CL), and Story Construction (SC), as well as the Total standard score (Total). Subtest standard scores have a mean of 10 and a standard deviation of 3, while composite scores have a mean of 100 and a standard deviation of 15. Results of the TOWL-3 Spontaneous Writing section are displayed in Table 6.

Jonny increased his performance on all of the subtests of the assessment after learning to plan and revise his writing. Jonny also increased his total TOWL-3 Spontaneous Writing score. Overall, on the Spontaneous Writing section of the TOWL-3, Jonny’s percentile rank, as compared to peers his age, rose from the 27th percentile to the 77th percentile between January 2009 and June 2009.

Sam increased her performance on the Contextual Language and Story Construction subtests. However, her score on the Contextual Conventions subtest decreased. Overall, her percentile rank on the Spontaneous Writing section, as compared to peers her age, rose from the 10th percentile to the 23rd percentile after learning to plan and revise her writing.

Lolo increased her performance on the Contextual Language and Story Construction subtests. However, her score on the Contextual Conventions subtest did not change. Overall, Lolo’s percentile rank on the Spontaneous Writing section, as compared to peers her age, rose from the 23rd percentile to the 39th percentile after
learning to plan and revise her writing.

Helen performed more poorly during the second administration of the TOWL-3 Spontaneous Writing section than she did during the first administration. Specifically, Helen’s scores on the Contextual Language, Contextual Conventions and Story Construction subtests decreased. Overall, her percentile rank on the Spontaneous Writing section, as compared to peers her age, decreased from the 23rd percentile to the 13th percentile after learning to plan and revise her writing.
Table 6

*Student performance on the TOWL-3 Spontaneous Writing section*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Subtest</th>
<th>Baseline Score (Percentile)</th>
<th>Maintenance Score (Percentile)</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
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<td>Jonny</td>
<td>CC</td>
<td>7 (16&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>10 (50&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>9 (37&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>13 (84&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>10 (50&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>12 (75&lt;sup&gt;th&lt;/sup&gt;)</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>26 (27&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>35 (77&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>Yes</td>
</tr>
<tr>
<td>Sam</td>
<td>CC</td>
<td>8 (25&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>6 (9&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>6 (9&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>9 (37&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>7 (16&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>10 (50&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>21 (10&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>25 (23&lt;sup&gt;rd&lt;/sup&gt;)</td>
<td>Yes</td>
</tr>
<tr>
<td>Lolo</td>
<td>CC</td>
<td>8 (25&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>8 (25&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>7 (16&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>9 (37&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>10 (50&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>11 (63&lt;sup&gt;rd&lt;/sup&gt;)</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
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<td>28 (39&lt;sup&gt;th&lt;/sup&gt;)</td>
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</tr>
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<td>Helen</td>
<td>CC</td>
<td>7 (16&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>6 (9&lt;sup&gt;th&lt;/sup&gt;)</td>
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<td>8 (25&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>8 (25&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>10 (50&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>8 (25&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>No</td>
</tr>
</tbody>
</table>
Writing Attitude Survey.

The results of the Writing Attitude Survey are presented in Table 7. The Writing Attitude Survey was completed during baseline, after Planning Instruction, and following Planning + Revising Instruction. Scores on this survey can range from 28 to 112 points.

Jonny’s attitude toward writing changed the most of all students across phases. Specifically, his scores on the Writing Attitude Survey increased from 74 points at baseline to 103 points after Planning Instruction, and remained stable at 104 points after Planning + Revising Instruction.

Sam’s attitude toward writing remained stable across phases. Specifically, her scores on the Writing Attitude Survey changed from 88 points during the baseline phase to 87 points following Planning Instruction, and decreased slightly to 83 points after Planning + Revising Instruction.

Lolo’s attitude toward writing was variable across phases. Her scores on the Writing Attitude Survey increased from 74 points during the baseline phase to 87 points after Planning Instruction, and decreased slightly to 83 points following Planning + Revising Instruction.

Finally, Helen’s attitude toward writing increased across phases. Her scores demonstrated an increase from 56 points during baseline to 59 points following Planning Instruction, and increased more significantly to 69 points following Planning + Revising Instruction.
Table 7

Writing Attitude Survey Results

<table>
<thead>
<tr>
<th>Participant</th>
<th>Baseline</th>
<th>Planning</th>
<th>Planning + Revising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonny</td>
<td>74</td>
<td>103</td>
<td>104</td>
</tr>
<tr>
<td>Sam</td>
<td>88</td>
<td>87</td>
<td>83</td>
</tr>
<tr>
<td>Lolo</td>
<td>74</td>
<td>87</td>
<td>83</td>
</tr>
<tr>
<td>Helen</td>
<td>56</td>
<td>59</td>
<td>69</td>
</tr>
</tbody>
</table>

Social validity.

The researcher assessed social validity by administering the Children’s Intervention Rating Profile (CIRP; Witt & Elliott, 1985) on the last day of each writing intervention phase. The CIRP is composed of 7 statements and asks students to rate the items on a scale of “1” to “5” with “5” indicating “I disagree very much.” Positively stated items, including statements 1, 5, 6, and 7 were reverse-scored to ensure that higher scores indicated increased satisfaction with the intervention. The results of the CIRP are presented in Table 8.

Overall, during both phases, all students agreed that the writing program would be good for other children and that the writing program would help other children do better in school. To the statement, “the writing program was fair,” all students’ ratings during both phases ranged between “I agree very much (5)” and “I don’t agree or disagree (3).” To the statements, “The tutor was too harsh (mean)” and “The writing program might cause problems with my friends,” all students’ rankings ranged from “I don’t agree or
disagree (3)” to “I disagree very much (5).” To the statement “There are better ways to handle writing problems,” Jonny and Sam responded with “I disagree very much (5),” while Lolo and Helen responded with “I agree very much (1)” following Planning Instruction. Following Planning + Revising Instruction, Jonny and Helen changed their responses to “I don’t agree or disagree (3),” Sam changed her response to “I agree very much (1),” and Lolo did not change her response. Finally, to the statement “I like the writing program used to handle my writing problem,” Jonny and Sam responded with “I agree very much (5),” Lolo responded with “I disagree very much (1),” and Helen responded with “I don’t agree or disagree (3)” following Planning Instruction. Following Planning + Revising Instruction, Jonny and Helen did not change their responses although Sam changed her response to “I sort of agree (4),” while Lolo changed her response to “I don’t agree or disagree (3).” Overall, Jonny’s and Sam’s ratings of the intervention became slightly more negative following Planning + Revising Instruction. Lolo’s ratings remained unchanged following Planning + Revising Instruction, and Helen’s ratings increased slightly following Planning + Revising Instruction.
**Student intervention satisfaction after learning to plan and revise stories**

<table>
<thead>
<tr>
<th>Student</th>
<th>Experimental Phase</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonny</td>
<td>Post-planning</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Post-revising</td>
<td>4.71</td>
<td>3.0-5.0</td>
</tr>
<tr>
<td>Sam</td>
<td>Post-planning</td>
<td>4.86</td>
<td>4.0-5.0</td>
</tr>
<tr>
<td></td>
<td>Post-revising</td>
<td>4.0</td>
<td>1.0-5.0</td>
</tr>
<tr>
<td>Lolo</td>
<td>Post-planning</td>
<td>3.29</td>
<td>1.0-5.0</td>
</tr>
<tr>
<td></td>
<td>Post-revising</td>
<td>3.29</td>
<td>1.0-5.0</td>
</tr>
<tr>
<td>Helen</td>
<td>Post-planning</td>
<td>3.29</td>
<td>1.0-5.0</td>
</tr>
<tr>
<td></td>
<td>Post-revising</td>
<td>3.86</td>
<td>3.0-5.0</td>
</tr>
</tbody>
</table>

*Note.* Ratings on the CIRP were made on a 5-point scale (*1 = I agree very much, 5 = I disagree very much*). Specific items were reverse-scored such that regardless of the statement rated, higher scores indicate increased satisfaction.
Chapter 5

Discussion

The purpose of this study was to empirically examine the additive effects of teaching students to revise their writing in terms of the impact on written products. A second purpose was to examine the level of generalization obtained through instruction in planning and revising. A multiple-probe design across story starters was used to examine the effects of each phase of the intervention on student writing performance. A multiple-probe design across students was used to identify whether the affects on TWW, %CWS, number of story elements, and quality were a result of the treatment. The multiple-probe design across students demonstrated that regardless of the duration of the baseline phase for students, students maintained stable baselines and did not increase their performance on any variable until beginning the intervention. Thus, through the use of the multiple-probe design across students, it was determined that the interventions used within the study were effective for improving student performance.

In addition to the story starter probes used within this study, additional measures were used to identify the effectiveness of the interventions utilized within this study. The Test of Written Language – Third Edition (TOWL-3) was administered pre- and post-intervention to further assess writing performance. Additionally, the Writing Attitude Survey and the Children’s Intervention Rating Profile (CIRP) were administered between phases to assess changes in attitudes toward writing, and acceptance of the intervention throughout the investigation.

Positive results on student writing performance were demonstrated through the use of both Planning Instruction and Planning + Revising Instruction. These
interventions were both based on the SRSD program, although SRSD had not previously
been used in research for teaching students to revise their writing. First, Planning
Instruction was demonstrated to impact a majority of the writing variables included in the
study. Then, Planning + Revising Instruction further increased performance on story
elements and quality, as well as improving %CWS, which was not impacted through
Planning Instruction. However, Planning + Revising Instruction did not increase TWW
above the results of Planning Instruction. It was also found that students generalized
their writing performance on a particular task to different but similar tasks, including
different story probes and the TOWL-3. Finally, it was found that students’ attitudes
toward writing increased, primarily following Planning Instruction, and that students
liked the writing interventions used in the study. Within this chapter, the results of the
investigation will be discussed as related to previous research, as well as the limitations,
implications, and future research directions.

**Review of findings related to hypotheses.**

**Hypothesis 1: Writing production.** Previous research has indicated that
instruction in revising has produced mixed and minimal results on writing production (De
La Paz et al., 1998; Graham, 1997). Therefore, it was hypothesized that Planning +
Revising Instruction would not result in writing production gains beyond what was found
following Planning Instruction alone. Based on data in this study, it appeared that
Planning Instruction had a larger impact on TWW than did Planning + Revising
Instruction. Specifically, Jonny and Lolo greatly improved their TWW performance on
all stories following Planning Instruction for Story 1, while Sam appeared to increase
TWW the most on each story following Planning Instruction for that particular story.
Helen performance was variable across stories. Helen improved on TWW after Planning Instruction for one story and following Planning + Revising Instruction for the other two stories. The TWW on most stories increased following Planning Instruction for Story 1. However, there were fewer increases in TWW following Planning + Revising Instruction for Story 1. Thus, it appears that within this study, the hypothesis that revising would have a minimal effect on TWW was confirmed.

These results validate previous research demonstrating that teaching students to plan their stories using the SRSD model has an impact on TWW (Graham et al., 2005; Harris et al., 2006; Sexton et al., 1998; Tracy, et al., 2009; Troia et al., 1999). These results are also consistent with previous research indicating mixed results in terms of the impact of revising on TWW (De La Paz et al., 1998, Graham, 1997). It appears logical that students write more after learning to plan their writing because the ideas they generate during the planning process provides them with material with which to write. However, when the student begins to revise their writing, they are no longer writing their ideas but instead ensuring the understanding of these ideas, which often requires deleting words or adding few words to the composition. As much of Planning + Revising Instruction reviewed the strategies learned during Planning Instruction, the additional increases in TWW during Planning + Revising Instruction cannot necessarily be attributed to learning to revise. Therefore, it appears that planning has a greater impact on TWW than does revising, although Planning + Revising Instruction appeared to prompt students to use the components of the Planning Instruction that led them to write more.
It is unclear as to why Helen demonstrated smaller improvements on TWW as compared to other students. However, Helen demonstrated difficulties with concentration and attention, as she was frequently off-task and asked multiple questions in reference to items that had already been taught. Thus, Helen’s difficulties with attention may have delayed her ability to learn the skills taught during Planning Instruction, such that these skills were demonstrated only after reviewing these skills during Planning + Revising Instruction.

**Hypothesis 2: Writing accuracy.** It was hypothesized that the addition of instruction in Planning + Revising Instruction would produce gains on writing accuracy beyond instruction in planning alone. This result was hypothesized due to the nature of the processes of planning and revising. Specifically, during instruction in planning, students are not asked to focus on the conventions of writing that influence writing accuracy, including punctuation, spelling, and capitalization (Flower & Hayes, 1977). However, during Planning + Revising Instruction, students learn to identify mistakes with these conventions and to fix these mistakes.

Overall it appeared that Planning + Revising Instruction did have a greater impact on writing accuracy than did Planning Instruction alone. Particularly, the greatest improvements in %CWS on the majority of Jonny, Sam, Lolo, and Helen’s stories occurred following Planning + Revising Instruction. The increases in %CWS were especially pronounced on four stories in which these students’ %CWS had decreased following Planning Instruction. Thus, it appeared that when students were learning to plan their stories they were not as focused on the accuracy of their writing, and generally made additional errors that were corrected when they learned to revise their writing.
Thus, the hypothesis that Planning + Revising Instruction would produce gains on writing accuracy beyond Planning Instruction alone was confirmed.

Every investigation of planning instruction in isolation that has been referenced in this document has been reviewed, and none have investigated writing accuracy using a measure that assesses conventions such as capitalization, spelling, or punctuation. The investigations that have examined revising in isolation have used many different measures to evaluate this construct (De La Paz, et al. 1998; Fitzgerald & Markham, 1987; Graham, 1997; Reynolds, et al. 1988; Scardamalia & Bereiter, 1983). This finding may lend credence to the idea that learning to plan is not expected to impact writing conventions, while learning to revise is expected to increase awareness of these conventions. One could argue that if learning to plan was expected to increase competency in writing accuracy, researchers would have assessed this construct in past studies of planning instruction.

