

THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT
FOR PERSUASIVE WRITING ON THE PLANNING AND WRITTEN LANGUAGE
PERFORMANCE OF HIGH SCHOOL
STUDENTS WITH DISABILITIES

by

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DEDICATION

This is dedicated to my daughters Jesse and Carley and my partner David who all gave unwavering support and encouragement every step of this journey. You all believed in me when I had doubts, helping me to see the path ahead. David, you were my rock, always giving me the space to grow and the courage to expand my horizons through this journey, always having faith in my ability. You all were so patient and steady with your love and I will always be grateful.

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“Dare the difference.” *Christine Lagarde*

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ABSTRACT

THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT ON THE PLANNING AND WRITING PERFORMANCE OF HIGH SCHOOL STUDENTS WITH DISABILITIES

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This study examined the use of Self-Regulated Strategy Development (SRSD) to support 10th- and 11th-grade high school students with disabilities in writing. Participants included five 10th- and 11th-grade students identified as having high incidence disabilities who received 100% of their instruction in general education settings. A multiple baseline multiple probe design was employed to assess the effects of teaching persuasive essay writing under timed single-paragraph writing, untimed multiple-paragraph essays, and maintenance and generalization measures. After baseline, data were collected and two intervention phases were implemented. First, an instructional phase on teaching the SRSD persuasive essay strategy POW + TREE for single-paragraph fluency was implemented followed by postintervention testing. Next, a second intervention phase was implemented using the same strategy but expanding to writing a multiple-paragraph essay, followed by posttesting. Following a 4-week delay, maintenance and

generalization probes were administered. Students were also assessed on their strategy knowledge, social validity, and the amount of planning and writing time. Findings revealed that although all except one student improved on all essay measures of length, quality, essay parts, sentences, transition words, and paragraphs, a second student exhibited high scores on the measures of length and sentences at baseline. These students made gains in the majority, but not all, measures after instruction. Overall, positive gains were maintained from postintervention testing to maintenance and generalization performance, with data remaining substantially higher than baseline performance. In addition, students improved from low planning and writing times at baseline by significant percentage increases at post-SRSD intervention, maintaining gains through maintenance and generalization, with only slight decreases as students appeared to become more efficient managing both tasks of planning and writing while creating quality written products. The teachers of all of the study participants, including English and other content areas, were also interviewed at maintenance for their feedback on student classroom writing performance at postintervention. Findings are discussed with respect to educational implications and future research.

1. INTRODUCTION

Writing has become a critical skill for students as they move forward, attempting to achieve academic and occupational success. Writing skills are especially important for high school students. The main purpose of this research was to investigate whether the Self-Regulated Strategy Development (SRSD) writing strategy instruction using the POW + TREE persuasive strategy improves the writing outcomes of high school students with disabilities at the 10th- and 11th-grade levels from the inclusive classroom setting.

This first chapter addresses: (a) writing instruction for all students, (b) writing instruction research, (c) students with disabilities, (d) strategy instruction and SRSD, (e) SRSD and grade level, and (f) SRSD and persuasive writing. The study's purpose, research questions, and terms are also defined.

In middle and high school, good writing is essential for success (Graham, 2006), as it is the primary means by which students demonstrate their knowledge through tests, reports, and other writing projects (Mason & Graham, 2008). Writing also provides a useful tool for supporting and extending students' learning of content material (Graham & Perin, 2007b). The value of directly teaching students basic writing skills to become competent writers is without question; the grades of students who do not learn basic writing skills are likely to suffer, particularly in classes where writing (e.g., through tests and reports) is the primary means for assessing student knowledge (Tracey, Reid, &

Graham, 2009). These students are less likely than their classmates to attend college, as writing is now commonly used to evaluate applicants' qualifications. With the addition of the writing section to the SAT, writing is now a gatekeeper to college entrance (Mason & Graham, 2008).

For students with disabilities, the importance of acquiring writing skills increases tremendously as assessment essay requirements often present a significant barrier to graduation from high school, entry into and exit from postsecondary institutions (technical schools, universities), acceptance into professions (licensure), and success on the job (Troia & Graham, 2002). Compounding the pressures for struggling student writers are federal laws under the No Child Left Behind (NCLB) Act of 2001 and Individuals With Disabilities Education Act (IDEA) of 2004, which require annual testing of all students; yet a sizable proportion of students with disabilities have failed statewide assessments in several states (Schumaker & Deshler, 2009). Bui, Schumaker, and Deshler (2006) describe that a significant portion of students with disabilities in their writing strategy intervention research, completed in the fifth-grade inclusive classroom, received their instruction in the general education classroom where they were tested at the same academic standards as their peers without disabilities. Statewide assessments begin in most states at fourth grade, continuing at intervals through middle and high school.

Beyond school, writing has also increasingly become a gateway for employment and promotion, particularly in salaried positions, because workers are expected to create clearly written documents, memoranda, technical reports, and electronic messages (Taft

& Mason, 2011). Participation in civic life and community is influenced by writing, especially with the widespread use of email and text messaging, making writing essential for communication in daily life as well as simply achieving success in whatever career path students may choose.

Writing Instruction for All

Given the focus on reading rather than writing or literacy more generally by the No Child Left Behind Act (NCLB), this movement has had an impact on teaching and learning at all levels of public education (Applebee & Langer, 2011). Instruction and curriculum in public schools have experienced tremendous change, with programs and practices affected most directly by an emphasis on standards and assessments as part of a growing concern with accountability. In 2002, the College Board established the high-profile National Commission on Writing in America's Schools and Colleges, which took as one of its premises that the quality of writing must be improved if students are to succeed in college and in life. In their major policy statement, *The Neglected "R": The Need for a Writing Revolution*, the National Commission on Writing (2003) emphasized the importance of devoting more time to writing instruction, recommended that the amount of time that students spend on writing should be at least doubled, and that writing should be assigned across the curriculum.

The need for a dramatic change in writing instruction for all students has had far-reaching consequences for students nationwide. The National Assessment of Educational Progress (NAEP), also known as the Nation's Report Card (National Center for Education Statistics, 2007), gathers background data about teachers' and students'

perceptions of curriculum and instruction as well as measuring student performance. The NAEP assesses students' writing achievement with an extensive set of on-demand writing tasks developed through a consensus process involving teachers, administrators, and scholars from around the country (Applebee & Langer, 2009). In 2007, between 80% and 90% of middle school and high school students had achieved what NAEP identifies as "basic" writing skills appropriate to their grade level, but only 31% at Grade 8 and 23% at Grade 12 were rated as "proficient" (Applebee & Langer, 2009, p. 19).

In the NAEP framework, being proficient at Grade 12 means a student is able to produce an effectively organized and fully developed response within the time allowed [the specific amount of allotted time has varied in recent years from 15 to 50 minutes] that uses analytical, evaluative, or creative thinking. Their writing should include details that support and develop the main idea of the piece, and it should show that these students are able to use precise language and variety in sentence structure to engage the audience they are expected to address. (NAEP, 2007, p. 39)

The percentage of students performing at or above the "proficient" level was in fact higher than in 1998, but showed no significant change since 2002, the year the National Commission on Writing published their research findings in *The Neglected "R"* (2003).

This NAEP report further suggests that only one out of every five high school seniors acquires the required writing knowledge and skills (Graham & Perin, 2007a). In support for what changes may be needed to improve writing instruction, Applebee and Langer (2009), using the National Assessment of Educational Progress (NAEP) data,

examined current trends in student achievement, amount of writing, technology use, and professional development for English teachers at the middle and high school levels. The findings suggest that on-demand writing for assessment purposes does not align with instruction that emphasizes process writing and revision. Applebee and Langer (2011) point out that it is important to understand the types of writing instruction that occur at the elementary level, where laying the foundation of writing strategies and motivation for writing is essential. Support for instructional change at this level comes from two recent research studies. McCarthy and Ro (2011) and Dunn (2011) did similar studies interviewing and observing a total of 55 third- and fourth-grade teachers (5 special education teachers) from different areas of the US. Overall findings from both studies suggest lack of a comprehensive policy on writing, not enough time devoted to writing, inadequate assessment of writing, and not enough professional development. Respondents expressed concern about having manageable class size for writing instruction and sufficient time to manage writing instruction. Teachers emphasized the need for classroom practices which provide for engaging students in the writing-process model, step-by-step (e.g., mnemonic strategy) instruction, and assistive technology. Teachers reported primarily using methods of process writing in the form of writers workshops and traditional skills instruction with trends for using graphic organizers and attending to specific genres.

Teachers need continued support in all these areas if students are to develop and improve their writing skills to meet the demands of state assessments, graduation requirements, and beyond.

The Writing Process

In their discussion of the 2007 *Writing Next Report*, Coker and Lewis (2008) emphasize that all students must be able to competently plan, write, evaluate, and revise texts in order to learn the academic material that they will face in higher education, and to frame the material they will be required to present in written compositions. To become an effective writer, a constellation of skills and knowledge must be developed, including organizing information and ideas, using established writing conventions (e.g., grammar, punctuation), writing legibly, identifying and implementing rhetorical structures, and writing in a way that engages a specific audience (Baker, Chard, Ketterlin-Geller, Apichatabutra, & Doabler, 2009). Writing also demands multiple cognitive resources, such as attention control, self-regulation, and working memory. Drawing from these resources, skilled writers employ recursive problem solving that entails three basic cognitive processes: planning what to say and how to say it, translating plans into written text, and reviewing what is written to evaluate and revise the written product. Furthermore, the writer must monitor these cognitive processes and their repeated use. Thus, skilled writers develop further goals for their writing as they write, allowing planning to interrupt translation and requiring reorganization. They may also find that further planning is necessary during editing or reviewing text, leading to additional reorganizing (Troia, Shankland, & Heintz, 2010). Specific writing skills and strategies facilitate this process in producing a written text (Garcia & Fidalgo, 2008). We now also realize that students' attitudes and environments influence their writing. The will to write, the motivation to engage in the writing process, is influenced by factors including

students' attitudes and beliefs about writing and themselves as writers, their self-efficacy for writing, and their ability to energize and direct their thoughts and actions (Harris & Graham, 2013).

Characteristics of Student Writers

Typically developing students taught in the general education setting regularly experience difficulties mastering writing skills such as describing information and writing sentences, paragraphs, and essays. Frequently, compositions may be inadequately organized and include excessive spelling and grammatical errors. Students minimize the role of planning in writing, doing little deliberate planning, particularly planning in advance. It is not uncommon for students to start writing almost immediately after a writing task is assigned, spending less than a minute planning their composition in advance. Even when prompted to plan in advance, students' plans are often meager and relatively unsophisticated (Cihak & Castle, 2011). Many students approach writing by retrieving any information from memory that is topic appropriate and writing it down, with each preceding phrase or sentence stimulating the generation of the next idea. With this approach, little consideration is directed to the audience, constraints imposed by the topic, or the organization of the text. In addition, reviewing or revising written products is minimal; students most often do not revise frequently, extensively, or skillfully (De La Paz & Graham, 2002).

The difficulties that typically achieving students exhibit in their writing performance intensify for students with disabilities (Mason & Graham, 2008). Written products of students with learning difficulties are shorter, are less linguistically

sophisticated, are more poorly organized, contain more mechanical errors, and are poorer in overall quality. These problems may be attributed to difficulties in executing and regulating several cognitive and metacognitive processes. Poor writers do very little planning spontaneously or even when prompted. When poor writers do engage in planning, they typically list potential content in a first draft format. Children with learning disabilities (LDs) frequently generate less content for their papers than other children, including more superfluous material in their texts (Englert, 2009). Appraising and revising text also present a considerable challenge for students with disabilities. Finally, children with disabilities have considerable difficulty with the mechanics: Their written products contain more spelling, capitalization, and punctuation errors than essays of typically developing peers. The characteristics of students as writers, both typical and students with disabilities, are discussed in more detail in the following chapter.

Writing Instruction in the Inclusive Classroom

Graham and Perin (2007a), after completing the 2007 *Writing Next Report* on improving literacy instruction at the middle and high school levels (2007b), extended their review of writing research to further investigate unanswered questions about teaching writing and research in terms of what is available versus what is needed. In their following investigation with a final combined sample of 24 studies, Graham and Perin included all available single-subject design research and qualitative studies of grades 4 through 12. One of the critical conclusions made from this research reaffirmed that the area of writing intervention in literacy is less established as a research topic than other academic domains such as reading. Both the No Child Left Behind Act of 2001 and the

Individuals With Disabilities Education Act of 2004 mandate that teachers use research-based practices to improve students' performance in all academic areas (Schumaker & Deshler, 2009). Evidence from recent research shows that intensive, high-quality literacy instruction can help students who are struggling build the skills they need to succeed in high school and beyond (National Joint Committee on Learning Disabilities [NJCLD], 2008). This information is of particular importance given data reported by the U.S. Department of Education which indicates that at all grade levels, nearly three-fourths of students with disabilities are receiving instruction within the general education classroom in the inclusive setting (Mastropieri & Scruggs, 2009).

General Education Instructional Setting

Since inclusion accounts for the majority of classroom instruction, instruction that is effective with all groups of students in this setting should be less burdensome and more widely accepted by teachers. The general education classroom provides students with disabilities with access to peers who do not have disabilities; access to the curricula and textbooks to which most other students are exposed; access to instruction from a general education teacher whose training and expertise are quite different from those of a special education teacher; access to subject matter content taught by a subject-matter specialist; and access to all of the stresses and strains associated with preparing for, taking, and passing or failing the statewide assessments. If the goal is to have students learn content subject information or how to interact with nondisabled peers, the general education setting may be the best place (Zigmond, 2003).

Recently, instruction in the general education classroom is often accomplished by two teachers: one general education teacher and one special education teacher in collaboration or as a consistent team. In a specific review of coteaching as the inclusive service delivery model, Zigmond and Magiera (2002) found that coteaching was just as effective in producing academic gains as was resource room instruction or consultation with the general education teacher. General educators will make instructional adaptations in response to students' persistent failure to learn, but the accommodations are typically oriented to the group, not to the individual. If two teachers are in the classroom, adaptations are much easier to facilitate. Using more collaborative teaching models is also likely to increase general education teachers' familiarity with a variety of teaching methods (Baker, Gersten, & Scanlon, 2002). General education teachers in the inclusive classroom must consider the good of the group and the extent to which the learning activities they present maintain classroom flow, orderliness, and cooperation. In addition, they generally formulate teaching plans that result in a productive learning environment for 90% or more of their students.

Special Education Approaches to Instruction

In their analysis of writing research, Coker and Lewis (2008) recommended that more research is needed to explore the efficacy of strategy instruction with students in varying instructional contexts, such as whole-class instruction versus small-group or individualized instruction. Students with disabilities, in particular, are at risk for severe and chronic writing problems and thus require the most intensive instruction and teacher support in basic writing skills and composing processes. Zigmond's (2003) most recent

review of the research stated that the solution is what is appropriate for each individual student. Special education pull-out settings allow for smaller teacher–student ratios and flexibility in selecting texts, choosing curricular objectives, pacing instruction, scheduling examinations, and assigning grades. Pull-out settings also allow students to learn different content in different ways and on a different schedule. The pull-out special education setting may be most appropriate if students need (a) intensive instruction in basic academic skills well beyond the grade level at which nondisabled peers are learning, (b) explicit instruction in controlling behavior or interacting with peers and adults, or (c) to learn anything that is not customarily taught to everyone else.

Research completed involving both teachers and students gives further insights and support for using the pull-out setting as a support for educating students with disabilities. Marston (1996) completed two studies that interviewed both special education and general education teachers from a Minneapolis district. Results demonstrated that for both teacher satisfaction and student performance the combined services (both pull-out and collaborative classroom) approach was superior. Whinnery and King (1995) completed research on student attitudes about their instructional settings. The results suggest, with a few notable exceptions, that the attitudes and feelings of students in resource rooms and collaborative classrooms did not differ significantly, although pull-out/resource students unanimously responded that they preferred going to the resource room setting. These findings support current practice in public schools as dictated by IDEA (2004) where yearly Individual Education Plans are reviewed and facilitated as appropriate for the individual student’s needs.

Approaches to Writing Instruction

The 2008 National Joint Committee on Learning Disabilities (NJCLD) report specified guiding principles for instruction that consider all writers—including writers who struggle. This report concludes that successful instructional approaches include attention to the developmental level, language abilities, interests, motivation, and learning characteristics of the student. Generally accepted as effective with most students are teachers who address critical language and literacy skills through direct, systematic, sequenced lessons. In addition, this report stresses, from an instructional perspective, the importance of distinguishing between a strategy and a skill. Strategy instruction focuses on teaching an approach to a task (e.g., how a student thinks about, plans, executes, and evaluates performance of a given task). Skill instruction focuses on teaching a set of steps or processes to accomplish a specific task (NJCLD, 2008).

The *Writing Next* meta-analysis (Graham & Perin, 2007b) outlines several instructional strategies for writing instruction for all students: (a) writing strategies: explicit instruction in strategies for planning, revising, and editing; (b) summarization: explicit instruction in how to summarize a reading; (c) collaborative writing: group work focusing on steps of the writing process; (d) specific product goals: specification of concrete achievable goals for student writing; (e) word processing: use of word processing during the writing process; (f) sentence combining: explicit instruction in combining simple sentences into more sophisticated sentences; (g) prewriting: participation in various planning techniques before composing; (h) inquiry activities: tasks designed to develop content knowledge as it applies to a particular writing project

such as gathering and analyzing information; and (i) process writing approach: extended opportunities for writing emphasizing real audiences, cycles or steps of planning, translating and reviewing stressing personal responsibility and ownership of work, supportive writing environments, encouraging self-reflection and evaluation, and sometimes extending instruction to meet student need.

Process approach. With the process approach, writing is seen as a process with a first draft as a beginning. Writing conferences, peer collaboration, minilessons, modeling, sharing, and classroom dialogue are common elements of this approach. Advocates such as Graves and Hansen (1983) believe that through rich immersion in authentic learning experiences, children will come to learn all they need to know, and develop all of the skills and abilities they need, in due developmental time. Learning to read and write is believed to occur naturally within such environments. Little or no explicit, focused, or isolated instruction and practice in basic skills or strategies may occur, although skills are addressed within the context of meaningful learning activities. While process writing, whole language, or writers' workshop approaches may be all the support that some students need to help them develop the knowledge, skills, strategies, and will needed to write, this is not the case for many students, including many students with LDs. Research indicates that typical writers' workshop approaches do not offer the extensive, explicit, and supported instruction students need to master important writing skills (Harris & Graham, 2013).

Scaffolding. Critics of process-oriented classrooms suggest that instruction based on views that writers develop in natural stages is inadequate. They emphasized a need for

scaffolding including strategy instruction, attention to genre, and consideration of the role of social context in classrooms. There is an overall lack of research to support this approach, as well as Applebee and Langer (2009) confirming overall lack of progress in skills by students' national scores.

In scaffolding and explicit instruction the adult leads students to carry out tasks they cannot do independently. Scaffolding involves the adult breaking down the tasks into smaller ones while still engaging the child's meaningful participation. Modeling, demonstrating, questioning, or using dialogue are examples of instructional scaffolds that can assist young writers. Despite lack of evidence-based research, scaffolding has persisted as a metaphor for instruction and several writing interventions have invoked it as an umbrella term that includes explicit strategies for planning, drafting, and revising. Cognitive Strategy Instruction in Writing (Englert, 2009) includes the teacher thinking aloud through all the steps of planning, organizing, drafting, and editing while constructing text with students; graphic organizers and other tools are used as supports for each genre.

Combinations of approaches. Writing approaches may also be used in various combinations depending on student need. Many of the same strategies used in the literacy classroom for writing can be used by content-area teachers to strengthen writing skills. Interventions that have focused on an integrated process approach such as Monroe and Troia's (2006), using several proven writing interventions together to accomplish scaffolding the complete writing process from beginning to end, conclude that multicomponent strategy instruction may help close the achievement gap between the

poorest writers and their more capable peers. Self-monitoring strategies or self-regulated strategy instruction (SRSD) combines several of the strategies above such as personal responsibility, ownership of work, goal setting, self-evaluation, and reflection (Graham & Perin, 2007b). SRSD is an example of a writing strategy successful in a broad range of research conducted at the elementary and middle school levels, as well as general education, special education, and combined settings. This particular strategy will be discussed in more detail in the following chapter.

Direct approaches. An example of a direct explicit approach to writing instruction would be research conducted by Hough, Hixson, Decker, & Bradley-Johnson (2012) in the general education classroom with second graders using a modification of Quick Write. Quick Write is a strategic writing program that explicitly teaches students how to brainstorm, plan, draft, and revise within brief time periods. Quick Write teaches many of the same story elements as SRSD, but in an abbreviated format and with time limits for each step in the writing process, which allows students to have a rough draft of a story in only about 10 minutes. Research evaluating explicit timing has found that students produce more work under timed conditions (Hough et al., 2012). More frequent and repeated practice with each step of the writing process may help students retain and apply the writing skills they have learned. Quick Write writing programs incorporating direct instruction, along with collaborative and independent practice, result in a sustained increase in writing quality (Hough et al., 2012).

Peer Assisted Learning Strategy. Another example of a frequently used writing instructional method in general education is the peer response or PALS (Peer Assisted

Learning Strategy) approach, reviewed in a recent meta-analysis conducted by Hoogeveen and van Gelderen (2013). The peer response approach or strategy is defined as an umbrella term for many forms of collaboration between students, with several different names to describe these forms (e.g., peer response, peer tutoring, peer collaboration, peer feedback, peer evaluation, and peer assessment). The term peer response is used broadly as a form of cooperation between students (in pairs or groups) during the different stages of the writing process.

Writing with peer response is beneficial for several reasons. First, readers commenting on texts are supposed to help writers go through the complex writing process. Such comments make them aware of the needs of their readers and help in developing goal and audience orientation. Second, reactions of readers create a real communicative context for writing. Therefore, the interaction between peers about their writing is supposed to increase students' motivation to write meaningful texts. Third, discussing texts with peers is assumed to help the writer to develop genre knowledge. By discussing their texts with a reader, especially during text revision, writers become aware of the needs of readers and develop goal and audience direction. In addition, peer response is supposed to be beneficial for learning writing strategies and for becoming aware of one's writing process. Peer interaction provides writing in school with a realistic communicative context contributing to writing motivation and self-efficacy. For this reason, peer response can be beneficial to develop self-regulation of writing. All studies in Hoogeveen and van Gelderen's meta-analysis, except one, report positive effects of peer response with a main focus on strategy instruction, including Englert and Mariage's

(1991) with Cognitive Strategy Instruction in Writing (CSIW) and Graham and Harris (1989) with SRSD.

Research such as Hoogeveen and van Gelderen's (2013) has been valuable for writing instruction in presenting a broad range of research that has been conducted, organized by method, grade level, or age, as well as instructional setting and student profile (i.e. specific disability categories). Equally important is their contribution to practice and to inform where future research needs to be directed.

Strategies for students with disabilities. Limited yet undeniable lines of research have emerged related to writing interventions and instruction for students with disabilities. Troia (2002) makes the assertion that one potential reason so many children with LD struggle with writing is that typical classroom writing instruction may not adequately prepare them to approach complex writing tasks strategically. LD student success in writing depends greatly on the classroom teachers' preparation to teach writing, how much time these teachers devote to writing and writing instruction, and the effectiveness of the instructional procedures they apply (Graham & Harris, 2009). Given these concerns for classroom writing instruction, Graham and Perin's (2007a) meta-analysis of research for adolescents in grades 4 through 12 identified 11 effective elements for improving writing achievement based on three research reviews. These elements are considered tier-one or primary-level instructional approaches recommended for teaching writing to all students in the general education classroom (Mason & Graham, 2008).

Providing effective writing instruction to all students can minimize student failure and maximize all students' performance, improving the writing difficulties experienced by students with learning disabilities (LD) in the general education classroom. Graham and Perin (2007a) made additional tier-two recommendations for instructional approaches from current research that were effective for adolescents with LD. Another important product of Graham and Perin's (2007a) meta-analysis was the list of 10 common themes identified among effective writing teachers. These teachers were from various types of schools (public/private, suburban/inner city, and special/regular) and methodologies (qualitative observations/survey methodology). The themes were that these teachers should (a) dedicate time to writing and writing instruction, with writing occurring across the curriculum; (b) involve students in various forms of writing over time; (c) treat writing as a process, where students plan, draft, revise, edit, and share their work; (d) keep students engaged and on task by involving them in thoughtful activities (such as planning their composition) versus activities that do not require thoughtfulness (such as completing a workbook page that can be finished quickly, leaving many students off task); (e) teach often to the whole class, in small groups, and with individual students; this includes teaching students how to plan, draft, and revise as well as teaching more basic writing skills; (f) model, explain, and provide guided assistance when teaching; (g) provide just enough support so that students can make progress or carry out writing tasks and processes, but encourage students to act in a self-regulated fashion, doing as much as they can on their own; (h) are enthusiastic about writing and create a positive environment, where students are constantly encouraged to try hard, believe that the skills

and strategies they are learning will permit them to write well, and attribute success to effort and the tactics they are learning; (i) set high expectations for their students, encouraging them to surpass their previous efforts or accomplishments; and (j) adapt writing assignments and instruction to better meet the needs of individual students (p. 325).

These recent research-based guidelines for writing instruction in the inclusive classroom address needs of all students, but especially highlight identifying and validating effective instructional components and approaches for teaching writing to students with disabilities.

Strategy Instruction and Self-Regulated Strategy Development (SRSD)

From these recent research recommendations providing instructional approaches for teaching writing, along with common themes identified from effective writing instruction, multicomponent strategy instruction has surfaced as a successful tool for writing instruction to students with disabilities. Over the past 25 years, Graham and Harris have developed an approach to writing instruction that focuses in particular on the role of self-regulation in developing written compositions. Self-Regulated Strategy Development (SRSD) is well-validated, widely used, practical, and readily accepted by many classroom teachers (Reid & Lienemann, 2006). SRSD writing instruction has been successfully integrated in classrooms using a process approach to writing (De La Paz, 2001). Harris and Graham's (1996) SRSD model uses specific stages of instruction to teach students to accomplish writing tasks and procedures to regulate work and undesirable behaviors that impede performance (Chalk, Hagan-Burke, & Burke, 2005).

Although the approach can be used with all students, many of the features are particularly aligned with the needs of students with disabilities or other students who struggle with writing tasks. In SRSD, students learn specific strategies for planning, drafting, and revising text. Explicit and strategy-based instruction is fundamental to this approach. Instruction occurs across the following six stages:

1. Students are explicitly taught background knowledge needed to use a strategy successfully.
2. The strategy—as well as its purpose and benefits—is described and discussed.
3. The teacher models how to use the strategy.
4. Students memorize the steps of the strategy and any mnemonic associated with it.
5. The teacher supports or scaffolds student mastery of the strategy.
6. Students use the strategy with few or no supports.

Students are also taught a number of self-regulation skills including goal setting, self-monitoring, self-instruction, and self-reinforcement. These skills help students manage the writing strategies, the writing process, and their behavior during instruction. Studies of SRSD in writing represent some of the most consistent efforts to explore the specific features of an instructional intervention, including systematic replications of research. In 2009, Baker et al. reviewed 21 group experimental and single-subject intervention studies, and concluded that all met high quality indicators and standards for becoming evidence-based practice.

SRSD and grade level. Cutler and Graham (2008), when defining the purpose of their national survey on primary grade writing instruction, argued that there is a growing consensus that waiting until higher grades to address literacy difficulties that begin in early elementary school is not particularly successful. The focus has been that providing effective writing instruction to young children should reduce the number of students who fail to develop the writing skills needed to fully meet classroom demands in higher grades. Consequently, intervention research has focused on elementary grades 2 to 5 and middle school grades 6 to 8. Recent research on writing instruction at the high school level compared to middle and elementary levels is scarce (Mason & Graham, 2008). Few research studies exist measuring the effectiveness of specific writing strategy interventions with either typical secondary students or students with disabilities. Yet for secondary students with disabilities taught primarily in the inclusive classroom, effective writing skills are critical in supporting curriculum accessibility (Taft & Mason, 2011).

Kiuhara, Graham, and Hawken (2009) make the case behind the NAEP writing assessment statistics reported above in their examination of high school writing instruction. Their survey gives four compelling reasons for performing a survey of high school teachers' reporting on their writing practices. First, much concern exists about what and how students write. The National Commission on Writing (2003) and Applebee and Langer's (2009) analysis of NAEP data showed that there is a relationship between how well students write and the types of writing assigned. Second, the content and method taught to high school students also matters. Although evidenced-based practices are emphasized in reform efforts today (e.g., No Child Left Behind Act), there is virtually

no current evidence on high school teachers using such practices to teach writing (Kiuahara et al., 2009). Third, an important ingredient in developing effective writing programs involves differentiating instruction for students who need extra support. Corno and Snow (1986) indicated that improved educational outcomes depend on adjusting instruction to individual differences among students. Fourth, assessment is one of the primary pillars of educational reform, as it provides needed information on students' progress as well as their strengths and weaknesses (National Commission on Writing, 2003). State and district writing assessments have received considerable attention considering diminished outcomes for high school students; however, little data exists about high school teachers' assessment practices (Kiuahara et al., 2009).

Recent intervention studies do exist examining writing strategy instruction at the high school level (grades 9 to 12). The majority of these studies employ SRSD strategy instruction in both the inclusive classroom as well as a small group setting. This instructional approach has proven successful for teaching persuasive writing to a diverse range of low-achieving adolescents (Graham & Perin, 2007a). De La Paz (2001) conducted two studies with successful writing outcomes using SRSD strategies with both 7th- and 8th-grade students, and 11th-grade students, in the inclusive classroom. Mason, Kubina, and Hoover (2011), and Hoover, Kubina, and Mason (2012), also conducted two studies with 9th-, 11th-, and 12th-grade high school students with emotional disability (ED) implementing SRSD instruction for a 10-minute timed persuasive Quick Write. Results indicated improvement in the areas of quality, response parts, and word count. Kiuahara, O'Neill, Hawken, and Graham (2012) conducted a study using three SRSD strategies:

STOP, AIMS, and DARE. Students from this research produced longer and better quality essays as well as spent more time planning and writing.

SRSD and persuasive writing. An instructional approach that employs the SRSD method called the Quick Write uses writing to activate an individual's knowledge on a particular topic (Mason, Kubina, & Taft, 2009). SRSD writing instruction, when specifically developed for persuasive Quick Writes, targets the area of fluency where adolescents often struggle (Mason et al., 2011). Recently, this strategy has been used with successful outcomes for middle school students with disabilities (Mason et al., 2009; Mason, Kubina, Valasa, & Cramer, 2010) as well as high school students (Mason et al., 2011). Mastropieri et al. (2009, 2012) conducted three studies with 7th- and 8th-grade students with ED implementing SRSD instruction for fluency using a particular SRSD persuasive writing instruction strategy. Mason et al. (2010, 2011) and Mastropieri et al. (2009, 2010, 2012) both used the SRSD POW + TREE persuasive strategy for implementing Quick Write with participants. Within the 10-minute timed period students were successful in producing paragraphs with improved quality, more response parts, and words, along with more time planning and remaining on task.

For this population, the Quick Write can serve a number of purposes, allowing the teacher to promote various types of thinking such as (a) reflecting on prior knowledge, (b) recalling specific information, (c) summarizing content, or (d) expressing thoughts, opinions, reactions, or questions. Student uses of this strategy can carry over to other content area demands for writing at the high school level as well as standardized assessments. SRSD instruction using Quick Write is a direct approach which teaches

students writing basics with a writing activity that is brief, informal, and engaging for all students (Mason et al., 2011). This strategy could be tremendously useful to investigate for use to support writing in the inclusive classroom as well as the increased demands faced by students in higher grades for standardized assessments.

The De La Paz and Felton (2010) study with 11th-grade students included using persuasive writing with the SRSD writing strategy mnemonic STOP (Suspend judgment, Take a side, Organize ideas, Plan more) combined with a content-area strategy for history to argue opposing sides for controversial history events. Jacobson and Reid (2010, 2012) also used the STOP strategy along with DARE with high school students with ADHD. The mnemonic DARE consists of D (develop a topic sentence), A (add supporting ideas), R (reject possible arguments for the other side), E (end with a conclusion).

Another persuasive SRSD writing strategy is the POW + TREE strategy, which teaches students a framework for writing persuasively, engaging students with choosing their topics for writing to express their opinion, getting information organized, and then continuing writing: Pick Organize Write and say more (POW). The TREE mnemonic follows, providing a writing framework for writing a convincing argument using Topic sentence, Reasons—three or more, Examine, and Ending. All of the studies with middle school and high school students using Quick Write for fluency which were conducted by Mason et al. (2010, 2011, 2012) implemented the POW + TREE strategy with positive results. Mastropieri et al. (2009, 2010, 2012) also used this SRSD persuasive strategy successfully with middle school students identified with Emotional Behavior Disorder

(EBD) for all three studies. This strategy gives students a mnemonic which includes all the necessary elements for a persuasive essay.

Statement of Purpose

The major purpose of this research was to investigate whether the SRSD writing strategy instruction using the POW + TREE persuasive strategy improves student outcomes with writing tasks with high school students at 10th- and 11th-grade level with disabilities from the inclusive classroom setting. This research also examined whether, by learning this writing strategy, this group of students would be able to maintain writing skill competence and generalize across content areas assignments, as well as extend time used for planning before completing writing assignments. In contrast, for students who were not successful or only moderately so, this study investigated the obstacles students faced before, during, and after instruction.

Research Questions

1. Will the SRSD writing strategy improve the writing of students with disabilities from the inclusive classroom using timed single-paragraph essays?
2. Will the SRSD writing strategy improve writing skills for students with disabilities from the inclusive classroom using untimed multiple-paragraph essays?
3. Are students able to maintain the writing skills over time?
4. Are students able to generalize the writing skills to content-area writing tasks over time?

5. Will the SRSD writing strategy improve the planning time during writing of students with disabilities from the inclusive classroom?
6. Do students report liking the SRSD writing strategy, remembering the strategy, and using the strategy for other academic assignments?
7. Do teachers of students who have received SRSD writing strategy instruction see evidence of strategy use and improved writing skills with students?

Definition of Terms

The following terms are used in specific ways in this research.

- *Adolescents*. This research followed the lead of other studies and meta-analyses cited in this review which identified students in grades 4 through 12 for this category.
- *Emotional Behavior Disorder (EBD)*. Emotionally disturbed is defined as a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:
 - (a) An inability to learn that cannot be explained by intellectual, sensory, or health factors,
 - (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers,
 - (c) Inappropriate types of behavior or feelings under normal circumstances,
 - (d) A general pervasive mood of unhappiness or depression, and
 - (e) A tendency to develop physical symptoms or fears associated with personal or school problems. (IDEA, 2004, § 300.8)

- *Expository Writing*. The purpose of expository text is to inform, explain, describe, persuade, or present information. Generally, expository text is subject-specific and fact-based. The organization of an expository piece of writing is dependent upon its genre (Englert & Mariage, 1991).
- *Learning Disabilities (LD)*. To determine whether or not a student is considered to have a learning disability, school districts across the country use the criteria of an established deficit between intelligence quotient (IQ) and achievement on standardized assessment instruments (Saddler, 2006).
- *Persuasive Writing*. In persuasive writing, the author must take a particular point of view and attempt to convince the reader to adopt the same perspective. Producing persuasive text that is clear, convincing, appropriately sequenced, and addressing views from both sides of the argument is challenging for developing writers (Nippold, Ward-Lonergan, & Fanning, 2005).
- *Self-efficacy*. Self-efficacy is a student's belief about his or her ability to carry out a given task (Zimmerman & Bandura, 1994).
- *Self-regulation*. Skills included in self-regulation are goal setting, self-monitoring, self-instruction, and self-reinforcement.
- *Strategy Instruction*. Strategy instruction is defined as plans to accomplish a specific task (Saddler, 2006).

- *Struggling or Low-Achieving Students.* These terms include several groups for assessment purposes: students with a disability, or those who struggle with poverty, race, ethnicity, and English proficiency (Bui et al., 2006).

Summary

This first chapter highlighted the importance of acquiring writing skills for all students, not only to meet academic challenges for graduation requirements, but also as standards for success in life. Becoming proficient in writing is especially difficult for students with disabilities, many of whom reach high school without mastering the necessary writing skills to meet academic challenges. The few existing studies completed on SRSD with these students at the high school level produced positive results in improving students' written products through strategy instruction. However, more intervention research is needed to solidify evidence-based practices for teachers to use in the classroom with students at the secondary level. This research addresses that need.

2. LITERATURE REVIEW

Writing is a skill that must be learned and does not come naturally, similar to reading. Because the task of writing involves several cognitive abilities that must be organized to develop the processes needed to master writing skills, it is one of the most difficult skills that children are expected to master in school (De La Paz & Graham, 2002). Yet acquiring and developing the necessary skills for students to become proficient writers through curriculum instruction appears to be deficient at all grade levels. The National Commission on Writing (2003) published a report calling for states to create comprehensive writing policies, to ensure that writing be taught at all grade levels and in all courses, to require teachers to complete a how-to-teach-writing course, and to make writing the centerpiece of the curriculum. More recently in 2007, the Carnegie Corporation and the Alliance for Excellence in Education published the *Writing Next Report* (Graham & Perin, 2007b), which not only highlights effective strategies for middle and high school students, but also emphasizes the need for policy change to include increased writing instruction at all grade levels.

This chapter reviews the literature which supports the following issues for writing instruction: (a) typical and struggling writers, (c) strategy instruction, (d) SRSD strategy instruction, and (e) writing instruction research and students with disabilities at the elementary, middle school, and high school levels.

Literature Search Procedures

For this research a comprehensive search of the literature was completed.

Computer searches were conducted using electronic databases, specifically Academic Search Complete, Education Full Text, Education Research Complete, Web of Science, and Psych INFO. Initial searches were narrowed by grade level delimiters of elementary, middle, secondary, and high school. The time period searched was initially 2000 to 2011, then later extended further back to 1995. Broad search terms were used in various combinations at each grade level: writing, writing instruction, writing strategy instruction, writing intervention, inclusion, inclusive, special education, students with disabilities, mild disabilities, learning disabilities, and writing disabilities. A second approach employing ascendant searches by author and/or journal article citation from earlier research was used as well as reference lists from research meta-analyses and research syntheses conducted for writing strategy research for both typical and special education students. The criteria for selection were:

1. The intervention was specific writing strategy instruction conducted over a set time period measuring participants' writing products.
2. The research designs were treatment comparisons, single-group, or single-subject designs.
3. Dependent measures included at least quality and length of participant products.
4. Participants were in grades K to 12 at a specific grade level or grade level range.

5. The intervention settings included the inclusive general classroom, small group, or resource settings.

Typical Writers and Struggling Writers

As discussed in Chapter 1, writing research has progressed toward an attempt to understand the processes involved in writing. Research into the cognitive processes of expert writers has clearly demonstrated that effective and skilled writing is neither a natural consequence nor an organic unfolding of natural developmental processes (Coker & Lewis, 2008). Writing is a complicated activity that is dependent on a rich assortment of cognitive processes and on the writer's social context (Coker & Lewis, 2008). Large groups of theoretical models of writing have tried to describe writing from cognitive or social perspectives. All of these models, despite their diversity, try to explain the architecture of the writing processes, their components, and their organization as a recursive process, as well as the changeable components relative to the writer's motivation, attitudes, cognitive processes (working memory, knowledge in long-term memory), or metacognitive processes (self-regulation and metacognitive knowledge) (Baker et al., 2002). In general, the models agree that writing is a demanding cognitive task that requires coordinated implementation of a large set of mental processes which must be performed in a simultaneous and recursive manner (Garcia & Fidalgo, 2008).

Typical Writers

Typical students are able to access multiple cognitive resources, such as attention control, self-regulation, and working memory capacity, along with using specific writing skills such as knowledge transformation, planning, and organization of text (Garcia &

Fidalgo, 2008). The amount of time spent planning is critical to the composing process and linked to the quality of written work. Graham and Harris's (2009) review of 30 years of writing research summarizes important findings about planning and revising. First, skilled writers engage in more planning and are better at revising than less skilled writers, concentrating their efforts more on planning than revising. Second, planning and revising become increasingly sophisticated with age and there is considerable individual variation in these behaviors. Third, planning and revising behavior generally predict writing performance even though revising behavior is generally not related to outcome until high school. Finally, teaching developing writers how to plan or revise has a strong and positive impact on their writing (Harris & Graham, 2013).

Planning involves three subprocesses: (a) formulating, prioritizing, and modifying both abstract and highly delineated goals and subgoals to address task and genre demands and perceived audience needs; (b) generating ideas; and (c) selecting and organizing valuable ideas to accomplish established goals (Troia et al., 2010). Many expert writers engage in planning while they are producing text rather than beforehand. However, planning in advance of writing may help circumvent potential attention and memory disruptions when composing tasks require the writer to satisfy both content and structural demands (Troia et al., 2010). Whether done before writing or during the process, lack of planning is clear when examining poorly written compositions compared to well-organized and focused written products. Overall, more capable writers plan extensively and recursively to organize, develop, and reflect on their thoughts at a more abstracted

level of representation within a framework that meets specific task and audience demands and personal goals (Troia et al., 2010).

Skilled writing requires engaging both cognition and motivation (Troia et al., 2010). Skilled writers inherently use strategies such as self-questioning, rereading, and self-editing (Morocco, Hindlin, Mata-Aguilar, & Clark-Chiarelli, 2001). Research also supports that typical, experienced writers employ individualized writing strategies consistently, combining strategies to create their own “writing signatures” (Kieft, Rijlaarsdam, Galbriath, & van den Bergh, 2007). Students in the general education classroom are regularly exposed to the purposes and features of different kinds of texts such as narrative, informative, and persuasive writing, yet most students require more actual practice time at these different writing genres than is given during regular instruction. Struggling writers suffer even more from this lack of practice in actual composing and goal setting for different writing styles (Morocco et al., 2001).

Struggling Writers

Coker and Lewis (2008) suggested the group labeled as “struggling writers” may include students with learning disabilities, students from low socioeconomic-status households, and English Language Learners. In most cases, students’ challenges with writing relate to difficulties acquiring, utilizing, and managing the strategies used by skilled writers. Specifically, many students (a) have limited knowledge of what constitutes good writing, (b) utilize an ineffective writing approach, (c) struggle with transcription, (d) evidence minimal persistence, and (e) have an unrealistic sense of self-efficacy (Englert, 2009). Vaughn, Gersten, and Chard (2000) stated that students with LD

typically have no strategic plan for learning. These students are often plagued with a weak short- or long-term memory which may account for their lack of planning. Limited knowledge of organizational patterns and text structures causes further related difficulties, with students frequently repeating information or generating irrelevant ideas. These students also have difficulty with higher-level cognitive processes such as setting goals, evaluating, and revising their products (Walker, Shippen, Houchins, & Cihak 2007). Students with LD also regularly stop the writing process prematurely, indicating difficulty in producing multiple factual statements about familiar topics (Englert, 2009).

Students with disabilities tend to demonstrate less metacognitive awareness and generally focus on the concrete demands of tasks rather than on the more obscure evaluative or self-awareness skills required (Graham & Harris, 2009). Students with LD as well as other struggling writers maintain conceptions about how to write, placing undue emphasis on form and mechanics, “writing neatly,” and “spelling each word right.” This reaction compares to their peers who are average or strong writers emphasizing process, indicating they “brainstorm ideas,” “organize thoughts,” or “include interesting words” (Santangelo, Harris, & Graham, 2008, p. 79). These students also have a less mature conceptualization of what composing involves and a less coherent awareness of the writing process (Garcia & Fidalgo, 2008). This group of students produces compositions that are shorter, less coherent, and simply not as effective in communicating a message when compared to compositions of students without LD (Mason & Graham, 2008). Their work has greater frequency of incoherence, and is poorer in overall quality (Garcia & Fidalgo, 2008).

Researchers have also noted that when examining the written work of students with disabilities, these writers often demonstrate difficulty with aspects of executive functions, especially monitoring, evaluating, and revising (Reid & Lienemann, 2006). Students with disabilities also have problems in vocabulary use, often suffering from lack of variety, having a limited choice of words, and using fewer words that are specific and rich in meaning (Li, 2007). Narrative story writing for this group of writers brings difficulties in grasping text structures and controlling the logical development of story events. Difficulties evidenced include story length, organization, structure, linking ideas, and ordering story elements that are related (Li, 2007).

Several research studies suggest the reasons for the poor writing process of struggling writers: (a) they are less capable of sustaining their memory search for topic-relevant information, (b) their topic knowledge is incompetent or fragmented, or (c) they are less knowledgeable about text structures for particular genre patterns such as narration or persuasion (Englert, 2009). Garcia and Fidalgo's (2008) research suggests that a major missing link is that students with LD carry out little planning. The features of their compositions reflect lack of competence in planning writing and content generation, as well as in their attempts to organize a structure for the composition and to set goals for the writing subprocesses. Students with disabilities tend to rely on a knowledge-telling tactic for many writing tasks, generating content in an associative, linear fashion (Troia, 2002). These struggling writers use this automatized and encapsulated retrieve-and-write process primarily because the demands of text transcription overwhelm them. When these

students do engage in planning, they typically list potential content in a first draft format, one that hinders elaborating or exploring ideas (Troia et al., 2010).

Students with LD also spend little time revising and do not progress to revising the text's conceptual or linguistic characteristics according to its audience and purpose (Garcia & Fidalgo, 2008). One potential reason poor writers are not adept in making revisions is that they often fail to detect mismatches between what is actually written and what they intended to write (Troia et al., 2010). Another potential explanation rests in poor writers' limited ability to decenter and assume their reader's perspective (Troia et al., 2010). Children who struggle with writing, especially those with disabilities, have extraordinary difficulty with the mechanics of translating content into written text. For example, compositions written by these students are fraught with more spelling, capitalization, and punctuation errors than those written by their typically developing peers. In addition, the handwriting of students with disabilities or even just struggling writers is often slow and uneven, and their papers are less legible than normally achieving students (Harris & Graham, 2013; Troia et al., 2010). These disruptions in text production skills hamper students' ability to engage in higher order composing behaviors such as both planning and revising (Graham & Harris, 2009). Because of the many challenges struggling writers face with process, these students are typically more negative about writing overall than their classmates (Graham & Harris, 2009). Overall, students who struggle with the writing process may have a variety of challenges that prevent development of basic writing skills to become not only successful writers, but successful

students. The challenges only increase and become compounded for these students as they move through successive grade levels (Harris & Graham, 2013).

Strategy Instruction for Writing

Research in writing instruction has moved forward in developing an understanding of the differences which exist between typical students and students with disabilities. A key element to this understanding has been examining how typical students compared to students with disabilities approach an identical writing task, providing a view of these writing differences (Baker et al., 2002). Working toward the goal of writing competence for all students contributes to developing more effective approaches or strategies for composing and building necessary skills for students to improve the quality of written compositions (Baker et al., 2002). Strategy instruction is one of the more popular instructional methods currently dominating adolescent literacy. Cognitive strategies are constructive interactions with texts, both written and digital, in which good readers and writers continuously create meaning (Conley, 2008). Cognitive strategies include activities such as asking questions to interrogate texts, summarizing, activating prior knowledge, and organizing and engaging prior knowledge with newly learned information (Conley, 2008). The well-integrated and purposeful application of cognitive strategies combined with explicit instruction and guided practice increases the likelihood that cognitive strategies will be useful later on (Conley, 2008). Pressley (2000) and colleagues are responsible for much of the basic research on cognitive strategies as a foundation for reading comprehension.

For writing instruction, several researchers and research centers promote developing strategy instruction as a pathway to literacy reform in middle and high school instruction (Conley, 2008). Donald Deshler at the University of Kansas Center for Research on Learning developed Cognitive Strategy Instruction (CSI) (Schumaker & Deshler, 2009). Steven Graham and Karen Harris have developed Self-Regulated Strategy Development (SRSD) (Graham & Harris, 2009). Carol Englert and colleagues at Michigan State developed Cognitive Strategy Instruction in Writing (CSIW) (Englert & Mariage, 1991). Bernice Wong and colleagues added interactive dialogue between teachers and students, or between students and students, combining components from other strategy research (Wong, 1997; Wong, Butler, Ficzere, & Kuperis, 1996). These researchers rise to the top for their quantity and quality of research in developing the area of strategy instruction in writing with both regular and special education middle and high school students, promoting improvement of writing instruction in the literacy classroom. The main concepts behind CSI, CSIW, SRSD, and interactive dialogue are similar and match the common concepts found in the instruction guidelines and recommendations cited earlier for writing instruction: teaching writing as a process through direct instruction, sequential steps, self-monitoring, goal setting, and consistent practice.

Strategy interventions have focused on an integrated process approach defined as using several proven writing interventions together to scaffold the complete writing process from beginning to end. Monroe and Troia (2006) concluded that multicomponent strategy instruction may help close the achievement gap between the poorest writers and their more capable peers. Most research has focused on supporting a single aspect of the

writing process, such as planning or revising, rather than on the entire process (Harris, Graham, & Mason, 2003, 2006; Troia, 2006). When introducing the results of their fifth and sixth grade writing strategy intervention research conducted in the inclusive Spanish classroom, Garcia and Fidalgo (2008) stressed that writing is a multistep process that demands multiple cognitive resources, such as attention control, self-regulation, and working memory, along with specific writing skills and strategies that facilitate and organize the processes involved in producing a written text, including the cognitive demands of processing.

One competent approach to improving students' writing skills is to directly teach strategies for moving through the basic writing processes such as planning, drafting, and revising. Graham and Perin's (2007a, 2007b) recent meta-analyses of the writing intervention literature with students in grades 4 through 12 noted explicit and systematic strategy instruction had a strong impact on improving the overall quality of students' written products. Explicit and systematic instruction is defined in both these meta-analyses as (a) specific teaching of skills, processes, or knowledge that is "sustained, direct and systematic instruction designed to facilitate mastery, including specific instructions for grammar, sentence combining, or explicit strategies for planning, revising, and/or editing text"; and (b) "scaffolding students' writing, which involves providing some form of assistance that helps the student carry out one or more processes involved in writing" (Graham & Perin, 2007c, p. 326).

Self-Regulated Strategy Development (SRSD) Strategy Instruction

Graham and Harris have developed an approach to writing instruction that focuses in particular on the role of self-regulation in developing written compositions called Self-Regulated Strategy Development (SRSD). Although the approach can be used with all students, many of the features are particularly aligned with the needs of students with disabilities or other students who struggle with writing tasks. In SRSD, students learn specific strategies for planning, drafting, and revising text. Explicit and strategy-based instruction is fundamental to this approach. Instruction occurs across the following six stages: (a) students are explicitly taught background knowledge needed to use a strategy successfully, (b) the strategy—as well as its purpose and benefits—is described and discussed, (c) the teacher models how to use the strategy, (d) students memorize the steps of the strategy and any mnemonic associated with it, (e) the teacher supports or scaffolds student mastery of the strategy, (f) students use the strategy with few or no supports (Harris & Graham, 1996).

Students are also taught a number of self-regulation skills including goal setting, self-monitoring, self-instruction, and self-reinforcement. These skills help students manage the writing strategies, the writing process, and their behavior during instruction. Studies of SRSD in writing represent some of the most consistent efforts to explore the specific features of an instructional intervention, including systematic replications of research. In 2009, Baker et al. reviewed 21 group experimental and single-subject intervention studies using SRSD strategy instruction, concluding that all met high quality indicators and standards for becoming evidence-based practice.

The SRSD model strategy method has developed into different versions being created to address different types of writing genres including narrative, persuasive, and expository, using mnemonic devices that will be easily remembered. WWW, What = 2 How = 2 is a questioning story writing strategy to include necessary story elements. The SPACE (Setting, Problems, Actions, Consequences, and Emotions) mnemonic also represents a narrative writing strategy introducing the five story elements. POW + TREE begins with Pick my idea, Organize my notes, and Write and say more as a planning strategy which is often combined with other SRSD mnemonics such as TREE = Topic, Reasons, Explanations, and Ending and represents the story structure but can be used for persuasive writing as well. The POW mnemonic has also been used as a first stage of instruction with other SRSD mnemonic strategies. DARE (Develop a position, Add supporting arguments, Report and refute counterarguments, End with a strong conclusion) is also used as an opinion or persuasive writing strategy. The strategies of STOP and LIST (Stop, Think Of Purposes, and List Ideas, Sequence Them) are used to teach planning steps before writing in one of the studies reviewed. All of these assist students in managing steps of the writing process and are easily transferred into materials such as flash cards, graphic organizers, and outlines.