Hypothesis 3: Number of story elements. It was hypothesized that Planning + Revising Instruction would not produce effects on the number of story elements that are different than Planning Instruction. This result was hypothesized because students learn how to implement story elements in their writing during Planning Instruction and it was assumed that all story elements would be included in their writing prior to instruction in revision strategies.

Results were unclear as to whether Planning Instruction or Planning + Revising Instruction had a greater affect on number of story elements. Specifically, only 17% of the stories in this study contained 7 story elements after Planning Instruction for Story 1. Of the remaining stories, 50% did not contain 7 elements until Planning + Revising
Instruction was completed for that particular story. However, with the exception of one story, the number of story elements increased for all stories after students participated in Planning Instruction. Overall it appears that while Planning Instruction was critical for increasing the number of story elements in students’ stories, Planning + Revising Instruction was necessary to help students reach criterion of 7 elements in their stories. Once again it should be noted that the story elements learned during Planning Instruction were reviewed during Planning + Revising Instruction, which may have aided in increasing the number of story elements.

These results are consistent with previous research suggesting that instruction in planning alone increases the number of elements in students’ stories (Lienemann et al., 2006; Reid & Lienemann, 2006; Saddler, 2006; Saddler et al., 2004). Previous research examining the impact of revising instruction on the number of story elements was not found. Thus, the current examination is one of the first to examine story elements as a measure of writing performance during instruction in revising. Within this study, story elements were explicitly instructed during Planning Instruction, and prompted during Planning + Revising Instruction. Previous research has identified that students can reach the criterion of seven story elements after learning to plan their stories (Reid & Lienemann, 2006; Saddler et al., 2004). Thus, it was believed that students in the study would reach criterion of 7 story elements after learning to plan. However, every student learned to revise at least one story prior to reaching this criterion within the study, thus indicating that learning to revise was beneficial for increasing the number of story elements included in stories.
Another possible explanation as to why these four students did not include all seven story elements until after learning to revise is that it was not necessarily the process of revising but rather the additional practice with the story elements that led to improved story elements scores. Specifically, in the studies cited in which students reached criterion after learning to plan their writing, the students in these studies wrote several stories after learning to plan, and data on their stories were not collected until they reached criterion of seven story elements and were in the “independent performance” phase. The students in the current study, on the other hand, were not provided with as much practice with the story elements after learning to plan. Therefore, it is unclear whether learning to revise or additional practice with story elements contributed to reaching criterion following Planning + Revising Instruction.

**Hypothesis 4: Writing quality.** It was hypothesized that Planning + Revising Instruction would produce gains on writing quality beyond Planning Instruction. This result was hypothesized as many of the skills learned during Planning + Revising Instruction are skills that could improve the quality of student stories. Overall, it appeared that Planning + Revising Instruction did produce gains in writing quality beyond Planning Instruction. While the quality of seven of the twelve stories increased after students learned to plan and revise those stories, the quality of only three stories increased after students learned to plan those stories. Thus, this hypothesis was confirmed and most clearly supported by Jonny and Sam’s performance, as both students increased the quality of all of their stories following Planning + Revising Instruction for those particular stories. Lolo, on the other hand, increased the quality of two of her stories following Planning Instruction for those stories and increased her third story
during the baseline phase. Finally, Helen’s performance was again variable. She increased the quality of one of her stories following Planning + Revising Instruction, she increased the quality of another story during baseline, and she never increased the quality of her final story.

Results for this variable are not clear, as there was no improvement on one story, and only one point improvement on five other stories. However, it should be noted that the scale of this variable is very small (range=1-8; average=4) and the writing proficiency within these scales varies greatly. Particularly, a student who earns a score of 1 typically experiences much difficulty with putting ideas together coherently, while a student who earns a score of 8 is able to write an interesting, coherent, and conventionally sound composition. It is obvious through other measures that students made gains in their writing, although the scale incorporated for this measure may not be sensitive enough to capture this progress. In fact, other investigations have identified that even when students reach criterion of seven story elements and make clear gains in story length, they often continue to demonstrate average quality scores below 5 points (Reid & Lienemann, 2006; Saddler et al., 2004).

Student results on this measure are consistent with previous research indicating that instruction in revising using strategy instruction can increase the quality of writing (Fitzgerald & Markham, 1987). Specifically, in the previously identified investigation of revising, quality was demonstrated to improve when students were taught to revise by identifying disparities between intended meaning and written text, deciding how changes should or could be made, and making changes through instruction incorporating modeling, practice and feedback (Fitzgerald & Markham, 1987). Although increases in
quality have been noted more frequently in research investigating the effects of planning (Graham et al., 2005; Harris et al., 2006), it was hypothesized that Planning + Revising Instruction would have a greater impact because students would learn to re-read their stories to ensure clarity and inclusion of all necessary story parts, whereas students generally did not review their written stories during Planning Instruction. This finding is consistent with the notion that novice writers focus their attentional resources on planning and generating sentences, and are too overloaded cognitively to focus on the quality of their writing (Glynn et al., 1982). Thus, teaching students to focus their attention on the process of revising increased their focus on the quality of their compositions. Therefore, students learned to increase the quality of their stories when they learned to revise their stories, thereby confirming the hypothesis that Planning + Revising Instruction would increase quality beyond Planning Instruction alone.

**Hypothesis 5: Generalization across story probes.** It was hypothesized that for each participant, subsequent story probes would require fewer instructional sessions than previous story probes, thereby indicating generalization across story probes. Specifically, each story probe introduced novel stimuli that required students to use their learned skills of planning and revising to respond accurately and fluently. Students demonstrated generalization when they increased their writing performance on a story starter probe prior to being instructed using that particular probe.

Exposure to any variation of a previously instructed stimulus provides an opportunity for generalization to occur. Specifically, generalization is the ability to correctly respond to a task or stimulus when it varies from the task or stimulus previously learned (Daly et al., 2007). As previously identified, there are numerous methods by
which to promote generalization (Stokes & Baer, 1977). The method used within this investigation most closely resembles the “train and hope” method. Although generalization to additional story probes was expected, additional modifications were not made during the investigation to ensure generalization. The method used within this investigation could also be considered “programming common stimuli” as the instructed story probe included similar stimuli to the story probes on which students were assessed for generalization.

When referring to writing, novel story probes provide the most novel stimuli possible to assess generalization of writing skills. Specifically, when students are provided with a novel story probe, they are required to identify their content knowledge about the new topic, generate ideas related to this topic, and organize these ideas logically. These requirements are alleviated when instructors teach students how to respond to the new stimuli. However, when students are required to complete these tasks independently, their ability to generalize their learning is assessed. When students can transfer their knowledge of planning and revising to novel story probes, generalization has occurred.

Overall, for TWW, %CWS, number of story elements, and quality of writing, it appeared that students generalized their newly learned skills across novel story probes. Specifically, as students learned to plan and revise their first stories, student performance on TWW, %CWS, number of story elements, and quality of writing appeared to increase on students’ second and third stories which had not received instruction. Additionally, it appeared that students’ performance on TWW, %CWS, number of story elements, and quality of writing reached a ceiling level at an earlier phase for each subsequent story as
students learned skills and generalized from other stories. For example, Sam wrote 48 words on her first story after learning to plan that story, but wrote 52 and 76 words on her second and third stories with no instruction in these stories. These results indicate that Sam was able to generalize the skills she was taught on her first story to stories of which she had not previously been exposed.

Generalization was also assessed through the implementation of the TOWL-3 Spontaneous Writing section. Three of the four students in the study demonstrated improvements on their TOWL-3 performance after instruction within this study. The TOWL-3 stories they wrote following instruction included more words and story elements and were more accurate than the TOWL-3 stories they wrote prior to instruction, indicating that students generalized their learning to a novel writing stimulus other than story starter probes. Given the observed generalization on the TOWL-3 and the story starter probes, generalization appears to have occurred, thereby confirming this hypothesis.

These results appear consistent with previous research indicating that instruction in story writing using SRSD can increase students’ ability to generalize their writing skills (Saddler et al., 2004). These findings are also consistent with research indicating that the combination of instructional and motivational procedures can increase generalization to novel stimuli (Bonfiglio et al., 2004; Daly, Bonfiglio, et al., 2005). Therefore, the combination of instructional SRSD procedures and motivational SRSD procedures resulted in strong generalization of student writing performance on most writing variables.
Additional assessment results.

**Test of Written Language – Third Edition (TOWL-3).** The TOWL-3 was used as a measure of writing to first identify students as appropriate for the study, then to identify pre/post changes in overall writing performance. As the TOWL-3 is standardized, it allowed for comparisons between students involved in the study and comparisons across children their age in the national normative sample. Additionally, as the TOWL-3 Spontaneous Writing section provides students with different instructions and a different writing format than the story starters provided in the study, the TOWL-3 served as an additional measure of generalization of writing skills.

Most students’ results are consistent with previous research indicating that the implementation of direct strategy instruction components to teach students to write has resulted in increased TOWL scores. Specifically, in studies evaluating the effects of *Reasoning and Writing* (Engelmann and Silbert, 1991) and *Expressive Writing* (Engelmann & Silbert, 1983) programs, it has been found that students have increased the Spontaneous Writing scores (Anderson & Keel, 2002) as well as their overall TOWL scores (Ginn et al., 2002; Walker, et al., 2005).

Three of the four participants in this study demonstrated increases in the TOWL-3 Spontaneous Writing Composite after approximately four months of instruction. Although it cannot be determined that these improvements on the TOWL-3 were accomplished solely through learning to plan and revise using the interventions in the study, these gains were large and provide promise that the interventions were effective for increasing student writing performance. Jonny, Sam, and Lolo all increased their performance on the Contextual Language and Story Construction subtests. However,
Jonny was the only student who improved his performance on the Contextual Conventions subtest. This finding is interesting, as all students were instructed in the area of contextual conventions, including capitalization, punctuation, and spelling. However, all of the students wrote significantly longer and more complex stories during the second administration, which may have allowed for more opportunities to misspell words and make errors with punctuation and spelling that decreased their Contextual Language subtest score.

Helen appeared to experience more difficulty with generalization and performed more poorly during the second administration of the TOWL-3 than the first administration on all but one subtest in which she maintained the same score. Helen’s decreased performance on the TOWL-3 may be due to the fact that Helen was focused on increasing TWW in lieu of focusing on the other variables being evaluated through the TOWL-3. After Helen learned to count her TWW within the study, she became focused on this variable. After completing the TOWL-3, she requested to count the TWW to see how well she did, indicating that she believed that was the primary variable being assessed. Another hypothesis is that Helen had not yet reached the stage in her learning in which she was able to generalize what she had learned to stimuli beyond story probes. Thus, perhaps Helen would require additional instruction in planning and revising to generalize her skills across tasks.

**Writing Attitude Survey.** Although no hypotheses were posed in regard to student attitudes toward writing, the Writing Attitude Survey was used to measure attitudes toward writing prior to both the Planning and Planning + Revising interventions and following the Planning + Revising intervention.
Survey were mixed, as Jonny and Helen increased their attitude toward writing from phase to phase within the study, Sam decreased her attitudes from phase to phase within the study, and the Lolo’s attitude fluctuated as the study progressed. Three out of four students increased their attitudes from baseline to Planning Instruction, and these same students continued to demonstrate higher attitudes following Planning + Revising Instruction than during baseline. Additionally, two students demonstrated higher attitudes toward writing following Planning + Revising Instruction than following Planning Instruction. Thus, it can be determined that overall most students had more positive attitudes about writing after learning strategies for writing than during baseline.

Interestingly, Jonny and Helen were the two students whose attitudes continually increased as they learned more about writing. This is worthy of note because Jonny demonstrated the most improvement in writing over time, as well as the greatest increase in attitude toward writing, and Helen demonstrated the least improvement in writing and her attitude, while increased, remained substantially lower than any other student’s attitude in the study. Additionally, Jonny demonstrated the highest performance on writing measures, while Helen demonstrated the lowest performance on writing measures. Therefore, Jonny reported the highest attitude and demonstrated the best performance, Sam and Lolo reported moderate scores on the Writing Attitude Scale and achieved moderate performance, and Helen reported the lowest Writing Attitude scores and achieved the lowest performance. The congruence between reported attitude and performance is consistent with previous research indicating that students’ attitudes toward writing influence student writing performance (Graham, Berninger, & Fan, 2007). Specifically, in this 2007 study, three hypotheses were tested including a hypothesis that
writing attitude influences writing achievement, a hypothesis that student’s success with writing influences their attitude toward writing, and a hypothesis that there was a reciprocal relationship between attitude and achievement. It was determined through Graham et al.’s (2007) investigation that children’s attitude toward writing plays an important role in determining their writing success.

*Children’s Intervention Rating Profile.* Again, although no hypotheses were posed in regard to students’ acceptance of the intervention, the Children’s Intervention Rating Profile was administered after each phase of the study to measure student’s acceptance of the interventions. Generally, students appeared to enjoy the intervention as indicated by such responses as agreeing very much that the writing program would be good for other children and that the writing program would help other children do better in school. Additionally, most responses indicated that the writing tutor was not too harsh/mean. The results for other questions were somewhat mixed, although Jonny’s perception of both interventions was consistently very positive.

An interesting observation is that the most adamantly endorsed answers pertained to what students believed other students would think about the intervention. Thus, although students did not always endorse the most positive answers for themselves, they believed that the writing programs would be good for other children and that the writing programs would help other children do better in school. Future research is necessary to determine the meaning of these results.

Additionally, it was found that Jonny, who demonstrated the most pronounced improvements on all variables, also indicated the most satisfaction with the interventions used in the study. Sam and Lolo, who indicated moderate approval of the intervention,
also demonstrated moderate improvements on writing variables in the study. Helen also indicated moderate approval of the interventions, but was found to show the least improvement in writing performance during the study. It is unclear as to why this pattern does not fit for Helen, although it is hypothesized that she completed the CIRP more favorably than how she felt, as she frequently complained about the frequency with which she was asked to write within the study. Overall, it was clear that students’ approval of the interventions was commensurate with their improvements within the study, with the exception of Helen.