Rogers and Graham's (2008) meta-analysis of 88 single-subject writing intervention studies reported strategy instruction to be highly effective in planning/drafting narrative and expository text, following the SRSD model (25 studies). The most common outcome measure in these studies was elements required by the genre of the assigned composition. The overall mean percentage of nonoverlapping data (PND)

for genre-specific elements was 96% after treatment and 90% at maintenance, which occurred three weeks or more after instruction. According to Scruggs, Mastropieri, Cook, and Escobar (1986), PND greater than 90% can be interpreted as a highly effective treatment. In addition, planning strategy instruction generalized to untaught genres (mean PND 85%). In comparison, strong results were found for productivity (e.g., number of words, number of sentences) and writing quality. The mean PND after instruction was 91% and 99% respectively. Also, gains in productivity were largely maintained over time (mean PND = 86%). An important finding was the mean PND for those studies examining expository writing (authors combined expository and persuasive genres) was 94% after instruction and 89% at maintenance, an indication of highly effective instruction for this genre.

The SRSD model of strategy instruction has been found to be an effective tool for improving writing with adolescents both with and without disabilities. Graham and Perin (2007a), in their meta-analysis of adolescent writing (123 studies), reported that strategy instruction was one of the most powerful techniques to improve the quality of adolescent writing. The overall mean effect size for all studies in this meta-analysis was 1.03, indicating effective instruction. Even stronger results were found for studies using the SRSD strategy model with a mean effect size of 1.15. Specifically, for studies addressing expository (including persuasive) writing, the mean effect size was 1.04, indicating that this type of strategy instruction has a strong treatment effect (Graham & Perin, 2007a). Their finding of the significant effectiveness of SRSD writing instruction has important

implications and provides positive support for the present study, which employed SRSD strategy instruction as the treatment instruction.

Writing Instruction Research and Students With Disabilities

Despite clear evidence of the importance for students to develop effective writing skills, the NAEP 2007 statistics for students' writing proficiency reported the greater majority of all students performed at Below Basic and Basic levels (Baker et al., 2009), with only slight improvement over the 2002 report. Even more disturbing was the statistic that 94% of students with disabilities scored in the Basic or Below Basic categories, leaving only 6% of these students with proficient writing skills (Baker et al., 2009). An important consequence of the apparent lack of writing instruction focus has been a surge of research on writing instruction in K-12 settings, with special education research leading the effort to improve writing instruction for all students (Baker et al., 2009). Consequently, the following portion of the literature review provides recent research which has examined students with disabilities separately as well as together with their typical peers in the inclusive classroom setting, where up to 70% of students with disabilities receive the majority of their instruction (Mastropieri & Scruggs, 2009). Each grade level section is divided into three subsections according to the participant populations utilized in the research reviewed: general education, general and special education, and special education. The research reviewed is also summarized in Table 1.

Elementary School-Level Research

Although it is important to address the writing needs of students at all grade levels, it is especially important to address them in the primary grades. Cutler and

Graham (2008) argued, when defining the purpose of their national survey on primary grade writing instruction, that there is a growing consensus that waiting until higher grades to address literacy difficulties that begin in early elementary school is not particularly successful. Recent elementary research on using writing strategy instruction to improve student skills exists using both SRSD and other strategy interventions. This section reviews 20 studies that researched grade levels second through fifth, and examines a variety of outcomes with typical students as well as those with disabilities, and in a range of instructional settings from individual and various groups to the inclusive classroom. Writing strategy research at the elementary level has been crucial for not only informing instruction at this level, but in furthering writing research at secondary levels as evidenced later in this review.

General education. Positive findings resulted from two general education studies examining strategy instruction, both with fourth-grade participants. Glaser and Brunstein (2007) adapted and extended the SRSD model for use in a German elementary school (Table 1). Six classrooms were involved over four class sessions. Researchers created the mnemonic AHA which represented three important paragraphs in an essay in German. The results were significant across all measures but especially for strategy knowledge for the strategy-only group ($ES = 3.34$) and for the strategy plus self-regulation group ($ES = 4.48$) compared to the control group. Both of these strategy knowledge groups held significant scores through to maintenance. Another study conducted by Fry and Griffin (2010) used qualitative methods with the 6-Trait method of writing instruction employing observation, student essays, and student inventory assessments for data collection.

Results reported that the quality of student essays improved, especially as they became more comfortable with the process of peer-revision used throughout the intervention.

General education and special education. Previous strategy instruction, specifically SRSD, had only been used to improve the story writing of older elementary students (ages 10-12 years) struggling with writing (Danoff, Harris, & Graham, 1993; Graham & Harris, 1989; Harris et al., 2003; Sawyer, Graham, & Harris, 1992). Because of the makeup of the inclusive classroom and the increasing popularity of this classroom model, strategy researchers have investigated instruction comparing the effects with both typical students and those with disabilities as well as using different instructional settings and techniques. In previous work students were taught in small student groups with additional opportunities for assistance and attention compared to a whole classroom setting with 20-plus students. Also, previous study samples consisting of solely struggling students provided more room for improvement compared to typical students.

Tracy et al. (2009) examined third graders in a regular classroom composed of both typical students and students with disabilities. This study employed an experimental design with 127 students including 10 students with disabilities divided into both treatment and control groups. An important detail of this study was the classroom teachers performing the writing instruction intervention in the regular classroom setting. The SRSD mnemonic devices POW and WWW, What2 + How2 were used for instruction. The dependent writing measures utilized for scoring student outcomes were the number of story elements (eight elements), number of words, and quality scoring based on a 7-point holistic rubric. Positive results revealed the SRSD group scored higher

on quality, story elements, and length, reporting effect sizes of .35, .71, and .55 respectively compared to the control group. An additional finding indicated that students generalized all three measures to personal narratives. Since not all studies have included a generalization measure, this finding was particularly important in showing strategy effectiveness for the possibility of generalizing to other curriculum areas in the general education setting.

Mason, Snyder, Sukhram, and Kedam's (2006) study was important because it utilized the inclusive or regular classroom setting, moved up to the fourth-grade level, and extended the writing strategy instruction research to student writing in content areas. Mason et al. investigated the effects of SRSD strategy instruction with nine students who were fourth-grade low-achieving students, both with and without disabilities. Student participants were decoding reading text at the fourth-grade level, but were struggling with science and social studies reading and writing tasks. This study integrated both the reading and writing processes into strategy instruction. The writing instruction intervention employed the TWA (Think before reading, While reading, After reading) + PLANS (Pick goals, List, And, make Notes, Sequence notes) strategy. Mason et al. detailed positive findings that after TWA + PLANS instruction all students wrote up to five main ideas in their outlines; students wrote an average of two sentences on the five outline probes and gave between two to four main ideas for oral retell. Findings were also significant for written retell essays at postinstruction with students including up to five to six main ideas, showing an increase from only two main ideas at baseline. In addition,

positive results were reported with written retell essays being longer, more organized, and containing more units of information and more words written.

Despite some variability in student performance for both oral and written retell, this SRSD instruction for TWA + PLANS appeared to support students' expository reading and writing performance across measures, which led to building an important foundation for content-area learning which is needed for students in higher grade levels. Along this line, Mason et al.'s (2006) findings were important because student writing ability in specific content areas was a criterion for inclusion in the study, a criterion not often required for writing instruction research. This criterion emphasized the importance of students acquiring necessary grade level writing skills for success across the grade level curriculum.

The research study conducted by Bui et al. (2006) provides more important implications for elementary level-research by examining the writing performance of fifth graders both with and without LD specifically, also in the inclusive general education classroom, with a non-SRSD strategy. Bui et al. set out to develop and evaluate a comprehensive strategic writing program designed to affect the performance of students with and without learning disabilities on personal narrative essays, as well as results on statewide writing assessments. The writing intervention program employed on fifth-grade students in this study was the Demand Writing Instruction Model (DWIM) which used four types of writing instruction: prewriting planning strategy, narrative text structure, writing strategies, and the process approach to writing (Bui et al., 2006).

The results of Bui et al. (2006) indicated that a package of writing interventions could create statistically significant gains in the writing performance of fifth graders with and without LD in inclusive general education classes including positive findings indicated on the statewide assessment. An additional interesting result from this study showed no interaction effects between the two student groups, indicating that the intervention had the same effect for both groups of students.

In the last study of the four in this category, Re, Caeran, and Cornoldi (2008) focused on a specific disability using an experimental design in the regular classroom. Researchers compare the effects of the guide scheme writing strategy on the writing of students with ADHD and typical students from an Italian elementary school in the third, fourth, and fifth grades. The guide scheme writing strategy is a series of boxes: one for the introductory part, several for the main body, and one for the conclusions, in which students are asked to record their initial ideas. Dependent variables measured were length, richness of themes (quality), and percentage of errors. Results were significant with minimal differences between the ADHD and control groups on length and quality, but significant on percentage of errors with the ADHD group having much poorer performance—a typical characteristic for this disability.

In summary, these four studies employed experimental and single-subject design with 319 elementary students from third to fifth grades. Four different strategy interventions were taught, two of which were SRSD. Findings from all four studies confirm the positive benefit of strategy instruction for all students in the classroom setting with or without disabilities. The positive results from this research further extends

the effectiveness of writing strategy instruction to generalization of the skills learned to statewide assessments. This has important implications for positively influencing student performance on state assessments at the elementary level and possibly higher grade levels.

Special education. Saddler, Moran, Graham, and Harris (2004) took the challenge to teach the SRSD model to younger elementary students in the second grade. To make instruction more appropriate for younger students, researchers simplified routines to keep the focus on generating ideas for common story elements such as using a “think sheet” to help generate ideas as students initially learned the strategy. Six students considered struggling writers but not formally identified for special education services participated in a multiple baseline across participants design with multiple probes during baseline. Students were taught in pairs for 25 minutes for as many as 12 sessions. Measures of student writing outcomes were the number of words, number of elements, story quality, and planning time. The SRSD strategy taught consisted of two mnemonic devices: POW (Pick an idea, Organize notes, Write and say more) and Graham and Harris’s (1989) WWW, What2 + How2. Results indicated that all six students wrote more complete stories, with story length and quality increasing two to four times from baseline scores. In addition, students spent on average 4.20 minutes planning at postinstruction compared to 0 or less than a minute at baseline. One student increased from 15.7 words to 101.0 words in length and from 1.3 points to 5.7 in quality. Increased inclusion of story elements and quality was maintained during the maintenance phase 3 weeks later with the four students participating. These last results were important in

indicating that even students who performed at minimum levels were able to not only learn, but also generalize basic knowledge of a strategy that influenced their writing behavior to produce more complete and detailed stories.

The positive findings from the previous study were the catalyst for Saddler (2006) to replicate and extend the 2004 work (Saddler et al., 2004) utilizing the same experimental design, instructional procedures and materials, and grade level population. Saddler (2006) extended the 2004 research in two ways: by including writers with even lower levels of performance in terms of both reading and writing, and by all the participants being formally identified as having LD. This group of students has been found to score significantly lower than their nondisabled peers on writing measures (Saddler, 2006). The researcher anticipated that strategy instruction would have the greatest impact on the weakest writers. Results indicated that students improved in all three outcome measures to a greater degree than the previous study. Positive findings indicated that story elements increased to three to five elements with all students, average length increased to 47.3 words, and quality improved to a 4.7 average score. Another positive finding was that planning time also improved from 5.21 seconds to an average of 4.21 minutes. All students wrote more complete stories, but in comparison to the previous study none of the students consistently included all seven story elements in their postinstruction story. Saddler (2006) indicated that this finding suggested that this lower level of students needed more instruction time to internalize story elements.

Furthering this line of positive work on effective writing instruction with struggling writer second-grade students, Lienemann, Graham, Leader-Janssen, and Reid

(2006) also replicated the Saddler et al. (2004) study while extending this work with a more diverse and challenged group of students. These challenges included not only both reading and writing difficulties, but four of the six students experienced learning disabilities, language difficulties, orthopedic impairments, and attention deficit hyperactivity disorder (ADHD)/reactive attachment disorder/bipolar disorder. Two other extensions are present in this research. First, this study took place in a rural setting with primarily European American students who were not disadvantaged. This compares to several previous SRSD investigations (Graham, Harris, & Mason, 2005; Harris et al., 2006; Saddler et al., 2004) which took place in urban schools that were overwhelmingly populated with economically disadvantaged African American children (Lienemann et al., 2006). Second, in the previous investigations schools employed a process approach to writing instruction emphasizing planning, drafting, and revising as important. Lienemann et al.'s study's school taught only basic writing skills, such as handwriting and spelling, with little emphasis on the process of writing—creating a more isolated and challenging environment for SRSD strategy instruction to be effective. Six students were taught individually by two researcher/instructors over six to seven sessions lasting 30 to 45 minutes using the same two mnemonics used in Saddler (2006), POW and WWW, What2 + How2. The findings indicated positive results with baseline scores from story outcomes improved overall for students. All student participants averaged 2.1 story elements with baseline improving, with four students including all seven elements postinstruction in all their stories, and two others scoring four to five on elements. For three students the length of their stories increased two to four times from the average of 28 words. Findings also

showed improvement in quality scores reporting a 137 to 277% increase for four students from the baseline average of 1.8 on a 7-point scale, with two others only improving slightly. Overall, students' improvements carried over to the maintenance phase for elements, length, and quality. The findings for this study provided evidence that the SRSD instructional approach can positively impact a broadly diverse group of younger elementary students in a rural setting, even where the process of writing was rarely emphasized in curriculum.

Deatline-Buchman and Jitendra (2006) extended the work of Wong (1997) to the elementary level using 5 fourth-grade students with LD from an urban setting. Using Wong's argumentative strategy, the goal was teaching students to plan, write, and revise their essays. Dependent measures were number of words, planning time, writing time, and quality. Results demonstrated significant gains in all measures with 102 words as the average increase, and planning times gaining from 6.97 to 19.04 minutes. One consideration mentioned by the researchers was that this sample of students with LD was younger than in Wong's earlier studies (Wong et al., 1996, Wong, Butler, Ficzer, & Kuperis, 1997), so more time with instruction may be needed than the 8 weeks given.

Another fairly recent study which is an extension of previous work is important for broadening the view of different instructional approaches to improve the writing of younger students. Saddler, Behforooz, and Asaro (2008) used the approach of teaching sentence combining as a tool for story writing, extending the earlier research of Saddler and Graham (2005) assessing the effects of a sentence-combining procedure involving peer-assisted practice on skilled young writers. This study used a sample of three pairs of

fourth-grade students meeting the district criteria for learning disabilities and showing evidence of weak writing skills. Instruction was across a 6-week period giving 18 sessions lasting 25 minutes each. The results indicated significant progress for all variables, especially sentence combining reporting 100% PND, writing complexity with a 91.6% PND, and story quality with a 87.5% PND. The variable of instances of taught sentence combining construction in text reported the lowest scores with a 71% PND. However, this variable was thought to have an effect on improving story quality, particularly with the increased adjective use that was apparent.

Saddler et al.'s (2008) extension of previous work was important in two ways; first, it improved generalization of a skill to support story writing by adding more practice time from the previous work. Second, instead of pairing less-skilled writers with more-skilled, giving immediate support, all students were less-skilled to ascertain how this group would complete tasks without immediate benefit of a more skilled writer.

The work of Troia, Graham, and Harris (1999) specifically examined the effectiveness of the inclusion of planning during writing instruction. Three fifth graders with LD received 7 lessons lasting 60 to 90 minutes employing the SRSD strategies of SPACE (Setting, Problem, Action, Consequence, Emotion), DARE (Develop topic sentence, Add supporting details, Reject arguments, End with conclusion), STOP, and LIST (Stop, Think Of Purposes, and List Ideas, Sequence Them). Students wrote both narrative stories and persuasive essays. Planning was measured by time spent planning and written plans produced, scoring plans with a rubric measuring the number of written propositions (ideas) contained in each plan. None of the students generated plans at

baseline before learning the intervention strategy. Time spent writing was also measured. Both stories and essays were measured for length, quality and elements with planning and writing time also. Rubrics were used to measure quality and elements. Results demonstrated significant scores across all measures with planning time increasing significantly at postinstruction. Planning scores did drop slightly at maintenance and generalization a month later with scores still remaining significant over baseline.

Continuing research on the effectiveness of the addition of planning to writing instruction for students with disabilities, Troia and Graham (2002) replicated and extended the previous study to examine planning strategies to support student writing. Twenty-four fourth and fifth graders with LD all had IEP goals for writing. One extension of the previous research was use of an experimental design with SRSD instruction consisting of the strategies STOP and LIST (Stop, Think Of Purposes, and List Ideas, Sequence Them) taught in the experimental condition and process writing from the traditional curriculum taught in the comparative condition. Students wrote persuasive essays and narrative stories. Both conditions received between 9 to 10.8 hours of instruction. Measures included quality, length and organization (elements) of written products with planning time and propositions (ideas) included in written plans being the process measures. Results indicated significant gains for the experimental group over the process group in story length and quality for postinstruction and maintenance, compared to no difference in scores for essays between the two conditions across phases. Both of these studies support the addition of planning strategies to writing instruction for improving the writing performance of students with disabilities.

Research by disability. The next groupings of research studies are reviewed together by disability including emotional behavior disorder (EBD), ADHD, and Autism Spectrum Disorder (ASD).

Emotional behavior disorder (EBD). Investigating younger EBD students and choosing to include a range in grade level, Mason and Shriner (2008) conducted a study with elementary students in second to fifth grades with EBD using the SRSD POW + TREE persuasive writing strategy. As noted earlier, the mnemonic POW + TREE represents Pick an idea, Organize notes, Write and say more (POW), with Topic, Reasons, Explanations, and Ending (TREE). This strategy facilitates teaching students how to plan, organize, and manage their ideas into an essay expressing their opinions. Measuring parts, quality, number of words, and transition words, results were significant, reporting 100% PND. Generalization and maintenance were more varied yet overall students' skills improved considerably for planning, organizing, and writing a persuasive essay.

Lane et al. (2008) is an extension of a previous line of work with EBD students. The two extensions were targeting a writing intervention as part of an existing schoolwide Positive Behavior Support (PBS) mode and determining the effectiveness of SRSD strategy instruction with students at risk for EBD who also had writing deficits. Six second-grade students at risk for EBD participated, receiving 13 to 15 individual sessions of SRSD story writing instruction. Findings were significant, indicating that all participants increased all measures of story length, elements, and quality as well as maintaining acquired skills.

This line of research continued with a study conducted by Lane and Menzies (2010) extending previous work to include students with either externalizing or internalizing behaviors as part of the profile for EBD. The number of students was increased to 13 second graders receiving instruction using SRSD POW + TREE and WWW How2 What2. Modifications were made from the previous study increasing time for mastery of the first two stages and increasing verbal reinforcement to encourage student engagement and participation. Results demonstrated significant increases for all students for story elements and length with four of five students increasing also in quality. Skills were also maintained through maintenance.

Attention deficit hyperactivity disorder (ADHD). Lienemann and Reid (2008) examined instructing younger students with ADHD by using the SRSD POW + TREE strategy with four fourth- and fifth-grade students. Researchers intended to extend previous research with SRSD by extending to a younger group of students with ADHD and expanded the genres used with this group of students to persuasive writing. Results showed students increased markedly across all measures, particularly for length and elements with 100% PNDs. Given the success of this strategy with younger students with ADHD this was an important extension for broadening writing instruction at this level and potentially for older students.

Autism. The next group of research reviews work with students with autism. Asaro and Saddler (2009) conducted a qualitative case study with a fourth-grade student with Aspergers Syndrome, a form of autism. The student received seven 30-minute sessions of instruction with SRSD POW + TREE and WWW How2 What2. Results

indicated significant gains for measures of elements and quality, with continued skills reported in these measures through to maintenance.

Asaro-Saddler and Bak (2012) continued this line of work with three third and fourth-grade students with autism, one of the three diagnosed with Asperger's. The SRSD strategy was used for the intervention consisting of seven to eight 45-minute sessions. Results were positive for measures of quality (100% PND) and planning, with students exhibiting overt signs of planning. Length (number of words) was variable for all participants.

This same research team continued extending their previous work by adding the use of peer collaboration with students working in pairs through the writing process. Six fourth- and fifth-grade students were paired together receiving 7 to 10 40-minute instruction sessions using the SRSD POW + TREE strategy. The results revealed significant increases for students in quality and elements. Students also made positive increases in planning as well as evidence of positive peer collaboration. The results of this study are important for future work with students with ASD, particularly given a characteristic of this disability is difficulty socializing and communicating well with peers.

The research discussed at the elementary level presents important factors that support strategy instruction for writing as an effective tool to teach basic necessary writing skills at grade level, as well as important extensions of previous research in ADHD and ASD. In summary, 22 studies were reviewed involving 566 student participants; studies utilized experimental, single subject, and qualitative design, teaching

five different writing strategies with 17 of these being SRSD instructional strategies. Four disability categories were part of research reviewed as well as instruction with typical students. Results highlight significant effects for writing strategy instruction within the regular inclusive classroom setting, as well as generalizing learned writing skills to content-area curriculum and to statewide educational assessments. Research conducted at this level provided the foundation for further research at the middle and high schools levels.

Middle School-Level Research

Because of the growing consensus that waiting until higher grades to address literacy difficulties that begin in early elementary school is detrimental to student success, Coker and Lewis (2008) further emphasize the important point stated in the Carnegie Foundation Report *Writing Next* that more funding is necessary to stimulate research and encourage more attention to writing instruction research and successful instruction at the secondary levels—grades 6 to 12 (Graham & Perin, 2007a). Middle school level-research has been furthered by extension to the higher grade levels by the researchers who conducted early elementary studies, providing valuable results for improving writing instruction for middle school students and opening opportunities for continued work in writing instruction research. The following review synthesizes 23 middle school research studies in various instructional settings including 11 different disability categories.

General education. The following research studies which take place in the general education setting with typical students was conducted by researchers who have

devoted the majority of their efforts to students with disabilities. The first two studies extend SRSD strategy instruction, primarily researched with students with disabilities, into the traditional classroom with typically performing students. De La Paz and Graham (2002), and Reynolds and Perin (2009), demonstrated that SRSD provides an effective means for teaching normally developing writers, as well as that SRSD instruction can be delivered in the regular classroom with significant positive effects. These studies also provide support to further the assumption that delivering effective writing instruction in the inclusive classroom will likely become more acceptable and less burdensome for teachers if they have access to instructional procedures that benefit normally developing students as well as those with disabilities (De La Paz & Graham, 2002).

Pursuing the effectiveness of the SRSD writing strategy approach with middle school students in the regular classroom, De La Paz and Graham (2002) investigated seventh and eighth graders, extending De La Paz's previous studies by working with normally achieving students, again using a traditional classroom with regular teachers performing instruction replicated from De La Paz (1999, 2001). Researchers used existing classrooms for a quasi-experimental design creating comparison conditions. Students in the experimental condition received SRSD instruction using the PLAN + WRITE mnemonic, while the control condition received a traditional writing curriculum. Intervention instruction was delivered by classroom teachers during 24 sessions lasting 35 minutes. The dependent measures used in this study were identical to those used in De La Paz (1999). De La Paz and Graham (2002) reported improvements for all measures of student outcomes, from the experimental group receiving strategy instruction compared

to the control group. The findings reported effect sizes for planning of 1.17, length of 1.13, and quality of 1.71, with skill levels held at similar results at maintenance 1 month later.

Investigation into writing strategy instruction at the middle school level continued to expand by emphasizing the importance of student writing abilities across the curriculum through extending the research to the content area. Reynolds and Perin (2009) centered on building writing skills using expository text in the content area. This study compared the effects on student outcomes between Text Structure Instruction (TSI), SRSD PLAN + WRITE for Summarization instruction (PWS) (De La Paz, 1999), and Neutral Literacy instruction (NL). The participants were 127 seventh-grade students from six social studies classrooms. All three conditions were administered to whole classrooms in 45-minute sessions using the same text, reading, and writing tasks. The dependent measures measured main ideas and the writing quality in student written summaries four times during the study: pretest, posttest, near transfer, and far transfer. Students were asked to write a summary using two passages with similar topics. The near transfer summary was written from two passages based on a different topic from the one used during instruction. The far transfer measure differed from the others, using three passages that were from a different domain which was science. The student written summaries were scored on whether the main ideas were fully specified in the summary (3 points), adequately (2), partially (1), or not at all (0). Writing quality of student summaries was assessed using a 4-point writing rubric. Positive results for this study indicated the SRSD PWS instruction had a significant main effect on main ideas in the students' written

summaries at postinstruction with an effect size of .77, as well as results for the writing quality of student written summaries which showed a small effect size for improvement of .26. Results also indicated that SRSD PWS students performed better than the control group on the near transfer with an effect size of .74 on main ideas, and for writing quality reported an effect size of .75. Results for far transfer summaries PWS students produced small effect sizes for both main ideas reporting .47, and an effect size of .57 for writing quality. Overall, the SRSD PLAN + WRITE for summarizing instruction produced positive findings for improving student writing skills for measures of writing quality, main ideas, and content knowledge in student written summaries.

The findings of these two studies contributed significantly to further support the effectiveness of SRSD writing strategy instruction for improving student writing skills, as well as improving student skills for learning and organization of content knowledge which are necessary skills for student academic success through middle school and completing high school. In summary, using the traditional classroom setting with a total of 175 typical students from seventh and eighth grades was important as well as the fact that the instruction implemented in these studies was SRSD strategies.

General education and special education. This section reviews six research studies in the general education classroom involving both typical and special education students across grades 4 through 8 receiving various methods of strategy instruction. Both student populations learning in the inclusive general education classroom has recently become more the norm for all students, emphasizing the importance of this research.

The middle school-level study by De La Paz (1999) was one of the first other than Danoff et al. (1993) to investigate writing strategy instruction in the regular inclusion classroom setting. This study is especially important because it extended previous work using text structure to generate content in four important ways. First, no SRSD studies to this date had examined outcomes for students with or without LD in regular education classrooms with regular teachers as the primary instructors. Second, this study included 22 seventh- and eighth-grade students whose initial writing abilities were at a greater variance of levels (LD, low, average, and high) than in previous studies. Third, De La Paz also included a “high-stakes” competency test taken at the middle school level in Tennessee where students performed on demand, planning and generating a first draft within a 35-minute time period. Additionally, the genre selected was persuasive or personal narrative text. The fourth extension involved changes made in the SRSD model of instruction to accommodate the teaching styles of regular education teachers who may have as many as 33 students in their inclusive classrooms. A small-group collaborative practice lesson was added to the instructional sequence to provide an intermediate step between whole-class collaborative practice and independent practice. In addition, because of teachers having limited time for grading and feedback, student pairs were established to provide oral and written feedback about their essays.

Students in De La Paz (1999) were taught using the SRSD PLAN (Pay attention, List, Add supporting ideas, Number ideas) + WRITE (Work from plan, Remember goals, Include transition words, Try different sentences, Exciting words) mnemonic over 16 instructional sessions. Positive findings revealed that students at all levels improved

across all measures. More than 55% of the students generated plans in advance of writing, receiving the highest rating possible. Results indicated the length of essays increased 250% for students with LD, 215% for high-achieving students, and doubled for low and average students with effect sizes for length of 4.08, 4.41, 3.06, and 3.82 respectively. The number of functional essay elements increased an average of two to three times greater for all students, with an effect size of 4.38 for students with LD, 4.00 for low-achieving students, 5.07 for average achievers, and 2.49 for high achievers. Results also indicated that quality scores for student essays postinstruction almost doubled for low-achieving students with an effect size of 3.45, doubled for students with LD, while also showing increases for average and high-achieving students with effect sizes of 4.60, 5.33, and 5.16 respectively. Positive results were also reported during the maintenance phase 4 weeks later, with students maintaining gains achieved during instruction. An extremely important finding from this study is that regardless of students' initial writing ability, their approach to writing was affected by this strategy instruction. In addition, many of the eighth graders in this study reported using the strategy during their state writing exam.

The findings from De La Paz (1999) were critical for extending writing instruction research and implications for improving effective writing instruction at the middle school level. Positive results for all the extended factors that were part of this research were reported: regular teachers performing instruction in the regular inclusive classroom, a wide range of student writing abilities including high-achieving students, and state assessments administered under timed conditions. One of the most important

consequences of this study was that all these extended components carry forward into research studies that follow it.

Similar to the 1999 study, De La Paz (2001) continued investigating writing strategy instruction at the middle school level with regular education teachers as primary providers of instruction in the inclusive classroom with study participants left in their regular setting. However, in contrast to the 1999 study, the purpose of this investigation was to use the SRSD approach with students whose learning profiles were different than previous studies to determine if positive treatment effects would occur with other populations of students with mild disabilities, such as attention deficit disorder and specific language impairment. Student participants were a small group of three students with specific disabilities. Students received 16 sessions lasting 35 minutes using the SRSD PLAN + WRITE mnemonic with special education teachers facilitating instruction. The findings reported for postinstruction indicated improvement for all students across all measures; 54% of student plans measured received either the highest or next highest score which included main ideas, details, and examples. The number of elements included in essays improved for all students over 300% from baseline scores, as well as the length of student essays, which more than doubled for all students from baseline. In addition, quality scores also improved significantly with scores averaging 2.2 points of a possible 6 points at baseline to an average of 5.0 at postinstruction. Students continued to perform at postinstruction levels during maintenance 4 weeks later.

Results of this research study provided further evidence of the effectiveness of SRSD instruction, extending successful implications for writing strategy instruction for

students with a broader range of mild disabilities, including students with attention deficit disorder and specific language impairment receiving instruction primarily in the in the larger general classroom.

De La Paz (2005) continued to examine SRSD instruction in the traditional classroom with 70 eighth-grade students using an experimental design. The 12 students with LD were in the experimental group. Instruction consisted of two strategies: a historical reasoning strategy and the SRSD persuasive strategy STOP DARE. The historical reasoning strategy was based on SRSD principles of instruction, taking students through the process of understanding information both primary and secondary information in historical documents, reconciling conflicting information and points of view, to build understanding of historical events and write persuasively to support their view. Students were taught for 12 days in small groups and used their Language Arts class for writing their essays. Results using a between-groups comparison showed significant increases for the measures of essay length, persuasive quality, and number of arguments with effect sizes ranging on these measures from 1.17 to 1.23. This research supported the transfer of research to practice with regular and special education teachers being trained in two strategies with fidelity of treatment being maintained.

Ferritti, Lewis, and Andrews-Weckerly (2009) completed research with 96 students in grades 4 and 6 in the traditional classroom setting. Students wrote argumentative essays about controversial topics either under a general goal condition or an elaborated goal condition. The elaborated goal condition contained more subgoals in the strategy to additionally support a student's writing process. Students used graphic

organizers with nodes describing the strategy steps. Strategies were derived from the pragma-dialectical theory of argumentation (van Eemeren, Grootendorst, & Henkemans, 2002). The results of this study were significant for the measure of overall persuasiveness at both grade levels and with both groups of students.

The next study in this category, Wong et al. (1997), used a unique SRSD strategy called CHAIR anchored in the metacognitive reflective strategy use component of students thinking conscientiously and mindfully about the importance of balanced reasoning (both PRO + CON) sides of an opinion in writing opinion essays. This is supported by use of a visual support showing a chair with the seat labeled “my opinion” with two legs labeled PRO and other two labeled CON. This and other visual supports and “think sheets” are used teaching this strategy, along with revision. The total number of student participants was 57 students from sixth grade with 17 students who were either diagnosed with LD or a behavior disorder, or presented a profile of a low-achieving student. Instruction was taught over 27 class sessions lasting 80 minutes. Two weeks of six sessions were used for students to write their training essays. The findings from this study reported that overall, students scored significantly for quality, organization, and wrote at a faster rate than baseline. Results for the measure of revisions were varied between students. An important extension of this study was that it proved the efficacy of SRSD strategy instruction to a more ethnically and culturally diverse group of students with only 16% of students being Caucasian, as the majority of students were either Asian or South Asian.

The last study to review in this category, Cihak and Castle (2011), is also an experimental design with 40 students from the eighth grade. Instruction is based on a commercial produced expository writing program Step Up based on a model of explicit and strategy instruction methods. The instructional intervention consisted of five instructional lessons lasting 90 minutes each. Results were significant for quality expository writing for both student groups with and without disabilities. The measure for quality expository writing was scored using a 7-point rubric developed for the state criterion assessments. After the writing intervention, 84% of the students with disabilities and 100% of students without disabilities demonstrated writing competency. This study provides support for the use of commercial instructional writing programs as part of a middle school grade level program.

In summary, the previous six research studies involved writing strategy instruction in the general education inclusive classroom for 308 students across grades 4 to 8, both typical and with disabilities, and with four different disability categories represented. Two of the four writing strategies used for instruction were SRSD, one a commercial program and one teacher-generated strategy. The most important conclusion from results of all six studies is all students made progress learning and improving their writing skills in the general education inclusive setting. This has important implications for improving the success of middle school students as they progress to the important high school years and graduation.

Special education. This last category reviews only research conducted with students with disabilities. Special education instruction employs various methods and

settings to facilitate learning for this group of students. These research studies inform practice on the viability of particular methods and approaches for teaching writing to students with disabilities, informing teachers which settings will be optimal for student learning and what methods may be more appropriate and effective with certain disability categories. This section reviews 15 research studies with over 500 participants taught in various instructional methods.

Monroe and Troia (2006) researched the effects of a short period of strategy intervention with three LD students from sixth, seventh, and eighth grades. The researchers used multiple strategies for planning, revising, and self-regulating: the DARE strategy was introduced (Develop, Add, Report, and End); the SPACE strategy was employed (Setting, Problems, Actions, Consequences, and Emotions) to prompt remembering the narrative structure and assist in planning; and for revision, the CDO strategy was used (Compare, Diagnose, and Operate). Last, a scorecard assisted both the self- and peer-evaluation process through the final stage of essay production. Findings showed statistically significant gains in students' persuasive writing abilities with the measure of essay elements. Quality scores increased, however, not significantly for all students. Students also struggled to generalize these skills to narrative writing. The researchers suggested that multicomponent strategy instruction has implications for closing the achievement gap between the poorest writers and their more capable peers. Monroe and Troia also comment that using multiple strategy components may be beneficial for second language learners with writing instruction (Bui et al., 2006). An interesting anecdote during this study occurred with a sixth-grade student who thought

that revision was cheating, and became motivated to go back and fix his composition for more points once he understood he was allowed to do this.

Garcia-Sanchez and Fidalgo-Redondo's (2006) study is an experimental design with 121 Spanish students with learning disabilities from the fifth and sixth grades which compared the effectiveness of two different cognitive models of instruction. Students were instructed and assessed by four educational psychologists, two per condition, for 50 minutes in 25 weekly sessions. The first experimental group was given curriculum-based content-area instruction and reference materials with instruction anchored in the SRSD model. The second experimental group was also given curriculum-based content-area instruction and reference materials with instruction anchored in SRSD on a social cognitive model of sequential skill acquisition (SCM). Content-area writing done was based on the compare–contrast narrative focus. The comparison group was taught standard curriculum and instructional method. Dependent measures were based on rubrics for quality, coherence, structure (number of essay elements), and productivity (number of paragraphs, sentences and words). Results demonstrated that all students in the experimental intervention groups made significant progress on all measures. Significant differences were demonstrated between the experimental groups on the structure measure, with students in the SRSD-only condition showing significant gains over the SCM group. No maintenance or generalization phases were conducted for this study. This research offers another use of the SRSD method by blending it with a second method, as well as the successful adaptation of SRSD to another country and in a different language base.

The research of Patel and Laud (2007a) continued important research in writing strategy instruction by narrowing participants to a specific middle school grade level. Even more critically important was that this study extended research to this grade level by examining whether results would compare to those reported in prior studies where research focused on generalizing student writing skills from a resource to a general education setting. Patel and Laud used the SRSD model incorporating the SRSD WWW, What2 How2 story writing mnemonic in a resource setting with three sixth graders. The purpose of this study was to investigate the effectiveness of integrating a writing strategy based on the SRSD model into a resource support program. The average changes from pre- to posttest, along with results of the generalization stories, were statistically significant. The positive findings of this study suggest the equal effectiveness of the writing strategy used, even though instruction occurred as part of a resource program instead of exclusive of other instruction. This finding has significant implications given the notion that the resource students with LD are often unable to transfer strategies or skills learned in resource room settings to general education settings (Wong, 1997).

In the same study, this research team continued expanding SRSD writing strategy investigation by expanding the WWW How2 What2 strategy to the seventh grade. Patel and Laud (2007a) also extended this strategy instruction by adding three elements to the strategy. The first element was the concept of V & V (Patel & Laud, 2007a), representing visualize and verbalize to strengthen the images create mentally when reading. The second is a structures framework of words asking questions such as “what color, size, shape, where, when,” intended to support the student’s effort to verbalize their mental

images and categorize these elements of for their writing (Patel & Laud, 2007a). The third added the mnemonic POW (Pick an idea, Organize my ideas, Write and say more) originating from the SRSD POW + TREE strategy to the beginning of the WWW How2 What2. Study participants were three students with disabilities all having language-based learning disabilities and one also having a second diagnosis of attention deficit disorder. Students received instruction three times a week in 55-minute individual sessions in the resource room setting. Dependent measures for this study included word count, story grammar elements, number of images, and quality.

The results demonstrated significant results for all measures with only one student not showing increases in the measure of quality. The researchers felt that overall all students wrote more developed stories. For word count all students increased number of words between 100-200 words. The measure for number of images increased between 2-12 images for each student, with story grammar elements also significantly increasing by 7-8 elements. On the quality measure two student made gains of 2-2.5 words with one student's scores staying the same. The outcomes for this research demonstrated that when teachers are able to clearly identify and target a student's specific difficulty in writing and remediate with validated writing strategy instruction, students with disabilities can improve. Patel and Laud (2007a) recommend that teachers allow more time for practice, using different ways to make this time more interesting such as reading their writing work orally in small groups or to themselves, or using different images so that continuing to write remains fun.

At the middle school level, the demand for students to add fluency to their writing skills expands with the increased academic expectations for student writing. Focusing on this component of student writing skill, Mason et al. (2009) created an important line of writing strategy instruction research using the SRSD POW + TREE persuasive strategy centered around achieving fluency known as the Quick Write response (Fisher & Frey, 2003; Mason & Kubina, 2011). Mason and Kubina (2011) examined the effects of using SRSD for building fluency using the Quick Write response which consists of completing a paragraph with all necessary essay components in a 10-minute period. This is often a task required of middle and high school students in content-area classes as well as English class. Participants in the two Mason et al. (2009) interventions were students with disabilities, primarily specific learning disabilities with three diagnosed with attention deficit hyperactive disorder and two with other health impaired. Teachers reported that all students demonstrated difficulty with writing assignments in the general education classroom. Both persuasive writing and Quick Write tasks were areas of struggle specifically reported by teachers, further relating that the participant students needed to complete Quick Writes to participate fully in their content areas classes. The sample in Study 1 consisted of six students from both seventh and eighth grade. Students were taught in pairs by a researcher/graduate assistant for six 45-minute sessions. A special education teacher assisted with delivering assessments and also 10-minute writing measures during the students' language arts class. For the second study, two special education teachers delivered identical instruction to 10 students from seventh and eighth grade over six 45-minute sessions. Results for the first study indicated that even though

students achieved completed writing prompts which included all TREE elements during instruction for mastery, postinstruction performance of students showed improvement with a 94% PND and 100% for maintenance for elements. Positive findings were reported for the number of words written, showing results for all students that remained above the baseline average of 83.58, improving both at postinstruction to 108.05, and at maintenance to 106.60. For this first group, despite variability, a large effect was achieved for the number of parts written during both postinstruction and maintenance. Mason et al. (2009) believed that more teacher guidance was needed to develop student performance in writing within a 10-minute timer period.

For Mason et al.'s (2009) Study 2, results were also reported as varied with 8 of 10 students demonstrating performance above the 8-point criterion for elements during postinstruction, with a PND for all students at 77%, and maintenance of 67%. The results for the quality measures indicated only three students demonstrated above-baseline measures on all postinstruction measurements, and four students were above baseline at maintenance. In addition, findings indicated students also made positive gains in the number of words written. Overall findings for this second teacher-taught study indicated gains across all phases and measures for 5 of the 10 students, confirming the positive effect of this strategy instruction and the Quick Write response, as well as indicating that POW + TREE could be transferred to a middle school classroom. The additional use of teacher modeling for instruction during the timed task did not produce anticipated performance gains from Study 1 to Study 2. Although instruction for Study 2 included additional teacher-led modeling during the timed writing response, collaborative and

supportive practice for the timed response was not specified in the Study 2 lessons. The researchers commented that possibly the paired instruction in Study 1 may have provided more opportunities for student-needed direct individualized support, as well as the collaboration during guided practice in the group instruction during Study 2 (Mason et al., 2009). These two studies reviewed together provide a unique comparison for analyzing and making considerations for improved supports with SRSD strategy instruction for middle school students with disabilities.

Research by disability. Mason et al. (2010) continued investigating middle school SRSD writing instruction using the persuasive essay writing and Quick Write response with seventh- and eighth-grade students, extending the research to students with severe emotional behavior disabilities (EBD).

Emotional behavior disorder (EBD). Mason et al. (2010) extended Mason et al. (2009) by adding additional guided practice lessons for writing a timed response and measuring the effects for students with EBD. Five students participated in five 30-minute instruction sessions along with three additional 10-minute sessions. Students received individualized instruction from a trained special education graduate student. The results revealed positive findings for the quality of student written responses despite some variability with a PND of 84% at postinstruction, and maintenance PND of 60%. Results also reported that the number of elements stabilized for students at above criterion (8 points) during and after instruction with PNDs of 76% for postinstruction, and 60% for maintenance. However, findings reported for the number of words written decreased after

instruction from 120 words at baseline to 104.52 words at postinstruction, and further down to 93 words at maintenance.

Despite variability, findings from Mason et al. (2010) using SRSD persuasive essay strategy instruction and Quick Write response instruction supported this group of students' improvement with the quality of their written responses, especially given their challenges with organization, attention, work completion, and rushing through written tasks. In addition to positive findings, social validity measures from this study reported that students remarked favorably about the strategy instruction, saying that it helped with organization, writing more, and generating better ideas. These combined findings from Mason et al. (2009, 2010) support the effectiveness of SRSD writing strategy instruction for building additionally important fluency skills for students with disabilities at the middle school level.

Research using SRSD persuasive writing strategy instruction has continued to build on middle school students' need for fluency skills for writing. Mastropieri et al. (2009, 2010), extended research using the SRSD POW + TREE persuasive strategy instruction to writing multiple-paragraph essays combined with Quick Writing to include students with severe EBD. Participants were 12 students in the first study and 10 in the second, all from a special public school for EBD students in the district. Participants received writing instruction using the SRSD POW + TREE strategy for persuasive essay writing. After mastering the strategy, students learned to apply all strategy components fluently in 10 minutes. Students in both studies were also observed for time on task behavior. The results for Mastropieri et al. (2009, 2010) reported significant gains on all

measures for the postinstruction and fluency phases for measures of number of words, number of paragraphs, number of essay elements and transition words, and quality. In addition, positive gains were maintained on maintenance and generalization writing probes administered 3 months later. These findings were significant with this population in supporting the effectiveness of SRSD strategy instruction for successfully teaching writing skills to students with severe disabilities.

The impact of SRSD and writing for middle school students with EBD was the focus of follow-up studies by this research group. Mastropieri et al. (2012) moved forward at the middle school level with research building critical writing skills, including fluency, by extending this research to the EBD population in the inclusive general classroom. This study also included counterarguments as part of the components of effective persuasive essay writing for multiple-paragraph essays as well as timed Quick Writing. Students received instruction in small groups for a mean number of 18.2 sessions, completing the intervention instruction with fluency training with students completing all essay components of both the single- and the multiple-paragraph essays within a 10-minute period. The findings of Mastropieri et al. (2012) revealed all students mastered the SRSD persuasive writing strategy, producing essays that were longer, more organized, and of improved quality, including counterarguments and all essay elements. Results indicated that individual postinstruction essays had all 100% PNDs for measures on length, number of sentences, transition words, essay elements, paragraphs, and quality measures. Significant findings were reported for the number of words, which increased from 43 to 133 words at baseline to 152 to 334 words during postinstruction, as well as

the number of sentences which increased from a baseline average of 5 sentences to an average of 18.67 sentences. In addition, positive results were reported for the number of paragraphs written which increased from the baseline average of less than 1 complete paragraph to a range from 2 to 6.7 paragraphs in their postinstruction essays. Additional results were reported for the number of essay elements which increased dramatically from baseline levels between 1.3 to 2.3 essay elements to between 9 to 10 essay elements. Results also reported for quality scores during postintervention improved significantly with two students scoring as high as 7 points of 8 points possible, five students scoring 6 points, with the remainder scoring 4 to 5 on their postinstruction quality measures. Study results reported significant student outcomes for fluency measures with students showing considerable improvement from baseline to postinstruction fluency, writing more words, elements, sentences, and better quality essays for the 10-minute Quick Write. Students carried gains in their writing skills through to the maintenance and generalization phases, maintaining higher than baseline-level performance on both untimed and timed writing probes. In addition, all students were able to name the strategy (POW + TREE) and identify all the components in detail.

The findings for these three Mastropieri et al. (2009, 2010, 2012) research investigations are especially important for supporting SRSD writing strategy instruction as a tool for building needed fluency skills with students with EBD, as well as other students with disabilities in the inclusive classroom at the middle school level. The results of all three studies provide additional impressive support for SRSD as effective writing instruction: this group of students wrote significantly improved multiple-paragraph

essays, achieving and maintaining not only improved writing skills, but performing those skills completely and fluently within the Quick Write period.

The next five research investigations follow this same line of SRSD writing research, replicating and extending into important elements of middle school writing instruction. Four of the five studies have EBD students; one study was with students with ASD. The first of these is a study conducted by Cuenca-Sanchez, Mastropieri, Scruggs, and Kidd (2012) was an experimental design with 21 participants from a special school for students with severe EBD. This investigation extended previous research by including SRSD as a component of instruction training for self-determination skills. Results showed significant gains for the number of words, sentences, paragraphs, parts, and transition words as well as quality when compared to the comparison group. Students also made significant gains on a self-determination measure along with all measures on surprise maintenance probes administered 2 weeks later.

Cerar (2012) went on to extend this research by using combined strategy instruction from SRSD previous writing instruction in a key way: using the Quick Write single-paragraph instruction for fluency as the building block for learning the multiple-paragraph essays. Cerar taught 7 seventh-grade students with EBD from the general education inclusion classroom in a small group resource setting using the SRSD POW + TREE strategy. When the first phase of fluency instruction was completed, students were instructed in the second phase to use the strategy steps to build a multiple-paragraph essay. Cerar's results reported significant findings across all measures: total words, total sentences, total paragraphs, total transition words, total parts, and total holistic score, for

the Quick Write fluency timed for one paragraph. The most significant result for the fluency outcomes was for total parts with an effect size at postinstruction of 7.94, at maintenance of 1.89, and for generalization of 1.58. In addition, this study reported significant findings across all measures (identical to above) for untimed multiple-paragraph essays. The most significant result for these written outcomes was also total parts, reporting an effect size at postinstruction of 3.64, at maintenance of 4.25, and for generalization of 4.67. Cerar's (2012) results were consistently significant for all measures of both timed single-paragraph essays and untimed for longer multiple-paragraph essays, showing the effectiveness of this SRSD instruction for building student writing skills and improving student performance of written products.

EBD and autism. Moving forward continuing with middle school writing SRSD instruction, Hauth (2012) conducted a study with 8 eighth-grade students with EBD, two of those also with a secondary diagnosis of ASD. This research extended instruction by including content-area material. In addition, a measure for planning and writing time was completed to monitor whether students spent more time planning and writing after SRSD POW + TREE persuasive instruction. Instruction was taught by classroom teachers in small groups in an average of 6.7 sessions over 20 days, following with SRSD + Content instruction in 3 sessions over 9 days. The results reported increases on all essay measures from baseline for length, quality, and number of parts, sentences, transition words and paragraphs. For maintenance students showed slight increases in quality, as well as number of paragraphs and essay parts. The amount of time spent planning was significant, showing an increase from baseline ($M = 0:00$) to post-SRSD ($M = 6:38$). The

amount of time writing increased significantly from baseline ($M = 3:05$) to post-SRSD ($M = 14:35$). Students maintained, only decreasing slightly at maintenance but remaining above baseline level. The extension of content to instruction with planning and writing measures demonstrates that middle school students with EBD are able to learn skills for planning ahead before writing, and apply these skills to support writing in content-area assignments.

EBD, autism, attention deficit hyperactivity disorder (ADHD), and cerebral palsy. Mills (2012) investigated using the SRSD POW + TREE persuasive strategy, extending it to include instruction using peer revision strategies to determine if students learned from peer revision opportunities during essay the writing process with SRSD instruction. Participants were 10 eighth-grade middle school students with EBD, with 5 students also having a secondary diagnosis for four other primary disabilities: two with ASD, two with ADHD, and one with cerebral palsy. Instruction was implemented during 8-9 sessions lasting 50 minutes each. The findings demonstrated significant scores across all measures post-SRSD for number of words ($M = 210.10$), number of essay parts ($M = 10.42$), and quality ($M = 77.77$). For maintenance and generalization significant scores were maintained above baseline for number of words, number of essay parts, and quality. Scores for revision measures also showed significant decreases in the number of punctuation, capitalization, and spelling errors.

ADHD, specific learning disability (SLD), hearing impairment, and SLI. The last study in this category used the SRSD method of writing strategy instruction to investigate instruction with students with ASD. This research extended SRSD instruction

to the after-school time frame with different settings. Allen-Bronaugh (2013) implemented instruction with six middle school students from grades 4-6 also having a secondary diagnosis in four additional primary disabilities with two having ADHD, two with SLD, and one with a hearing impairment and one with SLI. Instruction was facilitated after school with four students receiving sessions at home, one at an after-school facility and one in the resource room of the home school. Findings were positive with significant scores across all measures at post-SRSD: essay parts, quality, and number of words reported 100% PND with number of sentences and transition words at 88.83% PND and number of paragraphs at 55.55% PND. Overall, scores only decreased slightly for maintenance and generalization both timed and untimed, however, not for every measure with parts and quality reporting 100% PND, and all other measures reporting scores of 66.67-83.33% PND.

These five investigations in this progressive line of research have been extremely important because they represent a culmination of several effective components of SRSD writing strategy instruction at the middle school level. The positive findings for these are also especially important support for SRSD strategy instruction for students with EBD and ASD having consistent significant outcomes, and the results of generalization of strategy skills to content-area writing.

This last category of 15 middle school-level investigations reviewed only students with disabilities as participants. Participants were from the fifth to eighth grades with the total number of students being 541, representing eight primary disability categories. Instruction settings varied with five studies conducted in the regular classroom, six were

pull-outs to a resource room from inclusive classroom, three were in a self-contained special education classroom, with one in an after school facility and at home. Method of delivery of instruction to students was five studies using small group, two with pairs, and five were individual sessions of delivery, and three studies using the self-contained setting delivered instruction using the larger group method (3-10). Eight different writing strategies were the focus of instruction with six of these strategies based on SRSD method instruction.

To synthesize, this body of 23 research studies at the middle school level utilizes three different research designs: single-subject, experimental, and quasi-experimental, and provides outstanding progress in not just replicating important elements of elementary school writing strategy instruction research, but extending the research by grade level as well as other important instructional areas. A total of 1,531 middle school students from grades 6-8 participated in this research representing a wide range of writing abilities—from struggling to high-achieving typical, with students with disabilities including 10 different primary disability categories, 5 of these being the focus of the current study's research population (LD, EBD, ADHD, SLI, and ASD). The strategy instruction for these studies represents eight different methods of writing instruction, including SRSD method with seven different SRSD writing strategies used in 20 of the 23 total studies. Participants were taught in numerous settings using a variety of delivery methods, with instruction facilitated by both regular education and special education teachers. This wide range of components at the middle school level has implications for broadening the effectiveness of writing strategy instruction into other academic areas,

influencing the delivery of effective writing instruction to a wider student population, taught by both general education and special education teachers, with additional instructional components, genres, and generalizations provided for practice.

High School-Level Research

We know very little about contemporary writing classroom practices in high schools in the United States compared to elementary grade levels (Kiuvara et al., 2009). As detailed in *Writing Next* (Graham & Perin, 2007b), the research on writing instruction has focused on lower grade levels, leaving a huge gap of information for improving classroom practice for writing at the secondary levels, especially grades 9 to 12. Fisher and Frey (2003), in researching a gradual release instruction program for writing with high school students, quoted Fearn that “we are causing more writing than ever before, however writing scores have not changed as a result” (p. 396). In other words, students today receive more writing assignments, mostly in the form of independent writing prompts, and with teachers evaluating the writing products students miss the critical step of instruction (Fischer & Frey, 2003).

Fisher and Frey (2003) took the investigation of high school writing instruction into an urban high school classroom over the course of a school year. Coauthor Douglas Fisher became a coteacher of a ninth-grade English inclusive class in one of the lowest performing high schools in the county and state, and Fisher and Frey examined using a gradual release model toward language instruction. This model is based on similar concepts used in Graham, Harris, and Larsen’s (2001) SRSD individual strategy, but uses a longer-term classroom approach. This model stipulates that the teacher move from

assuming all the responsibility for performing a task, to the situation in which the students assume all of the responsibility for their learning (Fisher & Frey, 2003). This gradual release can occur over days, weeks, or a term, as was the case in this study.