**Limitations**

Although this investigation was strong in many respects, there are limitations inherent within the design and implementation involved in the study. First, the limited number of participants involved in the study reduces the ability to generalize results to other students and populations. Specifically, as only four students were involved in this study, we cannot assume that these students are representative of all students their age. Perhaps the selected group of students was more or less responsive to the intervention than would be another group of students. Another obvious concern with this limitation is that Jonny, the only male, and the only Hispanic student in the study, demonstrated superior performance as compared to three European American females. It is unclear whether Jonny’s gender or ethnic background influenced his performance within this study. Perhaps the interventions used in this study inadvertently accommodates particular groups of people, which would lead to biased results within this study and point to a clear limitation that needs to be examined in future research.
A second limitation within this study was that students were repeatedly assessed using the same story starter probes. This limitation introduces a threat to internal validity, as learning associated with the particular story probe could occur and aid in increasing students performance beyond what would be seen based on student learning from instruction. Particularly, if a student knows that they will be repeatedly assessed using the same story probe, they have the advantage of generating ideas based on the story probe between assessments that could aid in increasing their performance above and beyond that which would be observed if the student were assessed using a novel story probe. Novel story probes provide a more clear assessment of the ability to apply planning and revising strategies, while repeated assessments may also inadvertently assess a student’s ability to plan between assessments that would increase their performance. Thus, within this study, it is possible that students increased their performance partially due to being assessed with the same story probe repeatedly, rather than due entirely to learning to plan and revise their writing during sessions. This limitation was expected and, while it is a limitation, is also considered a strength of the study, as generating additional information between assessment sessions is a form of planning, which was one of the skills being taught within the intervention. Additionally, planning and revising a story multiple times is a natural practice for successful writers and is therefore a skill that should be taught to students.

A third limitation of this study was that all instruction was conducted in a one-to-one format, which is not the most efficient practice for teaching writing. Specifically, most classroom instruction is taught in a large-group or classroom format and teaching one student at a time is often time and resource consuming in comparison to large-group
instruction. Specifically, if multiple students within a school require additional support with written expression, more time, money, intervention materials, and teacher availability would be required to teach each student individually than would be required to teach students in a group or classroom format. Conducting this study in a one-to-one format provides evidence that the interventions used are effective for increasing student writing performance when instructed individually, but does not provide evidence that the interventions can be used in a group format. Teaching students in a group format introduces many variables that are not present when teaching students individually, including interpersonal differences that may affect the ability to learn. Although Planning Instruction has been demonstrated to be effective for teaching groups of students (Tracy et al., 2009), Planning + Revising Instruction has not been evaluated in a group or classroom format. Future research is necessary to evaluate the effectiveness of this intervention in a group or classroom format.

A final limitation within this study was inadequate baseline data for Jonny and Sam. Due to Jonny and Sam respectively completing one and two baseline probes on their initial stories, trends in baseline data were unavailable, thereby limiting the level of experimental control achieved within the study. If additional stable baseline data were obtained, the effects on the dependent variables could be more clearly and confidently attributed to the independent variables. As it were, stable baselines were not obtained, making it unclear as to whether the introduction of independent variables, or other extraneous factors, influenced the dependent variables. Future research, in which additional baseline data are obtained, is necessary to ensure that the influences on the dependent variables observed in this study are attributable to the instruction provided.
The above mentioned limitations may have influenced the results of this study. However, this study was designed as a pilot study to evaluate the effects of teaching students to plan and revise their writing. This study clearly accomplished its goals as none of the limitations appeared to pose significant threats to the objectives of the study.

**Implications for Practice**

There are many implications for practice provided within the results of this study. As educational practices shift to a model of Response to Intervention (RtI), academic and behavioral interventions at the individual, group, and classroom level are in great demand in an attempt to proactively reduce student concerns in these areas. Specifically, through the use of RtI procedures, students are identified as experiencing learning difficulties when they demonstrate limited responsiveness to classroom instruction as compared to peers (Fuchs, Fuchs, & Speece, 2002). When students are identified as “nonresponders” to classroom instruction, they are then provided with supplemental instruction, and if they do not respond adequately to supplemental instruction, they are provided with more intensive and individualized instruction (Fuchs & Fuchs, 2005). The primary purpose of RtI is early identification and remediation of student difficulties using evidence-based strategies while ensuring treatment integrity. The interventions used in this investigation would adequately fit into any RtI model to increase students’ proficiency in the area of writing.

The scripted lessons for implementing the interventions in this investigation provide for ease of use for teachers in multiple settings. Additionally, previous research has demonstrated that general education teachers can successfully implement SRSD to teach expository essays to classrooms of students (De La Paz, 1999). Within this study,
teachers attained 96% treatment integrity while demonstrating substantial increases in students’ essay length, essay elements, and essay quality (De La Paz, 1999). Although a similar investigation of story writing was not identified, it is clear that the instructional procedures used within this investigation can be successfully implemented by general education teachers. Furthermore, few resources are necessary for implementing these interventions, and the scripted lessons are readily available and need not be purchased. Thus, the interventions implemented within this investigation demonstrated clear increases on children’s writing performance, can be easily implemented by teachers, and require few resources to implement.

Currently, the only instructional practices used for teaching students to revise have demonstrated inconsistent influences on student writing performance (De La Paz et al., 1998; Fitzgerald & Markham, 1987; Graham, 1997; Reynolds et al., 1988). This is unfortunate as it is clear that many students experience difficulties with the revising process. Specifically, it has been demonstrated that beginning writers perform few meaningful revisions (Scardamalia & Bereiter, 1987) and these revisions are typically superficial (Fitzgerald, 1987; Fitzgerald & Markham, 1987). Thus, an intervention for teaching revising that is demonstrated to produce meaningful influences on student performance appears necessary. The intervention utilized within this study has been demonstrated to produce meaningful influences on student writing performance and therefore satisfies this need for an effective intervention for teaching students to revise.

**Future Research**

This investigation answered many questions while also posing many new questions for future research. First, this investigation included only four participants,
which raises the question of the generalizability of the results. Thus, future research
should investigate the same instructional method using additional participants.
Particularly, within this investigation, it was identified that the only male and the only
Hispanic student was the student who demonstrated the greatest improvements and the
best writing performance within the study. Thus, future research is necessary to identify
whether students from particular ethnic groups or of a particular gender are more
responsive to the interventions used within this study than are students of differing ethnic
groups or gender. Many participants would be required to objectively identify such
influences of ethnicity and gender, but would provide useful information from which to
identify appropriate interventions for particular groups. Such research could be
conducted through multiple studies including classwide and small group formats.

As instruction can be more efficiently provided by teaching multiple students at
one time, future research should evaluate the effectiveness of this instructional approach
with groups of students. These investigations could be conducted in a small group format
as well as a classroom format in which certain classrooms are used as controls. Such
examinations appear necessary to determine if the impact of learning to plan and revise is
as pronounced when taught with a group of students. These studies are also necessary to
determine the utility and ease of teaching planning and revising in a group format. Thus,
it would be necessary for such research to not only evaluate student performance but also
to provide for instructor feedback in regard to group administration of the intervention.

Within this study it was identified that students’ ratings on the CIRP were
generally commensurate with their writing performance across multiple writing variables.
It seems that when a student likes an intervention they may be more likely to learn from,
and use, the skills taught through the intervention. However, this relationship has not been formally researched in the area of writing. Additional research evaluating the relationship between ratings of intervention acceptance and writing performance appear necessary to identify a connection between student acceptance of an intervention and performance.

This investigation implemented a unique progress monitoring system as compared to previous investigations of writing performance. Specifically, while most investigations of writing examine writing performance weekly on differing story probes, this investigation examined progress on the same writing probe with longer intervals of time between assessments. The purpose of using this monitoring system was to reduce the impact of differing interests in story probes that can produce differential performance across probes that is unrelated to instruction. Specifically, when students are provided with a story probe in which they like the topic, they may produce more writing and write more accurately due to their interest in the topic, while they may perform more poorly when provided with a topic in which they have no interest. In addition, this monitoring system was used to more sensitively identify changes in writing performance. Increased time between probes was implemented due to previously observed student apathy when administering writing probes on a more frequent basis. Particularly, in studies previously conducted by the lead researcher, students have demonstrated decreased interest over time through their verbalized disinterest and by spending less time on their stories on subsequent administrations. Additionally, it has been identified that substantial changes in writing performance do not occur within a week, and less frequent assessment may be more practical. Although the reasoning behind this monitoring system is valid, this is the
first investigation using such a monitoring system. Thus, further research needs to be conducted to determine which monitoring system is most sensitive and effective for monitoring writing performance. Such an investigation could be conducted through several group studies in which half of the students’ progress is monitored using each system. These investigations could incorporate teacher impressions and additional writing assessments such as the TOWL-3 to verify story probe assessment results.

This investigation was also the first investigation of SRSD methods to teach students to revise their writing. Therefore, the methods used to teach revising within this investigation warrant further investigation to ensure effectiveness. A particular component of the revising strategies that requires investigation is the limited amount of practice students receive in revising their own writing. During the planning intervention used in this study, students were able to plan multiple stories and receive practice with planning in this way. However, the lessons used within this investigation require students to practice revising strategies written by the lead researcher. Thus, further research involving revision practice using students’ own writing is necessary. Thus, not only do additional small n and group studies examining the SRSD revising methods need to be conducted, but also investigations including the use of more practice revising their own writing.

An interesting finding within this investigation was that on the CIRP, students more positively endorsed the questions pertaining to how other students would benefit from the intervention than how they themselves benefited from the intervention. Specifically, they were more likely to endorse questions such as “the writing intervention would be good for other children” and “the writing intervention would help other
children do better in school” than questions pertaining to their impressions of the writing interventions for themselves. This is a finding that warrants additional investigation. Perhaps additional questioning pertaining to how students perceive their abilities as compared to other children’s abilities would aid in identifying the underlying causes of such endorsements on the CIRP.

Within this study a question regarding the greatest influence on number of story elements arose. In this study, learning to revise appeared to improve the number of story elements included in stories. However, in previous studies, learning to plan appeared to increase story elements to criterion. In these previous studies, students were provided with opportunities to practice including story elements until they reached criterion. Thus, it is unclear whether learning to revise or practice using story elements has a greater impact on number of story elements. Thus, future research in which students are allowed more practice opportunities prior to learning to revise would aid in identifying whether practice or revising has a greater impact on number of story elements.

Finally, it became clear that inadequate baseline data were obtained for Jonny and Sam within this study. This resulted in limited experimental control, as, without stable baseline data, it becomes difficult to determine whether effects on dependent variables are due to the independent variables. Thus, future research in which additional baseline data are collected is necessary to ensure that the effects on the dependent variables are caused by instruction and not by other extraneous variables.

Conclusion

Overall, the results of this study clearly indicate that instruction in both planning and revising is more effective for increasing advanced writing skills than is instruction in
planning alone. Specifically, of all of the writing variables assessed, writing production was the only variable that increased more with instruction in planning than with instruction in planning and revising. Therefore, through the use of Planning + Revising Instruction, students increased their performance on TWW, %CWS, number of story elements, and quality of writing. Furthermore, students’ generalized their performance to additional story probes after learning to plan and revise one story probe. Additionally, based on student results on the TOWL-3, it is clear that most students within this study made considerable, generalized improvements in their writing performance.

Based on student performance at the conclusion of this study, it is clear that students benefit from Planning + Revising Instruction, which has been demonstrated to help students increase their writing accuracy, use of story elements, and writing quality beyond the effects of Planning Instruction. Additionally, an interesting finding within this study was that three out of four of the students increased their attitudes toward writing over the course of the study and the students with the highest ratings on the Writing Attitude Survey also demonstrated the greatest writing performance in terms of the variables assessed. Thus, the interventions used within this study have been demonstrated to increase student’s attitudes toward writing, which in turn may influence their overall writing performance. The identified connection between attitudes about writing and writing performance provide incentive for practitioners to assess students’ attitudes toward writing in an attempt to comprehensively evaluate students’ impressions of their experiences and further evaluate this perceived connection.

Given the high prevalence rate of writing difficulties among our youth (Mayes & Calhoun, 2007; Salahu-Din et al. 2008) and the importance of writing as related to career
success (NCW, 2004) a writing intervention that can comprehensively increase writing performance appears critical. The necessity to communicate effectively through written expression will only increase as technology becomes more advanced, requiring communication through non-verbal mediums. Thus, implementing an intervention that can increase student attitudes toward writing, text production, inclusion of important details, and use of writing conventions, has the potential to provide a brighter future for our youth.
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### Effective Instructional/Motivational Components

<table>
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<th>Component</th>
<th>Source(s)</th>
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<tr>
<td>Gradually increasing complexity of task/scaffolding</td>
<td>Graham et al., 2006; Graham &amp; Perin, 2007; Rosenshine, 1986; Swanson et al., 1999</td>
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<tr>
<td>Frequent evaluation of student progress</td>
<td>Anderson &amp; Keel, 2002; Ginn et al., 2002; Swanson et al., 1999; Rosenshine, 1986; Walker et al., 2005</td>
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<tr>
<td>Review of previous learning</td>
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<tr>
<td>Practice</td>
<td>Graham et al., 2006; Rosenshine, 1986; Swanson et al., 1999</td>
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<td>Performance feedback</td>
<td>Bonfiglio et al., 2004; Daly, Bonfiglio et al., 2005; Daly, Persampieri et al., 2005; Duhon et al., 2004; Kasper-Ferguson &amp; Moxley, 2002; Rosenshine, 1986; Scriven &amp; Glynn, 1983; Swanson et al., 1999; Van Houten et al., 1974</td>
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<tr>
<td>Asking questions to probe for understanding</td>
<td>Anderson &amp; Keel, 2002; Ginn et al., 2002; Rosenshine, 1986; Swanson et al., 1999; Walker et al., 2005</td>
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<td>Teacher modeling</td>
<td>Anderson &amp; Keel, 2002; Ginn et al., 2002; Graham et al., 2006; Graham &amp; Perin, 2007; Swanson et al., 1999; Walker et al., 2005</td>
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<tr>
<td>Teaching specific strategies for planning and revising</td>
<td>Graham et al., 2006; Graham &amp; Perin, 2007; Scardamalia and Bereiter, 1983</td>
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<td>Setting clear goals for student writing</td>
<td>Bonfiglio et al., 2004; Daly, Bonfiglio et al., 2005; Daly, Persampieri et al., 2005; Duhon et al., 2004; Graham &amp; Perin, 2007; Rosenshine, 1986</td>
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Appendix B

Planning Instruction
Lesson 1

Lesson Overview
The POW and WWW, What=2, How=2 strategies will be introduced in this lesson. The teacher and student will collaboratively locate the story parts Who, When, Where, What=2, How=2 in two stories. The student will begin to learn the two strategies. The student will establish the concept of transfer.

Student Objectives
The student will identify the 7 parts of a story in two stories.

Materials
Mnemonic charts, story examples (Albert, Sly Fox), WWW graphic organizers, paper, pencils, transfer chart, student folder

Set the Context for Student Learning
Introduce yourself as a writing teacher. Say, “I’m going to teach you some of the tricks for writing. First, we’re going to learn a strategy, or trick, that good writers use when he/she write. Then, we are going to learn the trick, or strategy, for writing good stories.”

Develop the Strategy and Self-Regulation
Step One – Introduce POW
• Put out the POW + WWW mnemonic chart so that only POW shows.
• Emphasize POW is a trick good writers often use for many things he/she write.
• Go over the parts of POW, discussing each. (P=Pick my idea; O=Organize my notes; W=Write and say more). Emphasize that he/she can remember POW because it gives him/her POWER when he/she writes.
• Practice POW; turn the mnemonic chart over. Ask the student to explain what POW stands for. Help as needed. Do this until you feel sure that he/she knows what POW stands for.
• Discuss good stories (briefly) – ask the student, what makes a story good? Be sure to include (you add if he/she doesn’t say it):
  • Good stories are fun for me to write and fun for others to read.
  • Good stories make sense and have several parts – we will learn a trick for remembering the parts of a good story.

Step Two – Introduce WWW, What=2, How=2
Introduce WWW – uncover more of the mnemonic chart so that the WWW shows. “Let’s find out what the parts of a good story are.” Have the student look at the chart. Briefly discuss each W. (Be sure to use the word “character” for Who, for When, ask the student to tell you “how does a person tell When in a story?” – Once upon a time… A long time ago… Yesterday… Wednesday afternoon at 4:00, and so on. Ask the student for examples of what might be Where in a story.

Uncover What=2. Explain and briefly discuss each What. Get examples of how a writer might tell each.

Uncover How=2. Explain and briefly discuss each How. Get examples of how a writer might tell each.

Step Three – Find Parts in a Story
- Say, “Now we’re going to read a story to find out if the writer used all of the parts of a good story.” (Leave out the mnemonic chart where the student can see it.)
- Lay out a WWW graphic organizer. Point out the story parts reminder (WWW, What=2, How=2) at the top, and review what it stands for.
- Give the student a copy of the story (Albert); ask the student to read along silently while you read the story out loud. Then read the story out loud again and tell him/her to raise his/her hand when he/she hears Who, When, or Where in the story. As he/she identifies Who, When, and Where – write each in the appropriate space on the graphic organizer. DO NOT USE FULL SENTENCES – DO THIS IN NOTE FORM.
- Tell the student that he/she is now looking for the 2 Whats and 2 Hows. Briefly review what each means (be sure the student knows what the “goal” means for the first What question). Remind him/her to raise his/her hand when he/she hears one in the story. Read the story from the beginning. Stop as he/she raises his/her hand; you write each What and each How in the appropriate space on the graphic organizer. DO NOT USE FULL SENTENCES – DO THIS IN NOTE FORM. If you get to the end of the story and the student has not identified all of the parts, go back over the story and help as needed. Be sure to be encouraging and positive throughout.

Step Four – Practice Story Parts
- Practice Story Parts Reminder. Turn over the mnemonic chart and the student’s paper. Ask the student to tell you the “story parts reminder.” (He/she should tell you: W-W-W; What=2; How=2). Ask the student to write the reminder on scratch paper. If the student has trouble, turn chart back over and allow him/her to look. Keep doing this until the student can tell you the reminder and write it on paper from memory.
- Practice story parts to criterion. Ask the student to explain the parts. (Keep chart turned over, but allow the student to look at the W-W-W; What=2; How=2 that he/she wrote out on scratch paper). Help as needed. Do this until you feel sure that the student knows what all the parts are.

Step Five – Find Parts in a Second Story
• Do second story (Sly Fox). Leave out mnemonic chart. As before, remind the student to raise his/her hand when he/she hears a part. Be sure each part is identified. Do not ask student to write them out this time. Point to, or ask the student to point to, where each part goes on the chart.

Step Six – Establish Transfer
• Emphasize that you want him/her to use POW and WWW in all of his/her other classes where he/she can.
• Describe and discuss Goal 1 for next time; use all or parts of POW and/or WWW in other classes or for other writing tasks. Brainstorm together some classes or other writing tasks he/she could use both POW and WWW for, being sure to note that we should use POW with WWW whenever we use WWW.
  o Other ideas could be: book reports, letters to friends, reports on special topics, writing for a school newsletter, writing about something that happened to you or a special event, and so on.
  o Briefly note that for some tasks, like writing a report, all parts of the WWW trick might not be right to use – so what could we do? (Change WWW to fit the kind of report we need to write; don’t use all of WWW if it doesn’t make sense; WWW is in many reports).
  o Explain how we can use WWW when we are reading a story to make sure we understand/remember all the important parts of a story, and we can use WWW when we are telling someone a story about what we read.
• Tell the student to report back to you on using all or any parts of POW/WWW next time (for example, the student might report making notes for a writing task before he/she wrote). Show him/her his/her “I transferred my strategies” chart and explain that he/she will write down and put a star next to each time he/she tells you about using all or any part of POW/WWW outside of this class. Briefly discuss the word “transfer” – transfer means to move (like I transferred schools means that I moved from one school to another). Emphasize that you want him/her to transfer what he/she learned about POW and WWW from this class to other classes and other writing tasks.
• Ask him/her to tell you what transfer means and make sure he/she has it.

Wrap-Up
• Announce test (no grade) next session. The student will come and write out POW and the story parts reminder and tell what they mean from memory. Have the student take his/her scratch paper with POW and the story parts reminder on it with him/her.
• Remind him/her that he/she will fill in the transfer chart next time.
• Give each student his/her own folder and a copy of the story parts reminder chart. Have him/her put today’s work and his/her charts in his/her folder.
Lesson 2

Lesson Overview
The POW + WWW, What=2, How=2 strategies will be reviewed. The student will examine a story that he/she had previously written and look for the number of story parts. This current progress for the student will be graphed and a goal set to get all 7 story parts next time. The student will record his/her transfer efforts.

Student Objectives
The student will orally state where he/she transferred either POW or WWW. The student will identify parts in a story. The student will set a goal for writing stories with seven parts.

Materials
Mnemonic chart, additional story example (The Tiger’s Whiskers), a story previously written by the student, WWW graphic organizer, transfer charts, paper, pencils, student folder, story rocket graphs

Set the Context for Student Learning

Test to see if the student remembers POW and WWW, What=2, How=2
- Give the student a piece of scratch paper. Ask him/her to write down POW then ask him/her what it stands for. If the student is having trouble remembering POW, practice it.
- Ask him/her to write WWW, What=2, How=2 on the scratch paper. If the student has trouble, be supportive and prompt as needed.
- Ask the student what WWW, What=2, How=2 stands for.
- It is essential that the student memorize the reminder. If the student is having trouble with this, spend a few minutes practicing it. 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.

Review and record transfer.
- Review the meaning of transfer briefly.
- Ask the student to report back on using all or parts of POW and/or WWW in other classes or for other writing tasks. If necessary, brainstorm together again some classes or other writing tasks he/she could use both POW and WWW for, being sure to note that we should use POW with WWW whenever we use WWW.
  - Other writing tasks could be: book reports, letters to friends, reports on special topics, writing for a school newsletter, writing about something that happened to you or a special event, and so on.
  - Briefly remind the student that for some tasks, like writing a report, all of the WWW trick might not be right to use – so what could we do? (Change WWW to fit the kind of report we need to write).
  - Fill in the “I transferred my strategies” chart. Star each recorded item.
Develop the Strategy and Self-Regulation

Step One – Identify Story Parts

- If necessary, go through one more story example (*The Tiger’s Whiskers*) and have the student verbally identify the story parts.

Step Two – Establish Current Level of Performance

- Say, “Remember the story you wrote for me the other day?” Pass out student’s previously written story.
- Tell the student to read his/her story and see which parts he/she has. (You need to have worked out ahead of time what parts he/she had and which one he/she didn’t have.
- Briefly note with the student which parts he/she has and which he/she doesn’t.
- Note also that even though we have a part, we might be able to make that part better next time – this makes out story more fun to write and more fun to read. Discuss examples of how he/she could do each using either his/her stories or *Albert the Fish/Tiger’s Whiskers*:
  - Can have more than one character
  - Can tell more about when and where
  - Can have more things happen (action)
  - Can tell more about characters’ feelings
  - Can have a neat ending
  - Can use good word choice (e.g., color words) or “million dollar words.”
  - Can use an interesting first sentence
- Introduce story rockets graph; give the student a graph and have him/her fill in the graph for the number of parts he/she had in his/her pretest story. Be very positive; remind him/her that you are just now learning the trick of writing good stories.
- Explain goal – to write better stories. Remind him/her that good stories are fun for me to write and for others to read, have all 7 parts, that each part is well done, and that good stories make sense.
- Say, “Our goal is to have all of the parts and ‘better’ parts the next time we write a story.”
- Additionally, explain that good stories usually include lots of words with description (exciting words, million dollar words)
- Introduce the word rockets graph; give the student a graph and have him/her fill in the graph for the number of words written on his/her pretest story. Be very positive; remind him/her that you are just now learning the trick of writing good stories.

Wrap-Up

- Have the student put papers from today’s work in a folder.
• Remind him/her that he/she will fill in the transfer chart again next time.
• Remind of POW and WWW, What=2, How=2 test again next time.

If the student is still having trouble finding the 7 parts in the stories you have read, plan to read aloud another story at the beginning of the next lesson.

Lesson 3

Lesson Overview
The teacher will model using the POW + WWW strategies for writing a story. Self-instructions as a self-regulation procedure will be established.

Student Objectives
The student will write the story parts reminder from memory. The student will listen to a teacher modeled lesson. The student will write a list of things he/she will say to themselves when writing.

Materials
Mnemonic chart, WWW graphic organizer, paper, pencils, student folder, “turtle” practice picture, story (Who Did Patrick’s Homework?), blank graph

Set the Context for Student Learning
Test to see if the student remembers POW and WWW, What=2, How=2. Do it out loud to save time. It is essential that the student memorize these. If the student is having trouble with this, spend a few minutes practicing it. Tell the student you will test him/her on it each day to make sure he/she has it.

Record and review transfer.

Develop the Strategy and Self-Regulation

Step One – Find Story Parts
• If the student is still having trouble finding the 7 parts, do another story (Who Did Patrick’s Homework?) out loud now.
• If necessary, do the other story above out loud to practice finding the 7 parts.

Step Two – Model POW & WWW, What=2, How=2
• Lay out a copy of the POW + WWW, What=2, How=2 graphic organizer. Then explain and 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 good story parts. To do this we have to be creative, we have to think free.

- Say, “Look at the turtle practice picture.” Explain to the student the things that you say to yourself when you want to think of good story ideas of parts. Be sure to say each of these examples: “I have to let my mind be free.” “Take my time, a good idea will come to me.” “Think of new, fun ideas.” “What ideas for parts do I see in this picture?” Explain: “The things you say to yourself help you to work.” Note that it’s not always necessary to think out loud, you can think these things in your head.

- Say, “the second letter in POW is O – ORGANIZE my NOTES. I am going to write a story today with your help – I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes. You will do this too the next time you write a story.” Briefly review – point at the 7 parts of a good story on the graphic organizer. Say, “What should my goal be? I want to write a good story – a good story has all seven parts, makes sense, and is fun for me to write and for others to read.”

- Keep the POW + WWW, What=2, How=2 mnemonic chart out.

- Model the entire process; writing an actual story as you go (using the turtle practice picture). Use problem definition, planning, self-evaluation, and self-reinforcement self-statements as you go. Use “million dollar words,” “color words,” and “good word choice.” Follow the steps and statements below, filling in ad lib statements where indicated. Ask the student to help you with ideas, but be sure you are in charge of the process.

- Say, “What is it I have to do? I have to write a good story. A good story makes sense and has all 7 parts. Remember P in POW – pick my idea – let my mind be free.” (Pause) “Take my time, a good story idea and good parts will come to me.” (Pause)

“Now I can do O in POW – Organize my Notes. I can write down a story part idea 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.

“Now I can do W in POW – write and say more. I can write my story and think of more good 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. Be sure to add 1-2 more ideas and million dollar words and note on your plan as you write. Don’t hurry, but don’t slow it down unnaturally. Also, at least two times ask yourself, “Am I using good parts and am I using all my parts so far?” 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.”

Step Three – Self-Statements
- 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 him/her if he/she can’t remember and discuss each as you go).
  - What to say to get started. 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 the student’s own words.
  - Things to say while you work: self-evaluation, coping, self-reinforcement, and any others he/she likes (in the student’s own words).
  - Things to say when you’re finished (in the student’s own words).
  - Note that we don’t always have to think these things out loud; once we learn we can think in our heads or whisper to ourselves.