Moving forward in studying gradual improvements in writing instruction at the high school level, Schumaker and Deshler (2009) reported adopting programs similar to the one facilitated by Fisher and Frey (2003) in classroom-wide writing instruction programs across school districts in Michigan, Kansas, and Virginia. The outcomes of implementing research-based writing programs in these states have showed marked student improvement in writing as measured by statewide assessments (Schumaker & Deshler, 2009). These programs at the secondary level follow a singular approach to the writing process as different specific tasks: developing background knowledge, teacher modeling, guided practice, and independent practice that support students producing a completed writing assignment. These tasks are followed as a sequence known as The Strategic Instruction Model (SIM) which includes writing strategies which teach skills such as sentence construction, paragraph or essay writing, and editing. Research to develop the SIM (and related models) has addressed the importance of getting students to understand the purpose of learning strategies and to articulate the steps involved in executing them successfully. As the students increase their strategy proficiency they also graduate in terms of difficulty to more challenging content. The final stage of the model is to prepare the students for generalization. These specific academic strategies can also be applied to a content enhancement model. Teachers think critically about the content they cover, determine which approaches to learning are needed, and teach with routines

and instructional supports applying appropriate learning strategies. The teacher, in effect, teaches content and learning processes simultaneously (Baker et al., 2002).

Currently, only a few research studies have been performed in strategy instruction for writing at the high school level from 2005 to the present. The number is growing as educators become more aware through statewide assessment score reporting of student skills regarding the desperate need to improve writing instruction for high school grade levels (Baker et al., 2009). Of the 11 studies reviewed here, 5 were non-SRSD writing strategy instruction; the other 6 employed SRSD writing strategy instruction examining typical and special education populations.

General education. Two important writing skills for the writing process in the high school classroom are planning and revising. Knowing that high school has increased demands within the English curriculum as well as across content areas, Kieft et al. (2007) examined how well students can adapt these two strategies separately given the task of learning a new genre. Acknowledging that this is often a challenging assignment for high school writers, this research provided important insight into student management and preferences with these two writing tasks. Kieft et al. taught 113 10th-grade students in the regular classroom during language and literature class. Instruction took place weekly for five 90-minute sessions over the course of the school year, using self-instructing lesson material which left the teacher to coach students as they worked independently. Lessons consisted of teaching persuasive or argumentative literature and writing using both planning and revising strategies. For this study students were divided into a planning condition and revising condition.

The findings from Kieft et al. (2007) revealed that students perform either planning or revising as the preferred strategy. Students with low scores on planning writing strategy, who did not impose goals on planning and text production, did not benefit from a preplanning strategy. Instead, these writers performed better when allowed to simply produce text freely, as in the study's revising condition, and received instruction on how to adapt what they produced to the goals of the genre they learned after production. The results provided important information which supports the idea that competent writers divide and sequence their planning and revising process differently, as well as independently. The differences found between planning versus revising strategies in this research and the effect on successful text production for students were key to the use of goal setting as part of the writing process.

De La Paz and Felton's (2010) positive results were critical for writing research at the high school level because their study examined student writing performance in the content-area inclusive classroom, even though none of the participating students received special education services. De La Paz and Felton combined a Historical Reasoning Strategy (De La Paz, 2005) with the SRSD persuasive writing strategy STOP (Suspend judgment, Take a side, Organize ideas, Plan more as you write) to examine the effects of this combined strategy instruction on the writing outcomes of 11th-grade students. For this study, 160 students classified by pretest measures as low to average were divided into two groups receiving instruction from social studies teachers for 50-minute sessions for 6 days total. During the intervention phase, after teachers described and modeled the historical reasoning strategy using source documents, teachers described and modeled the

writing strategy using the STOP mnemonic. At the final stage of instruction, students used both strategies to read historical documents and write two essays, receiving needed assistance from the teacher in applying strategies. Two final essays were written by students from a different document with students directed to create plans for essays from opposing points of view before composing their final essay. Students in the control group did not receive either strategy instruction, but received the same source documents and instruction on summarization. Student essays were scored on the measures for number of words, quality based on a 6-point scale, argument analysis, claims, rebuttals, and document use.

The results for De La Paz and Felton (2010) revealed a significant main effect for the experimental group over the control group for essay length, reporting an effect size of .66%. Positive results were also reported for writing quality, which showed that students in the experimental group were twice as likely to earn the highest rated score (4) for quality compared to students in the control group. In addition, results indicated a significant effect reported for document use with an effect size of .59%, with students from the experimental group much more likely to be able to cite documents or quotations, or use quotations to further an argument after instruction. Results for this study also indicated that students in the experimental group wrote more rebuttals at posttest, with 41% of these students writing essays where more than half of the claims in their essays were well developed. The positive findings from this study provide further evidence of the benefits of strategy instruction for supporting and improving the writing skills of high

school students, including using writing strategy instruction as an important component for content area instruction at this level.

General education and special education. This section reviews the only research study located on writing strategy instruction at this level using non-SRSD method instruction in the inclusive classroom. Clearly, as discussed in earlier grade level sections, this is a critical category given that this particular setting is where the majority of instruction is implemented for students with disabilities (Mastropieri & Scruggs, 2009). Researchers are just recently accessing funding to investigate important literacy tools for secondary instruction in the inclusive setting as well as solely on special education students examining instruction with specific primary disability categories and the high school grades.

This study, by Wong et al. (1996), investigated the use of the interactive dialogue approach to write opinion essays. This quasi-experimental study included 38 eighth- and ninth-grade students classified as LD or low achieving in writing. The experimental group was taught the strategies including interactive dialogue approach while the control was taught standard curriculum. Participants were taught in the general education classroom, and peers met during both the planning and the revision stages of the writing process. The focus of these conferences was on the coherence of the author's argument and the clarity of writing. During the peer-revision conference, the role of the student-critic was to identify ambiguities in the partner's writing, and ask the author for clarification. Each student also participated in a conference with the teacher. Finally, the revision strategy Capitalization, Organization, Punctuation, Spelling (COPS) was used to

correct mechanical errors. Dependent measures scored essays for clarity of writing and cogency of the writer's argument. Results indicated that the students in the experimental condition showed significant gains from pre- to posttest on clarity ($ES = 2.17$) and cogency measures ($ES = 2.74$). Student gains were maintained at 1-week maintenance testing. Comparison between groups demonstrated students in the experimental condition outperformed control students on both clarity ($ES = 2.55$) and cogency ($ES = 2.52$).

Special education. This section reviews nine research studies with high school-level participants with a learning disability. The majority of high school writing research has been conducted in the various different settings found within special education, as setting is one of the most influential factors for special education instruction which is most often dictated by students' disability and need.

A study with positive findings outside of SRSD instruction was the Expressive Writing Program, part of the Direct Instruction writing programs (Walker, Shippen, Alberto, Houchins, & Cihak, 2005). Direct Instruction (DI) includes fast-paced, well-sequenced, highly focused lessons where students are instructed in small groups and are given several opportunities to respond in unison and individually, with immediate feedback. Teachers using the DI methodology follow specific stages of instruction. Teachers (a) model (provide the correct response), (b) lead (have students say the correct answer with the teacher), and (c) test (give immediate and delayed probe on the task initially attempted). As in SRSD strategy instruction, skills are taught until the student exhibits mastery and then are subsequently reviewed and practiced (Walker et al., 2005). Walker et al. performed another study in 2007. For both studies, three 10th-grade students

received instruction from the first author/researcher for 50 sessions lasting 50 minutes in a small group. Measures for both studies were the number of Correct Word Sequences (CWS) and scores on the Test of Written Language 3 (TOWL-3). Results for the first study (Walker et al., 2005) indicated positive outcomes for student writing with a PND postinstruction of 94% for CWS, and 100% PND for both the TOWL-3 and for the maintenance phase CWS results at 2, 4, and 6-week periods. The results for the second study (Walker et al., 2007) also reported improved writing outcomes with 100% PNDs for postinstruction CWS, the TOWL-3, and for the maintenance phase CWS measure. These two studies support DI through Expressive Writing as a method of strategy instruction which supports effective writing instruction for high school students with LD.

The next investigation was unique to this small group of research because participants were students with disabilities who attended academic classes divided between time in special education resource rooms and also a percentage of general education inclusive classes. Chalk et al. (2005) employed the SRSD persuasive strategy DARE (Develop topic sentence, Add supporting detail, Reject arguments from others, End with conclusion) with fifteen 10th-grade students. This study examined whether these strategies provided an effective means for improving students' writing in both quality and quantity. Students chosen for this study received special education classes for at least three academic classes, receiving the remaining academic classes in the general education classroom. Students received instruction from one of the researcher/authors in groups of five during the special education resource period for five sessions lasting 25 minutes during the 50-minute period. Measures for length and quality were performed at

postinstruction, as well as 2 weeks later maintenance took place along with generalization during the administration of practice exams for world history. Results of Chalk et al. indicated that students benefited from an approach to writing that supported their development of strategies for brainstorming, semantic webbing, setting goals, and revising. Findings were that the majority of improvement occurred in word production, showing an effect size of 4.10 at postinstruction, an effect size of 3.37 at maintenance, and an effect size of 3.34 at generalization. Results also indicated that the trend across conditions for the quality measure increased, but not at a significant level with an effect size of .59 postinstruction, an effect size of .50 at maintenance, and an effect size of .51 at generalization.

Positive findings from this research were important for supporting the overall effectiveness of writing strategy instruction for students at the high school level, particularly SRSD writing strategy instruction. In addition, instruction for Chalk et al. (2005) supported the effectiveness of using SRSD with higher grade levels in the inclusive setting, since instruction included multiple components of strategy instruction for writing (brainstorming, semantic webbing, setting goals, revising) being used successfully by students who received a greater percentage of their academic instruction in the inclusion classroom.

Jacobson and Reid (2010) continued additional work with the 11th grade from De La Paz and Felton (2010) with four students with ADHD from the 10th and 11th grades. SRSD strategy STOP and DARE was taught. Students in this study received three 40-minute sessions per week until mastery was achieved for each lesson. Measures were

time spent planning and writing, essay length, elements, quality, and transition words. Maintenance measures were performed at 2 and 4 weeks. Results were significant indicating that all students wrote longer, more complete and higher quality essays. Results also demonstrated overt planning and increase with the time students spent writing. Visual analysis reported 100% PND for all dependent measures across all phases of the study for all students. Researchers reported planning time did decrease during the two maintenance phases, however still remaining significant over baseline.

Jacobson and Reid (2012) continued research with students with ADHD and expanded high school writing research to the 12th-grade level. In addition, Jacobson and Reid extended research on this level to three students identified with attention deficit hyperactive disorder (ADHD) who were also identified as struggling writers, and by employing the SRSD persuasive essay writing using the STOP + DARE strategy. Students received instruction from the first author/researcher for six 40-minute sessions. The positive results for this study revealed significant improvement with PND of 100% for all students for planning, number of elements, number of words, and quality. Results also reported that students maintained improved levels at maintenance, with one participant falling just above baseline for essay length with a PND of 75%. Jacobson and Reid's results are critically important because they suggest SRSD writing instruction can be effective with students at the high school level with ADHD, especially since writing demands at this level focus on persuasive and expository writing. This particular study also suggested that instruction which is sensitive to working memory and executive functioning deficits can be effective with students with ADHD, and techniques such as

teaching small steps, explicit instruction in planning, scaffolding, graphic organizers, prompts, and cues all support instruction for this group of students.

The next study of this group of research brings several additional important components to support the effective use of strategy instruction at the high school level. Positive findings for Mason et al. (2011) additionally extended the research at the high school level to include the Quick Write response measure for students with disabilities, specifically students with emotional behavior disorder (EBD). These results bring additional support of the success of SRSD persuasive writing strategies overall and also when used with students with disabilities from the inclusive English classroom. Three students, one 9th grader and two 11th graders, received up to seven 30-minute lessons of instruction individually from the third author/special education teacher before or after school. One to two additional 10-minute Quick Write practice sessions were also added. The results reported positive findings for the quality of writing scored on a 7-point scale, indicating a level improvement for all participants at postinstruction and maintenance compared to baseline with PND for all students of 79%, and for maintenance of 83%. In addition, results were indicated for the number of response parts showing a small effect for all students with a PND of 68% at postinstruction, and for maintenance a PND of 50%, using an 8-part response criterion with no ceiling for the measure. Positive results were also reported for the number of words written, indicated with a small effect PND for all students of 68% at postinstruction, and a PND of 66% at maintenance. Mason et al. (2011) also indicated positive findings for social validity, with students reporting acceptability of treatment, saying it helped them write better and gave them more

confidence in their writing, with all students also reporting that the strategy helped them with organization.

This research team moved forward to replicate the previous investigation with students with EBD, extending to students with LD at the high school level. Four 11th and 12th-grade participants received five instructional sessions lasting 30 minutes each using the SRSD Quick Write persuasive strategy. Dependent measures were number of words and essay parts. The findings indicated all students performed significantly on the measure for parts. Three of the four students maintained these during the maintenance phase. Results for the measure of number of words were varied with student performances not exceeding baseline consistently during postinstruction and maintenance. Two of the students showed positive scores with two not moving above baseline. Researchers attributed this variability in students' scores to the fact that students with LD established a much higher baseline than students with EBD in previous research, achieving significant scores more consistently at postinstruction. Further discussion by researchers explained this occurrence by suggesting that scores reflect students improving their ability to organize their ideas in a more concise manner without the need for additional words. Despite variability in results, this research was the first to investigate the results of SRSD POW + TREE for 10-minute Quick Writes with students with LD at the high school level. Despite variability in student scores this study shows the potential for using this strategy with students with LD at the high school level.

Overall, despite some variability, the results of these two studies (Mason et al., 2011, 2012) confirm the further effectiveness of SRSD writing strategy instruction for

improving writing outcomes for high school-level students with disabilities. These studies specifically benefit teachers of students with EBD and LD by extending the research to the for SRSD POW + TREE persuasive strategy using Quick Write response within a 10-minute period. This strategy has already achieved positive findings with several middle school investigations. The addition of the fluency component of the 10-minute Quick Write is appropriate for the assessments high school students often encounter in content area classes.

Kiuhara et al. (2012) conducted the last investigation in this category extending to the high school-level SRSD strategies STOP AIMS and DARE. An additional extension of previous research done by Danoff et al. (1993) was to track at what point during instruction changes occur in student writing performance. A multiple baseline and multiple probe design was employed with six 10th-grade students as participants. Four different primary disability categories were part of student profiles: SLD (2), ADHD (2), ED (1), and SLI (1). Students were paired for instruction, remaining with same partners for the duration of instruction. Instruction was delivered during six sessions of 50 minutes each. Also, a token economy was implemented to establish a system of reinforcement. The instructor worked with each pair to determine small, medium, and large items for reinforcement, establishing a point system for students to earn these items. Examples of how students earned points included completing in-class assignments, coming to sessions prepared, or participating in discussions. Students were awarded points every 2-3 weeks.

The findings in this study reported significant gains across all measures of quality, number of words and essay elements, and time planning and writing. Planning time

increased 112% and writing 133% across all students. For the measure of what point during instruction changes occur in student writing performance, researchers collected persuasive probes during instruction scoring for the above measures. This data revealed that student performances overall changed after the second probe, which was administered after the modeling stage of the strategy. Researchers noted that two students showed changes in their writing performances after the first probe. This information has important implications for teachers implementing this strategy in practice for their students. Often teachers at this level are held to critical schedules to complete required content curriculum as students are required to complete a multiple number of state assessments (Applebee & Langer, 2011). Being aware of at what point improvements may be possible with students with disabilities supports teachers in their planning, as well as observations and scoring of student essays to monitor progress.

To summarize this last category of high school writing research, special education research is at the beginning stages for this grade level. Despite only 11 studies located for review at this grade level, there are several key components in this group. First and foremost is the extension of all of these strategies from lower grade levels to high school. These 10 investigations utilized two different research designs, single-subject and experimental, with 222 students from typical, to struggling or with disabilities, to high-achieving typical; from four primary disability categories (LD, EBD, ADHD, SLI), receiving instruction based on five different strategy methods. Eight different strategies were used: four were SRSD (STOP, DARE, AIMS, POW + TREE), also 10-minute Quick Writes (used here with SRSD), interactive dialogue, learn to write argumentative,

and Direct Instruction through Expressive Writing. Participants were taught in numerous settings using a variety of delivery methods using individuals, pairs, groups, inclusive classrooms, and resource rooms with instruction facilitated by both regular education and special education teachers. Despite the relatively short time in which these high school-level studies occurred, a broad range of components were included with implications for expanding the effectiveness of writing strategy instruction into other academic areas, influencing the delivery of effective writing instruction to a wider student population, taught by both general education and special education teachers.

Summary

Over the past 30 years the three research centers of Schumaker and Deshler, Graham and Harris, and Englert stand out as producing the most vigorous lines of research in writing for both students with and without disabilities. Research from these three strategy instruction programs in writing produced positive findings with both regular and special education students in promoting improvement of writing instruction in the classroom. The main concepts behind SIM, CSIW, and SRSD are similar and match the common concepts found in the instruction guidelines and recommendations cited earlier for writing instruction: teaching writing as a process through direct instruction, sequential steps, self-monitoring, goal setting, and consistent practice. In the most recent meta-analysis of writing instruction research, Graham and Perin (2007a) reviewed 142 writing research studies at grades 4-12 and found SRSD strategies were the most frequently used strategy method, especially with students with disabilities.

Throughout this chapter, the literature in writing research shows a clear focus on intervention in early grades. Students at both elementary and middle grades show positive results in improving their writing products by learning SRSD writing strategies. The previously outlined studies in this chapter are summarized in Table 1. The greater percentages of strategies reviewed here are based on the SRSD method of writing instruction. Several of the 20 research investigations at the elementary level were influential in leading to replication and extension at the middle school grade levels (Lienemann et al., 2006; Mason et al., 2006; Saddler et al., 2004). Presently at these two grade levels, SRSD writing strategy instruction has had positive results in both the general education traditional classroom (De La Paz & Graham, 2002; Reynolds & Perin, 2009) and inclusive classroom settings (De La Paz, 2005; Ferritti et al., 2009), and in various special education settings using a variety of delivery methods (Garcia & Fidalgo, 2008; Patel & Laud, 2007a). In addition, with this group of research not only have students with learning disabilities been taught with positive results, but other primary disabilities including attention deficit disorder, specific language impairment (De La Paz, 2001), Autism Spectrum Disorder (Asaro & Saddler, 2009) and emotional behavior disorder both mild (Mason et al., 2010) and severe (Mastropieri et al., 2009). Also, additional strategies have been added to strategy instruction to support learning skills to support the writing process, such as planning and revision (Monroe & Troia, 2006), as well as teaching content such as science (Hauth, 2012) or social studies (De La Paz, 2005) with positive results in terms of having students with disabilities maintaining these new skills and generalizing to other areas.

Yet, despite current statistics on writing abilities and writing instruction at the high school level, writing instruction research at this level is very recent. The majority of current research at the high school level has been based on the SRSD method of writing instruction, as seen with 6 of the 10 studies reviewed in this section. Four studies (Chalk et al., 2005; Mason et al., 2010; Walker et al., 2005; Wong et al., 1996), have examined students with learning disabilities. In addition, three others have examined other primary disabilities: one studied students with attention deficit disorder (Jacobson & Reid, 2012), one studied students with emotional disabilities (Mason et al., 2011), and one study examined two students with LD and two with ADHD, and a study with all participants also having a second diagnosis in another primary disability of either specific language impairment, specific learning disability, and emotional behavior disorder (Kiuahara et al., 2012). Only Kiuahara et al. (2012) and Jacobson and Reid (2012) examined planning time and writing time with high school students with disabilities. Fluency in writing at this level has been addressed by two investigations conducted by Mason et al. (2011, 2012).

All high school students with disabilities in 9 of the 10 studies reviewed received the majority of their daily instruction in a self-contained or resource special education setting. The participants involved in the Jacobson and Reid (2012) study were taught 100% in the general education inclusive classroom setting. All students in these 10 studies were pulled out of their daily instructional settings to receive specialized instruction. This method of delivery is often utilized for students with disabilities to receive additional specialized instruction while being educated with peers in the least restrictive environment (LRE) (IDEA, 2004). All social validity results have students

reporting positively at this level to gaining new writing strategy skills. Kiuahara et al. (2012) included teachers and parents in social validity with additional questionnaires, but only two teachers were involved in the results.

With existing research at this level being minimal, several critical unknowns are left which could positively support high school writing instruction. Does teaching SRSD single paragraph or the Quick Write strategy first and following with multiple-paragraph essays improve quality, length, or number of elements for multiple-paragraph essays? Additionally, would this lesson structure improve fluency overall? Would this lesson structure improve planning and writing time as well as maintenance and generalization to a content area? If pulled out to small group sessions for specialized instruction, would students generalize these skills back to their inclusive classrooms with results reported by classroom teachers? How do students feel about their writing skills and the heavy demands made of students at this level before receiving instruction compared to after? These are all questions that need a greater number of research studies completed at this level before there is substantial evidence. The current study attempts to narrow this gap a small amount.

Statement of Purpose

The current study sought to replicate components of Mason et al. (2011), Mastropieri et al. (2012), Cerar (2012), and Hauth (2012) using the SRSD POW + TREE persuasive writing strategy focusing on instruction in the Quick Write one-paragraph response and building to the multiple-paragraph essay, measuring for time planning and writing, including participants from the English inclusive classroom who had been

identified for special education accommodations either through an Individual Education Plan (IEP) or Section 504 plan. The researcher extended this investigation in several ways: (a) a student sample at the 10th- and 11th-grade levels with disabilities from four primary categories, (b) combining fluency and untimed measures of both single-paragraph and multiple-paragraph essays, (c) measuring time planning and writing for both timed and untimed probes, (d) performing maintenance and generalization 4 weeks after instruction, (e) including generalization to content-area curriculum based on state assessments, (f) extending social validity to include interview measures of student opinions of their writing abilities and behaviors before instruction and at postinstruction, and (g) interviewing both English and Special Education teachers from the English inclusive classroom after the postinstruction phase to report about student writing behaviors and any academic or behavioral changes they may have observed. This research also examined whether, by learning this writing strategy, this group of students would be able to maintain writing skill competence and generalize across content areas assignments, as well as extend time used for planning before completing writing assignments. In contrast, if students were not successful or only moderately so, this study investigated the obstacles students faced before, during, and after instruction.

Table 1

Writing Research Studies

Author (Year)	Focus	Sample	Duration	Results
Asaro & Saddler (2009)	SRSD for story writing, POW + WWW2 HOW2	1 10-year-old male, 4 th -grade student, ASD, difficulty in writing	1-to-1 sessions for 30 minutes, 3 days a week for 5 weeks (total of 7 lessons, criterion-based)	Scores increased from baseline in holistic and story elements. At maintenance, scores for story elements were high, but scores for holistic decreased.
Asaro-Saddler & Bak (2012)	SRSD for story writing, POW + WWW with generalization to narratives	3 male students in 2 nd - 4 th grades (6.10, 7, 9 years), ASD, writing difficulty or at risk	1-to-1 sessions, 6 lessons that lasted between 6-9 days	All students increased in number of story elements in fictional stories. Holistic improved for all 3. Number of words increased. Transfer to personal narrative increased in the number of elements, essay quality improved, number of words increased for 2. Planning time also increased.
Asaro-Saddler & Bak (2013)	SRSD for story writing, POW + TREE	6 4 th - to 5 th -grade students with ASD	7 to 10 40-minute sessions including peer collaboration	Results indicated significant increases for students in quality and elements. Students also made positive increases in planning as well as evidence of positive peer collaboration.
Allen-Bronaugh (2013, dissertation study)	SRSD POW + TREE with generalization and maintenance	3 4 th grade and 3 6 th grade students, ASD high functioning, IEP writing goals	45-minute sessions, lessons, 14.8 days	All students from baseline fluency to postfluency increased across measures. At postfluency, all participants remained above baseline performance across all essay measures. Varied results were noted from maintenance to maintenance fluency as well as from generalization to generalization fluency.
Bui et al. (2006)	Demand Writing Instruction Model (DWIM)	113 5 th -grade students with LD	6-8 classroom sessions	Significant gains were reported in the writing performance of fifth graders with and without LD in inclusive general education classes including positive findings indicated on the statewide assessment. The intervention had the same effect for both groups of students.

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
Cerar (2012, dissertation study)	Fluency, Persuasive Writing	6 middle school students	55 30-minute, small group sessions	Scores increased in the length, number of essay parts, number of transition words, and overall quality of essays; increased fluency scores.
Chalk et al. (2005)	SRSD DARE	15 10 th -grade students with LD	5 sessions of 25 minutes, groups of 5	Results were significant for length and quality for postinstruction, maintenance, and generalization.
Cihak & Castle (2011)	Step Up To Writing Program	48 8 th -grade students with LD and without LD	5 90-minute sessions taught in 2 groups for 2 inclusive Language Arts classes by the same teacher	Student scores for both typical and students with LD were significant for paragraph structure, organization, transitions, and quality.
Cuenca- Sanchez et al. (2012)	SRSD POW + TREE with self- determination	21 7 th -grade students with EBD	30-minute sessions, 4 sessions weekly, groups of 3-10	Results were significant for postinstruction and maintenance for number of words, overall quality, number of sentences and paragraphs, transition words, and essay parts.
Deatline- Bachman & Jitendra (2006)	Wong argumentative strategy (plan, write, revise)	5 4 th -grade students with LD	8 weeks, small group sessions with classroom teachers	Results demonstrated significant gains in all measures with 102 words as the average increase, and planning times gaining from 6.97 to 19.04 minutes.
De La Paz (1999)	SRSD PLAN + WRITE	22 7 th - and 8 th -grade students with LD and without LD	16 35-minute sessions	Significant results reported for increases in planning, quality, length, and elements for all students; LD students had more significant gains.
De La Paz (2001)	SRSD PLAN + WRITE	3 7 th - and 8 th - grade students with ADD and SLI	12 35-minute sessions, taught in gen ed classroom by classroom teachers	Significant results reported for increases in planning, quality, length, vocabulary, and elements for all students, which continued through maintenance.

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
De La Paz & Graham (2002)	SRSD PLAN + WRITE	58 7 th - and 8 th -grade students, gen ed	24 25-minute sessions, gen ed teachers	Significant results reported for increases in planning, quality, length, and vocabulary for students in the experimental condition over the control condition, with gains maintained to maintenance 4 weeks later.
De La Paz (2005)	SRSD STOP + DARE and History Content Argument Strategy	132 8 th -grade students with LD and without LD	22 sessions, small groups	Significant results reported for increases in essay quality, number of arguments, essay length, historical accuracy, and historical understanding for all students, with experimental group scoring higher than control group students.
De La Paz & Felton (2010)	SRSD STOP and Historical Reasoning Strategy	160 11 th - grade students, gen ed	6 50-minute sessions	Results indicated significant scores for length, quality, and argument analysis.
Ferritti et al. (2009)	Argumentative Strategies using a graphic organizer with descriptive steps	96 4 th - and 6 th -grade students with LD and gen ed	2 classroom sessions	Measures compared elaborate goal and general goal as the strategy focus. Overall persuasiveness, argumentative strategies, and argumentative structures were measured. Significant results were reported for overall persuasiveness for both typical students and students with LD.
Fry & Griffin (2010)	6-trait Writing, Gen Ed	22 4 th -grade students	Classroom instruction	Results reported that the quality of student essays improved, especially as they became more comfortable with the process of peer-revision used throughout the intervention.
Garcia- Sanchez & Fidalgo- Redondo (2006)	SRSD Writing Method and Sequential Skill Acquisition (SCM)	121 5 th - and 6 th -grade students with LD	25 50-minute sessions, group instruction (6- 8)	Results were significant for productivity and quality for writing measures with SRSD intervention compared to sequential skills acquisition (SCM).

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
Glaser & Brunstein (2007)	AHA German Mnemonic, Gen Ed	113 4 th -grade students	6 classrooms, 4 sessions	Results were significant for all measures, especially for strategy knowledge for strategy-only group ($ES = 3.34$) and strategy plus self-regulation group ($ES = 4.48$) compared to the control group. Both of these strategy knowledge groups held significant scores to maintenance.
Hauth (2012)	SRSD POW + TREE + Social Studies Content Prompts	8 8 th -grade students with EBD	Phase I: SRSD instruction, 6-7 sessions; Phase II: SRSD + Content instruction; 3 sessions, 3 small groups/3 teachers	Results were significant across all phases in number of words, sentences, paragraphs, transition words, essay parts, and overall holistic quality; improved performance in the content area of civics, and planning and writing times.
Jacobson & Reid (2012)	SRSD STOP and DARE	4 11 th - and 12 th -grade students with ADHD	3 40-minute individual sessions per week	Results were significant for postinstruction and maintenance (2 and 4 weeks) for planning time, length, quality, and elements, as well as 100% PNDs.
Jacobson & Reid (2010)	SRSD STOP and DARE	3 10 th - and 11 th -grade students with ADHD	3 40-minute individual sessions per week	Results were significant for postinstruction and maintenance (2 and 4 weeks) for planning time, writing time, length, and quality, as well as 100% PNDs. Quality and planning time decreased for maintenance from post, but remained over baseline levels.
Kieft et al. (2007)	Persuasive and Revision Planning Strategies	113 10 th -grade gen ed students	5 weekly 90-minute sessions, 180 sessions, regular classroom	Results were significant for planning with both persuasive and revision strategies when planning was included in instruction.
Kihuara et al. (2012)	SRSD STOP, AIMS, and DARE	6 10 th -grade students with disabilities	6 50-minute sessions with pairs	Results were significant for measures of elements, planning, and writing time through maintenance. Measures of length and quality increased slightly at postinstruction but decreased at maintenance. Planning and writing time decreased slightly at maintenance.

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
Lane et al. (2008)	SRSD with PBS; Story Writing	6 2 nd -grade students	10 to 15 30- minute individual sessions	Increases in story elements, length, and quality; maintained gains over baseline at maintenance testing; favorable reports from teachers and students.
Lienemann et al. (2006)	POW + WWW2 + HOW2	6 2 nd -grade students with LD, ADHD, OHI	6 to 8 30- to 40- minute sessions	Students averaged 2.1 story elements with 4 students including all 7 elements postinstruction in stories. For 3 students the length of their stories increased 2 to 4 times from the average of 28 words. Quality scores reported a 137 to 277% increase for 4 students with 2 others only improving slightly. Students' improvements carried over to the maintenance for elements, length, and quality.
Lienemann & Reid (2008)	SRSD POW + TREE	6 4 th - and 5 th -grade students with LD, ADHD, OHI	6 to 8 25-minute individual sessions	Results showed students increased markedly across all measures, particularly for length and elements with 100% PNDs.
Mason et al. (2012)	SRSD POW + TREE Fluency	4 11 th - and 12 th -grade students with LD	5 30-minute individual sessions	Results were varied for parts and length.
Mason et al. (2011)	SRSD POW + TREE Fluency	3 9 th - and 11 th - grade students with EBD	5 30-minute individual sessions	Results were significant for quality, parts, and length.
Mason et al. (2010)	SRSD POW + TREE Fluency	5 middle school students with EBD	5 30-minute sessions; 3 10- minute individual	Improved essay quality; no change in total number of essay parts; decrease in total number of words; improved consistency in writing performance, which improved the overall quality of writing.
Mason et al. (2009, Study 1)	SRSD POW + TREE Fluency	6 7 th - and 8 th - grade students with LD, ADD, OHI	5 to 6 sessions with pairs, 45 minutes	Findings were significant for length and essay elements for all students at postinstruction and maintenance. There was a small effect with scores for quality.

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
Mason et al. (2009, Study 2)	SRSD POW + TREE Fluency	6 7 th - and 8 th - grade students with LD, ADD, OHI	5 to 6 sessions, 45 minutes, in small groups	Results for number of parts indicated a medium effect for postinstruction, a small effect for maintenance; quality had a small effect postinstruction and at maintenance.
Mason & Shriner (2008)	SRSD POW + TREE Persuasive Writing	6 2 nd - through 5 th -grade students with EBD	11 to 13 30-minute individual sessions	Increase in the number of persuasive essay parts, total number of words, and number of transition words included in the essay; overall quality improved; maintenance and generalization scores varied across students.
Mason et al. (2006)	TWA + PLANS, Gen Ed/Sped	4 th -grade students, 4 with LD, 5 without	3 small group sessions, and individual sessions	Findings were significant for written retell essays at postinstruction with 5 to 6 main ideas. In addition, positive results were reported with written retell essays being longer, more organized with more units of information, and more words written.
Mastropieri et al. (2010)	SRSD POW + TREE Persuasive Writing	10 8 th -grade students	50 to 55 29- minute small group sessions	Increase in the length, number of essay parts, number of transition words, and overall quality of essays; increased fluency scores; maintained gains over baseline 12 weeks after posttesting.
Mastropieri et al. (2009)	SRSD POW + TREE Fluency; Persuasive Writing	12 8 th -grade students	55 30-minute small group sessions	Increase in the length, number of paragraphs, number of essay parts, number of transition words, and holistic quality of essays following SRSD instruction; postfluency instruction, students' scores decreased but were still significantly higher than baseline; maintained above-baseline scores at maintenance testing.

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
Mastropieri et al. (2012)	SRSD POW + TREE Persuasive Writing, Counter- Arguments	12 middle school students	35 45-minute small group sessions	Improvement in writing persuasive essays in regard to writing counter- arguments, overall quality, number of words, sentences, essay elements, and transition words on postinstruction, postfluency, and maintenance, and generalization probes.
Mills (2012 dissertation study)	SRSD Persuasive Writing POW + TREE Counter- Arguments	13 middle school students	45-minute small group sessions	Increases in number of persuasive essay parts, total number of words, and number of transition words included in the essay. After revision instruction there was an improvement of quality for student essays across measures.
Monroe & Troia (2006)	SRSD DARE SPACE, Persuasive Writing, CDO Strategy Revision	3 6 th - to 8 th - grade LD students, gen ed and sped	14 45-minute sessions in small groups	Student scores improved for measures of quality and essay elements; students transferred skills to narratives but without significant gains from pretest.
Patel & Laud (2007a)	SRSD WWW + WHAT2 + HOW2	3 6 th -grade LD students	Sessions in small group, resource room	Student scores improved for measures of quality, essay elements, word count, and images.
Patel & Laud (2007b)	SRSD POW + Visualize and Verbalize	3 7 th -grade LD and ADD students	5 55-minute sessions in small groups	Students' scores improved for measures of quality and essay elements; significant scores were maintained to generalization 3 months later.
Reynolds & Perin (2009)	SRSD PLAN + WRITE with Social Studies Content	121 7 th -grade gen ed students	10 45-minute classroom sessions	Results were significant across all measures of writing quality, main ideas, and content knowledge for written summaries of social studies source materials, especially for treatment conditions. Both near transfer and far transfer of main ideas were part of product measures.

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
Saddler et al. (2004)	POW + WWW, What2 + How2	6 2 nd -grade “struggling” students	12 25-minute sessions in pairs	All 6 students wrote more complete stories, with story length and quality increasing 2 to 4 times from baseline. Also, students spent on average 4.20 minutes planning at postinstruction compared to 0 at baseline.
Saddler (2006)	SRSD POW + WWW, What2 + How2	6 2 th -grade LD students	12 25-minute sessions in pairs	Positive findings indicated that story elements increased to 3 to 5 elements with all students, average length increased to 47.3 words, and quality improved to a 4.7 average score. Planning time also improved from 5.21 seconds to an average of 4.21 minutes. All students wrote more complete stories, but none of the students consistently included all 7 story elements in their postinstruction story.
Saddler et al. (2008)	SRSD Sentence Combining	6 4 th -grade LD students	18 25-minute sessions in pairs	Results indicated significant progress for all variables, especially sentence combining reporting a 100% PND, writing complexity with a 91.6% PND, and story quality with a 87.5% PND. The variable of instances of taught sentence combining construction in text reported the lowest scores with a 71% PND.
Tracy et al. (2009)	SRSD POW + WWW2, HOW2 Narrative	127 3 rd -grade students, typical and 10 with LD	Classroom sessions	Classroom teachers delivered instruction. Positive results revealed the SRSD group scored higher on quality, story elements, and length, reporting effect sizes of .35, .71, and .55 respectively compared to the control group. Also students generalized all three measures to personal narratives.

(continued)

Table 1. *Writing Research Studies* (continued)

Author (Year)	Focus	Sample	Duration	Results
Troia et al. (1999)	SRSD SPACE, DARE, STOP, and LIST, Narrative and Persuasive	3 5 th -grade students with LD	7 60- to 90- minute small group sessions	Results demonstrated significant scores across all measures with planning time increasing significantly at postinstruction. Planning scores did drop slightly at maintenance and generalization a month later with scores still remaining significant over baseline.
Troia & Graham (2002)	SRSD STOP and LIST, Narrative and Persuasive	24 5 th - grade students with LD	9 to 10.8 hours of instruction, classroom setting	Measures included quality, length, and organization (elements, planning time, and propositions (ideas) included in written plans). Results indicated significant gains for the experimental group in story length and quality for postinstruction and maintenance.
Walker et al. (2007)	Expressive Writing Program, Direct Instruction (DI)	3 10 th - grade students with LD	50 50-minute sessions, small groups	Positive results reported with PNDs postinstruction of 94% for CWS, and 100% PND for both the TOWL-3 and for the maintenance phase CWS results at 2-, 4-, and 6- week periods.
Walker et al. (2005)	Expressive Writing Program, Direct Instruction (DI)	3 10 th - grade students with LD	50 50-minute sessions, small groups	Results indicated positive outcomes with 100% PNDs for postinstruction CWS, the TOWL- 3, and for the maintenance phase CWS measure.
Wong et al. (1996)	Persuasive Strategy based on SRSD Model + COPS Revision Strategy	38 8 th - and 9 th -grade students with LD	18 50-minute classroom sessions	Results indicated the experimental condition showed significant gains from pre- to posttest on clarity ($ES = 2.17$) and cogency measures ($ES = 2.74$). Student gains were maintained at 1-week maintenance testing. Comparison between groups demonstrated experimental condition outperformed control students on both clarity ($ES = 2.55$) and cogency ($ES = 2.52$).

3. METHOD

This section presents the methods for the research study. Its design, setting, and participants are discussed. Also described are student and teacher materials, dependent measures, and instructional procedures. In addition, testing and scoring procedures and fidelity of treatment implementation are discussed.

Study Design

This study employed a single-subject multiple-baseline design across participants with multiple probes (Kazdin, 1982; Kennedy, 2005) implemented to assess the effects of SRSD instruction for POW + TREE across students over time. The multiple-baseline study design allowed for comparisons to be made between subjects and groups across the baseline, intervention, maintenance, and generalization phases (Mason et al., 2010). This study adhered to seven high quality indicators of single subject design (Horner et al., 2005). First, participants and setting characteristics are thoroughly described. Second, the dependent variable is described in sufficient detail, operationally defined, scored in a quantifiable way, measured repeatedly over time, and information about interrater reliability is provided. Third, the independent variable is operationally defined and systematically applied with measures of fidelity of implementation provided. Fourth, the procedures for establishing a stable baseline of participant performance including repeated measures are described, and the patterns established at baseline are sufficient to

predict future performance without application of the independent variable. Fifth, demonstrations of experimental control occurred during each phase of the study represented by three applications of the effect demonstrated at three different points in time. The design of this study also controlled for threats to internal validity. Sixth, which accounts for external validity, the experimental effect in this study was replicated across participants, settings, and materials. Seventh, the dependent variable in this study was socially important, with significant change occurring as a result of the intervention as well as being practical, cost-effective, and applicable over time in typical settings by typical intervention agents.

Students were assigned to three small groups ($n = 2$ to 3) based on grade level and student schedules to allow for daily instruction each week (Chalk et al., 2005; Mason et al., 2009; Mastropieri et al., 2012). Each group of students was introduced to SRSD instruction in turn, to ensure each group received instruction at separate times. Baseline data measuring each participant's writing performance over time was taken prior to instruction. A functional relationship between the independent variable and the student's progress was established by improvement in the target variables only after SRSD instruction completion. During the baseline phase, each student received five timed fluency and five untimed essay prompts (Appendix A). During the intervention phase, students received a minimum of five timed fluency and five untimed essay prompt probes. The intervention phase was performed in two parts: Phase I was single-paragraph instruction focused on a single-paragraph essay, Phase II was multiple-paragraph essay instruction focused on multiple paragraphs to complete the essay product. After criterion

performance was achieved in Phase I instruction, five timed and two untimed fluency paragraph postinstructional prompts were administered. After criterion performance was achieved in Phase II multiple-paragraph essay instruction, five untimed and two timed multiple-paragraph postinstructional prompts were administered. Students were also administered the Written Expression subtest “B” version of the Wechsler Individual Achievement Test-II (WIAT II) (Wechsler, 2005) during postinstruction. The maintenance stage was administered 4 weeks after completing instruction, with students completing two multiple-paragraph writing prompts, one timed and one untimed. Two generalization multiple-paragraph writing prompts were also administered during the maintenance stage, one timed and one untimed.

In addition, qualitative methods were used to examine effects of SRSD instruction on student academics and behavior in other ways such as self-efficacy, self-esteem, and attitude toward written assignments and tests during the process and context of this intervention. Interviews were conducted with participants at baseline, postinstruction, and at maintenance. Interviews were also conducted with classroom team teachers from the participants’ English inclusive classroom during the maintenance phase. Interviews were done systematically and sequentially at baseline, postinstruction, and at maintenance during the study to enable the research process to capture all potentially relevant aspects of the topic as soon as they were perceived (Corbin & Strauss, 1990). Next, interview data was organized into broader themes and issues. This allowed for establishing categories for further analysis and summary of interview data (Maxwell, 2005). The researcher also maintained a daily reflection journal during instruction.

Setting and Site

Two high schools were chosen from a rapidly growing suburban, Mid-Atlantic school district located 1 hour from a major urban center. School A had a total student population of 1,432; demographic information reports student ethnicity as follows: 66% Caucasian, 33% African American, Hispanic or Asian. The number of students that are eligible for federally subsidized meal programs is 16% and 3% of the student population are English Language Learners. The graduation rate for School A is 94%, with 62% being advanced diplomas and 31% standard diplomas. The number of students served with disabilities is 147; primary disability categories found in the student population include specific learning disability, emotional behavior disorder, specific language impairment, Autism Spectrum Disorder, hearing and sight impaired, intellectual disabilities, and disabilities covered by the category of Other Health Impairment including but not limited to attention deficit disorder, attention hyperactivity deficit disorder, cerebral palsy, and traumatic brain injury.

School B had a total student population of 1,239; demographic information reports student ethnicity as follows: 56% Caucasian, 45% African American, Hispanic or Asian. The number of students that are eligible for federally subsidized meal programs is 19%, and 4% of the student population are English Language Learners. The graduation rate for School B is 96%, with 193 being advanced diplomas and 71 standard diplomas. The number of students served with disabilities is 199; primary disability categories found in the student population are identical to School A with the exception of no traumatic brain injury students at the time of this study.

The study took place on campus in an area designated by each school, either in a small classroom or a small resource room. Sessions were scheduled in either the morning or afternoon, dependent on participants' schedules by school.

Participants

The following information regarding student and researcher/instructor participants was kept in a secure location. The names and any school identifiers were changed to protect and ensure anonymity for this study.

Students

The student participants in this study included five students from 10th and 11th grades with a variety of disabilities. Four of the students were male and one female. The students' average age was 16 years, ranging from 15.1 to 18.1 years. Three of the students (60%) were identified as Caucasian, one (20%) was African American, and one (20%) was Hispanic. Eligibility for special education services for the five students included two students (40%) with a specific learning disability (SLD), two students (40%) with emotional disturbance (ED) with one of these students having a diagnosis of autism but too late to be classified ASD, and one (20%) with other health impairment (OHI) which was documented medically as being attention deficit hyperactivity disorder (ADHD). Three of these five students (60%) had comorbid disabilities; one of these students (20%) was diagnosed with specific learning disability (SLD), one with a diagnosis of other health impairment (OHI) which was documented medically as being attention deficit hyperactivity disorder (ADHD), and one student (20%) had a diagnosis

of specific language impairment (SLI) combined with his diagnosis of autism. This student information is detailed in Table 2.

Participant selection criteria. To be selected for participation in this study, a student must have (a) have been identified by the school district as having a disability which allowed for designated hours and services on student IEPs, (b) have difficulty with written expression as demonstrated in the IEP with service hours and/or accommodations, and (c) receive their 10th- or 11th-grade English instruction within the team taught inclusive classroom setting. In addition, access for the study was allocated within both schools through the special education department via a support class or content class; Advancement Via Individual Determination (AVID) was designated as academic support, remediation or regular study hall, English, and Physical Education or Art classes. Because of block scheduling at the high school level with classes occurring on alternate days of the week, the writing intervention was implemented by the researcher 5 days a week during two of these class periods over a 3-month time period.

Attrition. Originally seven participants were selected to begin the study, but two students ended up exiting the study. After the Baseline Phase and start of the Intervention Phase I – Fluency instruction a participant at School A began to panic about having adequate time for completing homework daily, that taking time for the study from the Study Skills class and Study Hall would jeopardize his grades. Another student from School B was suspended for behavior in mid-February for 2 weeks, and then was not allowed by administration to return back to the study. A third participant, Will (a pseudonym), left instruction in January during Intervention Phase I due to his placement

into a drug rehabilitation facility. Will returned in mid-February and was willing to attend extra instruction sessions to make up past lessons and move forward with other participants to complete the study.

Student performance on standardized educational and ability tests. Student scores regarding standardized tests were gathered from special education files which included recent eligibility statements, all IEPs, and recent as well as historical ability test scores. Recent scores, indicated as being within the past 5 years, were not available for all students. The scores for each participant are detailed in Table 2.

Scores for intellectual ability tests were available on all participants. Four students had taken the Wechsler Intelligence Scale for Children (WISC-IV) (Wechsler, 2004), receiving an average full scale IQ (FSIQ) score of 89 (range 75 to 112, $SD = 16.15$). One student had taken the Wechsler Intelligence Scale for Adults (WAIS-III) (Wechsler, 2008), receiving a full scale IQ (FSIQ) score of 113.

Four students (80%) had current scores on four different standardized educational tests, with one (20%) only having an informal diagnostic reading assessment. Two students (40%) completed the Woodcock–Johnson III Tests of Achievement (W-J III) (Woodcock, Mather, & McGrew, 2001). The average score for Total Achievement was 77 (range = 76 to 78, $SD = 1.00$). Three of the five students (60%) had current scores on standardized educational tests which measured reading ability. All reading results indicated students in the study were reading two to three levels below grade level. These individualized test scores are detailed in Table 2.

Three of the five students (60%) had current scores on standardized educational tests which measured writing ability. Two students completed the Woodcock–Johnson III Tests of Achievement subtest for Written Fluency (W-J III) (Woodcock et al., 2001). The average score for Written Fluency (WF) was 87.5 (range = 81 to 94, $SD = 9.20$). One student completed the Test of Written Language 4 (TOWL-4) (Hammill & Larsen, 2009) for a Standard Score of 82. One student completed the Kaufman Test of Educational Achievement (KTEA-II) (Kaufman & Kaufman, 2004), receiving a Written Language Composite (WLC) score of 37 ($M = 100$, $SD = 15$). Four of the five participants also reported scores for the state Standardized Writing Assessment administered to students in eighth grade with the average score being 401 (range = 391 to 420, $SD = 13.45$). Passing score is 400; two students of the four passed.

To summarize, the reported scores indicate a group with wide-ranging intellectual ability, with documented scores from below average, low average, average, and high average. Current scores indicated reading and writing achievement performance in the low and the low average-to-average ranges.

The summary of student characteristics and scores in Table 2 includes age, grade, gender, ethnicity, disability status, IEP accommodations, and scores on both the norm-referenced and state high-stakes writing test.

Table 2

Participant Characteristics and Scores

Student	Gender	Ethnicity	Age	Eligibility	Individual Education Plan Goals and Accommodations	Test Scores
Ann	Female	Caucasian	15.1	ED, SLD	Make sample tests and study guides for tests and quizzes in 4 of 5 opportunities. Student will reread the question and all choices before answering the question 4 of 5 times. Student will meet with teachers and review test and quiz grades that have grades lower than C to identify areas of weakness 5 of 5 times.	W-J III ^a (10/08), ACH ^b : 76, GM ^c : RC ^d : 535, GE ^e : 8.1, WAIS ^f (5/07): FSIQ ^g = 113, Grade 8 writing: NA
Harry	Male	African American	18.1	SLD, OHI	Student will write stories that include a beginning, middle, and end with 80% accuracy in 4 of 5 opportunities. Student will use an editing checklist to review and revise for correct spelling of high frequency words in 4 of 5 opportunities.	WISC IV ^h (5/09), FSIQ = 81, SRA ⁱ (5/10), GE: 8.8, IRL ^j : 8.2, Grade 8 writing: 392
Will	Male	Caucasian	15.6	OHI	Student will remain focused and participate in group structured academic tasks in 4 of 5 times. Break large assignments into small pieces, tests read aloud, access to recovery room, notes checked for accuracy and completion, monitoring of notebooks and binders.	WISC IV (5/09), FSIQ = 112, W-J III (10/08), ACH: 110, GRT ^k (5/08), SS = 8/24%, KTEA-WE ^l (5/08): 27/low avg, Grade 8 writing: 420
Eli	Male	Hispanic	15.5	SLD	Student will ask for assistance/clarification for homework assignments prior to the due date 4 out of 5 times. Assistance with directions, simplify, interpret oral directions. Tests read aloud, extended time up to 50%, use of word processor with spell check.	WISC IV (5/09), FSIQ = 88, SRA (5/10), GE: 5.3, IRL: 4.7, IBS ^m (9/08), R ⁿ = GE: 2.5, EU ^o = GE: 4.5, Grade 8 Writing: 402
Ted	Male	Caucasian	15.9	ED, SLI (ASD)	Student will review information from the reading and compare with the prior key concepts given to him on 5 consecutive trials and write down 3 key concepts learned. Student will write at least two 5-paragraph essays which include an introductory paragraph, 3 detail paragraphs, and 1 conclusion paragraph, with no more than 2 spelling and grammar errors, and proper use of transition words with 85% accuracy.	WISC IV (9/04), FSIQ = 75, W-J III (2/11), ACH = 78, DRA ^p (4/10), GE: 5.1, IRL: 4.1, Grade 8 writing: 391

Note. ED = emotional disorder; SLD = specific learning disability; OHI = other health impairment; ASD = autism spectrum disorder.

^aW-J III = Woodcock-Johnson III Tests of Achievement. ^bACH = Total Achievement Score (Woodcock, Mather, & McGrew, 2001). ^cGM = Gates Mac Ginitie. ^dRC = Reading Comprehension. ^eGE = Grade Equivalent. ^fWAIS = Wechsler Intelligence Scale for Adults. ^gFSIQ = Full-Scale IQ (Wechsler, 2003). ^hWISC IV = Wechsler Intelligence Scale for Children (4th ed.). ⁱSRA = Star Reading Assessment. ^jIRL = Independent Reading Grade Level.

^kGRT = Gray Oral Reading Test-4 Reading, Fluency, and Comprehension. ^lKTEA-II = Kaufman Test of Educational Achievement (2nd ed.). ^mIBS = Iowa Basic Skills. ⁿR = Reading. ^oEU = Expression + Usage. ^pDRA = Developmental Reading Assessment.

Student characteristics. This section includes a brief description of the study's student participants. All names as pseudonyms. Ethnicity is self-reported.

Ann, 15.1, Caucasian female, 10th grade. Ann was initially identified with emotional disabilities due to repeated and severe test anxiety with resulting failing grades, as well as a resulting low self-esteem. She was a quiet but pleasant and hard-working student who developed a rapport with teachers and focused on her studies. Initially, since her failures in academics were due to low test performance, Ann's test anxiety was considered the issue. She is also a twin with a very academically successful sister, which was considered part of her emotional issue. With later evaluations as recent as 2010/2011 it was discovered that Ann has weak language processing, lack of organization and comprehension, weak short-term and working memory, and weak visual processing. Each of these problems contributed to Ann's anxiety about academics overall, but especially test situations which led to the additional diagnosis of specific learning disability (SLD). Ann's IEP goals and accommodations included an extension of 50% more time in addition to the time allowed for completing any test, small group testing, completing her own study guides prior to a test, preferential seating, and allowing partial credit corrections for a grade of 70% or lower. Written expression was a current IEP goal, including work on organization and spelling, organizing her written essays into paragraphs with complete sentences, and editing her written work before final copy. These current IEP accommodations had improved Ann's grades in her 10th-grade year. For the current school year, Ann's grades for the first marking period were Cs in all subjects, for second term a B in Study Skills and Cs in all other subjects. These are

improved from Ds in English and History in her 9th-grade year, resulting from weak comprehension, poor writing, and test skills. Her spelling was also very weak and her writing rambled with her sentences often incomplete. In the study, Ann began quiet and reticent, becoming consistently more eager to engage in material, and more relaxed as she became comfortable with the instructor and the material.