Step Four – Model Graphing Success
- Graph the story written during the modeled lesson. Ask the student, “Does this story have all 7 parts?” Fill in a blank story rockets graph. Self-reinforce yourself and the student for a job well-done.
- Graph the number of words written. Reinforce students for including more words than baseline stories.

Wrap-Up
- Have the student put all work for the day in his/her folder.
- Remind the student that he/she will fill in the transfer chart again next time.
- Remind the student of POW + WWW, What=2, How=2 test again next time.

Lesson 4

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 the 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.

**Student Objectives**
The student will write POW + WWW, What=2, How=2 from memory and be able to state what each part stands for. The student will collaboratively write a story that has 7 story parts.

**Materials**
Mnemonic chart, WWW graphic organizer, paper, pencils, student folder, boy on alligator practice picture, self-instructions sheet, student graphs

**Set the Context for Student Learning**
Test to see if the student remembers POW + WWW, What=2, How=2. Do it out loud to save time. It is essential that the student memorize these. If the student is having trouble with this, spend a few minutes practicing it. Tell the student you will test him/her on it each day to make sure he/she has it.

Record and review transfer.

**Develop the Strategy and Self-Regulation**

**Step One – Collaborative Writing**
- **Support It.** Give the student a blank graphic organizer. Put out the boy on the alligator practice picture. This time let the student lead as much as possible, but prompt and help as much as needed. The student should write his/her own story using his/her own notes. Go through each of the following processes:
  - Say, “Remember that the first letter in POW is P – PICK my IDEA.” Help student get an idea.
  - Say, “The second letter in POW is O – ORGANIZE my NOTES. I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes.” Review – “What should my goal be? I 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 the student has generated notes for all the story parts, say – “Remember to look back at my notes and see if I can add more notes for my story parts” – help him/her actually do this. Remind him/her to look for more ideas for good word choice or million dollar words – help him/her do this.
  - The last letter in POW is W – WRITE and SAY MORE. Encourage and remind him/her 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, but try to let him/her do
as much as he/she can alone. Encourage him/her to use other self-
statements while he/she writes. If the student does not finish writing today,
he/she can continue at the next lesson.

Step Two – Graph Story Parts
• Have the student graph his/her story – ask the student to determine – does his/her
story have all 7 parts – then fill in graph. Reinforce him/her for reaching 7.
• Graph the number of words written. Reinforce students for including more words
than baseline stories.

Wrap-Up
• Have the student put his/her work and charts in his/her folder.
• Remind the student that he/she will fill in the transfer chart again next time.
• Remind the student of the POW + WWW, What=2, How=2 test again next time.

Lesson 5

Lesson Overview
The student will continue to review POW + WWW, What=2, How=2 in this lesson. It is
critical that the teacher provides the student the assistance needed to be successful –
Support It. The student will be weaned off the graphic organizer and will begin to learn
how to make his/her own notes. This is the last lesson for POW + WWW. It should be
repeated until the student can write independently the story part reminder notes and a
story with all 7 parts.

Student Objectives
The student will write story parts reminder and state orally what each reminder part
represents. The student will write notes for the POW + WWW, What=2, How=2
strategies on a blank sheet of paper. The student will write a story that includes all 7 story
parts.

Materials
Mnemonic chart, WWW graphic organizer, paper, pencils, student folder, squirrel and
boy with door practice pictures, self-instructions sheet, student graphs

Set the Context for Student Learning
Test to see if the student remembers POW + WWW, What=2, How=2. Do out loud to save time. It is essential that the student memorize these. If the student is having trouble with this, spend a few minutes practicing it. Tell the student you will test him/her on it each day to make sure he/she has it.

Record and review transfer.

If you feel the student is not ready to move on to writing with scratch paper or notes instead of the graphic organizer page, repeat lesson 4 with other practice pictures and go on to this lesson when he/she is ready.

Develop the Strategy and Self-Regulation

Step One – Wean Graphic Organizer

- Explain to the student that he/she won’t usually have a story parts reminder page with him/her when he/she has to write stories, so he/she can make his/her own notes on blank paper. Show him/her how to write down the reminder at the top of the page.

POW
WWW, What=2, How=2

Then have him/her make a space on the paper for notes for each part.

- Support It. Put out the squirrel and boy with the door practice pictures. The student can select one to write about. Let the student lead as much as possible, but prompt and help as much as needed. The student should make notes on the paper he/she wrote the reminders on. Go through each of the following processes:
  - Say, “Remember that the first letter in POW is P = Pick my Idea” Help the student get a plan.

Step Two – Collaborative Writing

- Say, “The second letter in POW is O – ORGANIZE my NOTES. I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes.” Review – “What should my goal be? I 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 the student has generated notes for all the story parts say – “Remember to look back at my notes and see if I can add more notes for my story parts” – help him/her actually do this. Remind him/her also to look for more ideas for good word choice or million dollar words – help him/her do this.

- Say, “The last letter in POW is W – Write and Say More.” Encourage and remind him/her 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, but try to let him/her do as much as he/she can alone. If
parts can be improved, or better word choice can be used, do make suggestions. Encourage him/her to use other self-statements of his/her choice while he/she writes.

Step Three – Graph Progress
- Have the student read aloud and graph his/her story. Ask him/her to determine – does his/her story have all 7 parts – then fill in graph. Reinforce him/her for reaching 7.
- Graph the number of words written. Reinforce students for including more words than baseline stories.

Wrap-Up
- Have each student put his/her work and charts in his/her folder.
- Remind the student that he/she will fill in the transfer chart again next time.
- Remind of POW + WWW, What=2, How=2 test again next time.

Lesson 6

Lesson Overview
This is a repeat of Lesson 5 with a story starter. The student will be given the opportunity to practice transferring the strategy.

Student Objectives
The student will write the story part reminder and state orally what each reminder part represents. The student will write notes for the POW & WWW, What=2, How=2 strategies on a blank sheet of paper. The student will transfer the strategy to a written story prompt.

Materials
Mnemonic chart, paper, pencils, student folder, story starters: Rock & Cassie, self-instructions sheet, student graphs

Set the Context for Student Learning
- Test to see if the student remembers POW and the story parts reminder: do it out loud to save time. It is essential that the student has memorized the strategy.
- Record and review transfer.

Develop the Strategy and Self-Regulation
Step One – Review Student Written Notes
• Remind the student that he/she won’t usually have a story parts reminder page with him/her when he/she has to write stories, so he/she can make his/her own notes on blank paper. If needed, help him/her with how to write down the reminder at the top of the page.

Step Two – Collaborative Writing/Support It
• Ask the student to get out his/her self-statements list. Put out the story starters: Rock and Cassie the Dog. Discuss – how is this different? Say, “What can we transfer – yes, POW + WWW still works!
• This time, the student should do as much as possible independently – help only if needed. The student makes notes on the paper he/she filled in. The student should go through each of the following processes and write his/her own story using his/her own notes.
• Say, “Remember that the first letter in POW is P – Pick my Idea.”
• Say, “The second letter in POW is O – ORGANIZE my NOTES. I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes. Review – what should my goal be? I want to write a good story – a good story has all seven parts, makes sense, and is fun for me to write and for others to read. After the student had generated notes for all the story parts say – “Remember to look back at my notes and see if I can add more notes for my story parts” – help him/her actually do this if necessary. Remind him/her to look for more ideas for good word choice or million dollar words – help him/her do this if necessary.
• Say, “The last letter in POW is W – Write and Say More.” Encourage and remind him/her 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 but try to let him/her do as much as he/she can alone. Encourage him/her to use other self-statements of his/her choice while he/she writes.

Step Three – Graph Performance
• Have the student read aloud and then graph his/her story. Ask the student to determine – does his/her story have all 7 parts – then fill in graph. Reinforce him/her for reaching 7.
• Graph the number of words written. Reinforce students for including more words than baseline stories.

Wrap – Up
• Have each student put his/her work and charts in his/her folder.
• Remind of POW and story parts reminder test again next time.
• If this lesson is to be repeated, remind him/her that he/she will fill in the transfer chart again next time.
Lesson Overview
The FIX and COPS strategies will be introduced in this lesson. WWW, What = 2, How = 2 will be re-introduced. The teacher and student will collaboratively locate missing story parts and mechanical errors in a story. The student will begin to learn the two strategies. The student will establish the concept of transfer.

Student Objectives
The student will identify missing story parts and mechanical errors in a story.

Materials
Mnemonic charts, story example with errors (Albert w/o revisions), WWW graphic organizers, pencils, scratch paper, red pen, student folder

Set the Context for Student Learning
Say, “I’m going to teach you some new tricks for writing. First, we’re going to learn a strategy, or trick, that good writers use to make their stories better.”

Develop the Strategy and Self-Regulation

Step One – Introduce FIX
• Put out the FIX + COPS mnemonic chart so that only FIX shows.
• Emphasize that FIX is a trick good writers often use for many things he/she writes.
• Go over the parts of FIX, discussing each (F = Find the problems; I = Identify what is wrong; X = eXercise the changes). Emphasize that he/she can remember FIX because it will help him/her to FIX their story.
• Practice FIX; turn the mnemonic chart over. Ask the student to explain what FIX stands for. Help as needed. Do this until you feel sure that he/she knows what FIX stands for.
• Discuss good stories (briefly) – ask the student, what makes a story good? Be sure to include (you add if he/she doesn’t say it):
  o Good stories are fun for me to write and fun for others to read
  o Good stories make sense and have several parts

Step Two – Introduce COPS
• Uncover COPS on the FIX + COPS mnemonic chart.
• Emphasize that COPS is a trick good writers often use for many things he/she writes.

• Go over the parts of COPS, discussing each (C = Capitalization, O = Overall appearance, P = Punctuation, S = Spelling).

• Practice COPS; turn the mnemonic chart over. Ask the student to explain what COPS stands for. Help as needed. Do this until you feel sure that he/she knows what COPS stands for.

Step Three – Re-introduce WWW, What = 2, How = 2

• Re-introduce WWW. Put out the POW+WWW mnemonic and say, “Let’s remember what the parts of a good story are.” Have the student look at the chart. Briefly discuss each W with the student. (Be sure to use the word “character” for Who, for When, ask the student to tell you “how does a person tell When in a story?” – Once upon a time… A long time ago… Yesterday… Wednesday afternoon at 4:00, and so on. Ask the student for examples of what might be Where in a story.

• Uncover What = 2. Have the student discuss each What. Get examples of how a writer might tell each.

• Uncover How = 2. Have the student discuss each How. Get examples of how a writer might tell each.

Step Four – Find Parts in a Story

• Say, “Now we’re going to read a story to find out if the writer used all of the parts of a good story and if they didn’t, we’re going to figure out how to FIX it.” (Leave out the mnemonic charts where the student can see them.)

• Lay out a WWW graphic organizer. Point out the story parts reminder (WWW, What = 2, How = 2) at the top, and review what it stands for.

• Give the student a copy of the story (Albert w/o revisions) ask the student to read along silently while you read the story out loud. Then read the story out loud again and tell him/her to raise his/her hand when he/she hears Who, When, or Where in the story. As he/she 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.

• Tell the student that he/she is now looking for the 2 Whats and 2 Hows. Briefly review what each means (be sure the student knows what the “goal” means for the first What question). Remind the student to raise his/her hand when he/she hears one in the story. Read the story from the beginning. Stop as he/she raises his/her hand; you write each What and each How in the appropriate space on the graphic organizer. DO NOT USE FULL SENTENCES – DO THIS IN NOTE FORM.

• Look at the graphic organizer with the student and identify the parts that the story did not have. Have the student identify what needs to be changed and tell you how they would change it.

Step Five – Find Mechanical Errors in a Story
• Say, “Now you’re going to read the story again and find problems with Capitalization, Overall appearance, Punctuation, and Spelling.” (Leave out the mnemonic chart where the student can see it.)
• Lay out a WWW graphic organizer. Point out the COPS reminder and review what it stands for.
• Have the student look at the story (Albert w/o revisions) and identify problems with Capitalization, Overall appearance, Punctuation, and Spelling.
• If the student does not identify all of the errors, help the student identify the errors and why they are errors.

Step Six – Practice Story Parts
• Practice Story Parts Reminder. Turn over the mnemonic chart and the students’ paper. Ask the student to tell you the “story parts reminder” (He/she should tell you: W-W-W; What =2; How = 2). Ask the student to write the reminder on scratch paper. If the student has trouble, turn chart back over and allow him/her to look. Keep doing this until the student can tell you the reminder and write it on paper from memory.
• Practice story parts to criterion. Ask the student to explain the parts. (Keep chart turned over, but allow the student to look at the W-W-W; What =2; How = 2 that he/she wrote out on scratch paper.) Help as needed. Do this until you feel sure that the student knows what all the parts are.

Step Seven – Practice COPS
• Practice COPS. Turn over the mnemonic chart and the students’ paper. Ask the student to tell you the “writing parts” (He/she should tell you: COPS). Ask the student to write the reminder on scratch paper. If the student has trouble, turn chart back over and allow him/her to look. Keep doing this until the student can tell you the reminder and write it on paper from memory.
• Practice COPS to criterion. Ask the student to explain the parts. (Keep chart turned over, but allow the student to look at the COPS that he/she wrote out on scratch paper.) Help as needed. Do this until you feel sure that the student knows what all the parts are.

Step Eight – Establish Transfer
• Emphasize that you want him/her to use FIX, COPS, POW and WWW in all of his/her other classes where he/she can.
• Describe and discuss Goal 1 for next time: use all or parts of FIX, COPS, POW and/or WWW in other classes or for other writing tasks. Brainstorm together some classes or other writing tasks he/she could use FIX, COPS, POW and WWW for, being sure to note that we should use FIX and COPS with WWW whenever we use WWW. Other ideas could be: book reports, letters to friends, reports on special topics, writing for a school newsletter, writing about something that happened to you or a special event, and so on. Briefly note that for some tasks, like writing a report, all parts of the WWW trick might not be right to use – so what could we do? (Change WWW to fit the kind of report we need to write; don’t use all of WWW if it doesn’t make sense; WWW is in many reports).
Explain how we can use WWW when we are reading a story to make sure we understand/remember all the important parts of a story and we can use WWW when we are telling someone about a story that we read.