Ted, 15.9, Caucasian male, 10th grade. Ted was identified at an early age with emotional disabilities and later in middle school with autism. This diagnosis also included the additional diagnosis of speech language impairment (SLI) since spoken language and later written expression were consistent struggles accompanying his autism symptoms. Ted was an attentive and willing student who was organized, attended to details, and often asked questions to clarify his understanding for whatever the task at hand. After coming to a new school in the district beginning his 10th-grade year, Ted was making great progress after being on homebound status from April through May 2010 for behavioral issues. He had a Behavior Intervention Plan (BIP) as his behavior could escalate in certain situations where he was uncomfortable due to increased anxiety, not getting answers to all of his questions, pressure situations, or unexpected changes. Ted also had a permanent pass to use: If he felt the need he could leave the classroom to take a break to see his case manager. Ted's disability affected his comprehension of both written and verbal information, ability to draw inferences and interpret or reflect on information contained in both fictional and nonfiction writing, and ability to remain organized during the school day. Ted struggled with appropriate social skills both in the classroom and in the school environment. He often appeared rigid at times when there

was change or if he felt he had completed an assignment, but was asked to review or edit. Ted's IEP goals and accommodations were numerous, including written expression. Because his writing was basic and he had difficulty with elaboration and description, his goals and accommodations included assistance with directions, use of a graphic organizer, agenda monitoring, chunking large assignments into smaller pieces, use of a word bank, study guides, and wait time to process information. For the current school year, first marking period Ted had a D in English and History, and Cs in other classes including math. For the second marking period his grades remained consistent. He was not turning in any written assignments for English and History, always completed homework, but rarely completed work done in class, saying he did not have enough time. During the study Ted opened up very candidly about his disability along with his struggles with writing. Only twice did he really become flustered and present obvious signs that it was time to quit; one of these times was when he sat on gum that had been left in his chair and it stuck to his pants. Ted was able to recover and begin completion of a short writing task during the period.

Harry, 18.1, African American male, 11th grade. Harry was identified with specific learning disability (SLD) after increased reading and writing difficulties. He also experienced increased behavioral difficulties with additional academic requirements in upper middle school grade levels. Harry was a very gregarious and likable student who made an effort to complete assignments. His evaluation uncovered slow processing speed, executive functioning deficits, and working memory. In addition, his diagnosis included ADHD. His two written expression IEP goals included writing essays that

include a beginning, middle, and end with 80% accuracy, and using an editing checklist to review and revise written assignments for correct spelling of high-frequency words. Relevant IEP accommodations were assistance with directions, breaks during tests and exams, and use of a word processor with spell checker. For the current school year, first marking period Harry had a B- in Geometry, C+ in U.S. History, and D in English, which has a strong emphasis on writing in preparation for the state writing assessment in the spring. His second marking period grades were the same, with the exception English with a D-. His lack of basic writing skills, poor test scores, and minimal retention of facts or comprehension of reading from class assignments was creating enormous challenges for Harry in English, only complicated more by his ADHD and slow processing. He was clearly a smart and very creative student, writing lyrics for music which he talked about often, saying if he could just do that he would be fine! His behavior issues clearly stemmed from lack of confidence in his skills, being overwhelmed, and at this grade level just wanting to avoid reading and writing. His teachers were hoping he would benefit from the focused instruction and attention. During the study, however, he easily became distracted from either written tasks or instruction, and struggled to work independently. He would disappear when given a break or stall coming in to begin work. Sometimes he seemed anxious and in a rush to finish, losing his focus or ability to redirect. This behavior occurred primarily during testing phases where it was consistently very difficult for him to maintain focus.

Will, 15.6, Caucasian male, 11th grade. Will was identified during middle school with ADD combined type and was on medication. He was easily distracted by internal

and external stimuli, especially peers' actions, which became apparent during the study's early stage. Will required constant supervision and redirection in order to stay on task and complete assignments. He became very frustrated when unable to focus and complete his existing task, sometimes acting out to release his frustration. This behavior was only seen once during the study when he lost patience with the other two group members as he was trying to complete a written task. Otherwise, he was always personable and consistently engaged in lessons even while the others were not. His IEP goals included writing all assignments and due dates in his agenda, asking permission to move to another part of the room away from the visually distracting stimulus, and coherently organizing his materials at the beginning and end of each activity. For the current school year, his first marking period grades were Cs except for English with a D. His second marking period was the same. Will was completing work in class and passing literature tests but failing writing assignments and language arts assignments such as vocabulary/spelling, grammar and usage tests, and not completing any homework assignments. Will came to the study as the most capable writer; teachers commented he could write coherent sentences about ideas or interests, but lacked good mechanics and spelling with poor organization. Often he would give up midway during a writing assignment, leaving assignments incomplete. Will's IEP goals for written expression addressed his need to include supporting details. He clearly enjoyed writing when he was interested in the topic, despite difficulty, including writing during the study. During the study Will never left an essay unfinished, admitting that staying focused was his biggest challenge. Will had to suddenly leave the study, not returning after a holiday break, for 45 days to attend a residential drug

rehabilitation facility. Upon return he pleaded with administrators and teachers to continue the study, vowing to work to make up missed assignments.

Eli, 15.5, Hispanic male, 11th grade. Eli was identified with specific learning disability (SLD) shortly after he was dismissed from the English as a Second Language program in fourth grade. Both reading and writing became increasingly difficult, along with working memory. He was very weak in written expression, which was apparent early in the study when he had difficulty getting started. Teachers reported Eli needed much encouragement and regular prompting to complete a reasonable amount during the writing time in class. Eli's two written expression goals were to complete five essay paragraph assignments to include a variety of sentence types, and to edit for proper grammar usage using a rough draft. Eli's accommodations included simplifying and assisting with directions, interpreting oral directions, extended time up to 50%, and use of a word processor with spell check and copies of notes. An additional IEP goal was to ask for assistance/clarification for homework assignments prior to the due date. During the current school year, his first marking period grades were all Cs, and second marking period grades were the same except English was D. The writing had become increasingly difficult and there was the push on improving skills in preparation for state assessments. Eli had weak basic writing skills, was unfamiliar with a paragraph having any type of organization, had poor spelling and grammar, and overall difficulty in expression and articulation of his ideas or thoughts when preparing to write. English writing assignments and tests were consistently incomplete or not even attempted. During the study Eli would initially repeat that he just did not know what to say, or he needed to keep thinking, not

making any notes or putting a mark on his paper. Once Eli became more comfortable with study material and routines, he consistently asked clarifying questions and responded well to the positive reinforcement. He was always pleasant and made a consistent effort with assignments. Eli communicated effectively with peers and adults, responded well to redirection, but was reluctant to make teachers aware of his lack of understanding, most likely because of his low self-esteem.

Research Staff

Teachers/scorer-training. The researcher conducted all instruction sessions during the research. The researcher had previously participated in two SRSD writing strategy instruction research studies with middle school students, assisting in preparing materials, delivering small group SRSD instruction to mastery, performing maintenance instruction, and subsequent review (Mastropieri et al., 2012). The researcher also assisted with the final phase of a second SRSD writing study, participating in the data review and analysis of instructional sessions for fidelity, and coding on-task behavior and student interviews (Mastropieri et al., 2009, 2010). The researcher also assisted in the preparation for instruction and performed fidelity for two additional SRSD writing studies with middle school students. The researcher is a state certified special education teacher with 13 years' experience at the middle and secondary level specializing in English and Language Arts instruction. In addition, the researcher has served as an advocate for middle and secondary level students with disabilities.

Materials

Instruction materials for all lessons were based on the Self-Regulated Strategy Development (SRSD) model using lessons and supporting instructional materials from the previous research of Mastropieri et al. (2009, 2010, 2012), and Cerar (2012) using the SRSD POW + TREE persuasive writing strategy. Supporting instructional materials included the POW + TREE strategy lesson plans using single-paragraph fluency instruction, multiple-paragraph essay instruction, POW + TREE charts, essay prompts, graphic organizers, and self-monitoring sheets (all are described below).

Student Materials

Student contract. Students were given an informal contract (Mastropieri et al., 2009, 2010, 2012) (Appendix B), which indicated a commitment to learn the POW + TREE strategy for writing persuasive essays. Teachers also signed the contracts to demonstrate their support of student learning and success with the strategy (Appendix C).

POW + TREE chart. The persuasive writing strategy was taught by using the chart with the picture of a tree and the acronym POW + TREE, in which P = Pick my idea, O = Organize my notes, W = Write and say more, and T = Topic sentence—tell the reader what you believe, R = Reasons (three or more including at least one counter reason), E = Explanations for each reason and counter reason, and E= Ending and examine (Mastropieri et al., 2009, 2010, 2012) (Appendix D).

Graphic organizer TREE. The TREE graphic organizer was adapted from Mastropieri et al. (2009) and Mastropieri et al. (2010). The adaptation included space for students to write and then refute the counter reasons in other words (Mastropieri et al.,

2012). The graphic organizer allowed for essay structure as students completed the TREE mnemonic with spaces for students to write a topic sentence (the T in TREE), three or more reasons (R), explanations for each reason (E), one or more counter reason, explanations for the counter reason(s), space to refute the counter reason, and an ending/conclusion statement (the last E in TREE). Additional spaces were provided for transition words next to each reason, counter reason, refutation, and ending to prompt students to include transition words to create smooth segues while writing (Appendix E).

Transition words chart. Students were given a worksheet with a chart of transition word examples used to allow the reader to follow the essay transitions regarding reasons, counter reasons, and conclusion sentences. There were spaces for additional transition words, allowing each student to cultivate and use his or her own transition words as well (Mastropieri et al., 2009, 2010, 2012) (Appendix F).

Examples of persuasive essays. During lessons for both phases, examples of persuasive essays were used to illustrate final product examples and to allow students the opportunity to read and identify the parts of a persuasive essay. The examples used were from previous studies by Mastropieri et al. (2009) and Mastropieri et al. (2010) (Appendix G). Example essays were used as handouts for students to use during lessons, as well as laminated posters used during instruction.

Generic writing prompts for persuasive essays. During all study phases—baseline, instruction, postfluency and postmultiple paragraph instruction testing, maintenance, and generalization—students wrote essays in response to a variety of writing prompts on generic topics of interest. Basic generic persuasive essay prompts

were used for the strategy instruction based on prompts used in previous research by Mastropieri et al. (2009, 2010, 2012), while others were developed by the researcher considering interests appropriate for the high school level. All prompts were reviewed by Dr. Mastropieri and doctoral students with previous experience conducting writing intervention research for readability and interest level suitable for this student population. All prompts were judged to be comparable in difficulty with the potential to also generate a high level of interest from participants. Two writing prompts for each essay were presented for student selection before writing (Appendix A).

Generalization and maintenance essays. During the maintenance and generalization phases, writing prompts were administered beginning 4 weeks following postinstruction (Chalk et al., 2005). For the maintenance phase students were administered generic writing prompts, completing one timed fluency essay and one untimed multiple-paragraph essay. For the generalization phase, students were given the choice of two American History content area prompts to write persuasive essays using the SRSD strategy. These generalization writing prompts were based on state curricular guidelines and prepared by the researcher from 10th-grade American History curricular content in the enhanced scope and sequence, and curriculum framework documents provided by the state's Department of Education for their statewide end-of-year high stakes test (Appendix A). During generalization students completed one timed fluency essay and one untimed multiple-paragraph essay.

Self-statement sheet. Students were given a self-statement sheet as part of the first instructional phase. This worksheet was designed to help students think about

positive statements they could say to themselves while writing, and allowed students to write positive self-statements while planning, writing, and examining their work. Similar sheets were used in previous SRSD studies (Mastropieri et al., 2009, 2010) (Appendix H).

Self-monitoring progress chart. This worksheet was introduced to students during the instructional phase and allowed for self-reflection and monitoring of written essays. The components of this graph worksheet include checklists for overall performance, essay parts, paragraphs, and transition words based on similar sheets used in previous SRSD studies (Mastropieri et al., 2009, 2010) (Appendix I and J).

Teacher Materials

The teacher/researcher was provided with a binder that included a student attendance sheet, an overall outline for the study dates, a sheet to note make-up lessons, SRSD lessons, fidelity checklists, and all student materials. The teacher/researcher also used a video camera and a tripod. The researcher used larger, laminated versions of the POW + TREE strategy chart, graphic organizer, and two laminated example essays. These were utilized by the group as well as individually. The teacher also used a small white board to present the daily lesson agenda, as well as to model and reinforce strategy steps to students. Pencils, lined and blank white paper, highlighters, and markers were also used for lesson activities. Specifics regarding lesson plans and fidelity of treatment follow. Teaching materials used daily are referenced by each lesson under the Instruction section which follows.

Lesson plans. The teacher/researcher used a binder containing scripted lessons for the SRSD fluency instruction (Phase I) and SRSD multiple-paragraph instruction lessons for Phase II. Instruction procedures used during each of the 10 lessons are detailed below. The binder had a section for each lesson with student materials following the lesson pages. All pages were encased in plastic protectors which were easily accessible to the teacher. The teacher marked where each group ended that day's lesson as well as used an area at the front of the notebook for daily notes (Appendix K).

SRSD instructional procedures. The writing strategy instruction used for this project was based on the foundational method called Self-Regulated Strategy Development (SRSD) (Harris & Graham, 1996). The major goals of SRSD are (a) student mastery of the higher-level cognitive processes used in writing, (b) developing self-regulation and independent use of the strategies, and (c) developing positive attitudes about writing (Harris & Graham, 1996). Although the approach can be used with all students, many of the features are particularly aligned with the needs of students with disabilities or other students who struggle with writing tasks. In SRSD, students learn specific strategies for planning, drafting, and revising text. Explicit and strategy-based instruction is fundamental to this approach. Instruction occurs across the following six stages:

1. **Develop Background Knowledge:** Students are explicitly taught background knowledge needed to use a strategy successfully.
2. **Discuss the Strategy:** The strategy, as well as its purpose and benefits, is described and discussed.

3. **Model the Strategy:** The teacher models how to use the strategy.
4. **Memorize the Strategy:** Students memorize the steps of the strategy and any mnemonic associated with it.
5. **Support the Strategy:** The teacher supports or scaffolds student mastery of the strategy.
6. **Independent Performance:** Students use the strategy with few or no supports.

Students are also taught a number of self-regulation skills including goal setting, self-monitoring, self-instruction, and self-reinforcement. These skills help students manage the writing strategies, the writing process, and their behavior during instruction. All six stages of strategy acquisition and four self-regulation procedures in the SRSD instructional model were used (Harris, Graham, Mason, & Friedlander, 2008). The instructional goal was to have students internalize self-regulation strategies to write persuasive paragraph responses independently. Initial instruction was teacher directed, however, the instructor carefully scaffolded instruction so that students gradually took ownership of the strategy.

Fidelity of treatment sheets. Fidelity of treatment sheets were used to assist the teacher with lessons. The teacher was reminded of the main objectives for each lesson to help to ensure fidelity of treatment, and also allowed monitoring of lessons and additional notes regarding lesson completion (Appendix L).

Student reinforcers. At the beginning of the Intervention Phase I a token economy was established as a reinforcement and reward for positive behavior. Students were asked what their favorite snacks were, and also to establish larger rewards with

what activities were special to them outside of school such as movies, game parlors, or music. There were three levels established with students. Students with the teacher were monitoring their writing progress weekly; at the first level student progress and effort were rewarded with their favorite snacks to have through the coming week. At the second level, progress was monitored every 4 weeks, with rewards given in the form of credit on a Game Stop pass or iTunes card. At the last level for completing the Intervention and Posttesting Phases, students were rewarded a choice of larger credit on iTunes or Game Stop existing cards or movie passes.

Observer Materials

Fidelity of treatment checklists, as described in the previous section, allowed a trained observer to monitor fidelity of treatment for the videotaped lessons for Groups 1 to 3 for both phases of instruction. The fidelity of treatment checklists were used in previous SRSD strategy studies by Mastropieri et al. (2010). The fidelity of treatment checklists for the fluency and multiple-paragraph instruction were developed for the present study. (Appendix L)

Scorer Materials

The trained scorers were given materials including scoring conventions for each student essay from baseline through maintenance. Scoring conventions were based on conventions used in previous SRSD writing studies (Mastropieri et al., 2009, 2010). These conventions included scoring for number of essay parts, sentences, words, paragraphs, transition words, and for an overall essay holistic score (Appendix M).

Procedures

Relevant university, school district, school, teacher, student, parent, and IRB permissions were received. The district administration determined in which two geographic areas of the district this research would be appropriate. The researcher selected two high schools within the same geographic area of the district; each school had approximately 1,323 students. In early September 2011, each of the two school principals along with the English and Special Education Instruction Coordinators from each of the two schools attended an informative briefing (Appendix N) by the researcher. During this session participants assisted in facilitating the following tasks: selecting appropriate English inclusive classrooms, participant selection, instruction scheduling, consent/assent receipt and return, teacher and student briefings, and identifying designated areas appropriate for instruction.

Participant Selection

The following procedures were used to identify the initial seven participants (two were later dropped for lack of attendance). Initially, special education administrators selected English inclusive classrooms at the 10th- and 11th-grade levels. From each grade level classroom, student participants were identified by Special Education team teachers as receiving special education services for learning disabilities through an Individual Education Plan (IEP) which included goals and accommodations for written expression as part of their IEP services (e.g., Chalk et al., 2005). Students' attendance records were also assessed prior to selection. Subsequently, a potential pool of students was selected based on their class schedules, and the ability to pull students from two different classes.

The study was then explained to students and parental consent and student assents were obtained (Appendix O). All high schools in the district used a block schedule of eight 90-minute periods occurring over 2 days, allowing classes to meet alternating days. A group of seven students was identified and assigned to three small groups ($n = 2$ to 3) based on grade level and agreeable class schedule.

Next, students' school records were reviewed to obtain gender, age, race, academic performance, and testing data including the state required assessments, student IQ information, and disability status. Aside from confirming full inclusion in general education classes for most or all of their academic classes, the researcher reviewed any other special education diagnoses and pertinent information from the students' files.

There were five stages to this study: Baseline, Intervention Phase I – Fluency and Intervention Phase II – Multiple Paragraph, Posttesting, Maintenance, and Generalization Testing.

Baseline

The beginning phase established baseline data, and lasted an average of 9.33 days. A total of nine probes were administered to Groups 1 and 3 as students needed two extra prompts to establish baseline; Group 2 received five probes total to establish consistent baselines for each participant. On day 1 of the baseline phase one untimed writing prompt and the Parts of a Persuasive Essay probe were completed, and the first two sections (Paragraph, Word Fluency) of the Written Expression subtest of the WIAT II were administered. Day 2 students completed a second untimed writing prompt and the final two sections (Sentences, Essay) of the Written Expression subtest of the WIAT II were

administered. Day 3 the third untimed writing prompt and one 10-minute timed prompt were completed. Day 4 students completed a fourth untimed writing prompt and second 10-minute timed writing prompt, as well as the Student Interview (Appendix P). Day 5 students completed the final untimed writing prompt and a third timed writing prompt. Day 6 students completed the fourth and fifth 10-minute timed writing prompts for a total of five timed and five untimed writing prompts. Additional days were needed between the groups because of absences and the replacement of one member in Group 3.

Intervention Phase

The next stage was the instructional phase. Instruction consisted of 10 lessons (Appendix I). There was a total of 83 instruction days with 3,280.00 total minutes or 54.67 hours of instruction administered among all three groups during intervention. The details for instructional time needed for each group are in Table 3. Instructional lessons were administered in two parts: Phase I (Lessons 1 to 8) consisted of SRSD Fluency instruction focusing on a single-paragraph essay, becoming fluent in completing a single paragraph in 10 minutes. Phase II (Lessons 9 and 10) consisted of teaching skills for the SRSD multiple-paragraph essays. Instructional lessons were adapted from both Mastropieri et al. (2009) and Cerar (2012) for SRSD POW + TREE. The instructional sessions lasted approximately 40 minutes. The goal was mastery at each stage; therefore additional practice or instructional sessions were added when necessary; none were dropped.

Table 3

<i>Instructional Time</i>			
Phase I	Minutes	Hours	Days/Sessions
Group 1	760	12.67	19
Group 2	1,080	18	27
Group 3	600	10	15
Mean/Total	813.33/2,440	13.60/40.7	20.33/61
Phase II	Minutes	Hours	Days/Sessions
Group 1	200	3.33	5
Group 2	440	7.33	12
Group 3	200	3.33	5
Mean/Total	280/840	4.66/13.99	7/22
Mean/Total Instruction	1,093/3280.80	18.33/54.67	27.33/83

For Lesson 1, the researcher began the lesson introducing the agenda, and noted that for every lesson this would be introduced so students understood the purpose and activities for the session. Next, students discussed their background knowledge with the words “persuasive” and “writing response.” Next, the student and instructors in each group collaboratively determined writing goals and signed a learning contract (Appendix B) which included target completion dates, the agreed goal, how to meet the goal, and signatures of both the student and teacher. The researcher then introduced the SRSD POW + TREE strategy using a laminated poster (Appendix D) displaying the strategy mnemonic, explaining that the POW component consists of a general planning and organizing strategy, while the TREE components give specific steps for writing the persuasive response. Finally, students reviewed a completed persuasive essay with the teacher. The researcher modeled identifying the specific parts of the essay as they related to the strategy and also introduced the graphic organizer (Appendix E) for student use.

Transition words were introduced as part of the essay and as an important tool in completing an essay.

For Lesson 2 and all subsequent lessons, work began with a review of the previously learned concepts combined with memory practice of the parts of the SRSD POW + TREE strategy. Students were consistently positively reinforced with verbal praise from the instructor for correct strategy usage. Students continued learning the specific acronym of POW + TREE, remembering what each letter corresponds with in the strategy. The researcher introduced transition words using the Transition Word Chart (Appendix F) with examples of transition words, encouraging students to add their own to the list. Sample persuasive responses were reviewed, having students practice identifying elements of the model responses, including individual work with the graphic organizer as a tool. Counter reasons were introduced with the researcher discussing examples from the sample essays and why they are important for a persuasive essay. The researcher also performed a Parts of Essay probe (Appendix Q) with each student individually during this session.

For Lesson 3, after reviewing the strategy and transition words, the researcher modeled how students would use the self-record sheet (Appendices J and K) to track their writing progress. To support motivation through self-monitoring, students graphed their own performance using the self-record sheet. The researcher discussed the importance of setting goals as this is included on the self-record sheet, how good writers do this, and what they look like, giving explicit examples. Next, the researcher introduced think-aloud self-statements and discussed examples with students and how these could be useful

when writing, especially in accomplishing specific goals. Students followed by completing their own self-statements charts (Appendix H) that were used during the following instructional session. Students independently reviewed at least two example essays, identifying essay parts using the graphic organizer. This essay review task was used as the first essay for students to record on their self-record sheet, scoring how many parts were identified correctly in their review.

For Lesson 4, after review the researcher modeled the entire planning and writing process using self-statements and using the graphic organizer. The researcher used think-aloud self-statements while she planned out each step involved in using POW + TREE from selecting a topic to generating ideas to complete the organizer and for beginning to write a response. During planning, a large graphic organizer was placed on the board, and students, assisted by the researcher, generated ideas to complete the organizer. Students filled out their own graphic organizer along with the teacher, writing down ideas and suggestions discussed. The researcher discussed and modeled organizing the persuasive response into relevant paragraph parts using the graphic organizer as a guide. The first sentence of the response following the topic sentence begins with a transition word and states the first reason. Students were then taught to explain the reason. Subsequent sentences state the following second and third reasons, using transition words and followed by related explanations. After three reasons, three explanations, the counter reason and explanation and refute, students summarized and ended their persuasive response. Students wrote their own essays along with the teacher, following and copying the teacher's model. Having students follow with their own organizer and essay kept

them focused on the process and allowed them to take more ownership of the resulting product. To finish, students looked back to review their own self-statements, making changes or adding to their list. Finally, students graphed the essay which was modeled, reviewing and checking off parts completed.

For Lesson 5, students demonstrated that they had learned the strategy steps for writing a persuasive response. Students were asked to name the strategy stages and described the meaning of each step. Next, students selected one of two given writing prompts and completed an essay with researcher guidance. Following the strategy steps, the researcher supported students starting with “P,” picking their topic based on the chosen prompt, then completing the graphic organizer to organize their thoughts and notes. After completing their essay, students graphed the essay and reviewed self-statements used with the researcher. During instructional sessions, the students sometimes asked the researcher questions about spelling, if a word or phrase was a transition word, or how something sounded. Students also came to the researcher either when finished writing the essay or scoring to show their work and discuss what changes to make on their next essay. This process was repeated with a second writing prompt to build confidence toward independence. Students completed two written responses using a graphic organizer, transition word chart, and the self-statements sheet. The researcher also performed a Parts of Essay probe with each student individually during these sessions. During the review students were also asked, as instructed in the lessons several times, to write as many transition words as they could in two minutes, prior to beginning their essay. As lessons progressed students wrote between 8 to 10 transition words.

For Lesson 6, students transitioned into writing independently. After completing two essays with all supports, the researcher modeled to students drawing their own graphic organizer, showing the many options available on a blank sheet for making one's own personal graphic organizer. Students drew their own graphic organizer, following through with completing their next essay and graphing. Students wrote at least two or more essays at this stage without supports. All except one of the students preferred making their own graphic organizer, stating it became more personal and better suited their writing process.

Lesson 7 began the fluency phase of instruction. Students were taught to use all of the previously learned strategy steps for planning and writing a persuasive response more quickly. This instruction is based on Mason (2009) and Mason et al. (2009) for Quick Write writing skills. The researcher began by discussing situations where writing a 10-minute response would be appropriate. The researcher then modeled this procedure. After choosing a prompt, the researcher had the students draw their graphic organizer which they completed while planning and brainstorming with the teacher. Next, the researcher guided students through response completion within a 10-minute time period, to include all elements learned such as topic sentence, three reasons with supporting explanations, counter reason and explanation, and ending. Students were surprised and pleased as they were able to complete an essay in 10 minutes including all the parts of the strategy. Students went on to set specific goals for this phase such as the number of sentences to include or to remember all strategy parts. The researcher used a timer during the modeling and collaborative practice to demonstrate how POW + TREE can be used to

plan and write a shorter but very comprehensive response, all within 10 minutes. Next, using timers, students practiced independently. To finish this lesson, students assessed their progress by completing self-monitoring checklists and determined goals for their next fluency essay.

For Lesson 8, students began by reviewing the components of a good paragraph, completing a review of the goal set previously, and completing a 10-minute Quick Write. After recording the completed parts, students and researcher determined the additional practice Quick Writes needed. All groups did three to four Quick Writes. Students used timers independently to practice additional Quick Writes to mastery. One student in Group 3, Ted, did not use the timer at his desk immediately, given his disability and the anxiety it would potentially cause preventing him from being able to write. Ted wrote his first two essays with time cues from the teacher. After these first essays it was clear Ted was struggling with rushing through the planning stage, in which he was carefully filling out details in his graphic organizer. The researcher kept Ted for two extra 20-minute booster sessions to work on streamlining his organizer, modeling for him listing details instead of writing complete sentences. After timing his planning stage twice using this new technique, Ted was able to complete his graphic organizer in five to six minutes. During the second booster session combined with essay completion, Ted finished by practicing with the timer twice. He was then ready in a third session with the other group member to use a timer at his desk and complete a third essay in just less than 10 minutes.

For Lesson 9, students applied their strategy knowledge and paragraph writing skills to writing multiple-paragraph essays. The researcher reviewed all the elements of

the SRSD POW + TREE strategy, transition words, and self-statements. Next, the researcher modeled the process of writing a multiple-paragraph essay with the students participating in all steps by writing their own graphic organizer and essay along with the researcher as done previous lessons during modeling. Students reviewed the finished collaborative essay and graphed parts. During this lesson students chose a prompt for the first multiple-paragraph essay and completed their graphic organizer with teacher guidance. The researcher performed a Parts of Essay probe with each student individually during this session.

For Lesson 10, the researcher began by reviewing all the parts of the multiple-paragraph essay, including additional transition words. Next, students began writing an essay independently or completed one already started, repeating this process several more times as needed, including graphing parts completed and reviewing goals. Once students and the researcher agreed that individual mastery had been achieved, the students practiced 10-minute timing for the multiple-paragraph essays using goal setting as a support.

Posttesting

Posttesting was performed in two phases: Posttesting fluency and posttesting multiple paragraph. Posttesting fluency testing was performed at the end of mastering skills for Lesson 8 over a 4-day period, taking an additional day more than the 3 planned because of students spending more time planning and writing the untimed essays given. Day 1 students were administered the first and second 10-minute timed writing prompts with one untimed prompt. Day 2 students were administered the third and fourth timed

writing prompts. Day 3 students were administered the fifth timed writing prompt along with a Parts of Essay probe. Day 4 the second untimed writing prompt was administered.

Part 2 Posttesting Multiple-Paragraph testing was performed at the end of mastering skills for Lesson 10 over a 5-day period. Students were administered both timed and untimed multiple-paragraph measures using different writing prompts including Prompts B for the WIAT II. Day 1 students were given one untimed writing prompt and the first two sections (Paragraph, Word Fluency) of the Written Expression subtest of the WIAT II. Day 2 students completed a second untimed writing prompt and the final two sections (Sentences, Essay) of the Written Expression subtest of the WIAT II. Day 3 the third untimed writing prompt, one 10-minute timed prompt, and the Parts of Essay probe were completed. Day 4 students completed a fourth untimed writing prompt and second 10-minute timed writing prompt. Day 5 students completed the final untimed writing prompt and the Postinstruction Student Interview (Appendix R), as well as the Study Specific Questionnaire (Appendix S) as part of the interview.

Maintenance and Generalization Testing

In this last stage maintenance and generalization were performed 4 weeks after the end of the initial instructional sessions. During a 2-day period, students were tested again using two maintenance and two generalization measures, one 10-minute timed and one untimed multiple-paragraph writing prompt measure, as well as interviewed again about strategy use after their initial instruction sessions. Maintenance measures and the essay parts probe were administered on day 1 and the generalization measures and student interviews were administered on day 2.

Dependent Measures, Administration, and Scoring

Quantitative Measures

WIAT II. The Wechsler Individual Achievement Test-II (WIAT II) (Wechsler, 2005) is an individually administered achievement test designed to assist with learning disability diagnosis, special education placement, curriculum planning, and decisions regarding interventions for preschool children through adults. Subtests include written expression, spelling, listening comprehension, oral language, word reading, pseudo word decoding, reading comprehension, numerical operations, and mathematics reasoning. The Written Expression subtest includes items assessing sentence construction, word fluency, writing fluency, and written response to visual or verbal cues. Additionally, descriptive and narrative writing tasks are included.

Planning and writing probe. This probe was administered four times throughout the study at baseline, postfluency instruction, postmultiple-paragraph instruction, maintenance, and generalization. Teachers timed students from video using counters to note how much time students spent planning an essay and how much time they spent on the actual writing process. A written rubric was used to identify and operationalize what planning and writing tasks looked like for this study. The probe was designed by Hauth (2012), and observers and scorers were trained before the study began. Planning was indicated by: (a) student engagement with a graphic organizer or notes on writing, (b) the student used prewriting strategies, or (c) when the student was visibly “thinking” before writing, either aloud or silently. Time spent writing was identified as: (a) the student was engaged in writing persuasive essays, (b) the student actively used the writing

instruments paper and pencil to write, (c) the student was revised and edited after the writing process began, or (d) the student made short pauses of less than 1 minute to regroup or “think” while composing (Appendix T). Total time spent planning and total time spent writing were tabulated for each student for the four probes administered.

Essay writing prompts. Students completed persuasive multi-paragraph essays at pretest, postfluency instruction, postmultiple paragraph instruction, maintenance, and generalization. For all essays except generalization, students were given a choice of two topic prompts and asked to respond to one prompt for their essay composition. The essay prompts used were reviewed by a field of experts including high school special education teachers and researchers with SRSD experience to ascertain appropriate age and interest level for the students. Essays were typed into a computer by the researcher and first analyzed using essay scoring conventions for total number of words written, number of transition words used, number of paragraphs, number of sentences, and number of persuasive essay parts included. A rubric for holistic quality was then employed for each essay (Appendix M). Following is a description of each component of the essay scoring conventions used as measures in the study.

Total words. The number of words was counted for each written response completed by students during all stages of the study. Words were counted only after they have been typed into the Word program with misspellings being corrected. This allowed for all words to be counted by the program and not missed due to nonrecognition. Student essays were analyzed via the computer using a total word count feature. Total words used were tabulated for each essay written.

Sentences. Number of sentences were counted in two ways and tabulated for each essay based on the following: (a) number of complete sentences which included subject, verb, and punctuation at the end, and (b) sentence fragments which may have been missing a subject or verb.

Paragraphs. Paragraphs were also counted in two ways and tabulated with the following parameters: (a) paragraphs with at least three complete sentences, and (b) paragraphs with a combination of at least three complete sentences or sentence fragments.

Transition words. The total number of transition words used for each essay was counted. Transition words included: my first reason, second reason, additional reasons, and my final reason (Appendix F). The number of transition words used by each student in a written response was scored, giving one point for each transition word used. This scoring was done manually by the researcher.

Essay scoring measures. All written responses from all stages of the study were scored on the following dependent measures: quality, number of elements/parts, number of words, number of sentences, number of transition words, and planning and writing time. All responses were typed into Word with spelling corrected before scoring began. Graduate students as independent scorers performed reliability by reading and scoring 33% of the essays individually. Scorers met to assess interrater reliability, discussing disagreements until resolution. The goal of 98 to 100% interrater agreement was achieved with 99% agreement.

Quality of response. Each essay was scored using a holistic rubric (Appendix M)

with a scale from 0 to 10 and specific scoring rules as described below:

- **High Quality:** Score of 9 to 10. The persuasive essay has all the parts of a persuasive essay including a topic sentence, more than three reasons, at least three explanations, with an ending sentence. The essay follows a logical sequence that strengthens the writer's argument along with at least one or more counter arguments.
- **Good Quality:** Score of 7 to 8. The persuasive essay has all the parts of a persuasive essay including a topic sentence, at least three reasons with at least two explanations, and an ending sentence. The essay follows a logical sequence that strengthens the writer's argument, but NO counter arguments are included.
- **Weak Quality:** Score of 5 to 6. The persuasive essay includes only a topic sentence, three reasons with only one or no explanation, with an ending sentence. The essay's sequence is weak, therefore limiting the writer's argument.
- **Low Quality:** Score of 1 to 4. The persuasive essay is given the same related score according to the number of the following total identifiable parts included in the essay: topic sentence, reasons, or ending sentence. For example, 3 for three parts included, 2 for two parts included, and 1 for only one identifiable part included.

- **Extremely Weak Quality:** Score of 0. The essay does not include ANY identifiable parts.

The highest quality essays, scored between 9 and 10, included more than three reasons with three or more explanations, as well as at least one counter argument, to present a strong argument which is presented in a logical sequence for the reader. The next scoring range of 7 to 8 presents an essay of good quality which is written in logical sequence. Essay parts included were the topic sentence, at least three reasons and two explanations with an ending sentence, but the counter argument was missing to support the writer's point. The next scoring range is a weaker essay which may have had three reasons, but only one or no explanations with an ending to support the writer's argument. An even lower quality essay was scored from 1 to 4 with the score actually identifying the number of recognizable essay parts. The included parts could be any combination of the topic sentence, reasons, or ending sentence, showing very weak structure and minimal support for the writer's point. Finally, the weakest quality essay was scored as 0, which may have had content material but no recognizable essay parts or structure for the writer's point of view. Anchor essays, representing all possible scores on the scale, were used as reference essays.

Number of essay elements. Essays were scored by the number of elements included in a written response. One point was awarded for including each required component or essay part used in the POW + TREE writing strategy up to a total of 10 points including a topic sentence, three reasons or more with supporting explanations, followed by a counter-reason and a refute, concluding with an ending. If students

included additional elements in their application of the strategy, such as a fourth reason and supporting explanation, or an additional counter-reason or refute, their total number of elements could be 12 to 14 elements included in their essay. Fewer points were given when required essay parts were missing, such as no ending or missing reasons or explanations.

Strategy knowledge probe. The strategy probe assessed student understanding of the components of a good persuasive essay and monitor whether learning was occurring as intended throughout the study. This probe was administered at baseline, during Phase I single paragraph fluency instruction, Phase II multiple paragraph instruction, posttesting for Phase I and Phase II, and at maintenance to document and assess student knowledge regarding the writing strategy parts. Students were given a strategy probe regarding their knowledge of the parts of a good persuasive essay. Students were asked to name the parts of an essay. Students could earn a maximum of 12 points. The order of their responses did not make a difference in the scoring as long as they listed all of the parts of a persuasive essay. Responses were scored as follows. A general score was awarded as 1 point for each of the following parts when correctly identified by the student: pick your idea, organize your notes, write and say more, topic sentence, reasons, three or more reasons, explanations, and ending sentence. Four additional points, for a maximum score of 12, would be indicated by additional student responses which included examine, counter reasons, one or more counter reason, and refute (Appendix Q).

Qualitative Measures

The instructor used qualitative information with work produced to gauge the need for additional instruction sessions, shorter “booster” sessions to support learning, or to reduce scheduled sessions. These measures gave the participants a “voice” throughout the period of the study as to what they may have been thinking and feeling as they moved through the stages of learning the writing strategy, and what impact this process and instruction was having on students, if any. These measures also confirmed the social validity of the SRSD strategy instruction.

Researcher/Teacher Reflections

The researcher/instructor kept a running daily record of each session during the study. Student behaviors, reactions, and other events were noted in these reflections. The instructor used this to inform daily instruction, and whether any changes or adjustments were necessary.

Social Validity Interviews

Students were interviewed by the instructor at baseline, posttesting, and again at maintenance (Appendices P and Q). These semistructured interviews lasted approximately 20 minutes. At baseline, students were asked about how they felt about writing in school, assessed their writing skills, and if they perceived writing strategy instruction as helpful. At posttesting, students were asked to assess their skills again, reflect on the strategy instruction experience, and whether they found the strategy helpful in supporting their writing skills. At maintenance, students assessed their skills once more, detailed if the strategy instruction had continued supporting (or not) their

schoolwork over the last month, and detailed examples of this. Semistructured student interviews conducted at all phases were written by the researcher. The interviews at posttesting and maintenance included using the strategy specific protocol in previous SRSD studies by Mastropieri et al. (2009, 2010, 2012). Sample questions included, “How has the POW + TREE strategy helped you become a better writer?”, “If you were the teacher, what would you change about the POW + TREE lessons?”, and “How did your time spent planning and writing change?” (Appendix S). Student interview responses were audiotaped and videoed, and transcribed. The interviews were then coded for emergent themes across participants.

Teacher Interviews

After the maintenance stage, the students’ regular teachers were interviewed about each participant student, whether they had seen change in the quality of each student’s academic written performance and products, and also the student’s attitude about approaching and completing academic writing tasks. These semistructured interviews lasted approximately 20 to 40 minutes depending if teachers were interviewed individually or as a team, which was appropriate with English team teachers (Appendix U).

Summary

This chapter detailed the methodology of this writing instruction research study. The five participants represent a broad sampling from the high school inclusive classroom setting. Based upon previous studies, the intervention phases took students through the SRSD persuasive writing instruction to mastery. The following chapter will

describe the results of these measures in detail, including social validity and teacher feedback following the participants' completion of instruction.

4. RESULTS

This chapter describes the results of this research study on the effectiveness of Self-Regulated Strategy Development (SRSD) writing instruction on the writing and planning performance of high school students with disabilities taught in the inclusive general education classroom using a multiple baseline, multiple probe design. The instruction was delivered in two phases: The first phase taught fluency through paragraph writing, and the second phase taught students to write multiple-paragraph persuasive essays. Students were tested at baseline, after Phase I, after Phase II, and following a 4-week interval to assess maintenance and generalization. In addition, the study examined the time students spent planning and writing persuasive essays across phases. Students were also interviewed at baseline to establish their skill and feelings about writing in school, as well as during postinstruction and maintenance to see whether they had learned the strategies, whether they enjoyed instruction and strategy use, and whether their feelings had changed about writing. The teachers of study participants were also interviewed at maintenance to examine whether they saw any changes in students' writing performance and products. To examine the effects of this instruction, the following research questions were examined:

1. How will the SRSD writing strategy improve the writing of students with disabilities from the inclusive classroom using timed single-paragraph essays?

2. How will the SRSD writing strategy improve writing skills for students with disabilities from the inclusive classroom using untimed multiple-paragraph essays?
3. Are students able to maintain the writing skills over time?
4. Are students able to generalize the writing skills over time?
5. How will the SRSD writing strategy improve the planning time during writing of students with disabilities in the inclusive classroom?
6. Do students like the SRSD writing strategy, remember the strategy, and use the strategy for other academic assignments?
7. Do teachers of students who have received SRSD writing strategy instruction see evidence of strategy use and improved writing skills with these students?

The intervention was evaluated using a single-subject multiple-baseline design across participants with multiple probes (Kazdin, 1982; Kennedy, 2005). Visual analysis of the data for level, stability, variability, and trends was employed based on analysis for this design (Kennedy, 2005). In addition, the percentages of nonoverlapping data points (PND) between baseline and intervention phases were calculated to indicate the PND outcome effect (Scruggs, Mastropieri, & Casto, 1987). Further investigation included the use of nonparametric tests to analyze mean changes between baseline and other phases of the study (Wilcoxon, 1945). In addition, the mean time for planning and writing was also calculated across students. Interviews were analyzed and compared for categories and common themes across both student and teacher responses (Maxwell, 2005).

Fidelity of Treatment

Fidelity of treatment for lesson delivery with each of the study's three groups was assessed using the fidelity of treatment checklists with the videotapes of both lessons and all testing phases of the study. Each of the videotapes was reviewed by the researcher and two trained observer/scorers using the fidelity of treatment checklists for each lesson times three groups for a total of 51 videotapes. The 51 videos comprised lessons 1 through 8 of the SRSD strategy instruction fluency and lessons 9 and 10 of the SRSD multiple-paragraph strategy instruction.

Fidelity of treatment checklists for the lesson plans were utilized to evaluate whether the instruction was implemented as intended. The items monitored were (a) consistency with implementing intervention for the appropriate amount of time, and (b) consistency with implementing intervention using SRSD and SRSD fluency + multiple-paragraph scripted lessons.

Using the fidelity of treatment checklists, observers were trained to assess whether or not the instruction and its implementation were delivered as intended for both instructional phases of the study (see Appendix N). The researcher and two observers viewed the lessons independently and the fidelity of treatment checklists were completed and delivered to the researcher. All checklists were compared to calculate the percentage of agreement. The fidelity of treatment analysis indicated that instruction to the three groups was delivered with a high degree of fidelity ($M = 99$; range 98% to 100%).

Essay Writing Performance

Student writing performance measures were evaluated for each essay written at baseline, postfluency, postmultiple paragraph, maintenance, and generalization. Evaluation of student measures included all scores for total number of words, sentences, paragraphs, transition words, essay parts, and essay quality. Students were measured for both timed and untimed essay writing performance during this study. After the intervention Phase I – fluency, timed essay measures were administered allowing students 10 minutes to complete essay writing prompt. During posttesting fluency, five timed essay prompts were administered to measure the previous intervention instruction. Untimed essay measures allowed students as much time as needed to complete an essay writing prompt. If necessary, students could finish during the next testing session. The previous fluency instruction phase emphasized the 10-minute time limitation. Two untimed measures were administered to give a comparison measure after this phase. After Phase II – multiple paragraph, the reverse was administered with five untimed essays and two timed essays, comparing measures after the multiple paragraph instruction.

Essay Prompts

During all study phases—baseline, instruction, postfluency and postmultiple paragraph instruction testing, maintenance and generalization—students wrote essays in response to a variety of writing prompts on generic topics of interest. Basic generic persuasive essay prompts were used for the strategy instruction based on prompts used in previous research by Mastropieri et al. (2009, 2010, 2012), while others were developed by the researcher considering interests appropriate for the high school level. All prompts

were reviewed by Dr. Mastropieri and doctoral students with previous experience conducting writing intervention research for readability and interest level suitable for this student population. All prompts were judged to be comparable in difficulty with the potential to also generate a high level of interest from participants. Two writing prompts for each essay were presented for student selection before writing (see Appendix F). Below is an example of the choice of prompts given to students during baseline testing.

- Day 3: untimed
 - Should public school students be required to wear uniforms?
 - Should pets like dogs or cats be inside or outside animals?
- Day 3: timed
 - Should students your age be allowed to have a TV in their room?
 - Should schools start later in the morning for students your age?

Scoring

Overall essay quality was determined through the use of a holistic rubric comprised of a scale from 0 to 10 with clear grading guidelines. An essay receiving a score of 10 would have met the following criteria: (a) topic sentence, (b) three or more reasons with explanations, (c) a clear and coherent sequence of writing including more than one counterargument, (d) an ending sentence, and (e) an overall logical essay.

To review the scoring procedure methods, each essay was scored by two independent scorers. Scorers discussed disagreement after scoring each phase until differences were resolved. Once discrepancies were cleared, the reliability between scorers was reconciled to 100% agreement across all phases.

Results are presented as per testing phase by overall results, instructional group, and individual student performance.

Baseline

Students were administered a minimum of five baseline prompts in predetermined groups. Group one ($n = 2$) was comprised of Harry and Will. There was a third member from School B who was suspended for behavior in mid-February for 2 weeks, and then was not allowed by administration to return back to the study. Will left instruction in January during Intervention Phase I due to his placement into a drug rehabilitation facility. However, Will returned in mid-February and was willing to attend extra instruction sessions to make up past lessons and move forward with other participants to complete the study. Group two ($n = 1$) included Ann. A second member of this group left the study during fluency instruction because he began to panic about having adequate time for completing his homework daily, that taking time for the study from his Study Skills class and Study Hall would jeopardize his grades. Group 3 ($n = 2$) included Eli and Ted. A total of 12 baseline measures were administered: 5 untimed and 5 timed, with 2 additional timed measures given to support establishing baseline stability and as well to comply with the high quality standards of single-subject research (Horner et al., 2005).

Students were provided with lined paper and pencils and were presented with the choice of two generic persuasive essay baseline prompts. Students were asked to choose one prompt and write. All students within each group received baseline prompts until stability was reached for each student. Scores considered for baseline stability included scores for holistic quality, number of essay parts, and number of words. Two additional

timed measures supported establishing a stable baseline, which allowed for the staggered continuation of the study to intervention instruction and posttesting phases. Student performance and analysis on posttesting measures follow.

Following are group and individual descriptions of performance measures at baseline.

Group one. This group was given baseline prompts over a period of 8 school days. During baseline students were asked to write an essay from a choice of two designated prompts. Students used paper and pencil to write their responses. Students in this group were seated in separate areas of the small classroom. Using visual analysis, the baseline performance indicated low performance and variability for level and trend. Two additional timed measures supported establishing a stable baseline, which allowed for the staggered continuation of the study to intervention instruction and posttesting phases. Baseline scores were analyzed to determine stability levels before the instructional phase.

Harry's baseline performance. Harry completed 12 baseline essays. At baseline the measures used to determine stability levels for Harry included number of words per essay, number of essay parts, and holistic quality. His baseline performance was noted as variable. For number of words timed, Harry had a mean score of 48.33 with a range of 39 to 63; for untimed the mean was 97.42 with a range of 37 to 236, demonstrating a higher range of variability for trend especially with the untimed measure. His average for number of essay parts timed was 4 with a range of 3 to 6; untimed the mean was 4 with a range of 3 to 5. Harry's holistic quality scores timed demonstrated an average score of 3, with a range of 2 to 4; untimed the mean was 3.62 with a range of 2 to 4. Harry's other

performance scores included total number of sentences timed with a mean of 2.90 and a range of 2 to 4 sentences per essay; untimed the mean was 4.82 with a range of 2 to 10 also illustrating variability in scores. For number of paragraphs timed his average was 0.7 with a range of 0 to 1; untimed the mean was 1.20 with a range of 0 to 3. For number of transition words timed, Harry had an average score of .14 with a range of 0 to 1; untimed the mean was .80 with a range of 0 to 2. The analysis indicated variability in performance for level and trend with the number of words and sentences, with a consistently lower level and trend across essay elements and transition words at baseline.

Will's baseline performance. Will completed 12 baseline essays. At baseline the measures used to determine stability levels for Will included number of words per essay, number of essay parts, and holistic quality. His baseline performance was low with variability in several measures. For example, on the number of timed words measure, Will's scores ranged from 42 to 113; for the untimed words measure scores ranged from 57 to 220, both of which indicated variable performance. His average for number of essay parts on the timed measure was 3.40 with a range of 3 to 4; however, on the untimed measure the mean was 4.80 with a range of 3 to 7 which indicated more variability. Will's scores for the timed measure of holistic quality demonstrated an average score of 3, with a range of 2 to 4; for the untimed measure of holistic quality the mean was 3.60 with a range of 2 to 5. Will's other performance scores included the timed measure for the total number of sentences with a mean of 4 and a range of 6 to 14 sentences per essay; for the untimed measure for the number of sentences the mean was 10 with a range of 9 to 16, which indicated more variability. For the timed measure for the number of

paragraphs his average was 1.10 with a range of 1 to 2; for the untimed measure for the number of paragraphs the mean was 1.82 with a range of 1 to 3. For number of transition words timed, Will had an average score of 0; untimed the mean was 0. The analysis indicated a higher range of variability for trend on measures of number of words, essay parts and sentences, and a low performance in level and trend across measures of essay elements and transition words at baseline.

Group two. The single student remaining in this group, Ann, was given baseline prompts each day for eight successive sessions. Ann's baseline performance indicated variability for level and trend. Therefore, baseline was continued and extended to establish a stable baseline prior to initiating intervention.

Ann's baseline performance. Ann completed 12 baseline essays. At baseline the measures used to determine stability levels for Ann included number of words per essay, number of essay parts, and holistic quality. Her baseline performance was noted as slightly increasing with variability. For number of timed words measure, Ann had a mean score of 125.13, with a range from 86 to 155; for the untimed measure for number of words the mean was 161.42, with a range from 124 to 186, both of which indicated variability in performance. Her average for number of essay parts on the timed measure was 7.33 with a range of 3 to 6 which indicated variable performance; however, on the untimed measure for essay parts the mean was 7.41 with a range of 7 to 8. Ann's scores for the timed measure of holistic quality demonstrated an average score of 5.41, with a range of 4 to 6; for the untimed measure of holistic quality the mean was 6.45 with a range of 4 to 7 which indicated variable performance. Ann's other performance scores

included the timed measure for total number of sentences with a mean of 9.35 and a range of 6 to 14 sentences per essay; for the untimed measure for number of sentences the mean was 11.42 with a range of 9 to 16, which indicated variable performance. For the timed measure for the number of paragraphs her average was 2.10 with a range of 2 to 3; the untimed measure for the number of paragraphs the mean was 2.60 with a range of 2 to 3. For the timed measure of the number of transition words, Ann had an average score of 1.30 with a range of 0 to 3; for the untimed measure for the number of transition words the mean was 2.85 with a range of 0 to 4 which indicated more variability. The analysis indicated a low performance overall demonstrating wide variability in level and trend, across measures for the number of words, essay elements and the number of sentences at baseline.

Group three. This group was given baseline prompts over a period of 15 school days. During baseline students were asked to write an essay from a choice of two designated prompts. Students used paper and pencil to write their responses. Students in this group were seated in separate areas of the small classroom. Using visual analysis, the baseline performance was low demonstrating variability for level and trend. Two additional timed measures supported establishing a stable baseline, which allowed for the staggered continuation of the study to intervention instruction and posttesting phases. Following are the individual performance results for the baseline essays for group two. Baseline scores were analyzed to determine stability levels before the instructional phase shown in Figures 1-3 and 7-9 included number of words per essay, number of essay parts, and holistic quality scores.

Ted's baseline performance. Ted completed 12 baseline essays. At baseline the measures used to determine stability levels for Ted included number of words per essay, number of essay parts, and holistic quality. His baseline performance was noted as consistently low. For the timed measure for the number of words, Ted had a mean score of 67 with a range of 42 to 75; for untimed measure the mean was 82 with a range of 71 to 98, demonstrating a stable trend. His average for the timed measure for the number of essay parts was 3.50 with a range of 2 to 6; for the untimed measure for essay parts the mean was 3.41 with a range of 3 to 4. Ted's scores for the timed measure for holistic quality demonstrated an average score of 3, with a range of 2 to 4; for the untimed measure for holistic quality the mean was 2.22 with a range of 0 to 4 which indicated variability in performance. Ted's other performance scores included the timed measure for the total number of sentences with a mean of 3.90 and a range of 3 to 5 sentences per essay; for the untimed measure for total number of sentences the mean was 4.42 with a range of 3 to 5. For the timed measure for the number of paragraphs his average was 1; for the untimed measure the mean was 1. For the timed measure for the number of transition words, Ted had an average score of .40 with a range of 0 to 3; for the untimed measure the mean was .40 with a range of 0 to 2. The analysis indicated consistently low performance in level, trend, and variability across essay elements at baseline.

Eli's baseline performance. Eli completed 12 baseline essays. At baseline the measures used to determine stability levels for Eli included number of words per essay, number of essay parts, and holistic quality. His baseline performance was noted as low with variability. For number of words timed, Eli had a mean score of 75 with a range of

25 to 158; for untimed the mean was 74.40 with a range of 46 to 112, demonstrating a variable trend. His average for number of essay parts timed was 5.10 with a range of 3 to 7; untimed the mean was 4.82 with a range of 3 to 7, again demonstrating a high trend of variability. Eli's holistic quality scores timed demonstrated an average score of 4, with a range of 3 to 5; untimed the mean was 3.82 with a range of 3 to 5. Eli's other performance scores included total number of sentences timed with a mean of 6.12 and a range of 3 to 11 sentences per essay; untimed the mean was 5.45 with a range of 4 to 7. For number of paragraphs timed his average was 1.45 with a range of 1 to 3; untimed the mean was 1.42 with a range of 1 to 2. For number of transition words timed, Eli had an average score of 1.3 with a range of 0 to 4; untimed the mean was 1.83 with a range of 0 to 3. The analysis indicated high variability in performance for level and trend across all baseline measures except for number of paragraphs and transition words at baseline.

Knowledge of Essay Parts at Baseline

During baseline, instructional intervention, and posttesting phases, students were asked to name the parts of a persuasive essay to include answers such as topic sentence, reasons (three or more), explanations, and ending. Each response elicited a point toward scores of 0 to 10. This was done to monitor how well students were progressing toward learning the parts of a persuasive essay. At baseline, students were given the probe on days three and five. Overall, students obtained an average score of 1.2 ranging from 0 to 2, indicating low performance for all students at baseline for knowledge of the parts of a persuasive essay.

Baseline summary. Using visual analysis, the baseline performance was variable indicating lower performance with high variability for level and trend. Variability was seen between both timed and untimed essay measures with demonstrated 10% to 60% PNDs and scores showing a wide range. Two additional timed measures supported establishing a more stable baseline despite variability, which allowed for the staggered continuation of the study to intervention instruction and posttesting phases. Student performance and analysis on posttesting measures follow. Student performance and analysis on posttesting measures follow. Figures 1-12 provide a visual analysis of each student's and group's performance for timed and untimed essays.

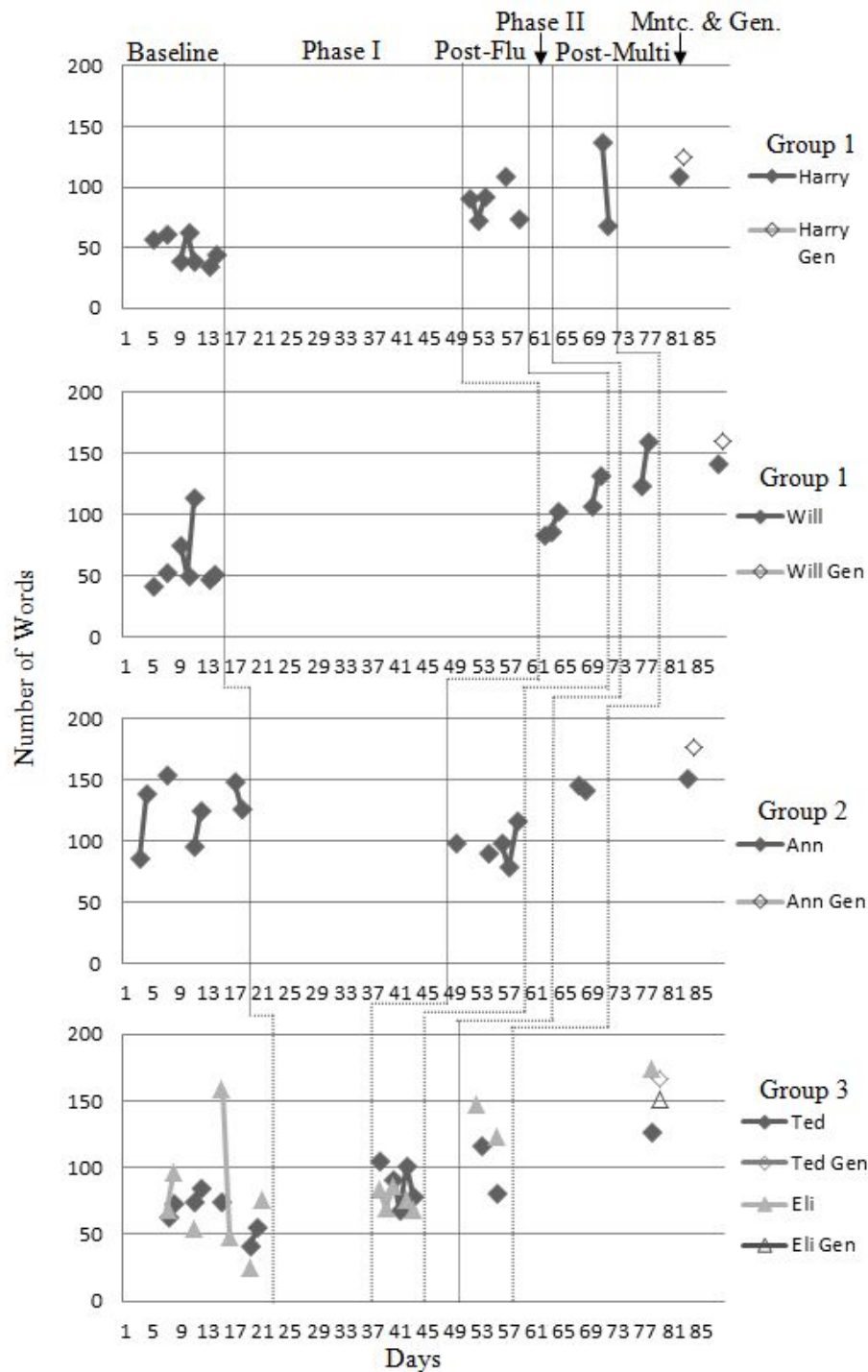


Figure 1. Number of words per timed essay. This figure illustrates the total number of words written in each timed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

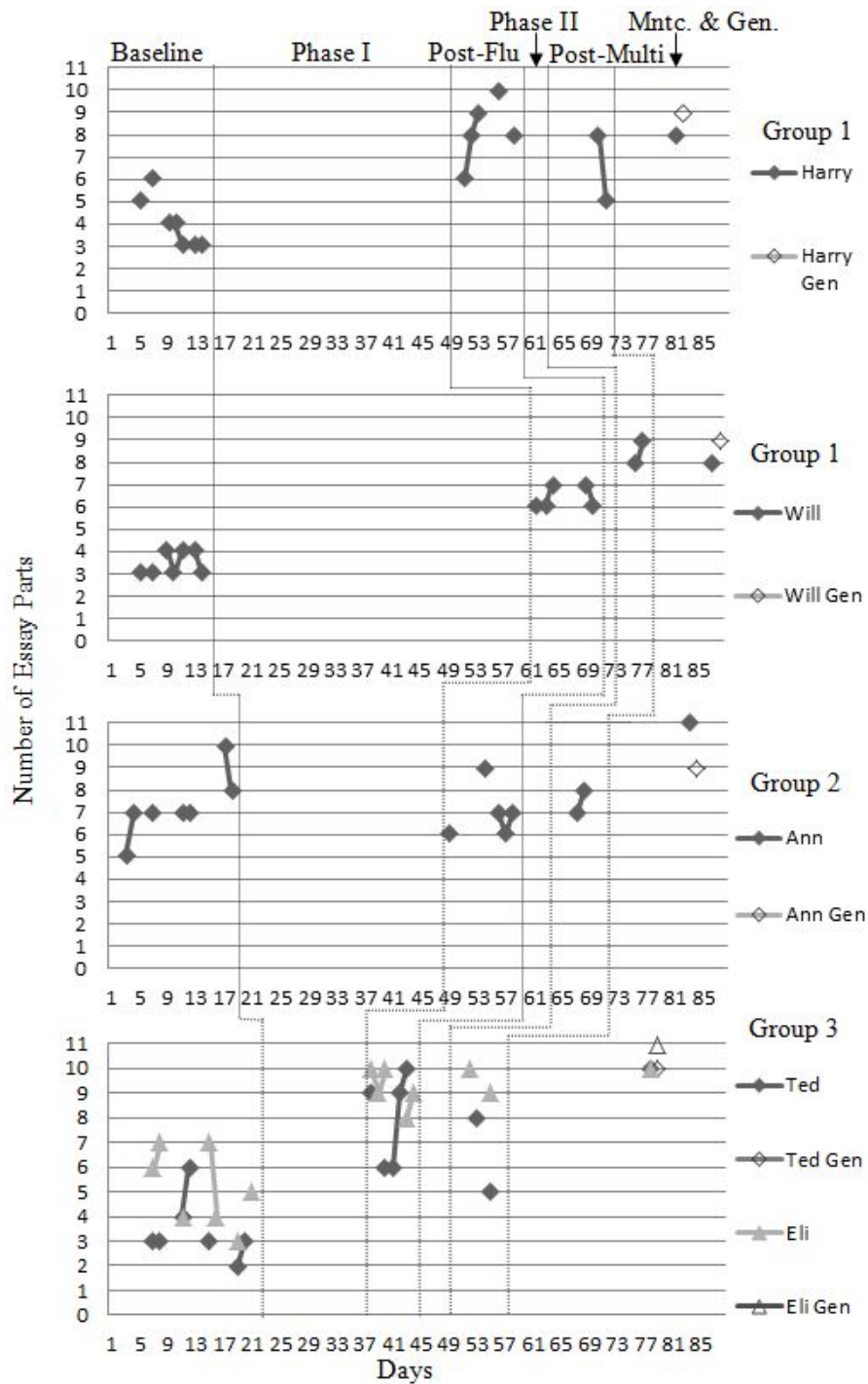


Figure 2. Number of essay parts per timed essay. This figure illustrates the total number of essay parts in each timed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

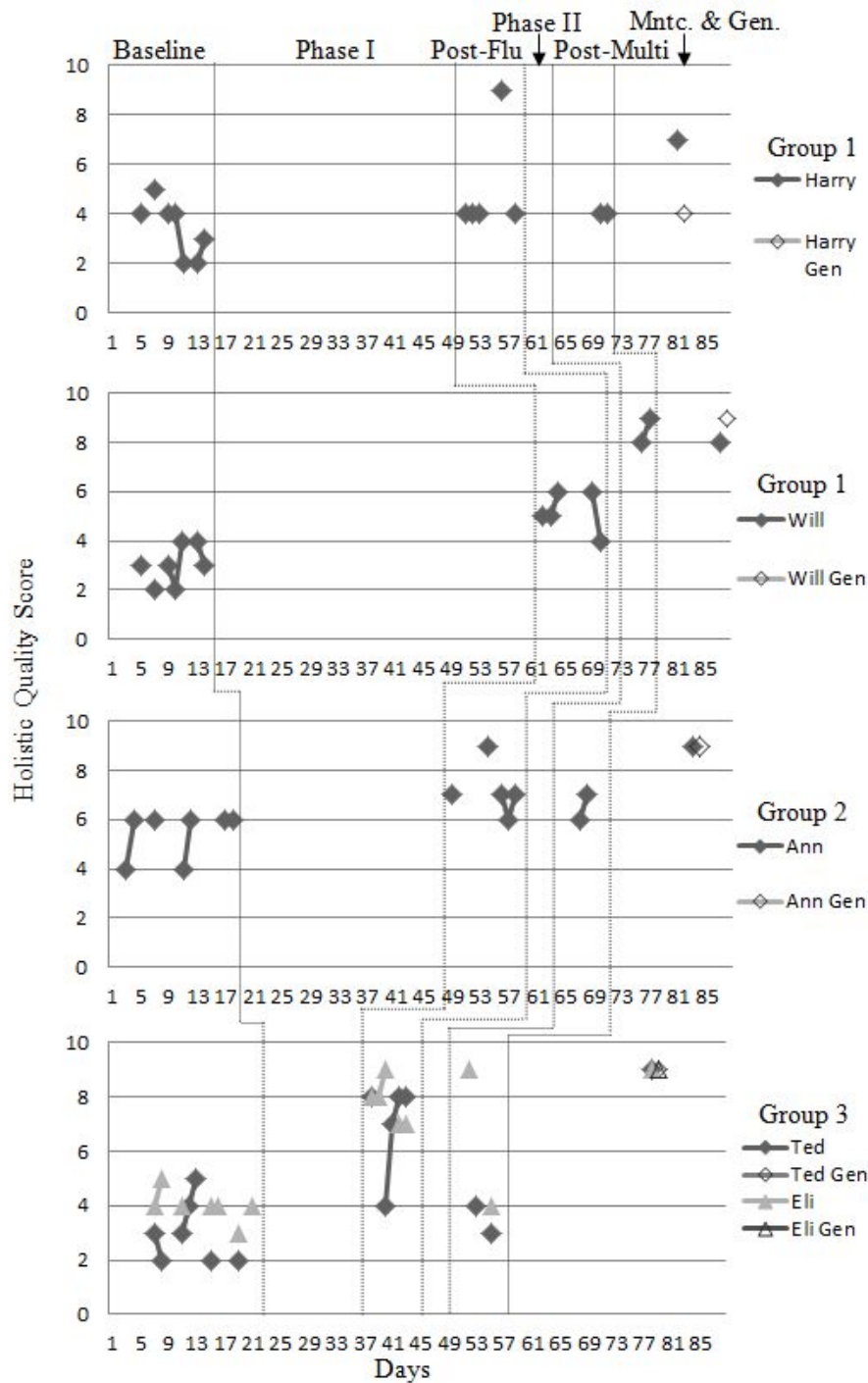


Figure 3. Timed essay holistic quality scores. This figure illustrates the holistic essay score for each timed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

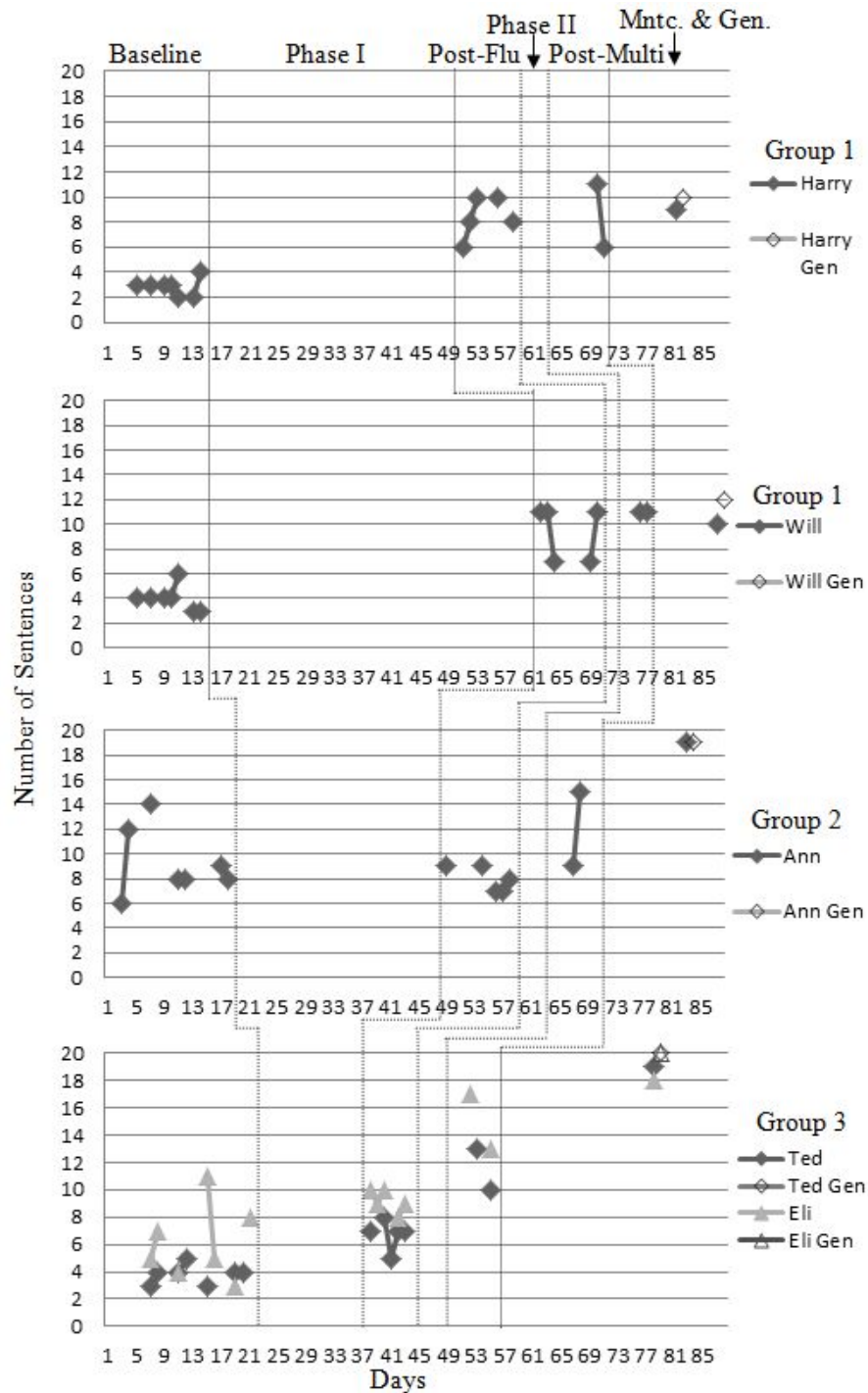


Figure 4. Number of sentences per timed essay. This figure illustrates the total number of sentences in each timed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

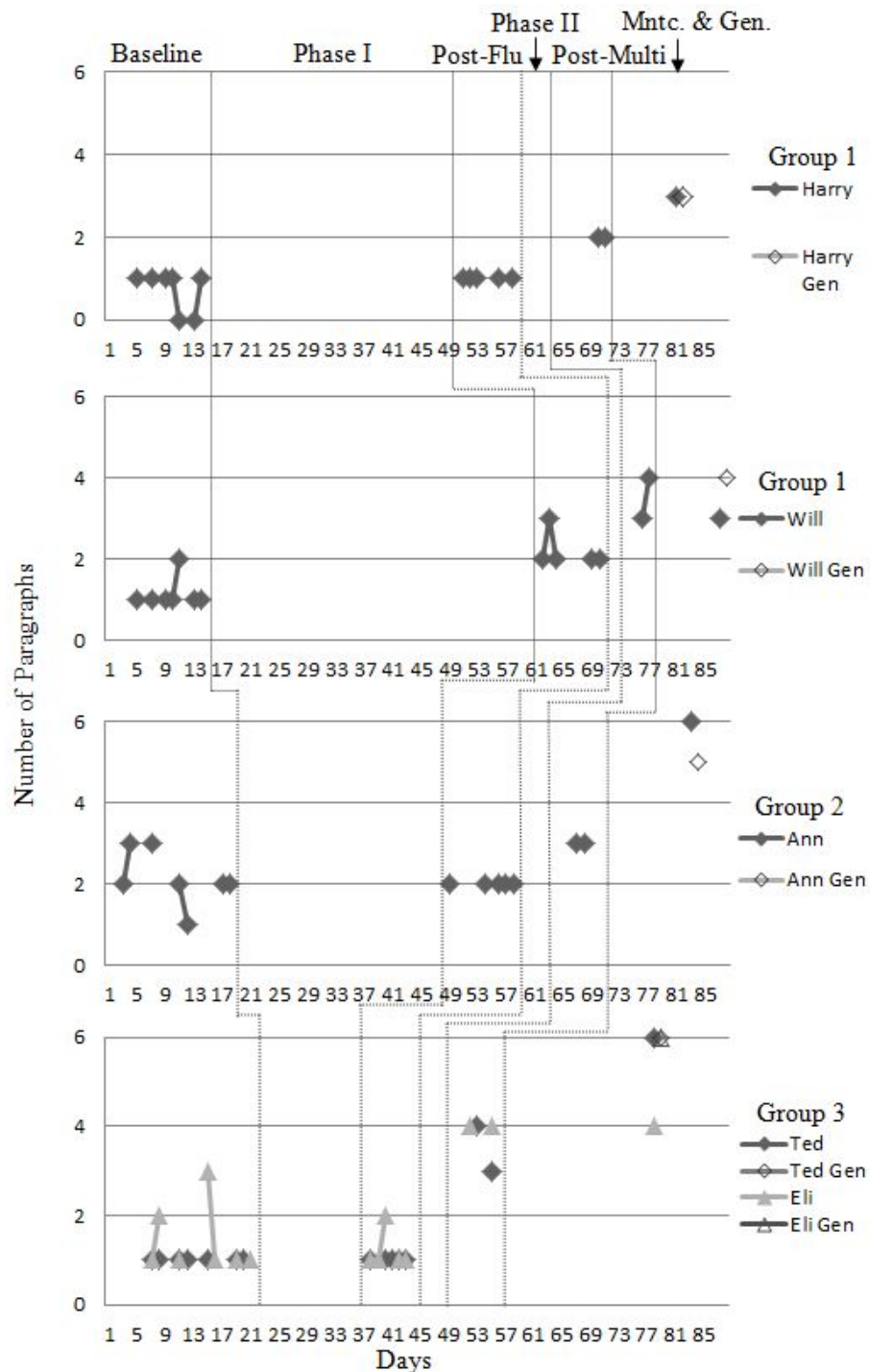


Figure 5. Number of paragraphs per timed essay. This figure illustrates the total number of paragraphs in each timed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

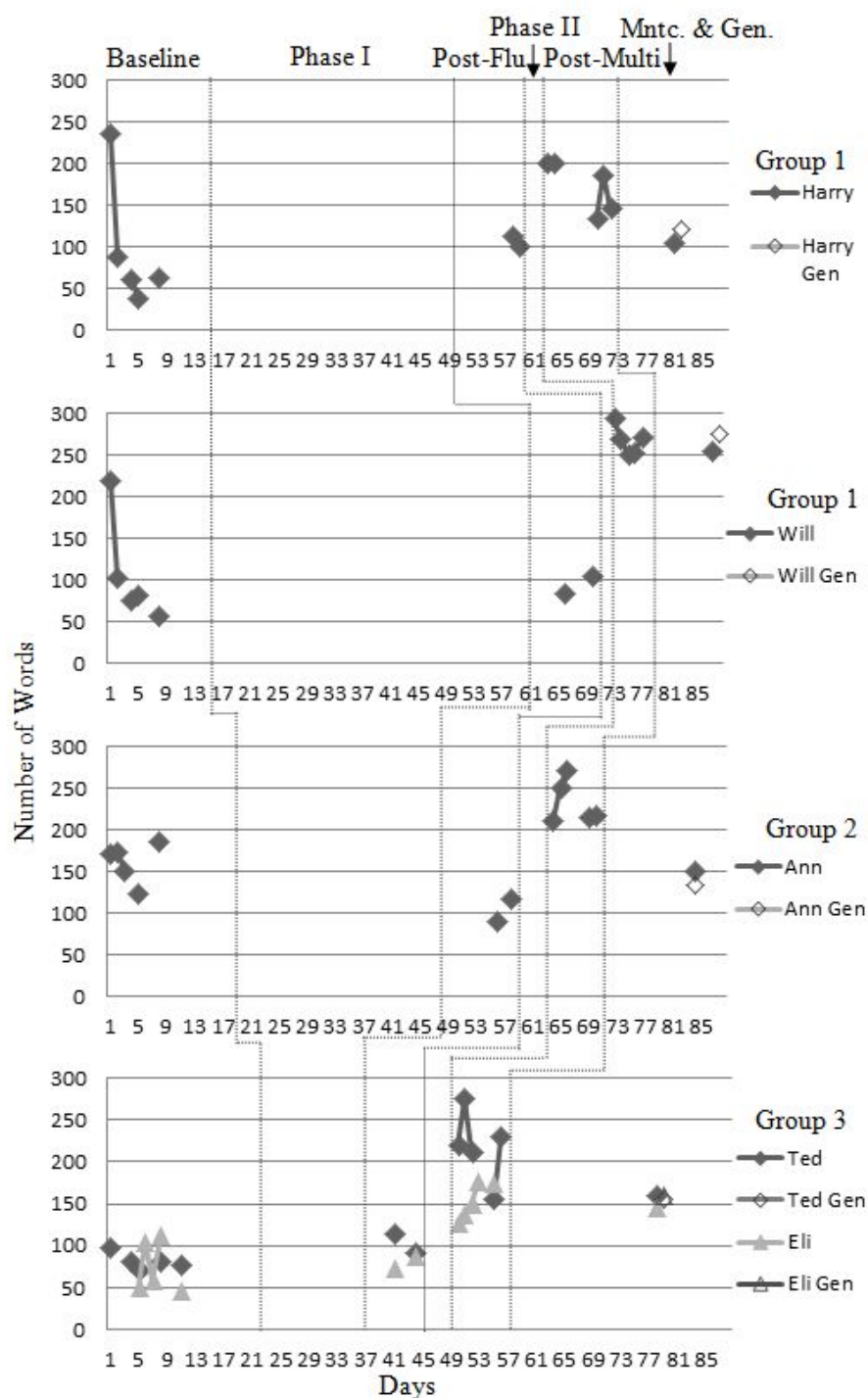


Figure 7. Number of words per untimed essay. This figure illustrates the total number of words written in each untimed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

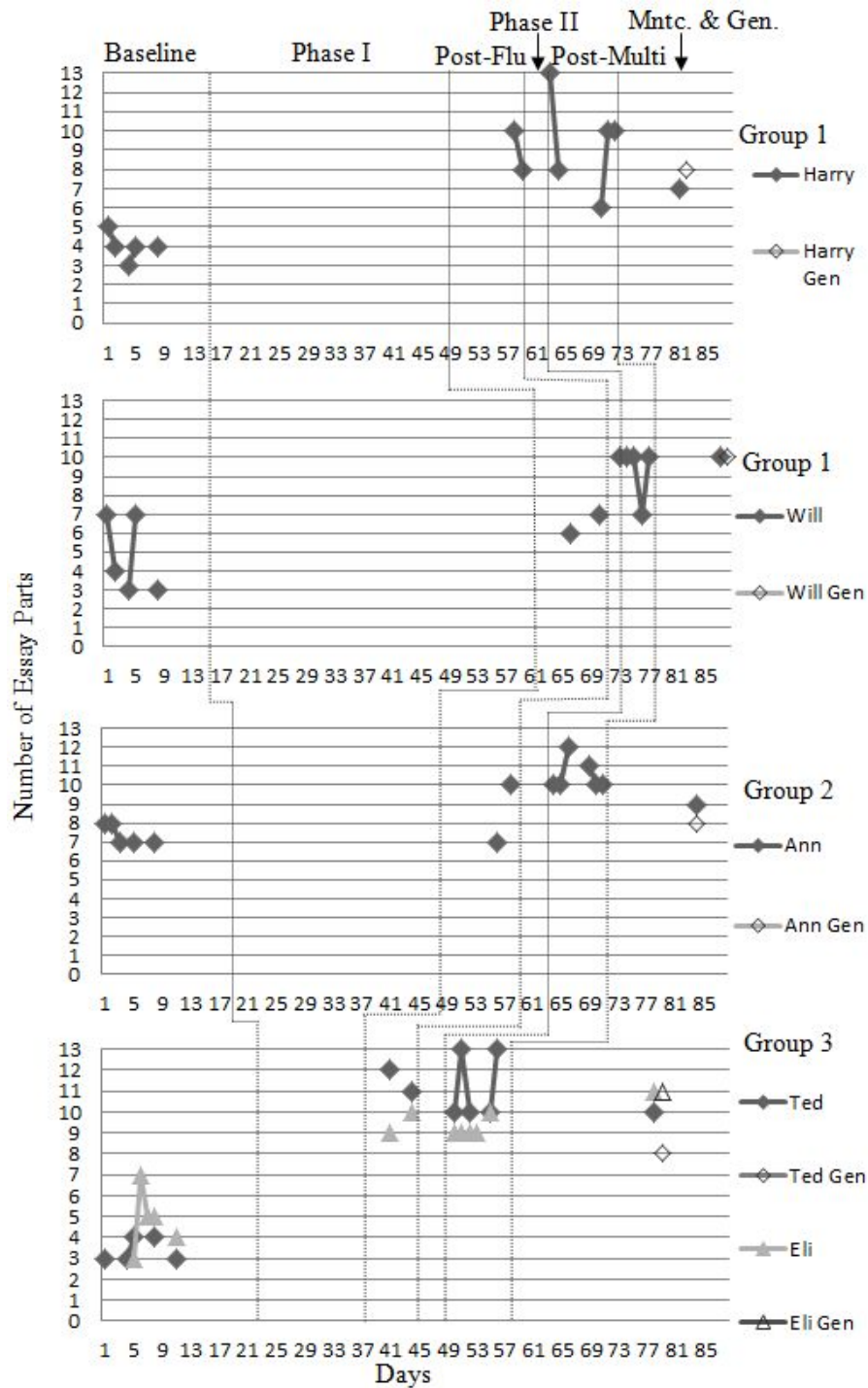


Figure 8. Number of essay parts per untimed essay. This figure illustrates the total number of essay parts in each untimed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

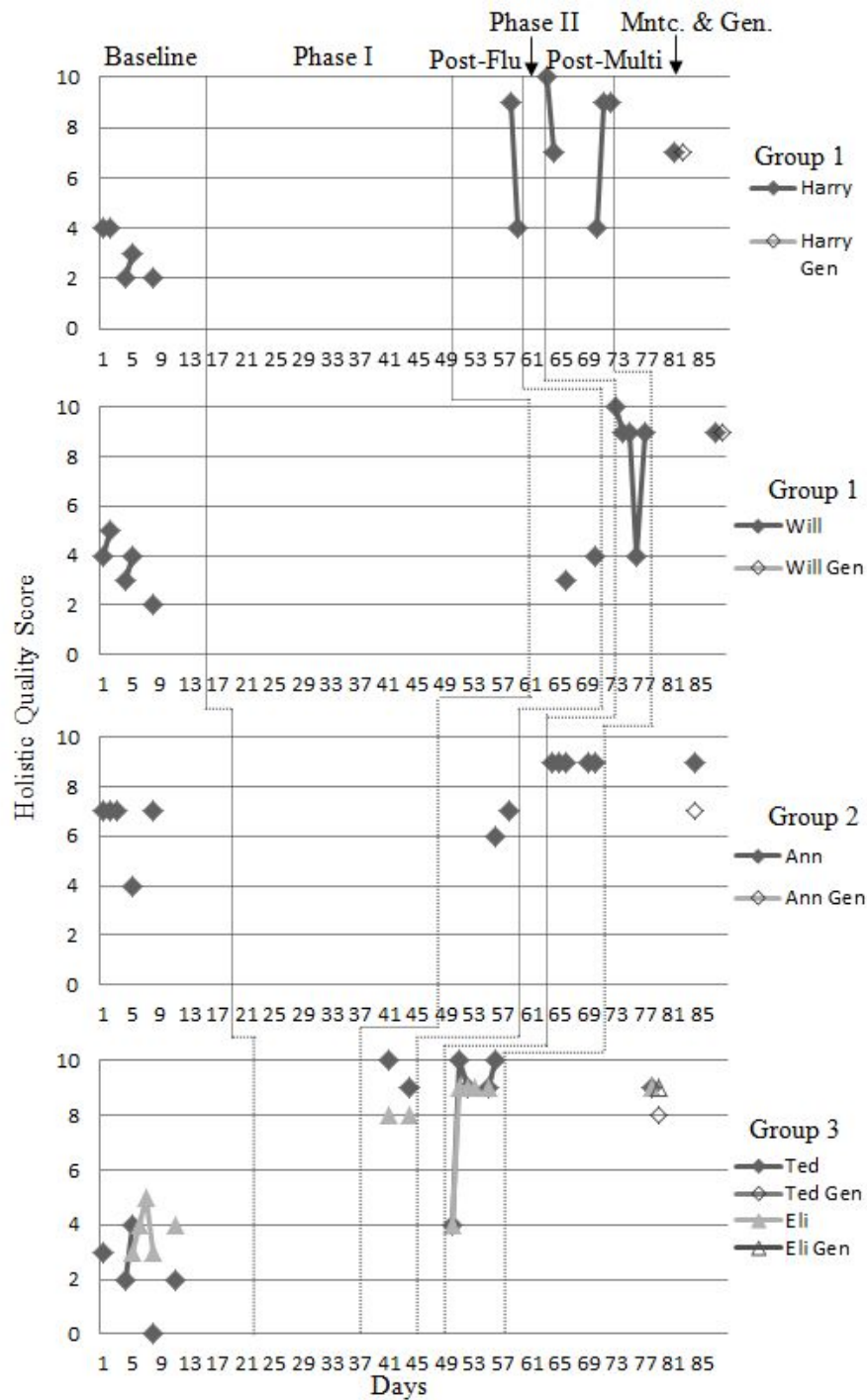


Figure 9. Untimed essay holistic quality scores. This figure illustrates the holistic essay score for each untimed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

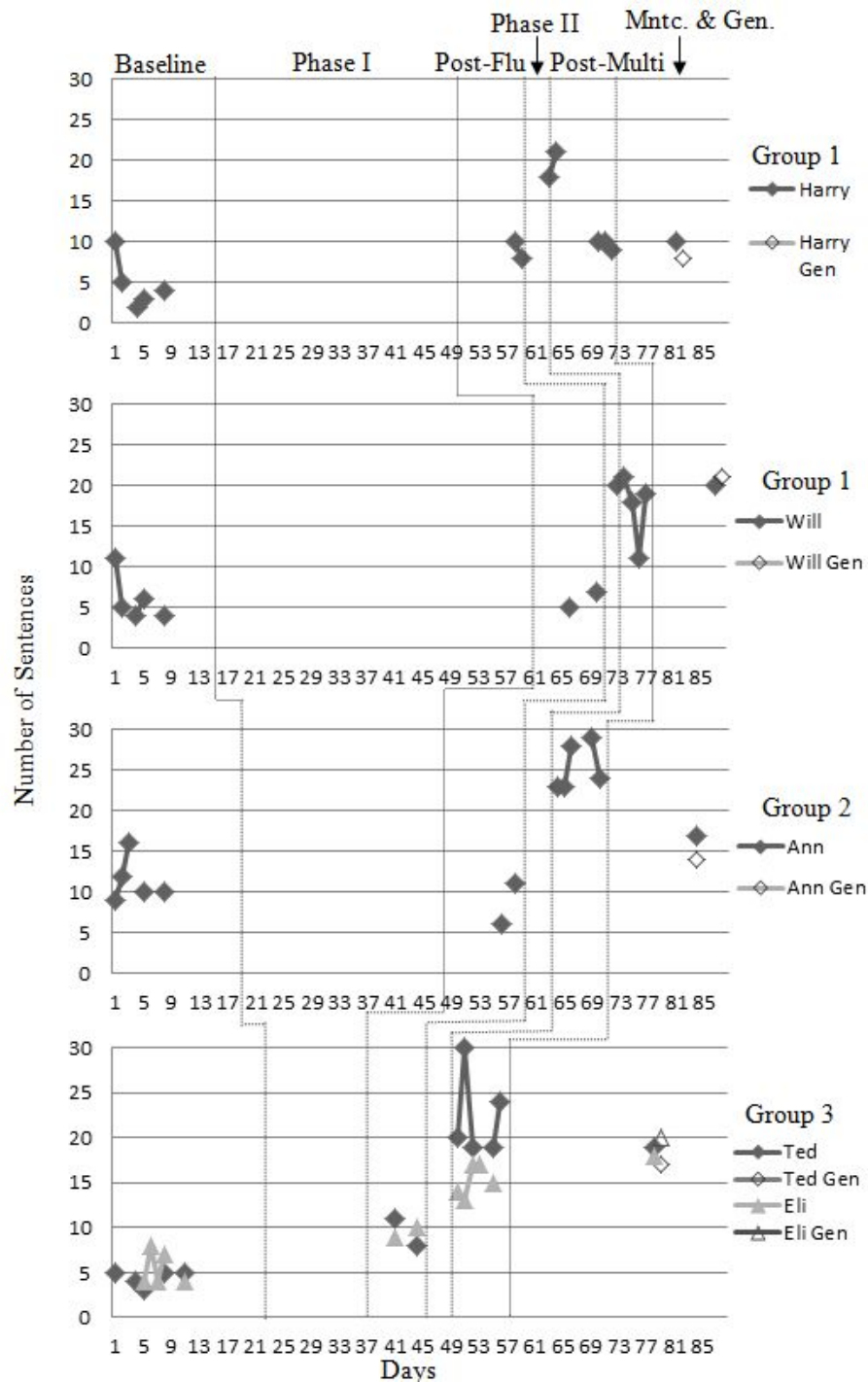


Figure 10. Number of sentences per untimed essay. This figure illustrates the total number of sentences in each untimed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

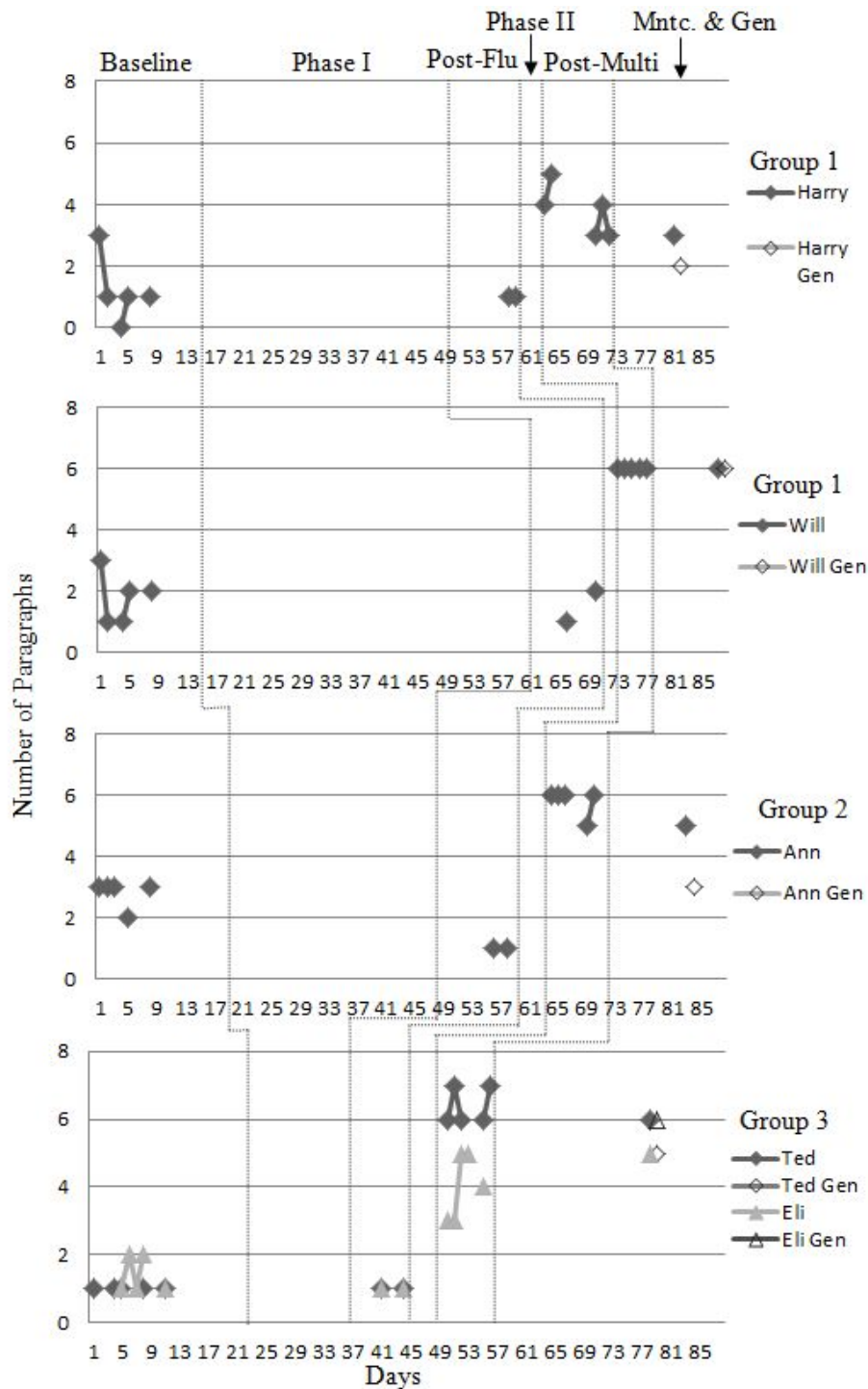


Figure 11. Number of paragraphs per untimed essay. This figure illustrates the total number of paragraphs in each untimed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

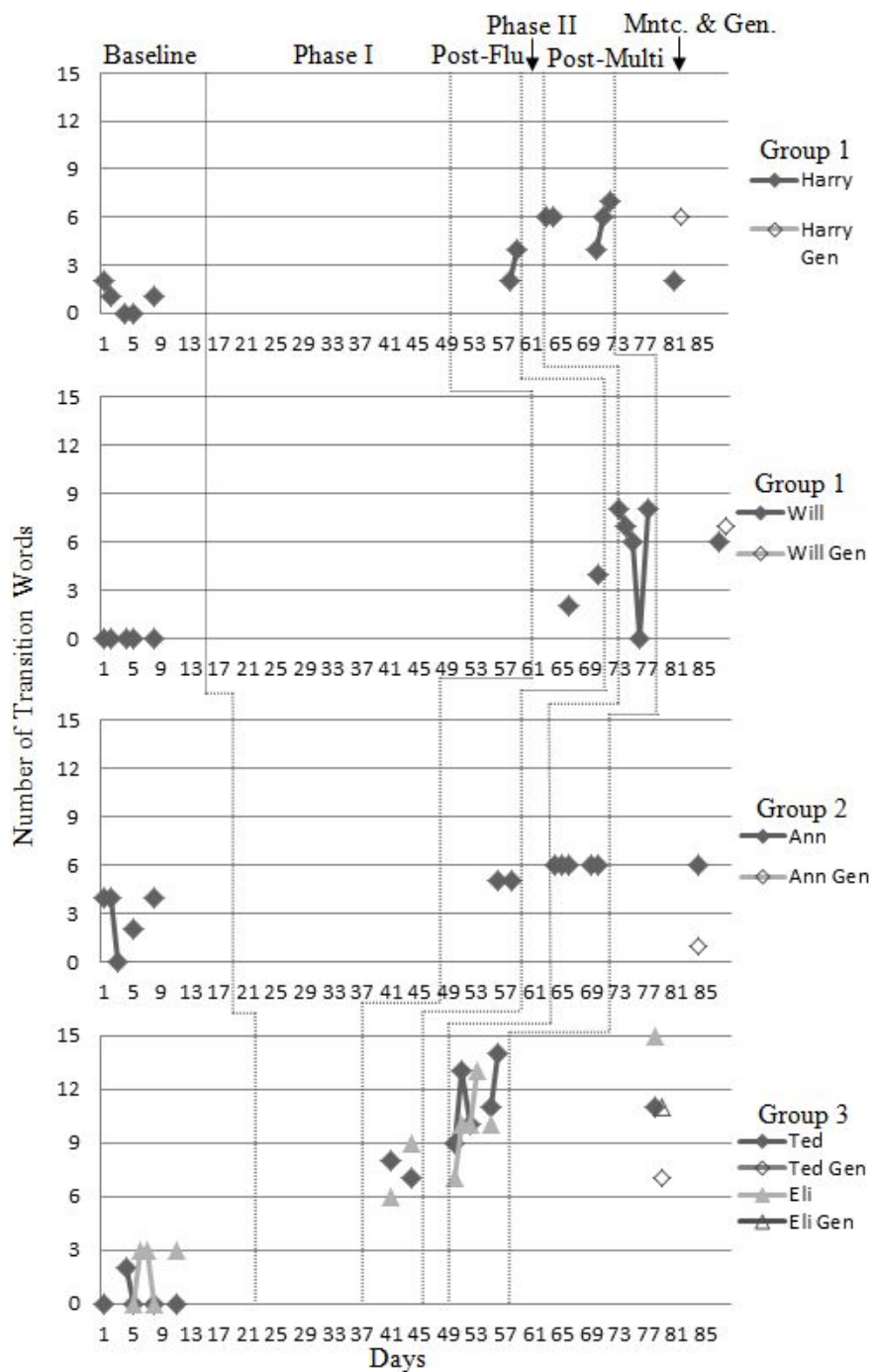


Figure 12. Number of transition words per untimed essay. This figure illustrates the total number of transition words written in each untimed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

Overall post-SRSD fluency intervention essay performance. Student performance after phase I, SRSD fluency intervention, showed substantial improvement in all areas of writing performance from baseline through postfluency SRSD. Visual analysis between these two phases indicated slightly higher levels and trends from baseline to post-SRSD for three students contrasted by level or decreasing levels and trends for two students, thus demonstrating variability across all essay performance measures for all measures except for quality and transition words. In addition, visual analysis also demonstrated variability between students with timed and untimed essay measures.

All students received SRSD fluency instruction in their respective groups over a period of three to four weeks. SRSD fluency instruction included eight lessons administered by group over a period of 16-20 days per instructional group. Groups received a total of 2,080 minutes of instruction over 16-20 class periods. Upon completion of the SRSD fluency lessons, students were administered seven posttest essays, five timed and two untimed, over an average period of five days per group. Student post-SRSD fluency testing included their choice of two essay prompts, lined paper, and pencils. Students were then asked to complete essays based on their prompt choice. All students demonstrated substantial improvement evidenced by essays which were longer, included more essay parts, and had higher quality scores from baseline. All students also increased their use of transition words, wrote more sentences and paragraphs, and increased their knowledge of the parts of a persuasive essay on either timed or untimed measures, or both.

Overall post-SRSD fluency essay performance descriptive statistics are presented in Table 4, with overall PND scores illustrating visual analysis in Table 5. Data presented indicated moderate gains with variability across participants in all measures of essay performance. At post-SRSD fluency ($N = 5$) students obtained a mean of 91.52 ($SD = 9.58$) for total number of words timed (range 42 to 106); untimed students obtained a mean of 97.60 ($SD = 10.53$) (range 73-118) demonstrating variability. The post-SRSD fluency scores for total number of sentences timed had a mean of 8.36 ($SD = 1.04$) ranging from 5-11; untimed students obtained a mean of 8.50 ($SD = 1.46$) (range 5-10) again demonstrating high variability. For total number of paragraphs timed at post-SRSD fluency, students obtained a mean score of 1.48 ($SD = 0.58$) (range 1-3); untimed students obtained a mean of 1.10 ($SD = 0.22$) (range 1-2). The students obtained a mean score of 5.12 ($SD = 1.51$) for total number of timed transition words ranging from 0 to 9 words per essay; untimed students obtained a mean of 5.20 ($SD = 2.25$) (range 2-9). For total timed essay parts, students obtained a mean of 7.92 ($SD = 1.01$) ranging from 6-10, untimed students obtained a mean of 9 ($SD = 1.80$) (range 7-12) for total essay parts demonstrating high variability. Holistic quality scores timed at post-SRSD fluency showed substantial gains as indicated by a mean of 6.44 ($SD = 1.26$) with (range 4-9); untimed students obtained a mean of 6.50 ($SD = 2.37$) (range 3-10) demonstrating variability. Overall post-SRSD fluency performance from baseline indicated mean scores across all students which were slight to moderate over baseline scores and statistically significant (all $ps < .01$) according to Wilcoxon Matched-Pairs, Signed Ranks tests.

Table 4

Overall Descriptive Data for Timed Essay Performance by Essay Measure

	Baseline Mean (<i>SD</i>) (<i>N</i> =5)	Postfluency Mean (<i>SD</i>) (<i>N</i> =5)	Postmultiple Paragraph Mean (<i>SD</i>) (<i>N</i> =5)	Maintenance Mean (<i>SD</i>) (<i>N</i> =5)	Generalization Mean (<i>SD</i>) (<i>N</i> =5)
Total Words	75.46 (29.40)	90.52 (9.58) <i>ES</i> = 1.57	124.70 (21.99) ^a <i>ES</i> = 2.24	140.60 (24.32) ^a <i>ES</i> = 2.68	156.00 (19.77) ^a <i>ES</i> > 3
Total Sentences	5.24 (2.55)	8.36 (1.04) <i>ES</i> = 3.00	10.60 (1.39) ^a <i>ES</i> > 3	15.00 (5.05) ^a <i>ES</i> = 1.93	16.20 (4.82) ^a <i>ES</i> = 2.27
Total Paragraphs	1.26 (.53)	1.48 (.58) <i>ES</i> = .38	3.20 (.76) ^a <i>ES</i> = 2.55	4.40 (1.52) ^a <i>ES</i> = 2.07	4.80 (1.30) ^a <i>ES</i> = 2.72
Total Transition Words	0.62 (.64)	5.12 (1.51) ^a <i>ES</i> = 2.98	5.60 (2.04) ^a <i>ES</i> = 2.44	7.00 (3.67) ^a <i>ES</i> = 1.74	7.00 (5.29) <i>ES</i> = 1.21
Total Essay Parts	4.66 (1.62)	7.92 (1.01) ^a <i>ES</i> > 3	7.70 (1.30) ^a <i>ES</i> = 2.34	9.40 (1.34) ^a <i>ES</i> > 3	9.60 (.89) ^a <i>ES</i> > 3
Holistic Quality Scores	3.76 (1.00)	6.44 (1.26) ^a <i>ES</i> = 2.13	6.30 (1.61) ^a <i>ES</i> = 1.58	8.40 (.89) ^a <i>ES</i> > 3	8.00 (2.24) ^a <i>ES</i> = 1.89

Note. ^aSignificantly greater than baseline, $p < .05$, according to Wilcoxon Matched-Pairs, Signed Ranks test.

Table 5

Percent of Nonoverlapping Data Across Phases by Student Timed

	<u>Baseline to Postfluency</u>					<u>Baseline to Postmultiparagraph</u>					<u>Baseline to Maintenance</u>					<u>Baseline to Generalization</u>				
	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.
Harry	100	80	90	100	20	100	100	100	100	100	100	100	100	100	30	100	100	100	100	0
Will	80	100	100	100	80	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Ann	0	0	0	100	80	0	40	0	40	40	100	30	100	100	100	100	100	0	100	100
Eli	0	0	100	100	100	100	40	100	100	90	20	70	100	100	90	0	100	100	100	100
Ted	60	80	60	80	80	100	70	100	100	50	100	90	80	100	80	100	100	100	100	100

Note. #wds = number of words, Sent. = sentences, #parts = number of essay parts, Trans. = Transition Words, Qual. = Quality.

In the following sections, group and individual descriptions of performance measures at post-SRSD will be addressed.

Group one. This group was the first to begin the SRSD instructional lessons during 20 days of the study. They successfully completed lessons 1 through 8 of the SRSD POW + TREE strategy fluency instruction for writing persuasive essays. After intervention, Harry and Will were asked to write essays with prompts that were similar to those at baseline. They were given lined paper and pencils to complete essays. Harry and Will were asked to write an essay from a selection of two prompt choices, and completed five timed and two untimed post-SRSD fluency essays over the course of 5 school days. Just as they were taught during instruction, Harry and Will created their own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, each student spent time planning his essay before writing. The overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated 100% PND for all group members from baseline to post-SRSD across all performance measures except for untimed quality, paragraphs, and transition words.

Also notable, percentage of increase data for individual student means for number of words and overall quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for numbers of words timed from baseline to post-SRSD fluency, percentage of increase reports were high for group one: Harry (48.30 to 88.22, 183%), Will (61.90 to 102.20, 165%). For overall quality timed, the percentage of increase data illustrates the following

gains for group one: Harry (3.40 to 5.20, 153%), Will (3 to 5.22, 174%). Following are the individual performance results for the post-SRSD essays for Harry and Will.

Harry's post-SRSD fluency intervention performance. Harry completed five timed and two untimed post-SRSD fluency essays over the course of 5 days. Harry spent time planning and creating a graphic organizer before writing each essay. Harry demonstrated a percentage of increase for mean number of words timed from 48.30 to 88.22 (183%), and also untimed from 97.40 to 107 (110%). Harry's holistic quality scores timed were significant with mean scores from 3.40 to 5.2 (153%), as well as his untimed mean scores from 3 to 6.50 (216%). Between baseline and post-SRSD phases Harry demonstrated a rapid immediacy of effect as noted by increased scores and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and post-SRSD fluency scores for all timed essay measures. For untimed essay measures of transition words, number of words and paragraphs indicated 100% PND, with quality at 90%, sentences at 80% and parts at 50% PND demonstrating a slightly variable trend.