- Tell the student to report back to you on using all or any parts of FIX/COPS/POW/WWW next time. Show him/her his/her “I transferred my strategies” chart and explain that he/she will write down and put a star next to each time he/she tells you about using all or any part of the FIX/WWW outside of this class.
- Ask him/her to tell you what transfer means and make sure he/she has it.

Wrap-Up

- Announce test (no grade) next session. The student will come and write out FIX, COPS, and the story parts reminder and tell what they mean from memory. Have each student take his/her scratch paper with FIX, COPS and story parts reminder on it with him/her.
- Remind him/her that he/she will fill in the transfer chart next time.
- Give the student his/her own folder, and a copy of the story parts reminder chart. Have him/her put today’s work and his/her charts in his/her folder.

Lesson 2

Lesson Overview
The FIX + COPS strategies will be reviewed. The student will practice finding missing story parts and mechanical errors with another story. The student will also examine a story that he/she had previously written and look for missing story parts and mechanical errors.

Student Objectives
The student will orally state where he/she transferred either FIX or COPS. The student will identify missing parts and mechanical errors in a story.

Materials
Mnemonic chart, story example (Sly Fox w/o revisions), additional story example (The Tiger’s Whiskers w/o revisions), a story previously written by the student, WWW graphic organizer, transfer charts, pencil, scratch paper, red pen, student folder, student graphs

Set the Context for Student Learning
• Give the student a piece of scratch paper. Ask him/her to write down FIX then ask him/her then ask him/her what it stands for. If the student is having trouble remembering FIX, practice it.
• Ask him/her to write COPS on the scratch paper. If the student has trouble, be supportive and prompt as needed
• Ask what COPS stands for
• Ask him/her to either tell you or write down what POW and WWW, What=2, How=2 stands for.
• It is essential that the student memorize the reminder. If the student is having trouble with this, spend a few minutes practicing it. 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.

Review and record transfer
• Review the meaning of transfer briefly
• Ask the student to report back on using all or parts of FIX, COPS, POW and WWW in other classes or for other writing tasks. If necessary, brainstorm together again some classes or other writing tasks he/she could use FIX, COPS, POW and WWW for, being sure to note that we should use POW and FIX with WWW whenever we use WWW. Other writing tasks could be: book reports, letters to friends, reports on special topics, writing for a school newsletter, writing about something that happened to you or a special event, and so on. Briefly remind the student that for some tasks, like writing a report, all parts of the WWW trick might not be right to use – so what could we do? (Change WWW to fit the kind of report we need to write). Fill in the “I transferred my strategies” chart. Star each recorded item.

Develop the Strategy and Self-Regulation

Step One – Find Parts in a Second Story
• Do second story (Sly Fox w/o revisions). Leave out mnemonic chart. As before, remind the student to raise his/her hand when he/she hears a part. Ask the student to make a mark where each part goes on the chart.
• Look at the graphic organizer with the student and identify the parts that the story did not have. Have the student identify what needs to be changed and tell you how they would change it.

Step Two – Find COPS in a Second Story
• Do second story (Sly Fox w/o revisions). Leave out mnemonic chart. As before, have the student identify the problems with COPS.
• If the student does not identify all of the errors, help the student identify the errors and why they are errors.

Step Three – Find Story Parts and Mechanical Errors
If necessary, go through one more story example (*The Tiger’s Whiskers – w/o revisions*) and have the student verbally identify the story parts and mechanical errors.

Step Four – Establish Current Level of Performance

- Say, “Remember the story you wrote for me the other day? Pass out student’s previously written story.
- Tell the student to read his/her story to see which parts he/she has. (You need to have worked out ahead of time what parts he/she had and which ones he/she didn’t have).
- Briefly note with the student which parts he/she has and which parts he/she doesn’t.
- Note also that even though he/she has a part, we might be able to make that part better next time – this makes our story more fun to write and more fun to read. Discuss examples of how he/she could do each using either his/her stories or *Albert the Fish/Tiger’s Whiskers*
  - Can have more than 1 character
  - Can tell more about when and where
  - Can have more things happen (action)
  - Can tell more about characters’ feelings
  - Can have a neat ending
  - Can use good word choice (e.g., color words) or “million dollar words.”
  - Can use an interesting first sentence.

Step Five – Use COPS

- Provide the student with a red pen and tell him/her to read through their story to look for problems with COPS. (You need to have worked out ahead of time any errors with COPS).
- Briefly note errors with student and have him/her mark the errors on their story.

Step Six – Establish Current Level of Performance

- Provide student with their story rockets graph and have him/her fill in the graph for the number of parts he/she had in his/her final draft story. Be very positive; remind him/her that you are just now learning the trick of writing good stories.
- Explain goal – to write better stories. Remind the student that good stories are fun for me to write and others to read, have all 7 parts, that each part is well done, and that good stories make sense.
- Say, “Our goal is to have all of the parts and ‘better’ parts the next time we write a story.”
- Additionally, explain that good stories usually include lots of words with description (exciting words, million dollar words)
- Provide the student with their word rockets graph and have him/her fill in the graph for the number of words written on his/her final draft story. Be very positive, remind him/her that you are just now learning the trick of writing good stories.
Wrap-Up

- Have the student put papers from today’s work in a folder
- Remind him/her that he/she will fill in the transfer chart again next time.
- Remind of FIX, COPS, POW and WWW test again next time.

Lesson 3

Lesson Overview
The teacher will model using the FIX + WWW + COPS strategies for revising a story. Self-instructions as a self-regulation procedure will be established.

Student Objectives
The student will write the story revising reminders from memory. The student will listen to a teacher modeled lesson. The student will write a list of things he/she says to themselves when revising.

Materials
Mnemonic charts, WWW graphic organizer, previously written story, pencils, lined paper, red pen, student folders, blank graph

Set the Context for Student Learning

Test to see if the student remembers FIX, COPS, POW, and WWW. What = 2, How = 2. Do it out loud to save time. It is essential that the student memorize these. If the student is having trouble with this, spend a few minutes practicing it. Tell the student you will test him/her on it each day to make sure he/she has it.

Record and review transfer

Develop the Strategy and Self-Regulation

Step One – Find Story Parts
- If the student is still having trouble finding errors, do another story (Who Did Patrick’s Homework? – w/o revisions) out loud now.
- If necessary, do the other story above out loud to practice finding errors.

Step Two – Model FIX and COPS
- Lay out a copy of the FIX + COPS mnemonics. Explain and say, “Remember that the first letter in FIX is F – find the problems. Today we are going to practice
how to find the problems. To do this, we have to pay close attention to what we wrote.”

• Say, “Look at your story from the other day.” Explain to the student the things that you say to yourself when you look back on your story to make it better. Be sure to say each of these examples: “I have to concentrate.” “Take my time, sometimes problems are hard to find.” “Does anything look wrong?” Explain: “The things you say to yourself help you to work.” Note that it’s not always necessary to think out loud, you can think these in your head.

• Say, “the second letter in FIX is I – Identify what is wrong. Once I find a problem, I need to figure out exactly what is wrong so that I can fix it. I am going to fix a story today with your help – I will use my story parts reminder and COPS reminder to help me. I will use this red pen to make any corrections. You will do this too the next time you write a story.” Briefly review – point at the 7 parts of a good story on the graphic. Say, “What should my goal be? I want to write a good story that has all seven parts, makes sense, and is fun for me to write and for others to read.”

• Keep the POW + WWW, What = 2, How = 2 and FIX + COPS charts out.

• Model the entire process; revising an actual story as you go. Use problem definition, planning, self-evaluation, and self-reinforcement self-statements as you go. Follow the steps and statements below, filling in ad lib statements where indicated. Ask the student to help you find problems, but be sure you are in charge of the process. Be sure that you are not only using COPS but also adding details and generally making the story better. Go through the first time looking for how to improve story parts, and the second time for mechanical errors.

• Say, “What is it I have to do? I have to write a good story that is easy for others to read. A good story makes sense and has all 7 parts. Remember F in FIX – find the problems – let myself concentrate.” (Pause) “Take my time, sometimes problems are hard to find.” (Pause) Mark each problem with a red pen but do not fix it yet.

“Now I can do I in FIX – Identify what is wrong. I need to figure out what exactly is wrong and why it is wrong.” Talk through multiple examples. Be positive. “Yeah, that’s right – that’s what is wrong!” Make appropriate marks on the page to indicate what needs to be changed.

“Now I can do X in FIX – eXercise the changes. I can re-write my story including all of the changes so that my story is exactly how I want it.” Talk yourself through writing the story, the student can help. Don’t hurry but don’t slow it down unnaturally. Use coping statements. 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.”

Step Three – Self-Statements

• 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
3) things you said to yourself when you finished (Tell him/her if he/she can’t remember and discuss each as you go).
   - What to say to get started. 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 the student’s own words.
   - Things to say while you work: self-evaluation, coping, self-reinforcement, and any others he/she likes (in the student’s own words).
   - Things to say when you’re finished (in the student’s own words).
   - Note that we don’t always have to think these things out loud; once we learn, we can think in our heads or whisper to ourselves.

Step Four – Model Graphing Success
- Graph the number of story parts included during the modeled lesson.
- Graph the number of words written for the story modeled during the lesson. Reinforce students for including more words than baseline stories.

Wrap-Up
- Have the student put all work for the day in his/her folder.
- Remind the student that he/she will fill in the transfer chart again next time.
- Remind the student of POW, WWW, What=2, How=2, FIX and COPS test again next time.

Lesson 4

Lesson Overview
The student and teacher will collaboratively revise a story using WWW, What = 2, How = 2, FIX and COPS. The teacher will need to provide the support needed to insure that the student is successful in revising a story that makes sense and is mechanically acceptable. The teacher should reinforce the students’ use of self-instructions, good word choice, a story that makes sense, and “million dollar” words.

Student Objectives
The student will write POW, WWW, What = 2, How = 2, FIX and COPS from memory and be able to state what each part stands for. The student will collaboratively revise a story.

Materials
Mnemonic charts, WWW graphic organizer, previously written story, paper, pencils, red pen, student folder, self-instructions sheet, student graphs
Set the Context for Student Learning

Test to see if the student remembers POW, WWW, What = 2, How = 2, FIX and COPS. Do it out loud to save time. It is essential that the student memorize these. If the student is having trouble with this, spend a few minutes practicing it. Tell the student you will test him/her on it each day to make sure he/she has it.

Record and review transfer

Develop the Strategy and Self-Regulation

Step One – Collaborative Revising

- Support It. Give the student a graphic organizer and a FIX + COPS mnemonic chart and the story he/she wrote during the previous evaluation session. This time let the student lead as much as possible, but prompt and help as much as needed. The student should find the errors, identify what is wrong and re-write the story. Go through each of the following processes:
  1. Say, “Remember that the first letter in FIX is F – Find the problems.” Help the student if he/she is having difficulty finding problems.
  2. Say, “The second letter in FIX is I – Identify what is wrong. I will use my story parts reminder and COPS to help me. Review – “What should my goal be? I want to write a good story that is easy for my reader to read – a good story has all seven parts, makes sense, is fun for me to write and for others to read.” After the student has made marks to change all of the problems that he/she found, say “Remember to look back and make sure that your story makes sense and is detailed.” Help him/her actually do this. Remind him/her also to look for more ideas for good word choice or million dollar words – help him/her do this.
  3. Say, “The last letter in FIX is X – eXercise the changes.” Help the student remember to include changes in the final draft. Encourage him/her to use self-statements while he/she writes. If the student does not finish writing today, he/she can continue at the next lesson.

Step Two – Graph

- Have the student graph the number of story parts.
- Have the student graph the number of words written. Reinforce student for including more words than baseline stories.

Wrap-Up

- Have the student put his/her work and charts in his/her folder
- Remind the student that he/she will fill in the transfer chart again next time.
- Remind the student of the POW, WWW, What = 2, How = 2, FIX and COPS test again next time.
Lesson 5

Lesson Overview
The student will continue to review POW, WWW, What = 2, How = 2, FIX and COPS. It is critical that the teacher provides the student the assistance needed to be successful – Support It. The student will be weaned off the graphic organizer and will begin to learn how to make his/her own notes.

Student Objectives
The student will write story parts and story revising reminders and state orally what each reminder part represents. The student will revise a previously written story.

Materials
Mnemonic charts, WWW graphic organizer, previously written story, pencils, lined paper, red pen, student folder, self-instructions sheet, student’s graph

Set the Context for Student Learning
Test to see if the student remembers POW, WWW, What =2, How = 2, FIX and COPS. Do it out loud to save time. It is essential that the student memorize these. If the student is having trouble with this, spend a few minutes practicing it. Tell the student you will test him/her on it each day to make sure he/she has it.

Record and review transfer

Develop the Strategy and Self-Regulation

Step One – Wean mnemonics
- Explain to the student that he/she won’t usually have a story parts reminder or a revising reminder page with him/her when he/she has to write stories, so he/she can make his/her own notes of the reminders on blank paper. Show him/her how to write down the reminder on the page.
- Support It. Give the student a graphic organizer and a FIX + COPS mnemonic chart and the story he/she wrote during the previous evaluation session. Let the student lead as much as possible, but prompt and help as much as needed. Go through each of the following processes:
  Say, “Remember that the first letter in FIX is F – Find the problems.” Help the student find the problems.

Step Two – Collaborative Revising
Say, “The second letter in FIX is I – Identify what is wrong. I will use my story parts reminder and COPS to help me. Review – “What should my goal be? I want to write a good story that is easy for my reader to read – a good story has all seven parts, makes sense, is fun for me to write and for others to read.” After the student has made marks to
change all of the problems that he/she found, say “Remember to look back and make sure
that your story makes sense and is detailed. Help him/her actually do this. Remind
him/her also to look for more ideas for good word choice or million dollar words – help
him/her do this.