Within-phase descriptive statistics and visual analysis for post-SRSD fluency essays demonstrated the following results. For number of words timed, Harry obtained a mean score of 88.22 with a range of 73 to 109; untimed Harry obtained a mean score of 107.61 with a range of 101 to 113, with data points on both measures indicating a positive slope with a high upward trend and slight variability. His average for number of essay parts timed was 8.22 with a range of 6 to 10; untimed was 9 with a range of 8 to 10, representing a positive slope with a high upward trend and slight variability. Harry's holistic quality timed scores demonstrated an average score of 5.53 with a range of 4 to 9;

untimed demonstrated an average score of 6.54 with a range of 4 to 9, representing a positive slope, moderate trend, and slight variability. Harry's other performance scores included total number of sentences timed with a mean of 8.40 and a range of 6 to 10 sentences per essay; untimed a mean of 9 and a range of 8 to 10 sentences per essay. For the number of paragraphs timed and untimed his average was 1 with a range of 1. For number of transition words timed, Harry had an average score of 4.45 with a range of 3 to 6, and for untimed an average score of 3 with a range of 2 to 4, demonstrating a moderate positive slope with variability for trend.

In summary, Harry's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and slight variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD fluency and 100% PND for all measures.

Will's post-SRSD fluency intervention performance. Will completed seven post-SRSD fluency essays over the course of 5 days. Will was administered his post-SRSD fluency essays after completing his instruction, once he returned to instruction following an extended 8-week absence from the study due to a medical issue. Will completed this phase simultaneously as Harry was completing post-SRSD multiple-paragraph testing. Will spent time planning and creating a graphic organizer before writing each essay. Will demonstrated significant gains in his scores from baseline across all essay measures. Will's percentage of increase for the mean number of words and holistic quality were also significant with an increase in mean number of timed words from 61.90 to 102.20 (165%), and in mean holistic quality scores for the timed measure from 3 to 5.22 (174%).

Between baseline and post-SRSD phases Will demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and post-SRSD fluency scores except for untimed quality and essay parts.

Within-phase descriptive statistics and visual analysis for post-SRSD essays demonstrated the following results. For the timed measure for the number of words, Will obtained a mean score of 102.66 with a range of 83 to 132; for the untimed measure of number of words Will obtained a mean score of 95.26 with a range of 84 to 106, with data points on both measures increasing with each measurement. His average for number of essay parts timed was 6.44 with a range of 6 to 7; untimed was 6.55 with a range of 6 to 7, representing a slight increase by one. Will's scores for the timed measure for holistic quality demonstrated an average score of 5.21 with a range of 4 to 6; for the untimed measure Will demonstrated an average score of 3.52 with a range of 3 to 9, demonstrating variability in performance on the untimed measure. Will's other performance scores included timed measures for the total number of sentences with a mean of 9.40 and a range of 6 to 10 sentences per essay demonstrating slight variability; for the untimed measure a mean of 6 and a range of 8 to 10 sentences per essay. For the timed measure for the number of paragraphs his average was 2.23 with a range of 2 to 3, and for the untimed measure his average was 1.50 with a range of 1 to 2. For timed measure for number of transition words, Will had an average score of 4.60 with a range of 4 to 5, and for untimed an average score of 3 with a range of 2 to 4, demonstrating a positive slope with upward trend.

In summary, Will's within-phase performance for all except untimed measures demonstrated slight increases in measurement scores on words and slight variability. The between-phase visual analysis indicated consistently higher levels in performance from baseline to post-SRSD fluency and 100% PND for all measures except for untimed quality and essay parts.

Group two. The only student in this group was Ann, and she received the SRSD instructional lessons during 16 days of the study. She successfully completed lessons 1 through 8 of the SRSD POW + TREE strategy fluency instruction for writing persuasive essays. After intervention, Ann was asked to write essays with prompts that were similar to those at baseline. She was given lined paper and pencils to complete essays and was asked to write an essay from a selection of two prompt choices. Ann completed five timed and two untimed post-SRSD fluency essays over the course of 5 school days. Just as taught during instruction, Ann created her own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, Ann spent time planning their essays before writing. Her performance compared to baseline was mixed regarding levels and trends, reflecting her struggle to manage the tasks of both planning and writing with a time constraint even in the untimed measures. Ann demonstrated a level or slight increasing trend for holistic quality, essay parts, and transition words. The visual analysis also demonstrated 100% PND for Ann from baseline to post-SRSD fluency across holistic quality, essay parts, and transition word measures. All other performance measures demonstrated a decreasing trend from baseline, showing moderate variability in this student's performance during this phase.

Ann's post-SRSD fluency intervention performance. Ann completed five timed and two untimed post-SRSD fluency essays over the course of 5 days. Ann spent time planning and creating a graphic organizer before writing each essay. Within-phase descriptive statistics and visual analysis for post-SRSD essays demonstrated the following results. For timed measure of number of words, Ann obtained a mean score of 96.40 with a range of 78 to 116; for the untimed measure Ann obtained a mean score of 104.60 with a range of 90 to 118. Her average for the timed measure for the number of essay parts was 7 with a range of 6 to 9; for the untimed measure her mean score was 8.50 with a range of 7 to 10, demonstrating for both essay measures high variability with a decrease in both measures of three points. Ann's scores for the timed measure for holistic quality demonstrated an average score of 7.20 with a range of 6 to 9; untimed demonstrated an average score of 6.50 with a range of 6 to 7, representing a slight increase in performance. Ann's other performance scores included the timed measure for the total number of sentences with a mean of 8 and a range of 7 to 9 sentences per essay; for the untimed measure the mean was 8.50 and a range of 6 to 11 sentences per essay, again demonstrating variability with a decrease in scores. For the timed measure for the number of paragraphs her average was 2, and for the untimed measure her average was 1. For the timed measure for the number of transition words, Ann had an average score of 4.20 with a range of 4 to 5, and for the untimed measure an average score of 5 with a range of 5, demonstrated a positive slope with moderate trend and low variability.

In summary, Ann's within-phase performance was mixed, demonstrating positive slopes with moderate trends for timed essay measures in transition words, and holistic

quality, and variability in paragraphs, and decreases in scores for essay parts, sentences and words with 0% PND for these measures showing a moderately lower performance. This performance was similar with untimed essays performance with level or decreasing scores despite no time limitation, demonstrating Ann's struggle managing planning and writing together after single paragraph fluency instruction. The between-phase visual analysis indicated variability in performance from baseline to post-SRSD fluency and 100% PND for all timed essay measures.

Group three. This group was the last to begin the SRSD instructional lessons during days 16 days of the study. They successfully completed lessons 1 through 8 of the SRSD POW + TREE strategy fluency instruction for writing persuasive essays. After intervention, Eli and Ted were asked to write essays with prompts that were similar to those at baseline. They were given lined paper and pencils to complete essays, and were asked to write an essay from a selection of two prompt choices. Eli and Ted completed five timed and two untimed post-SRSD fluency essays over the course of 5 school days. Just as they were taught during instruction, they created their own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, Eli and Ted spent time planning their essays before writing. The overall group performance compared to baseline was moderate regarding levels with variability with trends, demonstrating a moderate immediacy of effect. The visual analysis demonstrated variability with 0 to 100% PND for Eli and 60 to 80% PND for Ted from baseline to post-SRSD across all performance measures.

Also notable, the percentage of increase with data for individual student means for overall quality, giving further evidence of student performance resultant in longer essays with a higher overall quality. For holistic quality timed, the percentage of increase data illustrates the following gains for group three: Ted 3 to 7 (233%), Eli 4 to 7.82 (196%). Following are the individual performance results for the post-SRSD essays for Eli and Ted.

Ted's post-SRSD fluency intervention performance. Ted completed five timed and two untimed essays post-SRSD fluency essays over the course of 5 days. Ted spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures except for number of paragraphs, which remained level. Ted's percentage of increase was significant with an increase in mean for the timed measure for the number of words from 67.42 to 89.63 (133%); for the untimed measure the mean number of words went from 82 to 101.50 (124%). Ted's percentage of increase was significant with scores for mean the timed measure for holistic quality from 3 to 7 (233%); for the untimed measure for holistic quality scores ranged from 2.21 to 9.54 (432%). Between baseline and post-SRSD phases Ted demonstrated a moderate immediacy of effect as noted by upward trends for all measures. The visual analysis also indicated 60 to 80% PND between all baseline and post-SRSD fluency scores except for number of paragraphs, which remained level with a score of one for all measures.

Within-phase descriptive statistics and visual analysis for post-SRSD essays demonstrated the following results. For the timed measure for the number of words, Ted

obtained a mean score of 89 with a range of 68 to 105; for the untimed measure Ted obtained a mean score of 101.55 with a range of 90 to 113, data points on both measures indicated a positive slope with a moderate upward trend and low variability. His average for the timed measure for the number of essay parts was 8 with a range of 6 to 10; for the untimed measure was 11.54 with a range of 11 to 12, representing a positive slope with a moderate upward trend and low variability. Ted's scores for the timed measure for holistic quality demonstrated an average score of 7 with a range of 4 to 8; for the untimed measure demonstrated an average score of 9.5 with a range of 9 to 10, representing a positive slope, high trend, and low variability. Ted's other performance scores included the timed measure for the total number of sentences with a mean of 6.88 and a range of 5 to 8 sentences per essay; for the untimed measure a mean of 9.57 and a range of 8 to 11 sentences per essay demonstrating slight variability. For the timed and untimed measures for the number of paragraphs his average was 1 with a range of 1, remaining unchanged from baseline. For the timed measure for the number of transition words, Ted had an average score of 4.68 with a range of 0 to 6, and for untimed measure an average score of 7.55 with a range of 7 to 8, with scores increasing slightly with a moderate trend.

In summary, Ted's within-phase performance for all measures demonstrated positive increases in performance with moderate trends and slight variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD fluency and 60 to 80% PND for all measures except paragraphs, which remained level.

Eli's post-SRSD fluency intervention performance. Eli completed five timed and two untimed post-SRSD fluency essays over the course of 5 days. Eli spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures, except for both measures of the number of paragraphs, words and sentences which were level with baseline scores or slightly lower. For number of words timed, Eli demonstrated an level to decreasing score of 75 to 76.88 (103%), with a range of 68 to 105, and also an increased score untimed of 74.45 to 80.55 (108%), with a range of 90 to 113, with data points on both measures indicating a level to decreasing trend and slight variability. His average for number of essay parts timed was 9.20 with a range of 6 to 10; untimed was 9.54 with a range of 9 to 10, representing a positive slope with an upward trend and low variability. Eli's holistic quality timed scores demonstrated an average score of 7.88 with a range of 4 to 8; untimed demonstrated an average score of 8.5 with a range of 9 to 10, representing a positive slope, high trend, and moderate variability. Between baseline and post-SRSD phases Eli demonstrated a moderate immediacy of effect as noted by higher levels and upward trends for all measures except for number of paragraphs, words and sentences which were lower or level with baseline scores. The visual analysis also indicated 100% PND between all baseline and post-SRSD fluency scores except for number of paragraphs, words and sentences which were 0% PND.

Within-phase descriptive statistics and visual analysis for post-SRSD fluency essays, Eli demonstrated the following results for other performance scores: total number of sentences timed with a mean of 9.24 and a range of 8 to 10 sentences per essay;

untimed a mean of 9.55 and a range of 9 to 10 sentences per essay. For the number of paragraphs timed his average was 1.25 with a range of 1 to 2, and untimed his average was 1 with a range of 1. For number of transition words timed, Eli had an average score of 7.88 with a range of 7 to 9, and for untimed an average score of 7.55 with a range of 6 to 9, demonstrating a positive slope with moderate trend and low variability.

In summary, Eli's within-phase performance for all measures demonstrated positive slopes with moderate trends and slight variability except for measures of the number of paragraphs, words and sentences which demonstrated decreasing or level scores compared to baseline. The between-phase visual analysis indicated moderate gains in performance from baseline to post-SRSD fluency and 100% PND for both timed and untimed measures for transition words, essay parts, and holistic quality with 0% PND for measures of number of words, sentences. This demonstrates Eli's struggle managing both tasks of planning and writing within a time limitation. During the unlimited time measure the influence of the previous Phase I single paragraph fluency instruction remained as demonstrated in the level or decreasing scores.

Knowledge of Essay Parts at Post-SRSD Fluency

During post-SRSD fluency, and all posttesting phases, students were asked to name the parts of a persuasive essay to include answers such as topic sentence, reasons (three or more), explanations, and ending. Each response elicited a point toward scores of 0 to 10. This was done to monitor how well students were progressing toward learning the parts of a persuasive essay. At post-SRSD fluency, students were given the probe on day three. Overall, students obtained an average score of 8, ranging from 6 to 9,

indicating a positive slope with a high upward trend performance for all students at post-SRSD fluency for knowledge of the parts of a persuasive essay.

Post-SRSD fluency summary. Using visual analysis, the post-SRSD fluency performance was variable indicating only slight to moderate gains in performance for level and trend for all measures except for measures for number of words and sentences, which remained level or slightly lower. Student performance and analysis on posttesting measures follows.

Overall post-SRSD multiple-paragraph intervention essay performance. Student performance after phase II, SRSD multiple-paragraph intervention, showed substantial improvement in all areas of writing performance from baseline through post-SRSD multiple paragraph. Visual analysis between these two phases indicated high levels and trends with variability for untimed measures compared to timed measures from baseline to post-SRSD multiple-paragraph phase, thus demonstrating a rapid immediacy of effect across all essay performance measures.

All students received SRSD multiple-paragraph instruction in their respective groups. SRSD multiple-paragraph instruction included two lessons administered by group over a period of three to four days per instructional group. Groups received a total of 400 minutes of instruction over three to four class periods. Upon completion of the SRSD multiple-paragraph lessons, students were administered seven posttest essays, two timed and five untimed, over an average period of 3.33 days per group. Student post-SRSD multiple-paragraph testing included their choice of two essay prompts, lined paper, and pencils. Students were then asked to complete essays based on their prompt choice. All

students demonstrated substantial improvement evidenced by essays which were longer, included more essay parts, and had higher quality scores from baseline. All students also increased their use of transition words, wrote more sentences and paragraphs, and increased their knowledge of the parts of a persuasive essay.

Overall post-SRSD multiple-paragraph essay performance descriptive statistics are presented in Table 6, with overall PND scores illustrating visual analysis follow in Table 7. Data presented indicated significant gains across participants in all measures of essay performance. At post-SRSD multiple paragraph ($N = 5$) students obtained a mean of 124.70 ($SD = 21.99$) for total number of words timed (range 69 to 160); untimed students obtained a mean of 209.88 ($SD = 45.73$) (range 128 to 295). The post-SRSD multiple paragraph scores for total number of sentences timed had a mean of 10.60 ($SD = 1.39$) ranging from 6 to 17; untimed students obtained a mean of 17.76 ($SD = 3.52$) (range 9 to 30). For total number of paragraphs timed at post-SRSD multiple paragraph, students obtained a mean score of 3.20 ($SD = 0.76$) (range 2 to 4); untimed students obtained a mean of 5.40 ($SD = 1.03$) (range 3 to 7). The students obtained a mean score of 5.60 ($SD = 2.04$) for total number of timed transition words ranging from 4 to 9 words per essay; untimed students obtained a mean of 7.70 ($SD = 1.30$) (range 2 to 9). For total timed essay parts, students obtained a mean of 7.80 ($SD = 2.69$) ranging from 5 to 10; untimed students obtained a mean of 10.36 ($SD = 1.49$) (range 6 to 13) for total essay parts. Holistic quality scores timed at post-SRSD multiple paragraph showed substantial gains as indicated by a mean of 6.30 ($SD = 1.61$) with (range 3 to 9); untimed students obtained a mean of 8.28 ($SD = 0.46$) (range 4 to 10). Overall post-SRSD multiple

paragraph performance from baseline indicated mean scores across all students which were large and statistically significant (all $ps < .01$) according to Wilcoxon Matched-Pairs, Signed Ranks tests.

Table 6

Overall Descriptive Data for Untimed Essay Performance by Essay Measure

	Baseline Mean (<i>SD</i>) (<i>N</i> =5)	Postfluency Mean (<i>SD</i>) (<i>N</i> =5)	Postmultiple Paragraph Mean (<i>SD</i>) (<i>N</i> =5)	Maintenance Mean (<i>SD</i>) (<i>N</i> =5)	Generalization Mean (<i>SD</i>) (<i>N</i> =5)
Total Words	104.56 (34.31)	97.60 (10.53) <i>ES</i> = -.66	209.88 (45.73) ^a <i>ES</i> = 2.30	162.80 (55.74) <i>ES</i> = 1.04	169.40 (60.97) <i>ES</i> = 1.06
Total Sentences	5.40 (3.77)	8.50 (1.46) <i>ES</i> = 2.12	17.76 (3.52) ^a <i>ES</i> > 3	16.80 (3.96) ^a <i>ES</i> = 2.88	16.00 (5.24) ^a <i>ES</i> = 2.02
Total Paragraphs	1.60 (.63)	1.10 (.22) <i>ES</i> = -2.27	5.40 (1.03) ^a <i>ES</i> > 3	5.00 (1.23) ^a <i>ES</i> = 2.76	4.40 (1.82) ^a <i>ES</i> = 1.54
Total Transition Words	1.16 (1.14)	5.20 (2.25) ^a <i>ES</i> = 1.80	7.80 (2.69) ^a <i>ES</i> = 2.47	8.00 (5.05) ^a <i>ES</i> = 1.35	6.40 (3.58) <i>ES</i> = 1.46
Total Essay Parts	4.88 (1.53)	9.00 (1.80) ^a <i>ES</i> = 2.29	10.36 (1.49) ^a <i>ES</i> > 3	9.40 (1.52) ^a <i>ES</i> = 2.97	9.00 (1.41) ^a <i>ES</i> = 2.92
Holistic Quality Scores	3.80 (1.58)	6.50 (2.37) <i>ES</i> = 1.14	8.28 (.46) ^a <i>ES</i> > 3	8.60 (.89) ^a <i>ES</i> > 3	8.00 (1.00) ^a <i>ES</i> > 3

Note. ^aSignificantly greater than baseline, $p < .05$, according to Wilcoxon Matched-Pairs, Signed Ranks test.

Table 7

Percent of Nonoverlapping Data Across Phases by Student Untimed

	<u>Baseline to Postfluency</u>					<u>Baseline to Postmultiparagraph</u>					<u>Baseline to Maintenance</u>					<u>Baseline to Generalization</u>				
	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.
Harry	0	40	100	80	80	0	70	100	100	80	100	80	100	100	100	0	0	100	100	100
Will	0	0	20	80	0	100	70	70	90	80	70	80	100	90	100	100	100	100	100	100
Ann	0	0	100	100	20	100	100	100	100	100	0	100	100	100	90	0	0	0	0	100
Eli	0	100	100	100	100	100	100	100	100	80	100	100	100	100	100	100	100	100	100	100
Ted	20	100	100	100	100	100	100	100	100	100	90	100	80	100	90	100	100	100	100	100

Note. #wds = number of words, Sent. = sentences, #parts = number of essay parts, Trans. = Transition Words, Qual. = Quality.

In the following sections, group and individual descriptions of performance measures at post-SRSD multiple paragraph will be addressed.

Group one. This group was the second and last to begin the SRSD multiple-paragraph instructional lessons during 5 days of the study. Harry and Will successfully completed lessons 9 and 10 of the SRSD POW + TREE strategy multiple-paragraph instruction for writing persuasive essays. After intervention, students were asked to write essays with prompts that were similar to those at baseline. Students were given lined paper and pencils to complete essays, and were asked to write an essay from a selection of two prompt choices.

Harry's post-SRSD multiple-paragraph intervention performance. Harry completed five untimed and two timed post-SRSD multiple-paragraph essays over the course of 5 days. Harry did not spend time planning and creating a graphic organizer before writing each essay at this phase, yet he still demonstrated significant gains in his scores from baseline across all essay measures except for number of words. Harry's percentage of increase for mean overall number of sentences and holistic quality were also significant with an increase in mean number of sentences from timed measures of 2.95 to 8.44 (286%) and untimed measures 4.88 to 9 (185%), and in mean holistic quality scores with timed measures from 3.44 to 5 (145%) and untimed measures of 3 to 6.56 (218%). Between baseline and post-SRSD phases, Harry demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures except for words. The visual analysis also indicated 100% PND between all baseline and post-SRSD multiple-paragraph scores for all performance measures except for number of

words which demonstrated high variability with scores beginning with 138 decreasing to 69, which was equal to Harry's highest baseline score.

Within-phase descriptive statistics and visual analysis for post-SRSD essays demonstrated the following results. For the timed measure for the number of words, Harry obtained a mean score of 144.54 with a range of 143 to 146; for the untimed measure Harry obtained a mean score of 233 with a range of 211 to 271, with data points on both measures indicating a positive slope with a high upward trend and moderate variability. His average for the timed measure for the number of essay parts was 6.52 with a range of 5 to 8; for the untimed measure the mean was 9.44 with a range of 6 to 13, representing a positive slope with a high upward trend with moderate variability. Harry's timed measure for holistic quality scores demonstrated an average score of 4 with a range of 4; for the untimed measure demonstrated an average score of 7.87 with a range of 4 to 10, representing a positive slope, high trend, with moderate variability. Harry's other performance scores included the timed measure for the total number of sentences with a mean of 8.54 and a range of 6 to 11 sentences per essay; for the untimed measure a mean of 13.64 and a range of 9 to 21 sentences per essay demonstrating moderate variability. For the timed measure for the number of paragraphs was 2 with a range of 2, for the untimed measure his average was 3.81, with a range of 3 to 5. For the timed measure for the number of transition words, Harry had an average score of 4 with a range of 4, and for the untimed measures an average score of 5.87 with a range of 4 to 7, demonstrating a positive slope with upward trend.

In summary, Harry's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and moderate variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD multiple paragraph and 100% PND for all performance measures except for untimed quality which demonstrated an 80% PND.

Will's post-SRSD multiple-paragraph intervention performance. Will completed five untimed and two timed post-SRSD multiple-paragraph essays over the course of 3 days. He completed the SRSD multiple-paragraph instruction and post-SRSD multiple-paragraph testing 2 weeks after Harry individually with the researcher. Will spent time planning and creating a graphic organizer before writing each essay. Will's percentage of increase for mean overall number of sentences and holistic quality were also significant, with an increase in mean number of sentences from timed measures of 4 to 11 (275%) and untimed measures of 1 to 17.88 (178%), and in mean holistic quality scores with timed measures from 3 to 8.52 (284%), untimed measures from 3.61 to 8.27 (228%) demonstrating moderate variability. Between baseline and post-SRSD phases Will demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures except for untimed measures of holistic quality. The visual analysis also indicated 100% PND between all baseline and post-SRSD multiple-paragraph scores for all performance measures.

Within-phase descriptive statistics and visual analysis for post-SRSD multiple-paragraph essays demonstrated the following results. For timed measure for the number of words, Will obtained a mean score of 142 with a range of 124 to 160; for the untimed

measure Will obtained a mean score of 268.66 with a range of 252 to 295, with data points on both measures indicating a positive slope with a high upward trend and moderate variability. His average for the timed measure for the number of essay parts was 8.52 with a range of 8 to 9; for the untimed measure was 9.46 with a range of 7 to 10, representing a positive slope with a high upward trend and low variability. Will's timed measure for holistic quality scores demonstrated an average score of 8.56 with a range of 8 to 9, and for untimed scores of 8.23 with a range of 4 to 10, representing a positive slope, high trend, and moderate variability. Will's other performance scores included timed measures for the total number of sentences with a mean of 11 and a range of 11 sentences per essay; for untimed measures a mean of 17.86 and a range of 11 to 21 sentences per essay. For the timed measures for the number of paragraphs his average was 3.55 with a range of 2 to 3, and for untimed his average was 6 with a range of 6. For the timed measures for the number of transition words, Will had an average score of 4.59 with a range of 4 to 5, and for untimed measures an average score of 5.87 with a range of 6 to 8, demonstrating a positive slope with high upward trend.

In summary, Will's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and moderate variability. The postmultiple-paragraph phase showed the positive effect of continued strategy practice with no time constraint and better management of both planning and writing tasks. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD multiple paragraph and 100% PND for all performance measures except for the measure of quality.

Group two. This group was the third to receive the SRSD instructional lessons during 4 days of the study. Ann successfully completed lessons 9 and 10 of the SRSD POW + TREE strategy multiple-paragraph instruction for writing persuasive essays. After intervention, she was asked to write essays with prompts that were similar to those at baseline. Ann was given lined paper and pencils to complete essays, and was asked to write an essay from a selection of two prompt choices. She completed two timed and five untimed post-SRSD multiple-paragraph essays over the course of 4 school days. Just as taught during instruction, the Ann created her own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, the student Ann spent time planning her essays before writing Ann's performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated 100% PND for Ann from baseline to post-SRSD multiple-paragraph instruction for all performance measures.

Also notable, percentage of increase data for Ann with means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for the measures for overall number of words from baseline to post-SRSD multiple paragraph, percentage of increase reports were high for group two: Ann (timed 125.11 to 144.52 = 116%; untimed 161.42 to 233.44 = 145%). For overall holistic quality, the percentage of increase data illustrates the following gains for group two: Ann (timed 5.41 to 6.55 = 121%, untimed 6.42 to 9 = 140%). Following are the individual performance results for the post-SRSD multiple-paragraph essays for group two, Ann.

Ann's post-SRSD multiple-paragraph intervention performance. Ann completed five untimed and five timed post-SRSD multiple-paragraph essays over the course of 4 days. She spent time planning and creating a graphic organizer before writing each essay. Ann demonstrated significant gains in her scores from baseline across all untimed essay measures, however, scores for timed measures remained overall at baseline levels with only slight increases in performance. Ann's percentage of increase for overall mean number of words and overall holistic quality demonstrated variability with an increase in overall mean number of words from timed 125.11 to 144.52 (116%), untimed 161.42 to 233.44 (145%), and in mean overall holistic quality scores for timed measures 5.41 to 6.55 (121%); untimed 6.42 to 9 (140%) demonstrating moderate variability. Between baseline and post-SRSD multiple-paragraph phases Ann demonstrated a rapid immediacy of effect as noted by higher levels and upward trends for the above stated measures particularly untimed with scores for timed demonstrating variability with slight increases above baseline levels. The visual analysis also indicated 100% PND between baseline and post-SRSD multiple-paragraph scores for all untimed performance measures with timed measures demonstrating 0 to 50% PNDs.

Within-phase descriptive statistics and visual analysis for post-SRSD essays demonstrated the following results. For the timed measure of the number of words, Ann obtained a mean score of 144.52 with a range of 143 to 146; for the untimed measure Ann obtained a mean score of 233.44 with a range of 211 to 271, with data points on for timed measures remaining at baseline levels and untimed measures indicating a positive slope with an upward trend. Her average for number of essay parts timed was 7.55 with a

range of 7 to 8; untimed was 10.60 with a range of 10 to 12, again with timed measures at baseline levels and untimed measures representing a positive slope with a higher upward trend and moderate variability. Ann's timed holistic quality scores demonstrated an average score of 6.55 with a range of 6 to 7; remaining at baseline levels or lower, for untimed measures Ann demonstrated an average score of 9 with a range of 9, representing a positive slope and low variability. Ann's other performance scores included the timed measure for the total number of sentences with a mean of 12 and a range of 9 to 15 sentences per essay demonstrating moderate variability in performance remaining at baseline levels; untimed a mean of 25.42 and a range of 23 to 29 sentences per essay demonstrating high trends with moderate variability. For the timed measure for the number of paragraphs was 3, with a range of 3, remaining at baseline levels and for untimed measures her average was 5.89 with a range of 5 to 6 which demonstrated a high upward trend. For the timed measure for the number of transition words, Ann had an average score of 4 with a range of 4, and for untimed measures an average score of 6 with a range of 6, demonstrating a slight increase in performance and low variability.

In summary, Ann's within-phase performance for all timed measures remained at baseline levels, however for all untimed measures demonstrated positive slopes with moderate to high trends and moderate to low variability. The between-phase visual analysis indicated moderate variability in performance between timed and untimed measures from baseline to post-SRSD multiple paragraph with 0 to 50% PNDs for timed measures demonstrating moderate variability with scores remaining at baseline levels. These scores are in contrast to all untimed performance measures demonstrating

increases in performance with slight variability with untimed essay measures at 100% PND. Ann's overall moderate gains in untimed scores compared to her timed multiple paragraph scores along with her postsingle paragraph fluency scores demonstrate Ann's struggle to manage both tasks of planning and writing within the timed measures. Ann's untimed scores overall demonstrate the positive effect of continued strategy practice with no time constraint during the Phase II multiple paragraph instruction and her ability to achieve better management of both planning and writing tasks within this condition.

Group three. This group was the first to begin the SRSD multiple-paragraph instructional lessons during 3 days of the study. Eli and Ted successfully completed lessons 9 through 10 of the SRSD POW + TREE strategy multiple-paragraph instruction for writing persuasive essays. After intervention, students were asked to write essays with prompts that were similar to those at baseline. Students were given lined paper and pencils to complete essays, and were asked to write an essay from a selection of two prompt choices. Eli and Ted completed two timed and five untimed post-SRSD multiple-paragraph essays over the course of 3 school days. Just as taught during instruction, students created their own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, each student spent time planning his essays before writing. The overall group performance compared to baseline was high with slight variability regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated 100% PND for all group members from baseline to post-SRSD multiple paragraph across all performance measures.

Also notable, percentage of increase data for individual student means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for number of words from baseline to post-SRSD multiple paragraph, percentage of increase reports were high for group three: Ted timed measures 67 to 98.55 (147%), untimed measures 82 to 218.43 (266%); Eli timed measures 75 to 98.55 (131%), untimed measures 74.41 to 155.22 (209%). For overall holistic quality, the percentage of increase data illustrates the following gains for group three: Ted timed measures 3 to 6 (200%), untimed measures 2.22 to 8.45 (381%); Eli timed measures 4 to 6.52 (163%), untimed measures 3.84 to 8 (208%). Following are the individual performance results for the post-SRSD multiple-paragraph essays for group three.

Ted's post-SRSD multiple-paragraph intervention performance. Ted completed five untimed and two timed post-SRSD multiple-paragraph essays over the course of 3 days. He spent time planning and creating a graphic organizer before writing each essay. Ted demonstrated significant gains in his scores from baseline across all essay measures with slight variability. Ted's percentage of increase for mean number of words and overall holistic quality were also significant, with an increase in mean number of words with timed measures 67 to 98.55 (147%), untimed measures 82 to 218.43 (266%), and in mean holistic quality scores for timed measures 3 to 6 (200%), untimed measures 2.22 to 8.45 (381%). Between baseline and post-SRSD phases Ted demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures except

for the timed measure for parts during this testing phase. The visual analysis also indicated 100% PND between all baseline and post-SRSD multiple paragraph scores.

Within-phase descriptive statistics and visual analysis for post-SRSD multiple-paragraph essays demonstrated the following results. His average for the timed measure for the number of essay parts was 6.55 with a range of 5 to 8 demonstrating variability compared to the untimed measure which was 11.22 with a range of 11 to 12. The untimed measure represented a positive slope with a high upward trend and low variability with the timed measure demonstrating Ted's struggle balancing tasks of planning and writing within a time constraint. Ted's scores for the timed measure for holistic quality demonstrated an average score of 3.55 with a range of 3 to 4; untimed measures demonstrated an average score of 8.44 with a range of 4 to 10, representing a positive slope, high trend and moderate variability. Ted's other performance scores included the timed measure for the total number of sentences with a mean of 11.55 and a range of 10 to 13 sentences per essay; for the untimed measure a mean of 22.43 and a range of 19 to 24 sentences per essay. For the timed measure for the number of paragraphs the mean was 3.54 with a range of 3 to 4, and for untimed measures his average was 6.42, with a range of 6 to 7. For the timed measures for the number of transition words, Ted had an average score of 7 with a range of 6 to 8, and for untimed measures an average score of 11.42 with a range of 9 to 14, demonstrating a positive slope with upward trend.

In summary, Ted's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and moderate variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to

post-SRSD multiple paragraph and 100% PND for all performance measures with the exception of the timed measure for essay parts. The postmultiple-paragraph phase demonstrated the positive effect of continued strategy practice with no time constraint and better management of both planning and writing tasks. However, with the timed measure of essay parts during this phase, Ted still struggled with managing both planning and writing tasks, especially after the Phase II Multiple Paragraph instruction and now also writing three paragraphs instead of just one.

Eli's post-SRSD multiple-paragraph intervention performance. Eli completed five untimed and two timed post-SRSD multiple-paragraph essays over the course of 3 days. He spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures. Eli's percentage of increase for mean number of words and overall holistic quality were also significant, with an increase in mean number of words with timed measures 75 to 98.55 (131%), untimed measures 74.41 to 155.22 (209%), and for mean holistic quality scores for timed measures 4 to 6.52 (163%), untimed measures 3.84 to 8 (208%). Between baseline and post-SRSD phases Eli demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and post-SRSD multiple paragraph scores.

Within-phase descriptive statistics and visual analysis for post-SRSD multiple-paragraph essays demonstrated the following results. His average for the timed measure for the number of essay parts was 9.54 with a range of 9 to 10, for untimed measures was 9.23 with a range of 9 to 10, representing a positive slope with a high upward trend and

low variability. Eli's other performance scores included holistic quality, with scores for timed measures 4 to 6.52 (163%), untimed measures 3.84 to 8 (208%) demonstrating moderate variability in trend, for the timed measure for the total number of sentences the mean was 15 and a range of 13 to 17 sentences per essay; for untimed measures a mean of 15.23 and a range of 13 to 17 sentences per essay. For the timed measures for the number of paragraphs his average was 4 with a range of 4, and for untimed measures his average was 4 with a range of 3 to 5. For the timed measure for the number of transition words, Eli had an average score of 8.52 with a range of 8 to 9, and for untimed measures an average score of 10 with a range of 7 to 13, demonstrating a positive slope with moderate trend and low variability.

In summary, Eli's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD multiple paragraph and 100% PND for all performance measures with the exception of number of paragraphs, which remained level.

Knowledge of Essay Parts at Post-SRSD Multiple Paragraph

During post-SRSD multiple paragraph, and all posttesting phases, students were asked to name the parts of a persuasive essay to include answers such as topic sentence, reasons (three or more), explanations, and ending. Each response elicited a point toward scores of 0 to 10. This was done to monitor how well students were progressing toward learning the parts of a persuasive essay. At post-SRSD multiple paragraph, students were given the probe on day three. Overall, students obtained an average score of 9.20 ranging

from 7 to 10, indicating a positive slope with a high upward trend performance for all students at post-SRSD multiple paragraph for knowledge of the parts of a persuasive essay.

Post-SRSD multiple paragraph summary. Using visual analysis, the post-SRSD multiple paragraph performance was stable and indicated high performance for level and trend with slight variability. Student performance and analysis on posttesting measures follow.

Overall SRSD maintenance performance. The first maintenance essays were written by students on the first day of maintenance testing. These occurred approximately four weeks after all posttesting was completed and were staggered by group days 57 through 61 of the study. Students were given the choice of two SRSD writing prompts similar to those administered at baseline and post-SRSD testing. Overall student performance was mixed at maintenance, with the majority of scores showing a level or positive trend when compared to post-SRSD scores. SRSD maintenance scores showed slight decreases in mean score in untimed number of words, sentences, parts, and paragraphs with increases in mean scores for overall number of transition words, overall holistic quality, timed number of words, sentences, paragraphs, quality, and timed parts. However, when compared to baseline, student mean scores across all students were statistically significant at SRSD maintenance as reported by all $ps < .05$, according to Wilcoxon Matched-Pairs, Signed Ranks tests.

Student means for number of words timed demonstrated an increase with a mean of 140.60 ($SD = 24.32$) from post-SRSD multiple-paragraph essay mean of 124.70 ($SD =$

21.99), compared to student means for number of words untimed of 162.80 ($SD = 55.74$), which declined slightly from the post-SRSD multiple-paragraph essay mean of 209.88 ($SD = 45.73$). However, student performance means for number of words were substantially higher than at baseline timed with a mean of 75.46 ($SD = 29.40$) and an untimed mean of 104.56 ($SD = 34.31$). For the number of sentences untimed mean scores also declined slightly with a mean of 16.80 ($SD = 3.96$) from a post-SRSD multiple-paragraph essay mean of 17.76 ($SD = 3.52$), but increased for the number of sentences timed with a mean score of 15.00 ($SD = 5.05$), from a post-SRSD multiple-paragraph essay mean of 10.60 ($SD = 1.39$). However, student performance means for number of sentences were substantially higher than at baseline with a timed mean of 5.24 ($SD = 2.55$) and an untimed mean of 5.40 ($SD = 3.77$).

For the number of paragraphs the untimed mean scores also declined slightly with a mean of 5.00 ($SD = 1.23$) from a post-SRSD multiple-paragraph essay mean of 5.40 ($SD = 1.03$). However, scores increased for the number of paragraphs timed mean scores with a mean of 4.40 ($SD = 1.52$) from a post-SRSD multiple-paragraph essay mean of 3.20 ($SD = 0.76$). Also, student performance means for the number of paragraphs were substantially higher than at baseline timed with a mean of 1.26 ($SD = 0.53$), and an untimed mean of 1.60 ($SD = 0.63$).

The number of parts for untimed mean scores also declined slightly with a mean of 9.40 ($SD = 1.52$) from a post-SRSD multiple-paragraph essay mean of 10.36 ($SD = 1.49$), but increased for the number of parts for a timed mean score of 9.40 ($SD = 1.34$) from a post-SRSD multiple-paragraph essay mean of 7.70 ($SD = 1.30$). However, student

performance means for the number of parts were substantially higher than at baseline with a timed mean of 4.66 ($SD = 1.62$) and an untimed mean of 4.88 ($SD = 1.53$).

Data for overall number of transition words demonstrated an increase for the untimed mean of 8.00 ($SD = 5.05$) from the post-SRSD multiple-paragraph essay untimed mean of 7.80 ($SD = 2.69$), as well as for the timed mean score of 7.00 ($SD = 3.67$) from the post-SRSD multiple-paragraph essay mean of 5.60 ($SD = 2.04$). However, student performance means for the number of transition words were substantially higher than the baseline timed mean of 0.62 ($SD = 0.64$) and an untimed mean of 1.16 ($SD = 1.14$).

Data for the overall holistic quality scores demonstrated an increase for an untimed mean score of 8.60 ($SD = 0.89$) from a post-SRSD multiple-paragraph essay untimed mean of 8.28 ($SD = 0.46$), as well as for the timed mean score of 8.40 ($SD = 0.89$) from a post-SRSD multiple-paragraph essay mean of 6.30 ($SD = 1.61$). However, the student performance means for holistic quality were substantially higher than at baseline with a timed mean of 3.76 ($SD = 1.00$) and an untimed mean of 3.80 ($SD = 1.58$).

In the following sections, group and individual descriptions of performance measures at SRSD maintenance will be addressed.

Group one. Harry and Will were the second and last to begin the SRSD maintenance testing during 6 days of the study. After 4 weeks from the end of SRSD multiple-paragraph instruction, Harry and Will were asked to return to write essays with prompts that were similar to those at baseline. They were given lined paper and pencils to

complete essays, and were asked to write an essay from a selection of two prompt choices. Harry and Will completed one timed and one untimed post-SRSD maintenance essay over the course of two school days with their individual groups. Just as taught during instruction, they created their own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, Will spent time planning his essays before writing but Harry did not. The overall group performance compared to baseline was high regarding levels and trends, demonstrating each student's ability to maintain the strategy effect over a 4 week time period. Overall student performance was mixed at maintenance with the majority of scores showing a level or positive trend when compared to post-SRSD multiple-paragraph scores. Post-SRSD maintenance scores showed slight decreases in mean scores from post-SRSD multiple-paragraph scores in untimed number of words, sentences, parts, and paragraphs with increases in mean scores for overall number of transition words, overall holistic quality, timed number of words, sentences, paragraphs, quality, and timed parts. The visual analysis also demonstrated 100% PND for all group members from baseline to post-SRSD across all performance measures.

Also notable, percentage of increase data for individual student means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resulted in longer essays with a higher overall quality. For example, for mean scores for overall number of words from baseline to SRSD maintenance, percentage of increase reports were high for group one: Harry with timed measures from 48.33 to 109.54 (227%) and untimed 97.42 to 104.83 (108%), Will with timed measures

from 61.98 to 142.40 (230%) and untimed 95 to 255.65 (269%). For overall holistic quality, the percentage of increase data illustrates the following gains for group one: Harry timed 3.44 to 7 (203%), untimed 3 to 7.86 (262%); Will timed 3 to 8.22 (274%), untimed 3.67 to 9.46 (258%). Following are the individual performance results for the SRSD maintenance essays for group one.

Harry's SRSD maintenance performance. Harry completed two SRSD maintenance essays over the course of 2 days. He chose not to spend time planning and creating a graphic organizer before writing each essay, yet still demonstrated significant gains in his scores from baseline across all essay measures. Harry's percentage of increase for mean overall number of sentences and holistic quality were also significant, with an increase in mean number of sentences from timed measures of 2.95 to 9 (320%) and untimed 4.88 to 10 (209%), and in mean holistic quality scores with timed measures from 3.44 to 7 (203%) and untimed of 3 to 7 (252%). Between baseline and SRSD maintenance phases Harry demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and SRSD maintenance multiple-paragraph scores for all performance measures.

Within-phase descriptive statistics and visual analysis for SRSD maintenance essays demonstrated the following results. For number of words timed, Harry obtained a mean score of 109 with a range of 109; untimed Harry obtained a mean score of 104 with a range of 104, with data points on both measures indicating a positive slope with a high upward trend and low variability. His average for number of essay parts timed was 8 with

a range of 8; untimed was 7 with a range of 7, representing a positive slope with a high upward trend and low variability. Harry's holistic quality timed scores demonstrated an average score of 7 with a range of 7; untimed demonstrated an average score of 7 with a range of 7, representing a positive slope, high trend, and low variability. Harry's other performance scores included total number of sentences timed with a mean of 9 and a range of 9 sentences per essay, untimed a mean of 10 and a range of 10 sentences per essay. For the number of paragraphs timed was 3 with a range of 3, and untimed his average was 3, with a range of 3. For number of transition words timed, Harry had an average score of 4 with a range of 4, and for untimed an average score of 2 with a range of 2, demonstrating a positive slope with upward trend.

In summary, Harry's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to SRSD maintenance multiple paragraph and 100% PND for all performance measures.

Will's SRSD maintenance performance. Will completed two SRSD multiple-paragraph essays over the course of 2 days. Will completed the SRSD maintenance testing 4 weeks after he ended SRSD multiple-paragraph instruction individually with the researcher. He spent time planning and creating a graphic organizer before writing each essay. Will's percentage of increase for mean overall number of sentences and holistic quality were also significant, with an increase in mean number of sentences from timed measures of 4 to 10 (250%) and untimed 1 to 20 (200%), and in mean holistic quality scores with timed measures from 3 to 8 (267%), untimed measures from 3.61 to 9

(249%). Between baseline and SRSD maintenance phases Will demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures except for untimed holistic quality. The visual analysis also indicated 100% PND between all baseline and SRSD maintenance multiple paragraph scores for all performance measures.

Within-phase descriptive statistics and visual analysis for SRSD maintenance essays demonstrated the following results. For number of words timed, Will obtained a mean score of 142 with a range of 142; untimed Will obtained a mean score of 255 with a range of 255, with data points on both measures indicating a positive slope with a high upward trend and low variability. His average for number of essay parts timed was 8 with a range of 8; untimed was 10 with a range of 10, representing a positive slope with a high upward trend and low variability. Will's holistic quality timed scores demonstrated an average score of 8 with a range of 8, and untimed scores of 9 with a range of 9, representing a positive slope, high trend, and low variability. Will's other performance scores included total number of sentences timed with a mean of 10 and a range of 10 sentences per essay, untimed a mean of 20 and a range of 20 sentences per essay. For the number of paragraphs timed his average was 4 with a range of 4, and untimed his average was 6 with a range of 6. For number of transition words timed, Will had an average score of 4 with a range of 4, and for untimed an average score of 6 with a range of 6, demonstrating a positive slope with high upward trend.

In summary, Will's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase

visual analysis indicated consistently significant gains in performance from baseline to SRSD maintenance multiple paragraph and 100% PND for all performance measures.

Group two. This group was the second to receive the SRSD maintenance testing during 2 days of the study. Ann completed the SRSD maintenance testing 4 weeks after she ended SRSD multiple-paragraph instruction individually with the researcher. After intervention, Ann was asked to write essays with prompts that were similar to those at baseline. She was given lined paper and pencils to complete essays, and was asked to write an essay from a selection of two prompt choices. Ann completed one timed and one untimed SRSD maintenance essay over the course of 2 school days. Just as taught during instruction, she created her own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, each Ann spent time planning her essays before writing. The overall group performance compared to baseline was moderate regarding levels and trends. The visual analysis also demonstrated 100% PND for Ann from baseline to SRSD maintenance multiple-paragraph instruction for all performance measures.

Also notable, percentage of increase data for individual student means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for overall number of words from baseline to SRSD maintenance, the percentage of increase reports were high for group two: Ann's mean for timed for overall number of words showed an increase from baseline to maintenance from 125.10 to 152 (73%), compared to a decrease for the untimed mean from 161.42 to 151 (145%). For overall

holistic quality, the percent of increase data illustrates the following gains for group two: Ann showed an increase from the timed baseline mean of 5.41 to maintenance 9 (121%), as well for untimed 6.42 to 9, (140%). Following are the individual performance results for the post-SRSD maintenance multiple-paragraph essays for group two.

Ann's SRSD maintenance performance. Ann completed two SRSD maintenance essays over the course of 2 days. She spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in her scores from baseline across all essay measures. Ann's percentage of increase for overall mean number of words and overall holistic quality were also significant, with an increase in overall mean number of words from baseline timed 125.11 to a maintenance mean of 152 (122%), while the untimed mean showed a slight decrease from 161.42 to 151 (-9.40%), and in mean overall holistic quality scores for timed measures timed 5.41 to 9 (166%), untimed 6.42 to 9 (140%). Between baseline and SRSD maintenance multiple-paragraph phases Ann demonstrated a rapid immediacy of effect as noted by high levels and upward trends for the above stated measures. The visual analysis also indicated 100% PND between baseline and post-SRSD maintenance multiple paragraph scores for all performance measures.

Within-phase descriptive statistics and visual analysis for SRSD maintenance essays demonstrated the following results. For number of words timed, Ann obtained a mean score of 152 with a range of 152; untimed Ann obtained a mean score of 151 with a range of 151, with data points on both measures indicating a positive slope with an upward trend and low variability. Her average for number of essay parts timed was 11

with a range of 11; untimed was 9 with a range of 9, representing a positive slope with a high upward trend and low variability. Ann's timed holistic quality scores demonstrated an average score of 9 with a range of 9; untimed demonstrated an average score of 9 with a range of 9, representing a positive slope and low variability. Ann's other performance scores included total number of sentences timed with a mean of 19 and a range of 19 sentences per essay; untimed a mean of 17 and a range of 17 sentences per essay. For the number of paragraphs timed was 6, with a range of 6, and untimed her average was 5 with a range of 5. For number of transition words timed, Ann had an average score of 5 with a range of 5, and for untimed an average score of 6 with a range of 6, demonstrating a positive slope with upward trend and low variability.

In summary, Ann's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to SRSD maintenance multiple paragraph and 100% PND for all performance measures.

Group three. This group was the first to begin the SRSD maintenance testing during 2 days of the study. Eli and Ted completed two SRSD maintenance essays over the course of two days approximately four weeks after completing SRSD multiple-paragraph instruction. They were given lined paper and pencils to complete essays, and were asked to write an essay from a selection of two prompt choices. Eli and Ted completed one timed and one untimed SRSD maintenance essay over the course of 2 school days. Just as taught during instruction, they created their own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written.

Using the organizer, Eli and Ted spent time planning their essays before writing. Their performance demonstrated significant gains in their scores from baseline across all essay measures. The overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated 100% PND for Eli and Ted from baseline to post-SRSD maintenance multiple paragraph across all performance measures.

Also notable, percentage of increase data for individual student means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for number of words from baseline to SRSD maintenance percentage of increase reports were high for group three: Ted timed number of words measures at baseline were 67 compared to maintenance scores of 127 (190%), and untimed 82 to 159 (194%); Eli timed measures 75 to 173 (231%), untimed 74.41 to 195 (209%). For overall holistic quality, the percentage of increase data illustrates the following gains for group three: Ted timed measures 3 to 9 (300%), untimed 2.22 to 9 (405%); Eli timed measures 4 to 9 (225%), untimed 3.84 to 9 (234%). Following are the individual performance results for the SRSD maintenance multiple-paragraph essays for group three.

Ted's SRSD maintenance performance. Ted completed two SRSD maintenance essays over the course of 1 day. Ted spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures. Ted's percentage of increase for mean number of words and overall holistic quality were also significant, with an increase in mean number of words

with timed measures 67 to 127 (190%) and untimed 82 to 159 (194%), and in mean holistic quality scores for timed measures 3 to 9 (300%), untimed 2.22 to 9 (405%). Between baseline and post-SRSD phases Ted demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and SRSD maintenance scores.

Within-phase descriptive statistics and visual analysis for SRSD maintenance essays demonstrated the following results. His average for number of essay parts timed was 10 with a range of 10, untimed was 10 with a range of 10, representing a positive slope with a high upward trend and low variability. Ted's holistic quality timed scores demonstrated an average score of 9 with a range of 9, untimed demonstrated an average score of 9 with a range of 9, representing a positive slope, high trend, and low variability. Ted's other performance scores included total number of sentences timed with a mean of 19 and a range of 19 sentences per essay, untimed a mean of 19 and a range of 19 sentences per essay. For the number of paragraphs timed was 6 with a range of 6 and untimed his average was 6 with a range of 6. For number of transition words timed, Ted had an average score of 11 with a range of 11, and for untimed an average score of 11 with a range of 11, demonstrating a positive slope with upward trend.

In summary, Ted's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to SRSD maintenance and 100% PND for all performance measures.

Eli's SRSD maintenance intervention performance. Eli completed two SRSD maintenance essays over the course of 1 day. He spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures. Eli's percentage of increase for mean number of words and overall holistic quality were also significant, with an increase in mean number of words with timed measures 75 to 173 (231%), untimed 74.41 to 145 (195%), and in mean holistic quality scores for timed measures 4 to 9 (225%), untimed 3.84 to 9 (234%). Between baseline and post-SRSD maintenance phases Eli demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and SRSD maintenance scores.

Within-phase descriptive statistics and visual analysis for SRSD maintenance essays demonstrated the following results. His average for number of essay parts timed was 10 with a range of 10, untimed was 11 with a range of 11, representing a positive slope with an upward trend and low variability. Eli's other performance scores included total number of sentences timed with a mean of 18 and a range of 18 sentences per essay, untimed a mean of 18 and a range of 18 sentences per essay. For the number of paragraphs timed his average was 4 with a range of 4, and untimed his average was 5 with a range of 5. For number of transition words timed, Eli had an average score of 11 with a range of 11, and for untimed an average score of 15 with a range of 11, demonstrating a positive slope with upward trend and low variability.

In summary, Eli's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to SRSD maintenance and 100% PND for all performance measures.

Knowledge of Essay Parts at SRSD Maintenance

During SRSD maintenance, and all posttesting phases, students were asked to name the parts of a persuasive essay to include answers such as topic sentence, reasons (three or more), explanations, and ending. Each response elicited a point toward scores of 0 to 10. This was done to monitor how well students were progressing toward learning the parts of a persuasive essay. At SRSD maintenance, students were given the probe on day one. Overall, students obtained an average score of 9.00 ranging from 7 to 10, indicating a positive slope with a high upward trend performance for all students at SRSD maintenance for knowledge of the parts of a persuasive essay.

SRSD maintenance summary. Using visual analysis, the SRSD maintenance performance was stable and indicated high performance for level, trend, and variability. Student performance and analysis on posttesting measures follow.

Overall SRSD generalization performance. The first maintenance essays were written by students on the second day of maintenance testing. These occurred approximately four weeks after all posttesting was completed and were then staggered by group days 57 through 61 of the study. Students were given the choice of two SRSD generalization writing prompts similar to those administered at baseline and post-SRSD testing. Essay prompts used for the generalization testing were developed from 10th-grade

Virginia Standards of Learning curriculum for U.S. History. Overall student performance was mixed at generalization, with the majority of scores showing a level or positive trend when compared to post-SRSD scores. SRSD generalization scores showed slight decreases in mean scores for all untimed measures compared to SRSD multiple paragraph untimed measures, and compared to increases in mean scores for all SRSD multiple paragraph timed measures except for the number of transition words. However, when compared to baseline, student mean scores across all students were statistically significant at SRSD generalization as reported by all $ps < .05$, according to Wilcoxon Matched-Pairs, Signed Ranks tests.