Say, “The last letter in FIX is X – eXercise the changes.” Help the student remember to
include changes in the final draft. Encourage him/her to use self-statements while he/she
writes. If the student does not finish writing today, he/she can continue at the next
lesson.

Step Three – Graph Progress

• Have the student graph the number of words written. Reinforce students for
including more words than baseline stories.

Wrap-Up

• Have the student put his/her work and charts in his/her folder
• If this lesson is to be repeated, remind the student that he/she will fill in the
transfer chart again next time.
• If this lesson is to be repeated, remind the student of the POW, WWW, What = 2,
How = 2, FIX and COPS test again next time.
Appendix D

Writing Attitude Survey
Directions for use

The Writing Attitude Survey provides a quick indication of student attitudes toward writing. It consists of 28 items and can be administered to an entire classroom in about 20 minutes. Each item presents a brief, simply worded statement about writing, followed by four pictures of Garfield. Each pose is designed to depict a different emotional state, ranging from very positive to very negative.

Administration

Begin by telling students that you wish to find out how they feel about writing. Emphasize that this is not a test and that there are no right answers. Encourage sincerity.

Distribute the survey forms and, if you wish to monitor the attitudes of specific students, ask them to write their names in the space at the top. Hold up a copy of the survey so that the students can see the first page. Point to the picture of Garfield at the far left of the first item. Ask the students to look at this same picture on their own survey form. Discuss with them the mood Garfield seems to be in (very happy). Then move to the next picture and again discuss Garfield’s mood (this time, somewhat happy). In the same way, move to the third and fourth pictures and talk about Garfield’s moods—somewhat upset and very upset.

Explain that the survey contains some statements about writing and that the students should think about how they feel about each statement. They should then circle the picture of Garfield that is closest to their own feelings. (Emphasize that the students should respond according to their own feelings, not as Garfield might respond!) In the first and second grades read each item aloud slowly and distinctly, then read it a second time while students are thinking. Be sure to read the item number and to remind students of page numbers when new pages are reached.

In Grades 3 and above, monitor students while they are completing this survey. It is not necessary for the teacher to read the items aloud to students, unless the teacher feels it is necessary for newer or struggling readers.

Teachers should review the items prior to the administration of the survey to identify any words students may need defined to eliminate misunderstanding during completion of the instrument.

Scoring

To score the survey, count four points for each leftmost (very happy) Garfield circled, three points for the next Garfield to the right (somewhat happy), two points for the next Garfield to the right (somewhat upset), and one point for the rightmost Garfield (very upset). The individual scores for each question should be totaled to reach a raw score.

Interpretation

The scores should first be recorded on the scoring sheet. The scores can be interpreted in two ways. An informal approach would be to look at where the raw score falls related to the total possible points of 112. If the raw score is approximately 70, the score would fall midway between the somewhat happy and somewhat upset Garfields, indicating the student has an indifferent attitude toward writing. The formal approach involves converting the raw score to a percentile rank by using Table 1. The raw score should be found on the left-hand side of the table and matched to the percentile rank in the appropriate grade-level column.

Measuring attitude toward writing
Appendix E

AIMSweb Story Starters

1. I couldn’t fall asleep in my tent. I heard this noise outside and …
2. My father sold his store last year and my whole family …
3. All during the day I was nervous. I ran home at 3:00. When I got home …
4. I was fishing in the river when I felt a terrific tug on the line and …
5. One sunny morning, some kids biked to the lake for a picnic lunch. After they ate, the …
6. As I got up from my chair, I turned around and noticed all the smoke in the room …
7. Every day after school my friends and I would go to the playground and …
8. The cave was dark and here were a lot of twists and turns and funny corners. I was scared but kept going and …
9. A young deer stepped into the river and bent his head down to drink. From where I was standing, I …
10. The long freight train pulled into the station and …
11. The two space invaders stepped out of their spaceship and …
12. A police officer stopped the driver for speeding and …
13. The children were rehearsing for the school play and …
14. The noise was getting louder and louder …
15. I opened the front door very carefully and …
16. Yesterday the children went for a picnic and …
17. As the jet flew over the mountains …
18. The rocket ship landed on the moon and …
19. The mother and her daughter were walking in the park and …
20. It was a hot, dry day and I had been walking for hours without food or water when …
21. We were paddling on a beautiful lake in the woods when our canoe tipped over and …
22. The day was warm and sunny and we were the only ones to see …
23. I waved out the window at my family as …
24. “Up we go,” said my friend, and …
25. Maybe animals aren’t supposed to talk, but …
26. One day last summer, the only way I could walk was backward and …
27. I once had a magic pencil and …
28. The other day my father took me with him when …
29. Just as we got into our seats, the …
30. Strange footprints were seen in the sand and …
31. The phone call was mysterious and …
32. Due to the serious nature of this mission, you …
33. I looked around the space ship and …
34. The airport control tower was busy when …
35. I stepped into the time machine and …
36. The roaring snow storm howled and …
37. I was shipwrecked on a deserted island when …
38. The monster was sighted and …
39. The river was raging and it was clear that …
40. He crossed his fingers and opened the box. Suddenly …
41. She woke from a sound sleep when something …
42. Walking slowly down the stairs, the boy felt the hair stand up on the back of his neck and …
43. They couldn’t believe it was happening. The door was opening very slowly and …
44. As he opened the door the …
45. My heart seemed to stop beating as I opened the door …
46. I decided to follow the huge footprints along the trail, as I was …
47. The day was dark and misty as …
48. Working madly in my laboratory, I suddenly realized that my magic formula …
49. If I were to make a TV show, it would be about …
50. The car drove off the road and …
51. The bear attacked my dog and …
52. When the boat went out of control, I …
53. I was in the middle of the lake when …
54. I was riding on an elevator when…
55. My friend fell off the horse and …
56. I was sleeping soundly when …
57. I was picking berries when …
58. My 2-year-old brother found a magic marker and …
59. I would like to be invisible because …
60. One day I went for an airplane ride and …
61. When I was in the Olympics, I …
62. It was dark when I saw it moving. It …
63. My friend and I were walking by an old deserted house and …
64. On Tuesday, a big wind came up and …
65. I was chewing a piece of bubble gum when …
66. I saw colored lights in the sky and …
67. In spite of my broken arm I knew I had to …
68. There was the sound of the tent fabric ripping and a large paw …
69. Out of the darkness came the sound of large flapping wings and …
70. The sun was just coming up over the horizon and then, in the middle of the lake …
71. One day my mom surprised me and brought home a …
72. I was running on the sandy beach and the gigantic waves …
73. A person of super-human strength landed in the middle of town and …
74. A pirate from the high seas …
75. On the deserted island …
76. One night in the abandoned graveyard …
77. On another planet …
78. In another galaxy far, far, away …
79. The young person was using the hang glider …
80. In an imaginary world, the children believed …
81. Being chased by a shark wasn’t fun. I had to …
82. Joining a parade sounded like fun and …
83. Going on a camping trip with the scouts meant …
84. The working mother hurried home to …
85. The bus driver had a bus full of children when it drove into the mysterious fog …
86. The driver changed a flat tire and …
87. He accidentally crashed his car and …
88. The teacher looked at the book when …
89. After arresting the robber, the policeman found that the hadn’t …
90. The class was trying to photograph the moon when they saw it come out of the sky. It was going …
91. The cat climbed the telephone pole and …
92. The basketball player put on his special shoes and jumped high into the air and …
93. I was playing outside when a spaceship landed and …
94. Yesterday, a monkey climbed through the window at school and …
Appendix F

CHILDREN’S INTERVENTION RATING PROFILE

We are interested in learning your ideas about the program that you are now finishing. Below are some sentences. You may or may not agree with the sentences. For each one, please circle the number that describes how much you agree or disagree with the statement. Use the following guide:

1 = I agree very much
2 = I sort of agree
3 = I don’t agree or disagree
4 = I sort of disagree
5 = I disagree very much

1. The writing program was fair.  1 2 3 4 5
2. The tutor was too harsh (mean).  1 2 3 4 5
3. The writing program might cause problems with my friends.  1 2 3 4 5
4. There are better ways to handle writing problems.  1 2 3 4 5
5. The writing program would be good for other children.  1 2 3 4 5
6. I like the writing program used to handle my writing problem.  1 2 3 4 5
7. The writing program would help other children do better in school.  1 2 3 4 5
Appendix G

POW

Pick my idea
Organize my notes
Write and say more

__________________________

_____

W-W-W  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?
FIX

Find the problems
Identify what is wrong
exercise the changes

COPS

capitalization
overall appearance
punctuation
spelling
POW + WWW

Albert the Fish

On a warm, sunny day two years ago (When), there was a big 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 good 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.
Albert the Fish

there was a big 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 good 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.
Once upon a time (When), a sly fox (Who) lived in a den in the forest (Where). Every day the fox looked for food. He often wished for something different to eat (What he wants). He thought of rats and bugs he usually ate. Somewhere in the forest there had to be something more interesting to eat.

Suddenly, the fox saw a robin up in a tree eating just what he wanted – a piece of cheese (What he wants). The fox began to climb the tree. Just as he was getting close, the bird flew to another tree. The fox’s mouth was watering as he stared up at the cheese. He did not want to eat a rat, when he could have cheese. “That bird will fly away again if I try
climbing the tree!” he thought, “But I have to have that cheese.”

Then the fox decided to try to trick the robin into giving up the cheese. “Mrs. Robin,” says the fox. “I have heard that your voice is the best in the forest. I would love to hear one of your songs for myself.” The proud robin lifted her head to sing, but when she opened her mouth the piece of cheese fell to the ground. The fox laughed as he looked up at the bird (What happened). He was glad that it had been so easy to fool the robin (Feelings).

So the fox ate the cheese, while the robin went hungry. Then the fox went on his way looking for
dessert (Ending). He was proud of himself for being smarter than the robin (Feelings).
The Sly Fox

once upon a time, a sly fox lived in a den in the forest. Every day the fox looked for food. He often wished for something different to eat. He thought of rats and bugs he usually ate. Somewhere in the forest there had to be something more interesting to eat.

Suddenly, the fox saw a robin up in a tree eating just what he wanted – a piece of cheese. The fox began to climb the tree. Just as he was getting close, the bird flew to another tree. The fox’s mouth was watering as he stared up at the cheese. He did not want to eat a rat, when he could
have cheese. “That bird will fly away again if I try climbing the tree!” he thought, “But I have to have that cheese.”

then the fox decided to try to trick the robin into giving up the cheese. “Mrs. Robin,” says the fox. “I have heard that your voice is the best in the forest. I would love to hear one of your songs for myself.” The proud robin lifted her head to sing, but when she opened her mouth the piece of cheese fell to the ground. The fox laughed as he looked up at the bird.

So the fox ate the cheese, while the robin went hungry. Then the fox went on his way looking for dessert.
The Tiger’s Whiskers

A long time ago (When), there was a woman who lived with her son (Who) in the forest (Where). One day, her son got very sick. The woman was very sad (Feelings) and wanted her son to get well (What she wanted to happen). She tried everything she could think of, but nothing worked. At last she remembered that medicine made from a tiger’s whisker would help him get well. So the woman set out to get a tiger’s whisker. She went to a tiger’s cave and put food in front of the cave and sang soft music. The tiger came out, at the food, and thanked the woman for the music and food. The woman quickly cut off one of his whiskers and ran home (What happened). The
woman’s son got well (Ending) and the woman was very happy (Feeling).
The Tiger’s Whiskers

there was a woman who lived with her son. One day, her son got very sick. The woman was very sad and wanted her son to get well. She tried everything she could think of, but nothing worked. At last, she remembered that medicine made from a tiger’s whisker would help him get well. So the woman set out to get a tiger’s whisker. She went to a tiger’s cave and put food in front of the cave and sang soft music. The tiger came out, ate the food, and thanked the woman for the music and food. The woman quickly cut off one of his whiskers and ran home. The woman’s son got well and the woman was very happy.
POW + W-W-W What=2 How=2

WHO

WHEN

WHERE

WHAT

WHAT

HOW

HOW
I Transferred My Strategy!
Appendix H

CBM Reading Instructions

Say these specific directions to the student (from DIBELS):

*Please read this* (point) *out loud. If you get stuck, I will tell you the word so you can keep reading. Start here* (point to the first word of the passage). *Begin.*

Start your stopwatch when the student says the first word of the passage.

At the end of 1 minute, place a bracket ( ] ) after the last word provided by the student, stop and reset the stopwatch, and say, "*Stop.***" (remove the passage)
Appendix I

Script for Story Starter Probes

**Story Starter Screening Administration Instructions:**

Students should be moved to a separate, quiet room for the assessment.

1. Give the student the paper with the story starter written at the top. Turn the page over to the blank side so the student is not exposed to the story starter.

2. Give them the following instructions:
   
   “I want you to write a story. I am going to read the first few words of the story to you first and then I want you to write a story about what happens. Do your best work. If you don’t know how to spell a word, you should guess. Use the words written at the top of your paper as your first sentence. Are there any questions?”

   Turn your paper over. “Your story will start (read story starter.)”

**Story Starter Post-Screening Instructions:**

1. Give the student their previously written story.

2. Give them the following instructions:
   
   “This is the story you wrote that starts with _____ (story starter). Look at your story and think about what you have learned about writing. To make your story better, make changes with this colored pencil. Do your best work. If you don’t know how to spell a word, you should guess. Are there any questions?”
Appendix J

Procedural Checklist

Student _____________
Date________

Story Starter Probes

| Read the story starter to the student. |
| Tell the student to plan their story. |
| Remind the student to include all the parts of a good story. |
| Tell the student to write as much as he/she can. |
| Tell the student that there is no time limit. |
| Tell the student to tell you when they are done writing. |

Planning Instruction Lesson 1

Say, “I’m going to teach you some of the tricks for writing. First, we’re going to learn a strategy, or trick, that good writers use when he/she write. Then, we are going to learn the trick, or strategy, for writing good stories.”

Emphasize POW is a trick good writers often use for many things he/she write.

Go over the parts of POW, discussing each. (P=Pick my idea; O=Organize my notes; W=Write and say more).

Practice POW; turn the mnemonic chart over. Ask the student to explain what POW stands for. Help as needed.

Discuss good stories (briefly) – ask the student, what makes a story good? Be sure to include (you add if he/she doesn’t say it):
• Good stories are fun for me to write and fun for others to read.
• Good stories make sense and have several parts – we will learn a trick for remembering the parts of a good story.

Introduce WWW – “Let’s find out what the parts of a good story are.” Have the student look at the chart. Briefly discuss each W. (Be sure to use the word “character” for Who, for When, ask the student to tell you “how does a person tell When in a story?” – Once upon a time… A long time ago… Yesterday… Wednesday afternoon at 4:00, and so on. Ask the student for examples of what might be Where in a story.

Uncover What=2. Explain and briefly discuss each What. Get examples of how a writer might tell each.

Uncover How=2. Explain and briefly discuss each How. Get examples of how a writer might tell each.

Say, “Now we’re going to read a story to find out if the writer used all of the parts of a good story.”

Ask the student to read along silently while you read the story out loud.
<table>
<thead>
<tr>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read the story out loud again and tell him/her to raise his/her hand when he/she hears Who, When, or Where in the story.</td>
</tr>
<tr>
<td>Tell the student that he/she is now looking for the 2 Whats and 2 Hows. Briefly review what each means. Remind him/her to raise his/her hand when he/she hears one in the story. Read the story from the beginning.</td>
</tr>
<tr>
<td>Ask the student to tell you the “story parts reminder.” Ask the student to write the reminder on scratch paper.</td>
</tr>
<tr>
<td>Do second story (<em>Sly Fox</em>). Remind the student to raise his/her hand when he/she hears a part.</td>
</tr>
<tr>
<td>Emphasize that you want him/her to use POW and WWW in all of his/her other classes where he/she can.</td>
</tr>
<tr>
<td>Brainstorm together some classes or other writing tasks he/she could use both POW and WWW for, being sure to note that we should use POW with WWW whenever we use WWW.</td>
</tr>
<tr>
<td>Tell the student to report back to you on using all or any parts of POW/WWW next time.</td>
</tr>
<tr>
<td>Announce test (no grade) next session.</td>
</tr>
<tr>
<td>Remind him/her that he/she will fill in the transfer chart next time.</td>
</tr>
</tbody>
</table>

**Planning Instruction Lesson 2**

<table>
<thead>
<tr>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask the student to write down POW then ask him/her what it stands for.</td>
</tr>
<tr>
<td>Ask the student to write WWW, What=2, How=2 on the scratch paper.</td>
</tr>
<tr>
<td>Ask the student what WWW, What=2, How=2 stands for.</td>
</tr>
<tr>
<td>Ask the student to report back on using all or parts of POW and/or WWW in other classes or for other writing tasks.</td>
</tr>
<tr>
<td>Briefly remind the student that for some tasks, like writing a report, all of the WWW trick might not be right to use – so what could we do? (Change WWW to fit the kind of report we need to write).</td>
</tr>
<tr>
<td>Tell the student to read his/her story and see which parts he/she has.</td>
</tr>
<tr>
<td>Note also that even though we have a part, we might be able to make that part better next time.</td>
</tr>
<tr>
<td>Introduce story rockets graph.</td>
</tr>
<tr>
<td>Explain goal – to write better stories. Remind him/her that good stories are fun for me to write and for others to read, have all 7 parts, that each part is well done, and that good stories make sense.</td>
</tr>
<tr>
<td>Say, “Our goal is to have all of the parts and ‘better’ parts the next time we write a story.”</td>
</tr>
<tr>
<td>Explain that good stories usually include lots of words with description (exciting words, million dollar words)</td>
</tr>
<tr>
<td>Introduce the word rockets graph.</td>
</tr>
<tr>
<td>Remind him/her that he/she will fill in the transfer chart again next time.</td>
</tr>
<tr>
<td>Remind of POW and WWW, What=2, How=2 test again next time.</td>
</tr>
</tbody>
</table>
Planning Instruction Lesson 3

<table>
<thead>
<tr>
<th>Test to see if the student remembers POW and WWW, What=2, How=2. Do this out loud.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record and review transfer.</td>
</tr>
<tr>
<td>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 good story parts. To do this we have to be creative, we have to think free.”</td>
</tr>
<tr>
<td>Say, “Look at the turtle practice picture.” Explain to the student the things that you say to yourself when you want to think of good story ideas of parts. Be sure to say each of these examples:</td>
</tr>
<tr>
<td>• “I have to let my mind be free.”</td>
</tr>
<tr>
<td>• “Take my time, a good idea will come to me.”</td>
</tr>
<tr>
<td>• “Think of new, fun ideas.”</td>
</tr>
<tr>
<td>• “What ideas for parts do I see in this picture?”</td>
</tr>
<tr>
<td>• Explain: ‘The things you say to yourself help you to work.’</td>
</tr>
<tr>
<td>Note that it’s not always necessary to think out loud, you can think these things in your head.</td>
</tr>
<tr>
<td>Say, “the second letter in POW is O – ORGANIZE my NOTES. I am going to write a story today with your help – I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes. You will do this too the next time you write a story.”</td>
</tr>
<tr>
<td>Say, “What should my goal be? I want to write a good story – a good story has all seven parts, makes sense, and is fun for me to write and for others to read.”</td>
</tr>
<tr>
<td>Say, “What is it I have to do? I have to write a good story. A good story makes sense and has all 7 parts. Remember P in POW – pick my idea – let my mind be free.” (Pause) “Take my time, a good story idea and good parts will come to me.” (Pause)</td>
</tr>
<tr>
<td>Say, “Now I can do O in POW – Organize my Notes. I can write down a story part idea for each part.”</td>
</tr>
<tr>
<td>Say, “Now I can do W in POW – write and say more. I can write my story and think of more good ideas or million dollar words as I write.”</td>
</tr>
<tr>
<td>Talk through writing the story.</td>
</tr>
<tr>
<td>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 3) things you said to yourself when you finished.</td>
</tr>
<tr>
<td>Graph the story written during the modeled lesson.</td>
</tr>
<tr>
<td>Graph the number of words written.</td>
</tr>
<tr>
<td>Remind the student that he/she will fill in the transfer chart again next time.</td>
</tr>
<tr>
<td>Remind the student of POW + WWW, What=2, How=2 test again next time.</td>
</tr>
</tbody>
</table>

Planning Instruction Lesson 4
<table>
<thead>
<tr>
<th>Test to see if the student remembers POW and WWW, What=2, How=2. Do this out loud.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record and review transfer.</td>
</tr>
<tr>
<td>Say, “Remember that the first letter in POW is P – PICK my IDEA.” Help student get an idea.</td>
</tr>
<tr>
<td>Say, “The second letter in POW is O – ORGANIZE my NOTES. I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes.”</td>
</tr>
<tr>
<td>Review – “What should my goal be? I 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.”</td>
</tr>
<tr>
<td>After the student has generated notes for all the story parts, say – “Remember to look back at my notes and see if I can add more notes for my story parts.”</td>
</tr>
<tr>
<td>Encourage and remind him/her 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.”</td>
</tr>
<tr>
<td>Have the student graph his/her story, Graph the number of words written.</td>
</tr>
<tr>
<td>Remind the student that he/she will fill in the transfer chart again next time.</td>
</tr>
<tr>
<td>Remind the student of POW + WWW, What=2, How=2 test again next time.</td>
</tr>
</tbody>
</table>

Planning Instruction Lesson 5

<table>
<thead>
<tr>
<th>Test to see if the student remembers POW and WWW, What=2, How=2. Do this out loud.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record and review transfer.</td>
</tr>
<tr>
<td>Explain to the student that he/she won’t usually have a story parts reminder page with him/her when he/she has to write stories, so he/she can make his/her own notes on blank paper. Show him/her how to write down the reminder at the top of the page.</td>
</tr>
<tr>
<td>Say, “Remember that the first letter in POW is P = Pick my Idea” Help the student get a plan.</td>
</tr>
<tr>
<td>Say, “The second letter in POW is O – ORGANIZE my NOTES. I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes.”</td>
</tr>
<tr>
<td>Review – “What should my goal be? I 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.”</td>
</tr>
<tr>
<td>After the student has generated notes for all the story parts, say – “Remember to look back at my notes and see if I can add more notes for my story parts”</td>
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</tbody>
</table>
| Encourage and remind him/her to start by saying “What is it I have to do
<table>
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<th>Planning Instruction Lesson 6</th>
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<td>Test to see if the student remembers POW and WWW, What=2, How=2. Do this out loud.</td>
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<td>Say, “Remember that the first letter in POW is P – Pick my Idea.”</td>
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<td>Say, “The second letter in POW is O – ORGANIZE my NOTES. I will use my story parts reminder to help me. I will use this page to make my notes and organize my notes.”</td>
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<td>Review – “What should my goal be? I 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.”</td>
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<td>After the student has generated notes for all the story parts, say – “Remember to look back at my notes and see if I can add more notes for my story parts.”</td>
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<td>Encourage and remind him/her 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.”</td>
</tr>
<tr>
<td>Have the student read aloud and graph his/her story,</td>
</tr>
<tr>
<td>Graph the number of words written.</td>
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<td>Remind the student that he/she will fill in the transfer chart again next time.</td>
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<td>Remind the student of POW + WWW, What=2, How=2 test again next time.</td>
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<th>Planning and Revising Instruction Lesson 1</th>
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<tbody>
<tr>
<td>Say, “I’m going to teach you some new tricks for writing. First, we’re going to learn a strategy, or trick, that good writers use to make their stories better.”</td>
</tr>
<tr>
<td>Go over the parts of FIX, discussing each (F = Find the problems; I = Identify what is wrong; X = eXercise the changes).</td>
</tr>
</tbody>
</table>
Practice FIX.

Discuss good stories (briefly) – ask the student, what makes a story good? Be sure to include (you add if he/she doesn’t say it):
- Good stories are fun for me to write and fun for others to read
- Good stories make sense and have several parts

Go over the parts of COPS, discussing each (C = Capitalization, O = Overall appearance, P = Punctuation, S = Spelling).

Practice COPS.

Re-introduce WWW, What=2, How=2 – go through each of the parts.

Say, “Now we’re going to read a story to find out if the writer used all of the parts of a good story and if they didn’t, we’re going to figure out how to FIX it.”

Ask the student to read along silently while you read the story out loud.

Read the story out loud again and tell him/her to raise his/her hand when he/she hears Who, When, or Where in the story.

Tell the student that he/she is now looking for the 2 Whats and 2 Hows. Briefly review what each means.

Collaboratively identify the parts that the story did not have. Have the student identify what needs to be changed and tell you how they would change it.

Say, “Now you’re going to read the story again and find problems with Capitalization, Overall appearance, Punctuation, and Spelling.”

Have the student look at the story (Albert w/o revisions) and identify problems with Capitalization, Overall appearance, Punctuation, and Spelling.

If the student does not identify all of the errors, help the student identify the errors and why they are errors.

Practice Story Parts Reminder.

Practice COPS.

Emphasize that you want him/her to use FIX, COPS, POW and WWW in all of his/her other classes where he/she can.

Describe and discuss Goal 1 for next time: use all or parts of FIX, COPS, POW and/or WWW in other classes or for other writing tasks.

Announce test (no grade) next session.

Remind him/her that he/she will fill in the transfer chart next time.

Planning and Revising Instruction Lesson 2

Give the student a piece of scratch paper. Ask him/her to write down FIX then ask him/her what it stands for.

Ask him/her to write COPS on the scratch paper. Ask him/her what COPS stands for.

Ask him/her to either tell you or write down what POW and WWW, What=2, How=2 stands for.
Ask the student to report back on using all or parts of FIX, COPS, POW and WWW in other classes or for other writing tasks.

Do second story (*Sly Fox w/o revisions*). As before, remind the student to raise his/her hand when he/she hears a part.

Collaboratively identify the parts that the story did not have. Have the student identify what needs to be changed and tell you how they would change it.

Have the student identify the problems with COPS.

Tell the student to read his/her own story to see which parts he/she has.

Briefly note with the student which parts he/she has and which parts he/she doesn’t.

Note also that even though he/she has a part, we might be able to make that part better next time.

Provide the student with a red pen and tell him/her to read through their story to look for problems with COPS.

Briefly note errors with student and have him/her mark the errors on their story.

Provide student with their story rockets graph and have him/her fill in the graph for the number of parts he/she had in his/her story.

Provide the student with their word rockets graph and have him/her fill in the graph for the number of words written on his/her final draft story.

Remind of POW, WWW, FIX, COPS test next session.

Remind him/her that he/she will fill in the transfer chart next time.

### Planning and Revising Instruction Lesson 3

Test to see if the student remembers POW, WWW, What=2, How=2, FIX and COPS. Do this out loud.

Record and review transfer.

Say, “Remember that the first letter in FIX is F – find the problems. Today we are going to practice how to find the problems. To do this, we have to pay close attention to what we wrote.”

Explain to the student the things that you say to yourself when you look back on your story to make it better. Be sure to say each of these examples:

- “I have to concentrate.”
- “Take my time, sometimes problems are hard to find.”
- “Does anything look wrong?”

Say, “the second letter in FIX is I – Identify what is wrong. Once I find a problem, I need to figure out exactly what is wrong so that I can fix it. I am going to fix a story today with your help – I will use my story parts reminder and COPS reminder to help me. I will use this red pen to make any corrections. You will do this too the next time you write a story.”

Say, “What should my goal be? I want to write a good story that has all seven parts, makes sense, and is fun for me to write and for others to read.”
**Planning and Revising Instruction Lesson 4**

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<td>After the student has made marks to change all of the problems that he/she found, say “Remember to look back and make sure that your story makes sense and is detailed.”</td>
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<td>Say, “The last letter in FIX is X – eXercise the changes.”</td>
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<td>Have the student graph the number of story parts.</td>
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