Student means for number of words timed demonstrated an increase with a mean of 156.60 ($SD = 19.77$) from post-SRSD multiple-paragraph essay mean of 124.70 ($SD = 21.99$), compared to student means for number of words untimed of 169.40 ($SD = 60.97$), which declined slightly from the post-SRSD multiple-paragraph essay mean of 209.88 ($SD = 45.73$). However, student performance means for number of words were substantially higher than at baseline timed with a mean of 75.46 ($SD = 29.40$) and an untimed mean of 104.56 ($SD = 34.31$). For the number of sentences untimed mean scores also declined slightly with a mean of 16.00 ($SD = 5.24$) from a post-SRSD multiple-paragraph essay mean of 17.76 ($SD = 3.52$), but increased for the number of sentences timed with a mean score of 16.20 ($SD = 4.82$) from a post-SRSD multiple-paragraph essay mean of 10.60 ($SD = 1.39$). However, student performance means for number of sentences were substantially higher than at baseline with a timed mean of 5.24 ($SD = 2.55$) and an untimed mean of 5.40 ($SD = 3.77$).

For the number of paragraphs the untimed mean scores also declined slightly with a mean of 4.40 ($SD = 1.82$) from a post-SRSD multiple-paragraph essay mean of 5.40 ($SD = 1.03$). However, scores increased for the number of paragraphs timed mean scores with a mean of 4.80 ($SD = 1.30$) from a post-SRSD multiple-paragraph essay mean of 3.20 ($SD = 0.76$). However, student performance means for the number of paragraphs were substantially higher than at baseline timed with a mean of 1.26 ($SD = 0.53$), and an untimed mean of 1.60 ($SD = 0.63$).

The number of parts for untimed mean scores also declined slightly with a mean of 9.00 ($SD = 1.52$) from a post-SRSD multiple-paragraph essay mean of 10.36 ($SD = 1.49$), but increased for the number of parts for a timed mean score of 9.60 ($SD = .89$) from a post-SRSD multiple-paragraph essay mean of 7.70 ($SD = 1.30$). However, student performance means for the number of parts were substantially higher than at baseline with a timed mean of 4.66 ($SD = 1.62$) and an untimed mean of 4.88 ($SD = 1.53$).

Data for overall number of transition words demonstrated a slight decrease for the untimed mean of 6.40 ($SD = 3.58$) from the post-SRSD multiple-paragraph essay untimed mean of 7.80 ($SD = 2.69$), as well as for the timed mean score of 7.00 ($SD = 5.29$) from the post-SRSD multiple-paragraph essay mean of 5.60 ($SD = 2.04$). However, student performance means for the number of transition words were substantially higher than at baseline timed ($M = 0.62$, $SD = 0.64$) and untimed ($M = 1.16$, $SD = 1.14$).

Data for the overall holistic quality scores demonstrated a slight decrease for an untimed mean score of 8.00 ($SD = 1.00$) from a post-SRSD multiple-paragraph essay untimed mean of 8.28 ($SD = 0.46$), as well as for the timed mean score of 8.00 ($SD =$

2.24) from a post-SRSD multiple-paragraph essay mean of 6.30, $SD = 1.61$). However, the student performance means for holistic quality were substantially higher than at baseline with a timed mean of 3.76 ($SD = 1.00$) and an untimed mean of 3.80 ($SD = 1.58$).

In the following sections, group and individual descriptions of performance measures for SRSD generalization will be addressed.

Group one. This group was the second and last to begin the SRSD generalization testing during 6 days of the study. After 4 weeks from the end of SRSD multiple paragraph instruction, students were asked to return to write essays with prompts that were similar to those at baseline. Harry and Will were given lined paper and pencils to complete essays, and were asked to write an essay from a selection of two prompt choices. They completed one timed and one untimed SRSD generalization essay over the course of 1 school day with their individual groups. Just as they were taught during instruction, Harry did not plan but Will created his own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, each student spent time planning his essays before writing. The overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. Overall student performance was mixed at generalization with the majority of scores showing a level or positive trend when compared to post-SRSD multiple paragraph scores. Post-SRSD generalization student performance was mixed at generalization with the majority of scores showing a level or positive trend when compared to post-SRSD scores. SRSD generalization scores showed slight decreases in

mean scores for all untimed measures compared to post-SRSD multiple-paragraph untimed measures, and compared to increases in mean scores for all post-SRSD multiple paragraph timed measures except for the number of transition words. The visual analysis also demonstrated 100% PND for all group members from baseline to post-SRSD across all performance measures.

Also notable, percentage of increase data for individual student means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for mean scores for overall number of words from baseline to SRSD generalization, percentage of increase reports were high for group one: Harry with timed measures from 48.33 to 125 (257%) and untimed 97.42 to 122 (125%), Will with timed measures from 61.98 to 160 (258%) and untimed 95 to 275 (289%). For overall holistic quality, the percentage of increase data illustrates the following gains for group one: Harry timed 3.44 to 4 (116%), untimed 3 to 7 (210%); Will timed 3 to 9 (300%), untimed 3.67 to 9 (245%). Following are the individual performance results for the SRSD generalization essays for group one. Figures 1-6 were used in the visual analysis of between-phase and within-phase essay performance measures for group one.

Harry's SRSD generalization performance. Harry completed two SRSD generalization essays over the course of 2 days. Harry spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures. Harry's percentage of increase for mean overall number of sentences and holistic quality were also significant, with an increase in

mean number of sentences from timed measures of 2.95 to 10 (339%) and untimed 4.88 to 8 (164%), and in mean holistic quality scores with timed measures from 3.44 to 4 (116%) and untimed of 3 to 8 (267%). Between baseline and SRSD phases Harry demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and SRSD multiple-paragraph generalization scores for all performance measures.

Within-phase descriptive statistics and visual analysis for SRSD generalization essays demonstrated the following results. For number of words timed, Harry obtained a mean score of 125 with a range of 125; untimed Harry obtained a mean score of 122 with a range of 122, with data points on both measures indicating a positive slope with a high upward trend and low variability. His average for number of essay parts timed was 9 with a range of 9; untimed was 8 with a range of 8, representing a positive slope with a high upward trend and low variability. Harry's holistic quality timed scores demonstrated an average score of 4 with a range of 4; untimed demonstrated an average score of 7 with a range of 7, representing a positive slope, high trend, and moderate variability. Harry's other performance scores included total number of sentences timed with a mean of 10 and a range of 10 sentences per essay; untimed a mean of 8 and a range of 8 sentences per essay. For the number of paragraphs timed was 3 with a range of 3, and untimed his average was 2, with a range of 2. For number of transition words timed, Harry had an average score of 6 with a range of 6, and for untimed an average score of 6 with a range of 6, demonstrating a positive slope with upward trend.

In summary, Harry's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and moderate variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD multiple paragraph and 100% PND for all performance measures.

Will's SRSD generalization performance. Will completed two post-SRSD multiple-paragraph essays over the course of 2 days. Will completed the SRSD generalization testing 4 weeks after he ended SRSD multiple paragraph instruction individually with the researcher. He spent time planning and creating a graphic organizer before writing each essay. Will's percentage of increase for mean overall number of sentences and holistic quality were also significant, with an increase in mean number of sentences from timed measures of 4 to 12 (300%) and untimed 1 to 21 (210%), and in mean holistic quality scores with timed measures from 3 to 9 (300%), untimed measures from 3.61 to 9 (249%). Between baseline and SRSD phases Will demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures except for untimed holistic quality. The visual analysis also indicated 100% PND between all baseline and SRSD multiple paragraph scores for all performance measures.

Within-phase descriptive statistics and visual analysis for SRSD maintenance essays demonstrated the following results. For number of words timed, Will obtained a mean score of 160 with a range of 160; untimed Will obtained a mean score of 275 with a range of 275, with data points on both measures indicating a positive slope with a high upward trend and low variability. His average for number of essay parts timed was 9 with a range of 9, untimed was 10 with a range of 10, representing a positive slope with a high

upward trend and low variability. Will's holistic quality timed scores demonstrated an average score of 9 with a range of 9, and untimed scores of 9 with a range of 9, representing a positive slope, high trend, and moderate variability. Will's other performance scores included total number of sentences timed with a mean of 12 and a range of 12 sentences per essay; untimed a mean of 21 and a range of 21 sentences per essay. For the number of paragraphs timed his average was 3 with a range of 3, and untimed his average was 6 with a range of 6. For number of transition words timed, Will had an average score of 5 with a range of 5, and for untimed an average score of 7 with a range of 7, demonstrating a positive slope with high upward trend.

In summary, Will's within-phase performance for all measures demonstrated positive slopes with moderate to high upward trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to SRSD multiple paragraph and 100% PND for all performance measures.

Group two. This group was the second to receive the SRSD generalization testing during 1 day of the study. Ann completed the SRSD Generalization testing 4 weeks after she ended SRSD multiple-paragraph instruction individually with the researcher. After intervention, Ann was asked to write essays with prompts that were similar to those at baseline. She was given lined paper and pencils to complete essays, and was asked to write an essay from a selection of two prompt choices. Ann completed one timed and one untimed SRSD generalization essay over the course of 1 school day. Just as taught during instruction, Ann created her own graphic organizer based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, she spent time

planning their essays before writing. The overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated 100% PND for all group members from baseline to SRSD multiple paragraph instruction for all performance measures.

Also notable, percentage of increase data for individual student means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for overall number of words from baseline to SRSD generalization the percentage of increase reports were high for group two: Ann's mean for timed for number of words showed an increase from baseline to generalization from 125.10 to 177 (141%), compared to a decrease for the untimed mean from 161.42 to 135 (-16%). For overall holistic quality, the percentage of increase data illustrates the following gains for group two: Ann showed an increase from the timed baseline mean of 5.41 to generalization 9 (121%), as well for untimed 6.42 to 7 (140%). Following are the individual performance results for the SRSD multiple-paragraph essays for group two.

Ann's SRSD generalization performance. Ann completed two SRSD generalization essays over the course of 2 days. She spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in her scores from baseline across all essay measures. Ann's percentage of increase for overall mean number of words and overall holistic quality were also significant, with an increase in overall mean number of words from baseline timed 125.11 to a generalization mean of 177 (141%), while the untimed mean showed a slight decrease from 161.42 to 122

(-.29%), and in mean overall holistic quality scores for timed measures timed 5.41 to 9 (166%), untimed 6.42 to 7 (109%). Between baseline and post-SRSD multiple-paragraph phases Ann demonstrated a rapid immediacy of effect as noted by high levels and upward trends for the above stated measures. The visual analysis also indicated 100% PND between baseline and post-SRSD multiple paragraph scores for all performance measures.

Within-phase descriptive statistics and visual analysis for SRSD generalization essays demonstrated the following results. For number of words timed, Ann obtained a mean score of 177 with a range of 177; untimed Ann obtained a mean score of 122 with a range of 122, with data points on both measures indicating a decreasing trend and low variability. Her average for number of essay parts timed was 9 with a range of 9; untimed was 8 with a range of 8, representing a decreasing trend and low variability. Ann's timed holistic quality scores demonstrated an average score of 9 with a range of 9; untimed demonstrated an average score of 7 with a range of 7, representing a positive slope and low variability. Ann's other performance scores included total number of sentences timed with a mean of 19 and a range of 19 sentences per essay; untimed a mean of 14 and a range of 14 sentences per essay. For the number of paragraphs timed was 5 with a range of 5, and untimed her average was 5 with a range of 5. For number of transition words timed, Ann had an average score of 5 with a range of 5, and for untimed an average score of 6 with a range of 6, demonstrating a positive slope with upward trend and low variability. All essay measures between phase demonstrated a decreasing trend from

maintenance except for the measure of holistic quality which on visual analysis demonstrated 100% PND.

In summary, Ann's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD multiple paragraph and 100% PND for all performance measures above baseline scores.

Group three. This group was the first to begin the SRSD generalization testing during 2 days of the study. Eli and Ted completed two SRSD maintenance essays over the course of 2 days approximately four weeks after completing SRSD multiple-paragraph instruction. They were given lined paper and pencils to complete essays, and were asked to write an essay from a selection of two prompt choices. Eli and Ted completed one timed and one untimed SRSD generalization essay over the course of 2 school days. Just as taught during instruction, they created their own graphic organizers based on the POW + TREE organizer and used the organizer for each essay written. Using the organizer, Eli and Ted spent time planning their essays before writing. Eli and Ted's performances demonstrated significant gains in their scores from baseline across all essay measures. The overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated 100% PND for all group members from baseline to post-SRSD multiple paragraph across all performance measures.

Also notable, percentage of increase data for Eli and Ted's means for overall number of words and overall holistic quality were analyzed, giving further evidence of student performance resultant in longer essays with a higher overall quality. For example, for number of words from baseline to SRSD generalization percentage of increase reports were high for group three: Ted timed number of words measures at baseline were 67 compared to generalization scores of 167 (249%), and untimed 82 to 156 (190%); Eli timed measures 75 to 151 (201%), untimed 74.41 to 159 (214%). For overall holistic quality, the percentage of increase data illustrates the following gains for group three: Ted timed measures 3 to 9 (300%), untimed 2.22 to 8 (360%); Eli for timed measures 4 to 9 (225%), untimed 3.84 to 9 (234%). Following are the individual performance results for the SRSD generalization multiple-paragraph essays for group three. Figures 1-6 were used in the visual analysis of between-phase and within-phase essay performance measures for group three.

Ted's SRSD generalization performance. Ted completed two SRSD maintenance essays over the course of 1 day. He spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures. Ted's percentage of increase for mean number of words and overall holistic quality were also significant, with an increase in mean number of words with timed measures 67 to 167 (249%) and untimed 82 to 156 (190%), and in mean holistic quality scores for timed measures 3 to 9 (300%) and untimed 2.22 to 9 (405%). Between baseline and SRSD phases Ted demonstrated a rapid immediacy of effect as

noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and SRSD generalization scores.

Within-phase descriptive statistics and visual analysis for SRSD generalization essays demonstrated the following results. His average for number of essay parts timed was 10 with a range of 10, untimed was 8 with a range of 8, representing a positive slope with a high upward trend and low variability. Ted's holistic quality timed scores demonstrated an average score of 9 with a range of 9, untimed demonstrated an average score of 8 with a range of 8, representing a positive slope, high trend, and low variability. Ted's other performance scores included total number of sentences timed with a mean of 20 and a range of 20 sentences per essay, untimed a mean of 17 and a range of 17 sentences per essay. For the number of paragraphs timed was 6 with a range of 6, and untimed his average was 5 with a range of 5. For number of transition words timed, Ted had an average score of 10 with a range of 10, and for untimed an average score of 7 with a range of 7, demonstrating a positive slope with upward trend.

In summary, Ted's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD generalization and 100% PND for all performance measures.

Eli's SRSD generalization intervention performance. Eli completed two SRSD generalization essays over the course of 1 day. He spent time planning and creating a graphic organizer before writing each essay, and demonstrated significant gains in his scores from baseline across all essay measures. Eli's percentage of increase for mean

number of words and overall holistic quality were also significant with an increase in mean number of words with timed measures 75 to 151 (231%), untimed 74.41 to 159 (195%), and in mean holistic quality scores for timed measures 4 to 9 (225%), untimed 3.84 to 9 (234%). Between baseline and post-SRSD phases Eli demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated 100% PND between all baseline and SRSD generalization scores.

Within-phase descriptive statistics and visual analysis for SRSD generalization essays demonstrated the following results. His average for number of essay parts timed was 11 with a range of 11, untimed was 11 with a range of 11, representing a positive slope with an upward trend and low variability. Eli's other performance scores included total number of sentences timed with a mean of 20 and a range of 20 sentences per essay, untimed a mean of 20 and a range of 20 sentences per essay. For the number of paragraphs timed his average was 6 with a range of 6, and untimed his average was 6 with a range of 6. For number of transition words timed, Eli had an average score of 14 with a range of 14, and for untimed an average score of 11 with a range of 11, demonstrating a positive slope with upward trend and low variability.

In summary, Eli's within-phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between-phase visual analysis indicated consistently significant gains in performance from baseline to post-SRSD maintenance and 100% PND for all performance measures.

Knowledge of Essay Parts at SRSD Generalization

During SRSD generalization, and all posttesting phases, students were asked to name the parts of a persuasive essay to include answers such as topic sentence, reasons (three or more), explanations, and ending. Each response elicited a point toward scores of 0 to 10. This was done to monitor how well students were progressing toward learning the parts of a persuasive essay. At SRSD generalization, students were given the probe on day one. Overall, students obtained an average score of 9.00 ranging from 7 to 10, indicating a positive slope with a high upward trend performance for all students at SRSD generalization for knowledge of the parts of a persuasive essay (Table 8).

Table 8

Knowledge of Parts of a Persuasive Essay From Strategy Probes

	Baseline	SRSD Phase I + II Instruction	Post-SRSD Phase I + II Intervention	Maintenance Generalization
	Mean (<i>SD</i>) (<i>N</i> =5)	Mean (<i>SD</i>) (<i>N</i> =5)	Mean (<i>SD</i>) (<i>N</i> =5)	Mean (<i>SD</i>) (<i>N</i> =5)
Essay Parts	1.20(.84)	8.00(1.58) ^a	9.20(1.30) ^a	9.00(1.23) ^a
Probe Responses		<i>ES</i> > 3	<i>ES</i> > 3	<i>ES</i> > 3

Note. ^aSignificantly greater than baseline, $p < .05$, according to Wilcoxon Matched-Pairs, Signed Ranks Test.

SRSD generalization summary. Using visual analysis, the SRSD generalization performance was stable and indicated high performance for level, trend, and variability. Student performance and analysis on posttesting measures follow.

Essay writing samples. The following section illustrates the performance of one student from the study, demonstrating essay writing samples from baseline, SRSD

fluency, post-SRSD multiple paragraph, maintenance, and generalization. The student's performance is representative of the overall performance of students in the study. The essays demonstrate the increase in scores for student performance in overall length, organization, and quality.

Essay writing samples from baseline to post-SRSD fluency. The quantitative data presented is further enhanced by the following sample of one student's essays from baseline to post-SRSD fluency intervention instruction. The writing sample shown in Table 9 demonstrates the student's noticeable growth in essay length, sentences, paragraphs, number of transition words, number of essay parts, organization, and overall quality. This sample is similar to the changes observed in all student essays from baseline through post-SRSD fluency.

Table 9

Baseline and Post-SRSD Fluency Writing Samples of a Stronger-Performing Student

Representative baseline essay prompt: “Should pets like dogs or cats be inside or outside animals?”

Sometimes I see people let their cats go outside. In my opinion, I think that is a wrong way to treat a cat. Why? Because cats should be kept in your home unless if they need to see a vet. Not to mention if you let your cat go outside the cat could get lost or worse) for example: the cat could die, it could be taken by someone else, etc.).

Representative post-SRSD fluency intervention essay prompt: “Should students be required to complete public service hours for school?”

Students should do community service for their schools but not as a requirement. To begin, you can help people for those in need. Whether for food, clothes, etc.

Another, it will show you that you are a kind person: but there are other ways of kindness. Furthermore, it will help your school get money, like for field trips. Finally, there are other people who need stuff like food, clothes, etc.

Then again, some people are unable to do it. Not to mention, there are mean people out there. I do hate to admit that. Yet, most people are kind. In conclusion, that’s why students should do community service but not as a requirement.

Writing sample post-SRSD multiple paragraph. The quantitative data presented is also demonstrated by the sample of one student’s essay from the post-SRSD multiple-paragraph phase. The writing sample shown in Table 10 demonstrates the student’s successful use of the SRSD and POW + TREE strategy extending his or her essay writing knowledge to a multiple-paragraph essay. The sample also demonstrates a sustained growth from baseline to include measures of essay length, sentences, paragraphs, number of transition words, number of essay parts, organization, and overall quality. Results are similar to other students in the study.

Table 10

Post-SRSD Multiple-Paragraph Intervention Writing Sample of a Stronger-Performing Student

Representative post-SRSD multiple-paragraph essay prompt: “Should the age for obtaining a driver’s license be raised from 16 to 17?”

I think the age to obtain a drivers [sic] license should be 18 or older. First teens get into accidents record. Teens speed a lot. Furthermore, teens get distracted easily. Not to mention a lot of teens do a lot of scary and careless things on the road. Finally, driving is a responsibility.

First, a lot of teens get into accidents. The most common death for teens is getting into an accident more than anything else. For example, texting and driving the car cause a big accident. Which is worse than drinking and driving.

Second, a lot of teenagers speed too much. So if you get caught speeding, you will get pulled over by the police. Then you will get a ticket, which is very expensive. Not to mention that some teenagers do scary and careless mistakes on the road. Furthermore, some teens get distracted early. Whether it is from a cell phone, construction site, their ipod, etc. So distracted driving can cause accidents. For example, Not using their blinker when changing lanes. Sometimes teens choose not to learn from their mistakes. Luckily some do.

Finally, driving is a big responsibility. So I don’t think most teenagers aren’t really mature enough to drive. So adults for the most part, are more responsible than teenagers. However, you can’t rely on your parents all the time to take you somewhere. Also, drivers education is taken when you are a sophomore an you might forget on what you learned in class. Then again, driving is a big responsibility.

In conclusion, that’s why the age to obtain a license should be 18 or older. Why? Because driving is a big responsibility.

Writing samples for maintenance and generalization. The essay portrayed in Table 11 is indicative of one student's maintenance essay performance 4 weeks postintervention. The writing samples shown in Table 12 demonstrate the same student's successful use of the SRSD and POW + TREE strategy in two generalization essays written on day 76 of the study. Essay prompts used for the generalization testing were developed from 11th-grade Virginia Standards of Learning curriculum for U.S. History. The writing samples shown in Table 12 demonstrate the student's successful use of the SRSD and POW + TREE strategy extending his or her essay writing knowledge to multiple-paragraph essays using content-area knowledge for a content-specific writing task. These samples demonstrate the growth from baseline to include increased measures of essay length, sentences, paragraphs, number of transition words, number of essay parts, organization, and overall quality. Results are similar to the differences observed for the other students in the study.

Table 11

Maintenance SRSD Writing Sample of a Stronger-Performing Student

Representative maintenance (M1) SRSD essay prompt: “Should animals be used for research? Why or why not?”

Animals should be used for research. To begin, they make better test subjects than humans. Second, less chance of harming a human. Finally, humans are the dominant species.

To begin, animals make better test subjects than humans. Why? Because humans are more dominant than any other species on earth.

Second, there is less chance of harming someone. So it’s very difficult to use a human as a test subject without harming him or her at the same time. Plus, using a human as a test subject could hurt him/her or maybe kill him/her.

Finally, humans are dominant species. Why do I say this? Because it’s better to use an animal as a test subject, better than a human. However, animals can be harmed too. So killing animals is bad. Yet, you could use animals that are here on earth for no reason.

To sum up, animals make better test subjects than humans. Why? Because we are the dominant species.

Table 12

Generalization Writing Sample of a Stronger-Performing Student

Representative generalization essay prompt (G1) timed: “Write an essay arguing a position for the North against slavery or the South for slavery.”

I would support the north side of the United States during the American Civil War (against slavery). First, slavery is bad and wrong. Second, black people are just like average people they just have different skin color. Finally, the south treated the black slaves poorly.

First, slavery is bad and wrong. Why? Because of the way they were treated. For example they get whipped.

Second, black people are just like your average human being they just have different skin color. Everyone should be treated equally. Don't treat certain people poorly.

Finally the people from the south treated their black slaves poorly. They adopted them as if they were animals. Not to mention the whipping.

Then again, I lived in Virginia for most of my life. So Virginia is a southern state. Yet, the American civil war was about 150 years ago.

In conclusion, that is why I could support the North. Why? Because slavery is bad. Blacks are like regular people and the south treated them poorly.

Representative generalization essay prompt (G2) untimed: “Write a letter to your state senator as a voter from 1964 arguing for or against the Civil Rights Act which said no person will be discriminated against because of color, race or gender.”

No person should be discriminated by their race, gender, color, etc. To begin, everyone should be treated equally. Another, discrimination is bad. Finally, everyone should go to the same school and work.

To begin, everyone should be treated equally. Which means treat everyone should be treated the same way in a good way. No matter what their race, gender, color or whatever should be treated the same.

Another, discrimination is bad. Why? Because the way how they do it. For example, certain people can vote in elections.

Finally, everyone should go to the same type of school or work. Which means for school every kid should get the same amount of education the need. For work, everyone should be paid the same amount as other employees.

In conclusion, that is why everyone should be treated equally. Why? Because people are people. Discrimination is bad and everyone should go to the same type of school or work.

Time Planning and Writing

During baseline, post-SRSD fluency, post-SRSD multiple paragraph, and SRSD maintenance and generalization phases, a one-time planning and writing probe was administered per phase for each student. Measures were completed for both timed and untimed writing prompts. The researcher recorded the duration of time with the Student Planning Record Sheet (Appendix U) during all phases of the study in which students spent planning and writing after receiving one writing prompt. Videotaped sessions were also reviewed and coded by the researcher, and reviewed for fidelity by research assistants. Previous training on videos from nonprobed days were used to operationalize student time spent planning and writing. Interrater agreement, after discussion, reached 100% consensus on the time spent on planning and writing for all of the students. Overall, students demonstrated significant increases with variability performance in both planning and writing between students, after both strategy instruction phases for both timed and untimed measures. Results for the time spent planning and writing follow.

Baseline Student Planning and Writing

Baseline probes for time spent planning and writing for timed and untimed essays were conducted on two days of baseline testing for all three groups. Group one's probes were administered on days two and three, and groups two and three's on days two and four. Student Planning Record Sheets were reviewed with videotaped sessions and results indicated that students spent little time planning their essays, with some students spending a few minutes to plan when given the untimed writing prompt. All students began writing almost immediately as evidenced by results given in minutes in Tables 13

and 14. The descriptive data for baseline demonstrated student mean scores for timed essays of 00:00 ($SD = 00:00$) for time spent planning and $M = 8.00$ ($SD = 03:08$), with a range of 03:00 to 10:00, for time spent on writing timed persuasive essays. The descriptive data for baseline demonstrated student mean scores for untimed essays of $M = 01:00$ ($SD = 01:41$) for time spent planning with a range of 02:00 to 05:00, and $M = 11.20$ ($SD = 06:14$) with a range of 06:00 to 20:00 for time spent on writing untimed persuasive essays. Additional reports include the percentage of total time spent by students at baseline was 2% for planning and 98% for writing. Results for the time spent planning and writing are illustrated in Tables 13 and 14. Visual analysis for student planning performance follow in Figures 13, 14, and 15; PND scores are in Tables 15 and 16.

Table 13

Descriptive Statistics for Student Time Spent Planning and Writing Persuasive Timed Essays in Minutes

	Baseline Mean (SD) (N=5)	Postfluency Mean (SD) (N=5)	Postmultiple Paragraph Mean (SD) (N=5)	Maintenance Mean (SD) (N=5)	Generalization Mean (SD) (N=5)
Total Time Planning	0(.00)	6.20(.84) ^a <i>ES</i> > 3	3.80(2.28) <i>ES</i> = 1.67	2.40(1.52) <i>ES</i> = 1.58	2.40(1.34) ^a <i>ES</i> = 1.79
Total Time Writing	8.00(3.08)	3.80(.84) <i>ES</i> > -3	6.20(2.28) <i>ES</i> = -.79	6.60(2.19) <i>ES</i> = -.64	7.20(1.64) <i>ES</i> = -.49

Note. ^aSignificantly greater than baseline, $p < .05$, according to Wilcoxon Matched-Pairs, Signed Ranks Test.

Table 14

Descriptive Statistics for Student Time Spent Planning and Writing Persuasive Untimed Essays in Minutes

	Baseline Mean (SD) (N=5)	Postfluency Mean (SD) (N=5)	Postmultiple Paragraph Mean (SD) (N=5)	Maintenance Mean (SD) (N=5)	Generalization Mean (SD) (N=5)
Total Time Planning	1.00(1.41)	8.60(2.97) ^a <i>ES</i> = 2.56	5.80(3.70) <i>ES</i> = 1.30	6.40(4.83) <i>ES</i> = 1.12	7.40(5.08) <i>ES</i> = 1.26
Total Time Writing	11.20(6.14)	18.20(16.13) <i>ES</i> = .43	17.00(8.46) <i>ES</i> = .69	12.80(8.90) <i>ES</i> = .19	11.60(7.06) <i>ES</i> = .06

Note. ^aSignificantly greater than baseline, $p < .05$, according to Wilcoxon Matched-Pairs, Signed Ranks Test.

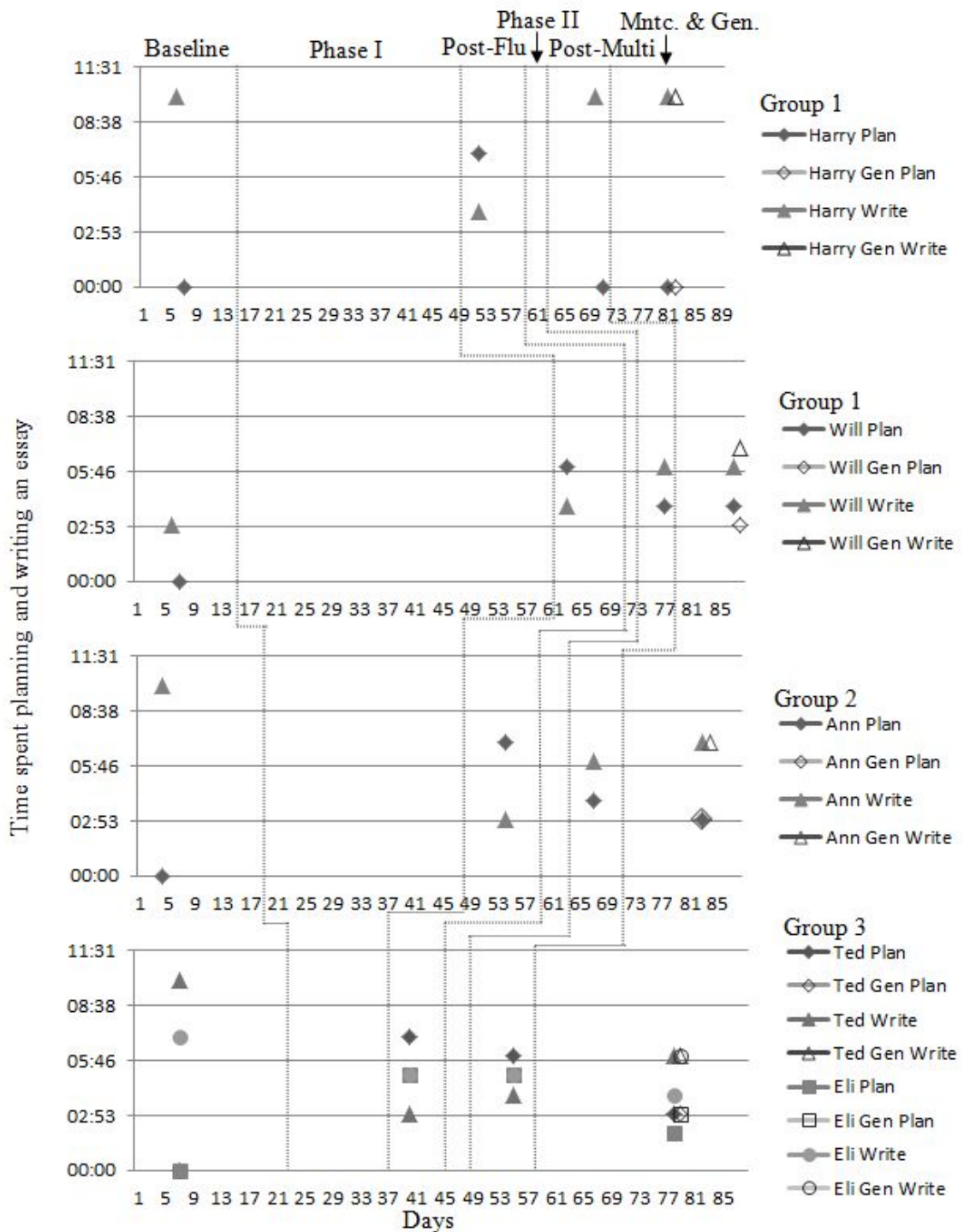


Figure 13. Time spent planning and writing for timed essays. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

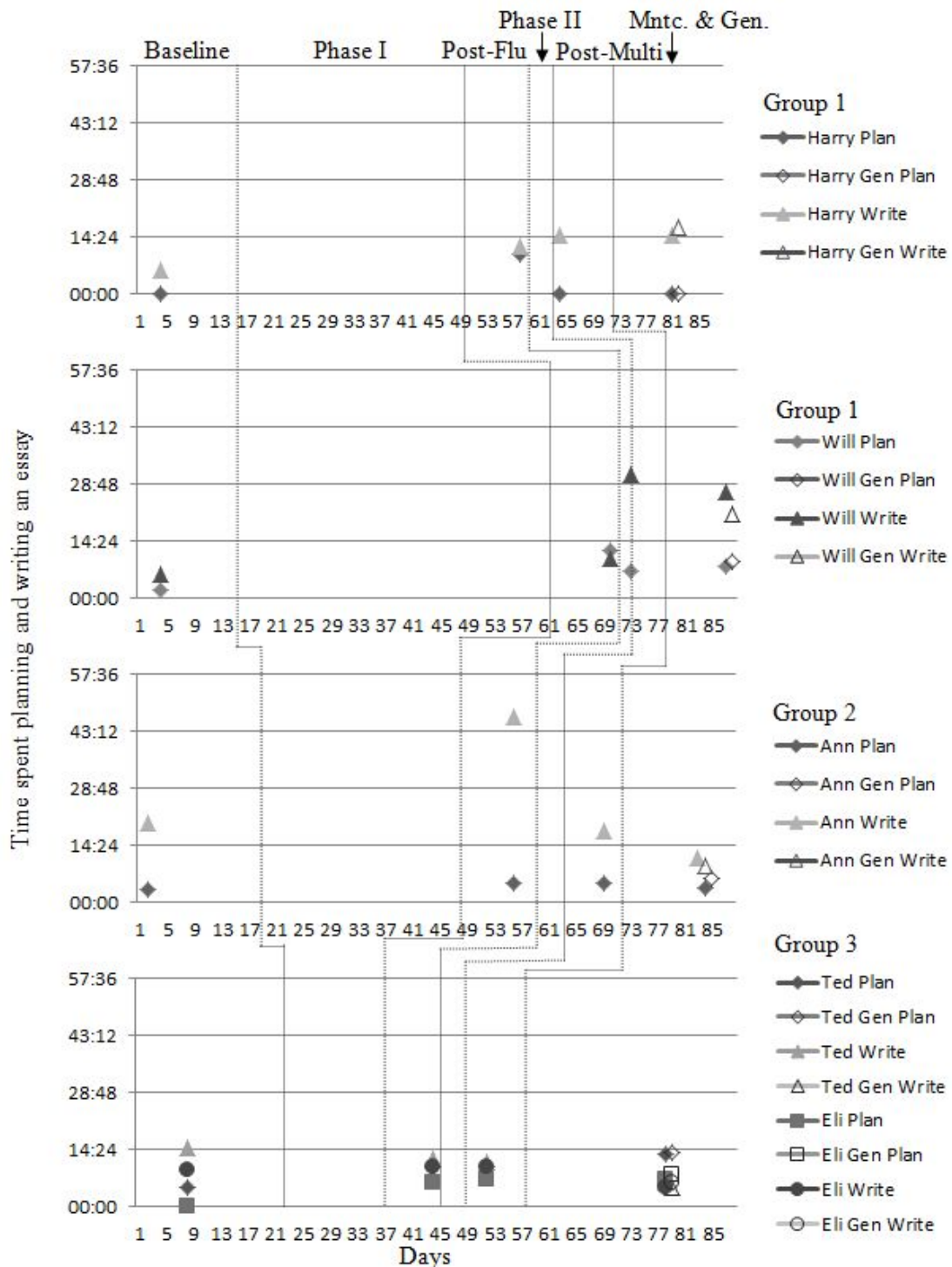


Figure 14. Time spent planning and writing for untimed essays. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

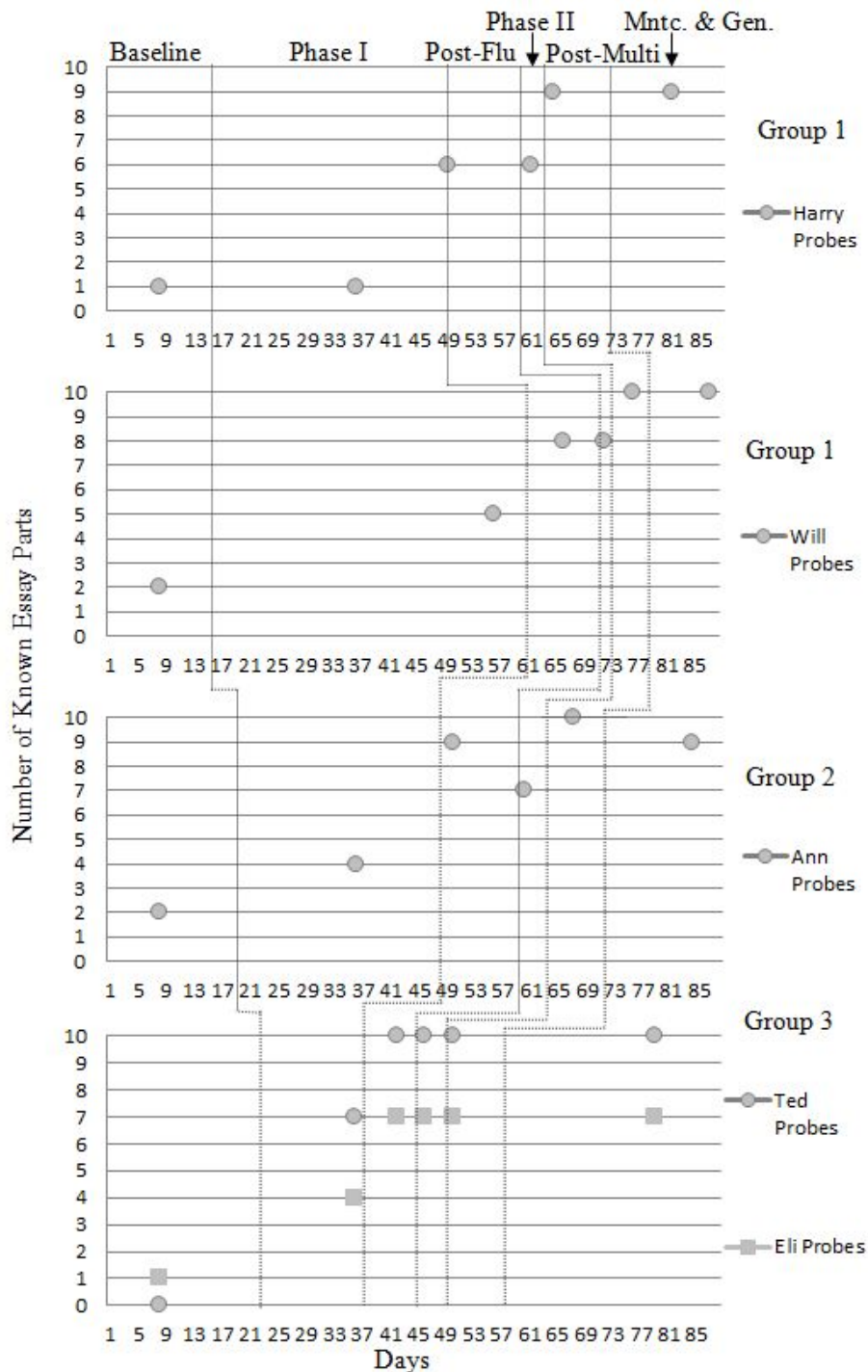


Figure 15. Number of essay parts known per essay phase. This figure illustrates the total number of essay parts in each timed essay by individual students in Groups 1-3 of the study. Phase I = Fluency instruction; Post-Flu = Post-Fluency Testing; Phase II = Post-Multiple Paragraph Testing; Post-Multi = Post-Multiple Paragraph Testing; Mntc. & Gen. = Maintenance and Generalization Testing; Gen = Generalization.

Table 15

Percent of Nonoverlapping Data Across Phases by Student Timed

	<u>Baseline to Postfluency</u>					<u>Baseline to Postmultiparagraph</u>					<u>Baseline to Maintenance</u>					<u>Baseline to Generalization</u>				
	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.
Harry	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Will	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Ann	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Eli	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Ted	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note. *#wds = number of words; Sent. = sentences; #parts = number of essay parts; Trans. = Transition Words; Qual. = Quality.

Table 16

Percent of Nonoverlapping Data Across Phases by Student Untimed

	<u>Baseline to Postfluency</u>					<u>Baseline to Postmultiparagraph</u>					<u>Baseline to Maintenance</u>					<u>Baseline to Generalization</u>				
	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.	#wds	Sent.	#parts	Trans	Qual.
Harry	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Will	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Ann	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Eli	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Ted	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note. *#wds = number of words; Sent. = sentences; #parts = number of essay parts; Trans. = Transition Words; Qual. = Quality

Post-SRSD Fluency Student Planning and Writing

Post-SRSD Fluency probes for time spent planning and writing for both timed and untimed essays were conducted for all groups. Group one's probes were recorded on days two and five, and groups two and three's on days two and four. Student time spent planning increased significantly over baseline for both timed and untimed as indicated by the data in Tables 13 and 14. Further visual analysis is shown in Figure 13. All students increased their time spent planning and writing, with variability demonstrated for time spent writing for both timed and untimed essays. The descriptive data for post-SRSD fluency demonstrated student mean scores for timed essays $M = 6.20$ ($SD = 00:84$) for time spent planning with a range 05:41 to 7:10 and $M = 03:80$ ($SD = 00:84$) with a range of 03:42 to 05:25 for time spent on writing timed persuasive essays. The descriptive data for post-SRSD fluency demonstrated student mean scores for untimed essays of $M = 08.60$ ($SD = 02:97$) for time spent planning with a range 05:41 to 12:10 and $M = 18:20$ ($SD = 16:13$) with a range of 10:42 to 47:25 for time spent on writing untimed persuasive essays. These indicated substantive growth in student time spent planning, with variability between students for time spent writing after the SRSD POW + TREE strategy instruction.

Individual student performance is illustrated in Figure 13. The between-phase visual analysis of the time probe data indicated a rapid immediacy of effect for baseline as shown through positive slopes and high trends. In addition, in reviewing percentage of nonoverlapping data from baseline to post-SRSD, all students demonstrated 100% PND for both timed and untimed time spent planning and time writing.

Post-SRSD Multiple Paragraph Student Planning and Writing

Post-SRSD multiple paragraph probes for time spent planning and writing for both timed and untimed essays were conducted for all groups. All group probes were recorded on days two and three. Student time spent planning increased significantly with variability between students over baseline for both timed and untimed as indicated by the data in Tables 13 and 14. Further visual analysis is shown in Figure 14. All students increased their time spent planning and writing both timed and untimed essays. The descriptive data for post-SRSD multiple paragraph demonstrated student mean scores for timed essays of $M = 3.80$ ($SD = 02:28$) for time spent planning with a range of 00:00 to 6:10 and $M = 06:20$ ($SD = 02:28$) with a range of 04:42 to 10:25 for time spent on writing timed persuasive essays. The descriptive data for post-SRSD fluency demonstrated student mean scores for untimed essays of $M = 05.80$ ($SD = 03:70$) for time spent planning with a range 00:41 to 10:10 and $M = 17:00$ ($SD = 08:46$) with a range of 10:42 to 31:15 for time spent on writing untimed persuasive essays. These indicated substantive growth in student performance for planning and writing after the SRSD POW + TREE strategy instruction.

Individual student performance is illustrated in Figure 14. The between-phase visual analysis of the time probe data indicated a rapid immediacy of effect for baseline as shown through positive slopes and high trends. In addition, in reviewing percentage of nonoverlapping data from baseline to post-SRSD multiple paragraph, all students except one demonstrated 80% PND for timed and untimed essay writing time spent planning,

with one student not performing planning; however, all students demonstrated 100% PND for time writing.

Students continued to demonstrate gains in time spent planning and writing through post-SRSD multiple paragraph, however, their planning performance declined slightly from post-SRSD fluency with student performance for writing showing a moderate increase from post-SRSD fluency. This was evidenced by a slight decrease in mean planning scores from post-SRSD fluency to post-SRSD multiple paragraph, and with mean writing scores showing a moderate increase from post-SRSD fluency to post-SRSD multiple paragraph. Transitioning from post-SRSD fluency working within a time limitation into the post-SRSD multiple-paragraph phase after having more practice during the Phase II instruction, students appeared to have become more efficient at planning and managing the tasks of both writing and planning. This allowed students to have more time for writing quality essays.

SRSD Maintenance Student Planning and Writing

SRSD Maintenance probes for time spent planning and writing for both timed and untimed essays were conducted for all groups. All group probes were recorded on day one. Student performance for planning increased significantly over baseline for both timed and untimed as indicated by the data in Tables 13 and 14, with the exception of one student not performing planning. Further visual analysis is shown in Figure 13. The descriptive data for post-SRSD maintenance demonstrated student mean scores for timed essays of $M = 02:40$ ($SD = 01:52$) for time spent planning with a range of 00:00 to 4:10 and $M = 06:60$ ($SD = 02:19$) with a range of 00:00 to 04:25 for time spent on writing

timed persuasive essays. The descriptive data for post-SRSD maintenance demonstrated student mean scores for untimed essays of $M = 06.40$ ($SD = 04.83$) for time spent planning with a range of 00:00 to 13:10 and $M = 12.80$ ($SD = 08.90$) with a range of 05:42 to 27:15 for time spent on writing untimed persuasive essays. These indicated variability in student performance for planning and writing after the SRSD POW + TREE strategy instruction.

Individual student performance is illustrated in Figure 13. The between-phase visual analysis of the time probe data indicated a rapid immediacy of effect for baseline as shown through positive slopes and high trends. In addition, in reviewing percentage of non-overlapping data from baseline to post-SRSD maintenance, all students except for one demonstrated 80% PND for timed and untimed essay writing time spent planning, with one student not performing planning; however, all students demonstrated 100% PND for time writing.

Although students continued to demonstrate and maintain gains achieved in time spent planning and writing from baseline through maintenance, with the exception of one student not performing planning after postfluency. Students demonstrated a contrast in performance between timed and untimed essay prompts. For student performance during timed essay planning and writing, this was evidenced by a moderate decrease in planning mean scores from post-SRSD fluency to post-SRSD multiple paragraph, as well as a slight increase in writing time from post-SRSD fluency to post-SRSD multiple paragraph over mean scores. In contrast, student performance during untimed essay planning and writing demonstrated a slight increase in planning mean scores from post-SRSD fluency

to post-SRSD multiple paragraph, with a moderate decrease in writing from post-SRSD fluency to post-SRSD multiple paragraph, while maintaining gains over baseline mean writing scores.

SRSD Generalization Student Planning and Writing

SRSD generalization probes for time spent planning and writing for both timed and untimed essays were conducted for all groups. All group probes were recorded on day one. Student performance for planning increased with the exception of one student who dropped back to his baseline level and did no planning; however, all other students maintained over baseline scores for both timed and untimed as indicated by the data in Tables 13 and 14. Further visual analysis is shown in Figure 14. Four students increased their time spent writing both timed and untimed essays, with one student maintaining his high baseline score. The descriptive data for post-SRSD generalization demonstrated student mean scores for timed essays of $M = 2.40$ ($SD = 01:34$) for time spent planning with a range of 00:00 to 3:10 and $M = 07:20$ ($SD = 01:64$) with a range of 06:00 to 10:29 for time spent on writing timed persuasive essays. The descriptive data for post-SRSD generalization demonstrated student mean scores for untimed essays of $M = 07.40$ ($SD = 05:08$) for time spent planning with a range of 00:00 to 14:00 and $M = 11:60$ ($SD = 07:06$) with a range of 05:22 to 21:35 for time spent on writing untimed persuasive essays. These scores overall indicated positive gains for student performances for planning and writing over baseline scores after the SRSD POW + TREE strategy instruction.

Individual student performance is illustrated in Figure 14. The between-phase visual analysis of the time probe data indicated a rapid immediacy of effect from baseline as shown through positive slopes and upward trends. In addition, in reviewing percentage of non-overlapping data from baseline to post-SRSD generalization, three students demonstrated 100% PND for timed and untimed essays spent planning, one student demonstrated 80% PND for timed and untimed essay writing time spent planning, with one student not performing planning. For time writing, however, students demonstrated 100% PND for timed and untimed essay writing.

Although students continued to demonstrate and maintain gains achieved in time spent planning and writing from baseline through generalization, there was a contrast in performance between timed and untimed essay prompts. For student performance during timed essay planning and writing this was evidenced by a moderate decrease in planning mean scores from post-SRSD fluency to post-SRSD multiple paragraph, as well as a moderate increase in writing from post-SRSD fluency to post-SRSD multiple paragraph mean scores. The mean scores for time students spent planning remained level from maintenance through the generalization phase. The mean scores for time spent writing continued to increase from maintenance to generalization. Through continued practice, students had learned to manage both tasks of planning and writing still producing quality essays within the time constraint. In contrast, for student performance during untimed essay planning and writing was different through the study phases. This contrast with the untimed measure was evidenced by a moderate increase in planning mean scores at post-SRSD multiple paragraph, with a moderate decrease in writing at post-SRSD multiple

paragraph over post-SRSD fluency mean scores, while maintaining gains over baseline mean writing scores. Student increases in time spent planning continued through the generalization phase with total time spent for untimed measures at 7:40 minutes for the generalization phase compared to 5.80 mean scores at the post-SRSD multiple-paragraph phase. In contrast to the timed writing measures, time spent writing decreased with the mean scores for writing at 11.60 minutes for generalization, compared to 17.00 minutes at post-SRSD multiple paragraph. With the Phase II instruction practice time students were learning to become more efficient at planning allowing more time to be spent writing. Despite changes in planning and writing times for both conditions students produced quality essays as evidenced in positive scores over baseline measures.

In review, the results from the planning and writing time probes across all phases indicated an increase over baseline mean scores for the amount of time students planned and wrote in the time spent writing persuasive essays for both timed and untimed measures. The substantial change in the amount of time spent planning acknowledges the impact of both SRSD fluency and SRSD multiple paragraph instructional phases on student planning and writing. In the following section, interview data will be reviewed to include both student and teacher comments regarding the time spent planning and writing their persuasive essays.

Social Validity Interviews

Both before baseline testing and again after posttesting, all of the students ($N = 5$) were interviewed to gather information about their writing skills, strategy knowledge, and their views of themselves as writers as well as the intervention after the study. Students

completed individual interviews with the researcher before completion of the SRSD pretesting phase, then again after the SRSD posttesting phase. Students were audiotaped and the tapes were then transcribed by an outside research assistant and reviewed by the researcher. The research assistant reviewed the transcription for 100% accuracy before the researcher reviewed each transcription to ascertain common responses.

Teachers of the students in the study ($n = 8$) were also interviewed after the post-SRSD multiple paragraph and maintenance phases of the study to explore whether teachers were experiencing any differences with student performance for writing in their classes. The eight teachers consisted of three English, three special education, one study skills and one history teacher, with two collaborative teaching teams of English and special education teachers, one at 9th grade and one 10th. Teachers were interviewed by the researcher. Teachers were audiotaped and the tapes were then transcribed by an outside research assistant and reviewed by the researcher. The research assistant reviewed the transcription for 100% accuracy before the researcher reviewed each transcription to determine common responses.

Student SRSD Pretesting Interviews

Study pretest questions. In these initial interviews students were asked about how they felt about writing and writing tasks, as well as their view of their abilities and skills as writers. Students were also asked about their current process for writing and if they used any particular tools or strategies. This initial information gave the researcher insight into the students' attitudes and perceptions about writing tasks and their writing skills upon beginning the writing instruction.

The first question asked if students liked writing. Four of the five students expressed dislike for writing; one student responded he enjoyed writing music for his band, but stopped doing any writing of stories for fun a while ago. Other comments for this question included Eli: “Terrible I don’t like”; Ann: “Uh I don’t really like to write a lot”; and Will: “I think when I’m actually into it I’m a creative writer. But if I’m not interested in I won’t really take the time.”

The next question asked students how they felt when asked to write in school. Responses were consistent that students ($n = 4$) were nervous about writing tasks. Responses included Eli: “I get nervous because um you know I want to get it done; I want to get a good grade”; Tom: “I’m it’s still a little nervous I could get a little nervous but um I think I have the capability to do it”; and Ann: “I feel tired before I start. Nervous ...kind of sometimes like I’m not going to finish, it’s so hard just because of the answer ...I don’t sometimes it’s a lot of work and can’t remember some things....” One student said his feelings were dependent on his interest in the prompt: Will:

Um it depends on what the prompt is. I mean if I decide I like writing the prompt on something that I have interested in then yes it’s easy but if like if I don’t have an interest in it then I don’t know I can’t likely write the first sentence.

Next students were asked whether they thought they were good writers. Two students described their abilities as “okay,” commenting on the need for improvement. Three students expressed more negative feelings about their writing ability, saying it wasn’t their “favorite thing” (Harry), that it was “kinda hard unless it was an interesting topic” (Eli), and it was not their “strong suit” (Wes).

Students were next asked about their process for writing, and if planning was part of their process. Three students said that they really did not have a process; all commented that writing was difficult. One student mentioned listing, outlining, or just thinking and one student responded that he or she used the Four Square strategy or listing. All students considered these practices part of the writing process, but did not identify these or any part of their process as “planning” with any focus; they all answered that they do no prior planning.

When asked about what tools they thought would help them with their writing, students had no response for any ideas except two students mentioned more practice. All students responded with enthusiasm about the idea of something else, a “tool” that could assist them with the writing process.

Students’ SRSD Posttesting Interviews

In this phase students responded to two sets of questions. The first set asked students to respond to questions similar to the Pretesting Interview, including about how they now felt about themselves as writers, their writing skills and what had changed with their writing. The second set of questions was strategy specific; written to allow students to express their views and opinions on their experience with the POW + TREE strategy they learned and practiced during the study.

Study posttest questions. First students were asked if writing was any easier now after completing the SRSD POW + TREE instruction or just the same. The response was unanimous that writing tasks were easier, with one student adding that his writing was “better”; another admitting “before writing was a struggle.” Responding again to how

they felt now about writing tasks, all students' ($n = 5$) responses were positive and even enthusiastic about their writing skill. Comments included Harry:

It feels really different it's like I guess it's just that before I was kind of stuck because I didn't know where to go and now it's like I just I know everywhere to go I know what to do. I know that it's not going to be a big task to do because I know what I'm doing I know how to just complete it.

Ann noted, "I'm a little more confident to write more." Wes stated, "I took an SOL test [Standard of Learning Virginia State Assessment in all major content areas, this one was 11th-grade Writing] yesterday and it went good I actually took one yesterday." Eli said,

For the SOL the practice I did POW TREE. On a sheet of paper I drew the graphic organizer, and then I filled it in and then I typed. It went quick. I felt like I did a good job.

Students were next asked to describe a recent writing task in school. Again all five students gave positive responses. Student responses included Harry:

The SOL's Practice and test. It was pretty it was pretty simple from knowing POW + TREE. I used scratch paper and then I actually typed it out when the rest of the class wrote it out. It went they went smoothly cause I knew what I was doing.

Ann said, "An English essay, I thought it was easier because I knew how I was supposed to write I think. It didn't take me as long and I understood definite like be." Ted noted,

I would still be a little nervous but I could do fine. Well there was this one time I had to write a script for drama class I had to write a play. I managed to write it the whole script all in one day.

When students were asked if their writing had changed and if now they were better writers, two students responded that planning was a tool that had supported their writing improvement. One student commented that he uses more examples and that his writing now flows because of transition words. When asked what they do now when having to write, four students responded that they plan before they write. One student responded using reasons, while a second student commented that he examined after writing now. One also commented that she wrote better conclusions. Comments were: Harry: "The whole planning thing...now. It made everything a lot easier what I do." Ann: "I put it in the order that you taught me. I do explanations and I have a topic before that and I have conclusions yes kind of go in that kind of order." Eli: "I plan before I write. I use more examples, it flows cause of transition words." Ted: "Plan it plan it out and then I'll start writing and then um examine this." Will: "I did make the bullet points for my like my reasons. Yeah because before I would just pretty much think I would pretty much start out on paper."

The following question was more specific, asking students what they actually did to organize their essay; all responded that they were using the parts of the POW + TREE strategy. Comments were as follow. Eli said, "Well first of all the topic sentence then there's my examples. My reasons and transition words on the side and then I have

counter reason and refute and then at the end I have this little box for ending.” Harry noted,

I go through most of the steps. I go through I basically write a paragraph about what it’s going to be about. What the story is going to be about what I’m going to talk about and go...you know the transition words and from there.

Ann stated, “I put it in the order that you taught me like and I do explanations and I have a topic before that and I kind of go in that kind of order.” Ted said, “Well basically I just write the topic and then I do all these lines, draw out the graphic organizer like I’ve been doing before by phase.” Will noted, “Yeah, from the POW + TREE.”

Lastly, students were asked again about knowing what tools could help them with their writing. All unanimously remarked in some way that the POW + TREE strategy was a tool they now use, describing how they go through the steps in their own words.

Strategy-Specific Questions

The following set of questions was specific to the POW + TREE strategy and the parts as well as use of the strategy. When given the initial question asking the student to tell the interviewer/researcher the strategy that they learned, all were able to name the letters of the POW + TREE strategy and the meaning and use of each step of the strategy as well. Next students were asked what they liked most about the strategy. Four students identified the organizer or organization of the strategy, with one student responding he “liked all of it.” Three students commented that the strategy made writing “easier” and that they “knew what I was doing now.” One student responded that he liked both “the reasons and counter reason.”

When asked specifically how POW + TREE strategy has helped your writing, each of the five students expressed positive comments when asked their opinions about the SRSD strategy POW + TREE instruction; all students also noted that it helped them to become better writers. Two students responded the graphic organizer was most helpful, while two students responded that the counter reason was useful, with Harry stating, “I think it um I think I liked it because it was more tricky with the counter reason.” Another response from a 10th-grade student summarized all the student comments: Ted said, “It’s really helped me become a better writer by being able to express myself and express my ideas.”

When asked if they thought POW + TREE could help other students, all were again enthusiastic in their responses. Two students responded generally, commenting “Yeah!” (Eli) and “Yeah absolutely!” (Tom), while the other three students were quite specific; Ann said, “It give them a guideline it makes you just put things down on that paper if maybe it doesn’t really make sense, and if it’s a faster writer and they might need like something to you know to follow.” Harry stated, “I do. Yeah transition words some kids might not know what they are.” Wes said, “If they had to write an essay like for history or something like that.”

Students also had the opportunity to be critics of the POW + TREE strategy and the instruction they received. Students were asked if you were the teacher, what you would change in the POW + TREE lessons. The unanimous response was no, nothing, with two students being more explicit; Eli said, “No it’s perfect,” and Wes noted, “No ’cause it’s so simple it’s like simple and you know it’s easy to pretty much grasp.”

The next question addressed the different writing time periods used for the writing instruction, asking which method was preferred and why, with one period being untimed and the other 10 minutes. Responses were mixed with two students preferring the 10-minute version, with Eli commenting, “I liked 10 minutes. Once you started you had to do something under ten minutes and I work good under pressure. Focus more.” Harry said, “Um I think the timed worked better for me because I just it was like a certain amount of time I had to do I knew I had to get it done in that time.” Three students chose the untimed, with Ann responding, “The untimed one you could finish it. I had enough time to complete one and organize one and then that helped me complete the other thing.” Ted said, “I preferred the untimed. It gives me more time to think on what I’m supposed what I want to write about.” Will detailed,

I liked the untimed a lot better because you know you don’t have a time limit.

You can just actually have more time to actually think about what you really want to say. If you don’t catch an idea or know what you’re thinking, you actually have time to think of something good and write about that.”

Students were next asked if they had used POW + TREE in any other classes and if yes, what other classes or assignments, and how had it helped them. All students had used the strategy in at least one other content class or test, with English as the most generalized content area with students ($n = 4$), and History ($n = 2$) second with students. Comments were: “English on essays & Science on tests” (Eli); “The SOL’s Practice and test. It was pretty it was pretty simple from knowing POW + TREE. It went smoothly ’cause I knew what I was doing” (Harry); “Probably English class and maybe world

history I mean we have a little thing that it wasn't really an essay, it was more like paragraphs" (Ann); "It was during the English exam. Uh actually...I don't think it was supposed to be like a persuasive essay, just a regular essay. If I did it again I would probably I say for history again too" (Ted). Will said,

In English they give us homework a lot so I have been using it there. It's usually either like half a page or like a full length page and I'll use it there. I used it at the SOL too. And like I said if I had to write an essay like for history or something like that.

The final question asked students was whether they used counter arguments in their writing and why they would use these types of arguments. All students responded that they now used counter arguments in their writing. Their responses were similar: Eli said, "I used it just as another point of view. I think it makes it stronger." Will noted, "I think it did for the specific prompt that I had [in the SOL]. I really think it did help make my essay better."

Overall, student responses indicated that students felt that learning the SRSD strategy POW + TREE instruction, both fluency with paragraph writing and multiple-paragraph essays, was a positive, worthwhile endeavor. The students expressed their enthusiasm with their progress and the improvements that they saw in their writing consistently after learning the strategy.

Teacher Interviews Summary

Teacher Demographics

There were a total of eight teachers: three English, three special education, one study skills and one history teacher, with two collaborative teaching teams of English and special education teachers, one at 9th grade and one 10th. The average years teaching was 19 years with a span of 6 to 25 years. All had their master's degrees.

Teacher Remarks Regarding Student Information

All teachers could identify and were familiar with students from the study in their classrooms since students were out of the classrooms for instruction. The following is a summary of teacher remarks during 30-minute interviews with each teacher during the maintenance phase of the study.

Describe the student's writing performance prior to the study? Teachers used adjectives including "sporadic," "disorganized," "incomplete," "rambles" and "awkward." Other comments that were more descriptive included "never finishes in-class assignments," "essays too short," "don't make any sense," "awkward wording," "poor mechanics and spelling," "writes but doesn't make a point," "won't write on chosen topics [English and history]," "won't stay on topic, wanders away from point," "refuses to write in class with time limitation," "won't accept help or support" and "stalls about writing and won't get started even with help."

After the study instruction during the last month, describe any changes in the student's writing performance? Were there any particularly significant changes? Unanimously, every teacher repeated "Effort!!" "Now the student will try

every writing assignment, especially in class.” One English teacher’s comment about the student was “the student wrote for an extended time and then asked to take it home to finish, I almost fell over!” Several mentioned that students asked for extra paper but never had before, and “watching them go back and draw their organizer.” Another English teacher noted that her 10th grader had never completed any in-class writing assignments, often refusing to work, but in March (end of instruction) “the student completed his first assignment in class of the term!” Two other words that were echoed were “longer,” and “organized.” After this comment, several teachers added that essays “made sense” with “complete sentences” and “ideas that were connected.” Also, another frequent statement was ‘now he/she wrote and followed the essay topic,’ along with, “stayed on topic.”

Describe the written products of these students after the study. All teachers said “longer” and “organized.” Two teachers of English and history remarked “completed essay matched essay topic.” All teachers stated that students now were writing on quizzes and tests all the time compared to previously, which was often not writing at all.

Did you observe behavior changes among any of the students? Several teachers commented that three of the boys were “much quieter, starting assignments quicker,” “obviously planning, making an organizer or listing ideas.” All said that these students were “more focused, staying on task longer than before.” One teacher commented that a student “asked great questions about assignments,” also asking recently “Do I give examples?” The same teacher commented that this student “completed in-class assignments without defiance, difficulty or questioning.”

Most echoed that students seemed to have more confidence about skill; an example was the study skills teacher stating, “The student looks me in the eye smiling, now, to hand in work, asks to do other writing practice in Study Skills class that this student otherwise would not.” Several teachers said now students were “asking for more time to finish instead of handing in incomplete class work.” A 10th-grade English teacher remarked that “The student offers to read their writing now when there is opportunity in class.” Also, an English teacher who proctored the recent Standards of Learning test (SOLS) for English 11th-grade Writing commented that the two 11th-grade students stayed in the exam until finishing, approximately an hour and a half, much to the surprise of the other teacher/proctors. In the fall during the practice tests these same students left after 20 minutes!

Based on your observations, do you feel this instruction had a positive impact on these students? All teaches remarked “absolutely,” followed with “worth the time from class,” and “when can I learn it?” Only one teacher critique was made about the writing instruction: The 11th-grade collaborative team said that “it should focus on mechanics too.”

Summary. It was evident through the interviews that all the teachers were not just positive but enthusiastic about the SRSD writing strategy instruction received by their students. Four of these eight teachers (50%) approached the researcher during the intervention and posttesting phases to query about the instruction because they were observing changes with student writing before the completion of the study. I explained they would be informed further once it was finished as I did not want them to influence

or question the students. The administrative contacts from both schools approached me to schedule professional development for the following fall.

Standardized Writing Measure

The WIAT III (Wechsler Individual Achievement Test 3rd edition, 2009) was administered during baseline testing and posttesting Phase II multiple paragraph to monitor student writing progress using a standardized writing measure. The test enables the assessment of a broad range of academics skills or only a particular area of need. There are four basic scales: Reading, Math, Writing, and Oral Language. Within these scales there are a total of 9 subtest scores. The writing scale has two sections; spelling: evaluates the ability to spell (written spelling of dictated letters, sounds and words that are read in sentences), and written Expression: assesses the writing process (writing letters and words as quickly as possible, writing sentences, and writing a paragraph or essay).

Examination of the Sentences, Paragraph, and Essay subsections, and individual subtotal scores on the Sentences section of Written Expression showed that, on average, there was a 20% increase in total points awarded to each student. On the pretest, spelling errors were abundant across all students' responses, thus increasing the Mechanics subsection total scores and decreasing overall points awarded. In Organization, all subtest scores for each student were within the bottom 20% of maximum number of points possible. Additionally, of the six Organization subsections, all but one student received a score of 0 on at least one section. Lastly, all students scored in the 25-50% range for varied vocabulary, and just 20% had evidence of an unusual expression.

On the posttest, four out of five students increased their word count by an average of 52 words. While this number is astonishing, it did result in punctuation, spelling, and organizational errors. However, the Organization subtotal on the posttest stayed relatively the same, suggesting that the students were maintaining the skills they had accomplished with many more words. Across Vocabulary posttest scores, two of five students increased their raw score total by 1 point, showing more varied, complex words were used. The Essay posttest showed relatively stable overall raw scores, with one student increasing total score by 9 points. On the Essay portion, the increase in word count was significant. All four students (one did not attempt the essay portion), on average, increased their number of words by 53 words. In addition, overall Mechanics subtotals were decreased, on average, by 2.75 points per student, suggesting that less punctuation and spelling errors were evident. Theme Development and Vocabulary scores stayed relatively similar across pre- and posttests for each student.

As a whole, the significant progress in actual number of words written allowed opportunity for more errors in spelling and punctuation, as well as organization, thus hindering the students' scores. Of the four students who participated in the pretest and postintervention measures, their average overall raw score for Written Expression increased by 3.5 points. Evidence of greater vocabulary was seen in the Paragraphs section, where more sophisticated mechanical writing skills were seen in the essays of the participants.

Summary of Measures

The analyses on all measures assessed in this study suggest that all of the students significantly improved their writing performance. By the end of the instruction, students wrote completed fluent paragraphs within untimed as well as timed 10-minute periods, and were able to capitalize on this foundational writing instruction to write longer multiple-paragraph essays with logical sequences. Both sequences of instruction led students to increase their overall performance with writing persuasive essays. Students were also able to use the strategy within the History content area as demonstrated again by increased overall performance measures with History prompts during the maintenance phase 30 days after instruction. In addition, students further demonstrated their understanding of the strategy by their increase in responses to the strategy knowledge probe. Significant increases in planning and writing time were also noted in the study results. Finally, student interviews both before and after the POW + TREE instruction provided insight and corroboration to the quantitative data. The following chapter provides a thorough discussion of major findings from the study.

5. DISCUSSION

The purpose of this study was to examine the effects of SRSD instruction with the POW + TREE strategy on the writing performance of high school students with disabilities taught in the general education inclusive classroom. Five high school students—three 10th and two 11th grade—with disabilities participated in the multiple baseline multiple probes design study (Kennedy, 2005). Student writing performance was evaluated at baseline, post-SRSD fluency, post-SRSD multiple paragraph, maintenance, and generalization for both timed and untimed dependent measures. The findings from this study demonstrated that students made positive gains from baseline in all written performance measures for both single-paragraph fluency and multiple-paragraph measures with persuasive essays, maintenance, and generalization essays. All students reported positive responses regarding their knowledge and implementation of the strategy across all measures. All students also notably increased their time spent planning and writing from baseline across all study phases for both timed and untimed measures. The discussion of major findings, educational implications, limitations, and implications for future research are addressed in the chapter.

Major Findings

The present study was intended to replicate and extend the previous SRSD research studies conducted with students with disabilities in the high school

and middle school settings (Cerar, 2012; Jacobson & Reid, 2010; Mason et al., 2010; Mastropieri et al., 2012). This study extended the research in several ways. In this study, SRSD instruction was modified by utilizing the SRSD strategy POW + TREE Quick Write or single-paragraph instruction focused on fluency as a foundation for teaching multiple-paragraph essays to high school students. This was done to examine if, after learning and mastering single paragraphs, high school students would learn to apply this knowledge to mastering multiple-paragraph essays (Cerar, 2012). A second extension to the SRSD research was accomplished through examining the amount of time students spent on planning and writing after instruction. A third extension was examining the above additional measures to SRSD research with both timed and untimed conditions within the same study in order to evaluate these changes to further quantify the impact of strategy instruction on student writing performance for high school students. A fourth extension was interviewing all the participants' English, Language Arts, or Academic Skills teachers, both general and special education, after the maintenance phase to examine whether teachers observed student writing differences as well as student attitudes toward written tasks.

Overall findings indicated that (a) all students made positive gains from baseline across all phases in number of words, sentences, paragraphs, transition words, essay parts, and overall holistic quality on both single-paragraph fluency and multiple-paragraph conditions; (b) student performance at maintenance and generalization was higher overall than baseline for both single-paragraph fluency and multiple-paragraph measures; (c) student planning and writing times increased from baseline across all

phases through postinstruction; with timed measures students maintained planning gains but adjusted writing times to meet time limitations during maintenance and generalization phases; (d) student attitudes and perceptions regarding strategy use were positive, showing overall improvement following the strategy intervention, especially in comparison to preintervention attitudes and perceptions; and (e) both general and special education teachers were positive toward SRSD strategy instruction based on observation of study participants' classroom writing performance postinstruction.

Writing Performance

This study investigated student writing performance with both single-paragraph fluency and multiple-paragraph essays at baseline, post-SRSD fluency, post-SRSD multiple paragraph, maintenance, and generalization. Essays were scored using six measures: number of words, sentences, paragraphs, transition words, parts of a persuasive essay, and holistic quality. The major findings from these measures by phase are discussed further in the following sections.

Posttesting Fluency

In the current study, all students demonstrated positive gains averaged across all six measures for single-paragraph essays with increases of 120% for number of words, 160% for number of sentences, 117% for number of paragraphs, 826% for number of transition words, 169% for number of essay parts, and 171% for holistic quality. Overall timed performance reported increased effect sizes across all dependent measures except for total paragraphs with fluency instruction since only one paragraph was taught and

written for all measures. Total essay parts and sentences had the most significant scores with parts scores' $ES = 2.30-3.00$, and sentences scores' $ES = 1.93-3.00$.

Individual PNDs reported for participants were high with minimal variability with the single-paragraph measure. One student scored 100% PND across all measures with a second also scoring 100% PND across all measures except for quality. The three remaining students scored 100% PND for the measures of sentences, paragraphs, transition words, and words, but scored between 60-80% PND on the measures of quality and parts. This variability resulted from these students still making the adjustment to working within a 10-minute time limitation after the first phase of instruction, while remembering to focus on organizing their single paragraphs and including all the elements for a quality essay.

This study's findings support previous SRSD POW + TREE strategy research with high school students with ED. Supporting the positive results of the current study's fluency measures, Mason et al. (2011) reported positive gains across three of the six measures of number of parts, number of words, and quality for participants. In contrast, Mason et al. (2012) reported variable results for high school students with LD for single-paragraph essay performances with only two measures of number of parts and number of words (statistics not available).

Mastropieri et al. (2012) taught SRSD writing instruction teaching timed single-paragraph essays during the second phase of instruction. Increases were noted across all single-paragraph essay scoring measures from baseline to post-SRSD. There was an increase in the number of essay parts, essay quality, number of words, number of

sentences, and number of transition words. Maintenance occurred 3 weeks postinstruction with decreases reported between postinstruction and maintenance for fluency with the number of essay parts, quality, and number of words, while showing increases for number of sentences and the number of transition words. However, overall increases were maintained from baseline through until maintenance. Despite reported variable findings at maintenance, large gains in performance were indicated on all essay measures remained above baseline.

Cerar (2012) also replicated Mastropieri (2010, 2012), however, reversing the order of instructional phases by placing fluency with a single paragraph before multiple-paragraph instruction—as was done in the present study—and demonstrated similar findings to the current study, with middle school students with ED. Cerar reported gains across all timed measures: parts, words, quality, sentences, and transition words for participants from baseline to postinstruction. However, from postinstruction to maintenance, which occurred 5 weeks later, only two measures were positive, words and transition words. Scores also dropped for postinstruction to generalization with students unable to maintaining previous gains, but showing positive scores for quality and words. The decrease in scores reported could possibly be due to participants having a lower level of writing skill and frequent difficulty focusing on instruction. This compares to the current study with positive scores reported across all measures.

In addition, Mason et al. (2009) conducted two studies with middle school students with ED. Results for both studies were varied for single-paragraph essay measures based on Quick Write fluency writing instruction. The additional use of teacher

modeling for instruction during the single-paragraph task did not produce anticipated performance gains from Study 1 to Study 2. Study 2 results for single-paragraph essays were varied with 8 of 10 students demonstrating performance above the 8-point criterion for elements during postinstruction, with a PND for all students at maintenance of 100%. The results for the quality measures indicated only 3 students demonstrated above-baseline measures on all postinstruction measures and 4 students were above baseline at maintenance. In addition, findings indicated students also made positive gains in the number of words written. Overall findings for Study 2 indicated gains across all phases and measures for 5 of the 10 students. The maturity and greater amount of practice and exposure to writing instruction experienced by the high school students could account for differences in the ability to maintain skills. Differences could also be attributed to the nature of the disability: In these two middle school studies, participants were students with EBD, known for having difficulty staying on task (Mason et al., 2009).

Mason et al. (2010) conducted a second study with five middle school students diagnosed with ED. Students received five 30-minute instruction sessions for writing single paragraphs or Quick Writes, followed by three 10-minute sessions. Findings were varied, reporting positive gains from baseline to postinstruction for the essay measures of essay quality and number of parts for all students, with all but one student decreasing for the number of words. Maintenance was administered 2 weeks later, again with varied results. All students maintained above-baseline scores for the number of parts; for quality four of the five students improved with a decrease in performance for one student.

Number of words was also varied with three students maintaining above-baseline scores and two showing decreases. Neither percentages nor PNDs were reported.

In the current study on high school students, all students demonstrated positive gains across all four of six measures for untimed essays during postfluency with increases for number of sentences, transition words, essay parts, and for holistic quality. Student scores dropped when given unlimited writing time for measures of number of words and number of paragraphs since at this phase the writing probes were measuring a single-paragraph essay, with only two untimed writing probes given during this phase.

Individual PND scores for untimed were high but with more variability than timed measures. One student reported 100% PND across all untimed measure, with two others at 100% except for one lower for the words measure, and one for the quality measure. Of the two remaining students, one student scored 100% with measures of words, sentences, and paragraphs, but lower for transition words, parts and quality measures. Another student reported 100% PND on measures of quality, parts, and transition words, but decreased scores for sentences, paragraphs, and words. This study's findings support previous SRSD strategy research with middle school students.

The decrease indicated in student scores for the measures of number of words and number of paragraphs when given unlimited writing time could be attributed to the higher baselines found with students with LD, especially when they receive instruction primarily in the general education inclusive setting (Mason et al., 2012). Mason et al. (2012) had a similar sample of students to the current study, with participants' primary diagnosis of LD and an additional diagnosis of a second primary disability, and with participants

receiving the greater percentage of their education in the general education setting. Mason et al. (2012) reported similar decreases and variability between individual participants with scores for the measures of number of words and number of parts. However, positive gains were maintained overall over baseline scores.

Posttesting Multiple Paragraph

For postinstruction multiple paragraph the current study reported positive results for student writing across all untimed multiple-paragraph measures, with increases in words, sentences, paragraphs, transition words, essay parts, and quality. These demonstrated gains remained equal or increased for untimed multiple-paragraph essay measures at the maintenance and generalization phases. Overall multiple-paragraph essay performance improved with large gains across all measures from postinstruction multiple paragraph to maintenance and generalization, with the number of sentences, essay parts, transition words, and quality with scores' $ES = 1.14-3.00$. Total paragraphs, sentences, and essay parts were high with scores' $ES = 2.12-3.00$, and quality scores for multiple paragraph to maintenance and generalization with scores' $ES = 3.00$. Individual PND scores were high with slight variability between students. Will and Ted demonstrated 100% PND across all measures, with Ann and Ted 100% across all measures except one: Ann for the measure of words and Ted for the measure of quality.

The positive results of this study are supported by several other studies using SRSD instruction measuring untimed multiple-paragraph essays as measures for student writing skills. Kiuhara et al. (2012), conducted research with a similar sample as the current study of high school students with multiple primary disabilities instructed in the

general education classroom, measuring only untimed writing measures and also including measures for time spent planning and writing. Kiuahara et al. taught the SRSD STOP, AIMS, DARE with three reported measures of essay performance: quality, number of words, and essay parts. Despite the increase reported overall by the study for postinstruction planning and writing times, student gains were varied; scores were positive in quality with only two students reported as meeting criterion for essay parts, and a slight increase indicated with variability in scores between participants for the number of words (statistics unavailable). The research provided participants with a brief “booster” before the second postinstruction writing measure. Kiuahara et al. (2012) reported five of six students slightly increased their quality scores at postinstruction, while maintaining gains overall from baseline through maintenance measures.

Other high school studies did not measure for planning, but reported positive results for untimed SRSD instruction writing measures. Jacobson and Reid (2010, 2012) employed the SRSD STOP + DARE persuasive strategy with students with ADHD. Three measures were reported: number of essay parts and holistic quality respectively for both studies. Similar to the present study, Jacobson and Reid (2010, 2012) reported positive findings for the measure of number of words above baseline scores through maintenance.

Mastropieri et al. (2010) taught students to write multiple-paragraph persuasive essays using SRSD POW + TREE. Participants were middle school students with moderate EBD attending a special school within the public school district. Their writing skills were lower than their peers at grade level with their learning complicated by

behavioral challenges. Increases were noted across all essay scoring measures from baseline to post-SRSD. There were increases reported for the number of essay parts, essay quality, number of words, and the number of transition words. Maintenance occurred 12 weeks post-SRSD and results indicated decreases across all scoring measures. Performance on all essay measures remained above baseline, despite decreases noted between post-SRSD and maintenance in the number of essay parts, essay quality, number of words, and number of transition words.

Mastropieri et al. (2012) taught SRSD writing instruction, teaching multiple-paragraph essays during the first phase and single-paragraph essays for fluency during the second phase. Increases were noted across all multiple-paragraph essay scoring measures; essay parts, quality, number of words, number of sentences, and number of transition words from baseline to post-SRSD. All essay measures remained above baseline through maintenance occurring 3 weeks postinstruction. Results were varied for the number of essay parts and quality, with decreases reported between postinstruction and maintenance in the number of words, number of sentences, and the number of transition words.

In Cerar (2012), instruction followed the same lesson sequence as the current study: Middle school students received fluency instruction first and then were instructed on how to write a five-paragraph essay. Cerar reported significant gains for all essay measures from baseline to postinstruction multiple paragraph; results included essay parts, quality, words, sentences, and transition words. Results indicated positive gains over baseline with decreases for measures from postinstruction to maintenance and generalization. Scores from postinstruction to generalization were positive for quality,

sentences, and transition words, with all other measures indicating decreases. Cerar (2012) administered maintenance testing 5 weeks after the completion of multiparagraph posttesting, a week later than the current study.

Hauth (2012) was another study implementing SRSD POW + TREE persuasive writing instruction with middle school students with EBD who received a greater percentage of their instruction in the inclusive classroom. Students were taught SRSD POW + TREE in the initial phase of instruction followed by a second phase where students were taught SRSD + Content. For the initial phase, SRSD POW + TREE, there were large gains indicated across all multiple-paragraph essay measures. Visual analysis of Hauth (2012) indicated 100% PND for number of essay parts, essay quality, and number of words from baseline to post-SRSD. Students were administered two maintenance essays: one SRSD essay 4 weeks after intervention and one SRSD + Content essay 3 weeks after intervention. Results indicated increases for the number of essay parts and essay quality, with decreases for the number of words, sentences, and transition words from post-SRSD to maintenance. Overall results indicated student performance remained above baseline through maintenance.

The results of these middle school studies employing SRSD POW + TREE writing instruction further support the effectiveness of the intervention of SRSD persuasive writing instruction strategy in the current study regarding student scores across the measures of number of sentences, paragraphs, transition words, essay parts, and holistic quality.

Maintenance and Generalization

Results for the current study indicate that overall, for both single-paragraph and multiple-paragraph writing measures during maintenance and generalization, students either remained at the same levels as postinstruction or improved at maintenance and generalization with few exceptions. All writing measures during the timed phases of maintenance and generalization demonstrated large gains across all measures. Positive results were indicated for all timed measures during maintenance. Results for generalization measures also demonstrated positive gains.

Single-paragraph essays. Writing research at the high school-level reporting maintenance and generalization indicates variable results with some decreases reported in student writing measures at these phases. For single-paragraph timed writing measures, only two studies (Mason et al., 2011, 2012) were conducted for single-paragraph essay measures including a maintenance phase. For the Mason et al. (2011) study three students with ED participated. These students received their instruction primarily in the self-contained special education setting. Positive results were reported at maintenance with all students remaining above baseline levels for the essay measure of quality, two of the three students above baseline levels for both essay measures of words and parts, and one student demonstrating a decrease in scores for each of these measures. Mason et al. (2012) taught single-paragraph SRSD fluency Quick Writes to four high school students with LD. Two essay writing measures were reported at maintenance with all students remaining at or above baseline levels for the measure of essay parts. For the measure of

number of words three of the four students remained at or above baseline levels and one student indicated a decrease in scores.

Two middle school studies by Mason et al. (2009, 2010) also reported varied results at the maintenance phase, which was administered 2 weeks after instruction. For Study 1, for the measures of quality and parts all six students were above baseline measures through maintenance. For Study 2, results indicated all 10 students were above baseline measures for the number of words. For the quality and parts measures, scores indicated only 4 students were above baseline at maintenance.

Mastropieri et al. (2012) also conducted single-paragraph essay measures for both maintenance and generalization with middle school students with EBD from the general education classroom setting. Results were varied with positive gains reported for sentences and transition words, with decreases indicated for all other measures. However, student scores remained above baseline for all measures. Results for generalization indicated decreases in scores across all essay measures from postinstruction

Cerar (2012) also conducted single-paragraph essay fluency measures at the end of the first phase of instruction. Cerar performed postinstruction phases to measure maintenance and generalization. Results for single-paragraph maintenance essay measures were positive for words, sentences, and transition words, with scores indicating decreases for parts and quality. Results demonstrated for generalization indicated positive scores for quality and words. Despite varied scores from postinstruction to maintenance and generalization, all students maintained significant scores above baseline levels for

these two phases. Decreases, however, were demonstrated for the measures for parts, transition words, and sentences.

Overall, single-paragraph measures at maintenance and generalization demonstrated that all students maintained or improved slightly over postfluency and postmultiple-paragraph levels. Positive results for all single-paragraph measures during maintenance were indicated with larger effect sizes indicated for the essay measures of words sentences, paragraphs, parts, and quality. During generalization positive results were also demonstrated for all essay measures. These positive findings for both maintenance and generalization support the ability of students to maintain skills learned from instruction and to generalize to other content areas.

Multiple-paragraph essays. For multiple-paragraph writing measures, four high school studies reported scores at maintenance with primarily positive results; only one conducted a generalization measure. Kiuahara et al. (2012) reported five of six students slightly increased their quality scores at postinstruction, maintaining these gains during maintenance measures, but no percentages are reported. In contrast, Jacobson and Reid (2010, 2012) conducted two research investigations teaching SRSD persuasive writing to high school students with ADHD with both reporting overall positive results at the maintenance phase. Jacobson and Reid (2010) was conducted with three students and indicated students were able to maintain their large gains over baseline measures for all writing measures of essay parts, words, and transition words. For the measure of quality two of the three students maintained higher scores with one student demonstrating a decrease. Similar to this current study, in Jacobson and Reid (2010) students were

reported to increase measures at maintenance over postinstruction levels with the measure of transition words and quality. In the second study conducted by Jacobson and Reid (2012), students maintained positive gains across all essay measures for quality and number of parts, words, and transition words. For both studies maintenance prompts were administered at 2 and 4 weeks.

Chalk et al. (2005) is the fourth study and the only one to conduct generalization. This study taught 15 students with learning disabilities in the general education classroom using SRSD writing strategy instruction. Students received five 25-minute instructional sessions and both maintenance and generalization were administered 2 weeks after postinstruction. Results indicated positive scores for the writing measures of words and quality for both these phases with students continuing to demonstrate increases through generalization.

These four research studies support the current study, providing evidence that high school students with disabilities are able to maintain writing skills learned through SRSD writing instruction. Despite only one study performing generalization with high school students, results were also positive, further supporting the results demonstrated in the current study for generalization.

Several middle school studies previously discussed have conducted SRSD multiple-paragraph writing instruction with positive and also varied results for maintenance and generalization. Mastropieri et al. (2010) conducted maintenance but not generalization with students diagnosed with ED from a separate district school. Decreases were noted between post-SRSD and maintenance for the number of essay parts, essay

quality, number of words, and number of transition words. Although decreases were indicated for this study at maintenance, performance on all essay measures remained above baseline for the maintenance phase.

Mastropieri et al. (2012) also conducted multiple-paragraph essay measures for both maintenance and generalization with middle school students. For the maintenance phase positive results were reported for the essay measures of sentences and transition words, with the measures for the number of words, essay quality, and parts showing a decrease. Results for generalization indicated decreases in scores from postinstruction reported for sentences, transition words, parts, quality, and words. While decreases were reported between phases, all scores remained positive over baseline for both phases.

The research conducted by Cerar (2012) previously discussed also administered postinstruction phases to measure for maintenance and generalization. Results for multiple-paragraph maintenance essay measures were positive for quality, words, transition words, and sentences, with scores indicating decreases for parts. Results for generalization indicated positive scores for quality, sentences, and transition words. Decreases were demonstrated in the measures for parts and words. Despite these varied scores from postinstruction to maintenance and generalization, all students maintained large scores from baseline levels for these two phases.

Hauth (2012), also previously discussed, also conducted maintenance with variable results from postinstruction to maintenance but with all scores remaining high above baseline levels. For the maintenance phase positive results were indicated for the

essay measures of parts and for quality. Decreases were reported for measures of words, sentences, and transition words.

Planning

The results for the current study for the use of planning as part of the writing strategy instruction taught to high school participants are supported by positive findings for both general education settings with non-SRSD instruction, and special education settings using SRSD instruction. There are 9 of 11 recent high school studies which included planning as part of their writing strategy instruction: Wong et al. (1996), Walker et al. (2005, 2007), Chalk et al. (2005), Kieft et al. (2007), De La Paz (2010), Jacobson and Reid (2010, 2012), and Kiuahara et al. (2012).

Of these nine previously reviewed studies, four were taught in the general education setting using non-SRSD instruction with only one measuring planning (Kieft et al., 2007). The remaining five taught planning as part of the SRSD strategy instruction with only three including a measure for student planning to compare with student postinstruction essay writing measures: Jacobson (2010, 2012) and Kiuahara et al. (2012). The essay writing results of these three studies reporting results using a planning measure directly compare to the current study by considering student planning as it relates to student writing outcomes.

Kieft et al. (2007) measured the effect of strategy use on student written products by measuring the quality of students' written products while using a planning strategy. This data was compared to student scores for quality essays using a revising strategy in an alternate condition. Results demonstrated students in the planning measure produced

better quality and more complete essays. Jacobson and Reid (2010, 2012) used a measure from student written plans which were scored using a rubric, and also measured time spent planning and time writing. Kiuvara et al. (2012) also used time spent planning and writing. All studies used untimed measures for student essays with all reporting positive findings for student essay writing instruction. Three middle school-level studies with students with disabilities—De La Paz (2001), De La Paz and Graham (2002), and Englert (2009) used scores from students' written plans to measure planning done while writing. Englert (2009) specifically measured content area planning and writing by reviewing and scoring completed social studies and science written plans. Two other previous elementary SRSD planning and writing studies (Troia & Graham, 2002; Troia et al., 1999) have used similar measures as Jacobson and Reid (2010, 2012), using time spent planning and writing and scores from student writing plan. Troia and Graham (2002) and Troia et al. (1999) used a measure for the number of prepositions included in a student's written plan.

The results for the current study demonstrated positive gains with time spent planning during single-paragraph writing measures, with increases indicated across all phases after no time spent on planning during baseline measures. For postfluency, an initial moderate increase in planning time was demonstrated. For the following three phases, planning time decreases slightly, leveling off yet still remaining positive above baseline results. Parallel to planning time increases, the percentage of time spent writing at postfluency indicated a moderate decrease to 3.80 minutes after spending 8.00 minutes at baseline, with students remaining within the ten minute time limitation for total writing

time. For the following three phases, slight increases were indicated for writing time at each phase with writing time reported at 7.20 minutes at generalization. The total time spent both planning and writing during the timed writing condition indicates a trend which follows the shifts in planning time. At baseline the average total time spent both planning and writing is 8.00 minutes. Postfluency demonstrates a moderate increase in total time to the maximum time allowed of 10.00 minutes with the multiple-paragraph phase also reporting student averaging the maximum time. For the following phases, decreases were indicated for total time reporting 9.00 minutes at maintenance and 9.60 at generalization.

The results for the current study also demonstrated positive gains with time spent planning during multiple-paragraph writing measures, with increases demonstrated across all phases after only one minute of time spent on planning during baseline measures. Results demonstrate an initial moderate increase in planning time to 8.60 minutes for postfluency. For the multiple-paragraph phase, planning time demonstrates a moderate decrease while still remaining positive above baseline results at 5.80 minutes. For the maintenance and generalization phases planning time indicates increased gains over both phases with student averages of 6.40 minutes and 7.40 minutes respectively for the two phases. The percentage of time spent writing follows an opposite trend, with writing time averages at postfluency demonstrating a moderate increase from 11.20 minutes at baseline to 18.20 minutes. For the following phases, time spent writing indicates a slight decrease from postfluency levels to 17.00 minutes at multiple paragraph, 12.80 at maintenance, and 11.60 minutes at generalization. Total time spent for both planning and

writing also follows this same trend with the total time average reporting a moderate increase at 26.80 minutes for postfluency. The following three phases indicate a slight decrease at each phase with total time of 19.00 minutes reported at generalization.

The results of the current study possibly demonstrate that students attempted to balance new planning and writing skills to accomplish the writing goal assigned, whether a single paragraph within a 10-minute time limit, or a multiple-paragraph essay within an unlimited time period. For both single-paragraph and multiple-paragraph conditions, results demonstrate large shifts for the postfluency phase as students appear to incorporate using new skills to meet their writing goals with the changes in total time spent for writing and planning supporting this shift. During the next three phases, keeping the assigned writing goal in mind, student times for both planning and writing appear to demonstrate student integration of planning time and accommodation for more or less time needed for writing. This adjustment is evidenced with the trend in total time for planning and writing for both single-paragraph fluency and multiple-paragraph essays; total time spent planning and writing demonstrates a slightly decreasing trend as students appear to become more efficient with their planning and writing skills while managing the time taken to accomplish the given writing assignment.

The scores for student essays overall do not appear to reflect these shifts in time between planning and writing with either single-paragraph or multiple-paragraph results, with percentage gains indicated for all measures during maintenance and generalization phases. Visual analysis of overall essay quality for single-paragraph and multiple-paragraph measures of student essays revealed 100% PND. Student balancing of both

planning and writing appears to have taken place whether within a limited time, or with unlimited time while accomplishing the goal of a quality written essay.

The current study extended existing SRSD writing strategy research by measuring student time planning and writing during timed essay measures. Additional research is needed for these grade levels and for planning and writing utilizing both single-paragraph and multiple-paragraph essays, potentially providing valuable information for supporting student skills of planning and writing, especially given the added challenges of high school curriculum and state assessments.

The present study also extends existing research by providing a comparison of student planning and writing skills during both timed and untimed measures. This research possibly provides critical feedback for improving the writing skills of high school students with disabilities, supporting the additional challenges found in high school curriculum and additional statewide assessments often required for graduation (Coker & Lewis, 2008).

This ability to learn and also balance the skills of both writing and planning demonstrates that high school students with LD have a need for and respond to direct, explicit, and systematic instruction in order to improve their academic performance (Graham & Perin, 2007a, 2007c). When a more mindful approach is undertaken, responding is withheld as the task is analyzed and possible solutions are generated and evaluated, including drawing new connections between the elements of the current situation and previous knowledge, skills, and strategies. Students with LD begin to apply mindful procedures, as they tend otherwise to be more passive and less mindful during

learning than their regularly achieving peers (Troia, 2002). Wong et al.'s findings (1996) support the results of this study and the balancing of skills by students. Wong et al. concluded that as students learn to apply the new strategies to writing more broadly on self-selected assignments, and during and after instruction, they are provided ample opportunities to reflect on the principles underlying the strategies, the connections between use of the strategies and performance, and how the strategies needed to be applied and modified for current and future tasks.

The recent research by Jacobson and Reid (2010) conducted with three high school students with ADHD reported similar findings to the current study with measuring planning and writing time post-SRSD instruction for untimed essays. After completing instruction, all participants demonstrated an increase in the amount of time spent planning from baseline to postinstruction, with a decrease during follow-up maintenance phases at 2 and 4 weeks. All three students from whom follow-up data was taken saw decreases in planning time from the independent performance phase to follow-up. Despite decreases in planning time, student quality scores were maintained and even higher at the 4-week maintenance, demonstrating the highest mean quality scores overall. Based on the fact that students did continue to make a written plan, using planning time productively and following through at least maintaining or improving quality during these phases, Jacobson and Reid also reported that it appeared that students in their study became more efficient in planning once understanding planning as a strategy. Similar to the current study in demonstrating reduced planning and writing times while maintaining quality writing scores, findings from Jacobson and Reid (2010) support the present study,

also indicating that students became more efficient once planning as a strategy was understood. In addition, the current study provided longer instruction time and planning practice with inclusion the first phase of fluency. This additional time and instruction could possibly account for the ability of students in the current study to balance and manage the skills of planning and writing. Maintaining or improving quality writing scores with reduced planning and writing times supports a strong treatment effect in the current study as well. Results from both studies indicate that students changed how they wrote as planning became part of the writing process (Troia & Graham, 1999).

In a second study with students with ADHD, Jacobson and Reid (2012) reported results for planning and writing untimed essays with four high school students with ADHD. Findings indicated that planning time increased after postinstruction with all students beginning with using zero planning time at baseline. Planning time averaged 18.5 minutes with one student spending 36 minutes for planning. At the 2- and 4-week maintenance phases, students continued to spend more time planning than in baseline, but not at the same levels as postinstruction. At 2 weeks students averaged 12 minutes' planning, at 4 weeks students averaged 11 minutes. One student did not participate in maintenance. Despite having unlimited time, students still decreased planning time but only slightly, still maintaining steep gains over baseline. For writing time, students spent an average of 5 minutes writing at baseline compared to an average of 30 minutes writing at postinstruction. Students maintained the larger gains over baseline but times decreased slightly to 27 minutes an average for all of maintenance.

These results are similar to the current study for multiple-paragraph untimed essays measuring planning and writing, with results indicating more positive increases for planning time in the maintenance and generalization phases, with slight decreases in writing time. The previous Jacobson and Reid (2010) study also supports these decreases. This outcome could possibly be the result of students in the current study being influenced by learning to both plan and write within a 10-minute time limitation, in addition to having unlimited planning time to write. This additional instruction and practice may have contributed to students becoming more efficient with their skills, learning to balance planning and writing to produce quality essays to meet the writing expectation given with or without time constraints. Results for the two Jacobson and Reid (2010, 2012) studies support the findings for planning and writing in the current study for multiple-paragraph measures.

Results from both Jacobson and Reid (2010, 2012) and the current study illustrate that students at the high school level with learning disabilities are able to improve essay writing scores and also maintain increases in writing scores continuing to produce quality essays while adjusting planning and writing times to meet their writing goals. Acquisition of these skills would be a positive step for high school students with disabilities in meeting the challenges of a more demanding curriculum and assessments at this grade level.

A fourth study at the high school level including a planning measure was Kiuvara et al. (2012). Instruction taught in this study was SRSD persuasive writing strategy instruction with a similar sample as the current study of students with multiple primary

disabilities instructed in the general education classroom. This study provides additional support with variable findings for time spent planning and writing during multiple-paragraph writing measures. Kiuahara et al. (2012) reported student planning time increases postinstruction. Planning and writing times percentages for maintenance were not given. This study also reported that students who spent more time planning spent more time writing. Despite the increase reported overall by this study for postinstruction planning and writing times, one major difference from the previous three planning studies was student essays did not all demonstrate significant gains in scores. Only two students were reported meeting 100% criterion for essay parts. Kiuahara et al. (2012) reported five of six students only slightly increased their quality scores at postinstruction, also maintaining gains during maintenance measures, but no percentages are reported.

Elementary-level research by Troia et al. (1999) also measured time spent on planning and writing with three fifth-grade students with LD. This study incorporated the SRSD strategy to teach students to write in multiple genres, including persuasive essays. Results indicated that planning and writing time increased from baseline as did the quality scores for persuasive essays. Similar to the current study, students spent almost no time on planning at baseline. Positive changes were demonstrated with student planning behavior following instruction, and all three students used the strategy to write essays during the posttesting and maintenance phases. This study indicated that students postinstruction never spent less than 12 minutes planning in advance and overall spent more than 20 minutes writing. Similar to skilled writers, students spent as much time planning essays as they did writing.

These four studies along with the current study and previous research suggest that increases in planning and writing time lead to better understanding of the strategy and influence the quality of students' writing (Troia & Graham, 2002). All five studies, four with high school students and one with elementary students, all reported consistently positive results from student essay measures postinstruction, as well as maintenance and generalization. The results from these five studies support the findings of the current study as well as demonstrate that teaching planning strategies via SRSD leads to improvements in four aspects of students' writing performance: quality of writing, knowledge of writing, approach to writing, and self-efficacy (Troia et al., 1999).

Findings from the current study, along with previous research cited, provide support that SRSD strategy instruction improves the writing performance of students with LD by teaching them to set goals, brainstorm ideas, and organize their ideas in advance of writing. These findings also support the hypothesis that students with LD benefit from explicit writing instruction designed to help them improve their planning behaviors. The current study also adds to a growing body of literature showing that the writing difficulties of students with LD are related, at least in part, to difficulties with planning (Graham & Harris, 2009), as instruction in planning resulted in improvements in these children's writing performance.

Social Validity

Findings for social validity included data from several sources, first from student interviews conducted prior to baseline to assess each student's feelings and attitudes toward writing, their own skills detailing their writing process, and any strategies they

used before or during writing. These preintervention interviews conducted in the current study were an extension of previous SRSD writing research with high school-, middle-, and elementary school-level students. In previous SRSD studies only postintervention interviews were performed to assess social validity (Hauth, 2012; Jacobson & Reid, 2010, 2012; Kiuvara et al., 2012; Mastropieri et al., 2009, 2010, 2012; Troia et al., 1999; Troia & Graham, 2002).

At postinstruction, students were interviewed again about their attitudes and feelings toward writing as well as perceived changes their skills, strategy use now and in the future, and social validity of the SRSD POW + TREE strategy. All participants demonstrated their strategy knowledge with not only quick recall of the POW + TREE mnemonic, but also expressing why the strategy was useful for them. All of the students reported that they felt they were better writers after the instruction, detailing which particular skills had improved, with planning being the new skill that all had unanimously acquired. Each student articulated that the strategy was useful for them because it “helped them get organized,” was easy to remember, and they felt it would be useful for other subjects and other situations such as testing. In addition, students found that the strategy supported them now in becoming “good writers,” expressing confidence in their skills and abilities.

These comments were in contrast to preinstruction interviews where all students verbalized lack of confidence in their writing skills, along with their overall dislike and added anxiety when presented with writing tasks in school. Overall, students felt that other students would also benefit from learning the strategy and there was nothing they

would change in the instruction. Surprisingly, most students commented their favorite part of instruction was the timed instruction and practice, feeling they had benefited most from these lessons. Knowledge from the start of a writing task that there was a shorter writing time was clearly a positive with all students. All five participants reported that they had used the strategy outside of the study in classes such as English, history, and study skills class, as well as during subject tests and recent practices for state assessments of writing. The positive findings at postinstruction are similar to those reported by students in previous studies by Mastropieri et al. (2009, 2010, 2012) and Mason et al. (2010, 2011, 2012) in support of the POW + TREE strategy instruction.

Important Findings

The current study included several extensions of previous SRSD writing research. The first was to include measures for single-paragraph fluency using a 10-minute time limitation, and multiple-paragraph essay writing measures, in the same writing intervention. Previous research with high school students to date employed either single-paragraph fluency or multiple-paragraph essay measures, but not both measures within the same study. Previous studies using single-paragraph 10-minute essay measures have been performed singularly by Mason et al. (2011, 2012) with high school students with ED and LD using the SRSD Quick Write strategy. Mason et al. (2009, 2010) also conducted research using the Quick Write strategy with middle school students with ED. Results of this research demonstrated primarily positive findings with moderate variability.

All other high school writing research, SRSD and non-SRSD, general education and special education, or combined classes, has all employed multiple-paragraph essay measures (Chalk et al., 2005; De La Paz & Felton, 2010; Jacobson & Reid, 2010, 2012; Kieft et al., 2007; Kiuahara et al., 2012; Walker et al., 2005, 2007; Wong et al., 1996). The middle and elementary school writing research reviewed previously was all conducted using multiple-paragraph writing measures with the exception of four studies at the middle school level; previous studies by Mastropieri et al. (2009, 2010, 2012) and Cerar (2012), which included both single-paragraph and multiple-paragraph measures in separate instruction phases as part of their SRSD writing intervention. All of these studies indicated positive results for student essays from baseline to postinstruction and maintenance.

The use of both single-paragraph fluency and multiple-paragraph measures also allowed for another important finding from this study as an extension of previous investigations: critical comparison of results for time spent planning and time spent writing during the different measures, and between-phase comparisons. High school students are often required to perform both timed and untimed measures not only to meet curriculum challenges, but possibly for state and national assessments as a requirement for graduation (Coker & Lewis, 2008; Schumaker & Deshler, 2009). Additional research in this area is needed to further demonstrate the possible relationship between student use of planning and writing skills as it relates to time demands for writing tasks, and the writing performance of students with disabilities at the high school level. Understanding this comparison and how it might support high school students with disabilities through

practices facilitating writing strategy instruction and continued writing practice are critical as these students face challenges, not only with demanding curriculum but with state and national assessments. Teaching high school students with LD to organize their thoughts in terms of being able to create proficient responses to prompts in state standardized testing; meeting these possible challenges to graduation is crucial for their success (Schumaker & Deshler, 2009).

The current study also replicated at the high school level the social validity measure of conducting interviews prior to baseline in addition to postinstruction to gauge students' beliefs and feelings about writing and the intervention (De La Paz, 2005). These additional interviews assessed students' feelings and attitudes about writing, their skills, what writing process they currently used, and writing strategies used if any. This additional information provided insight to the researcher into individual student writing experience and processes, as well student self-efficacy in regard to writing tasks and their individual writing skills. Comparison of this data against information collected during student interviews at postinstruction became especially valuable, providing added support of individual student progress resulting from strategy instruction, as measured by postinstruction essay scores. This comparison also served as incidental support for positive changes in student self-efficacy and confidence related to the strategy intervention.

This comparison was further supported by the additional extension of conducting interviews at maintenance with the students' subject teachers that actively included writing in their curriculum. Over the period of the research intervention, as well as the 4

weeks prior to performing maintenance prompts, all eight teachers reported observing visible, measurable, positive changes in students' writing performance. Multiple teachers for individual students reported positive observations; for example, for Ann, both her team teachers for English and study skills teacher provided writing examples from completed work. For Eli, both his two team teachers for English and his History teacher provided positive feedback and examples from completed work. Additional incidental positive support was provided for the two 11th-grade participants in the current study: Will and Harry not only passed their state assessment for writing taken late March just after the completion of the study posttesting, but scored 453 and 480 with the required score for passing being 400.

Limitations

The current study has several limitations. The first is that the sample of five students was small, especially after beginning with seven. Accomplishing research in the high school setting has several challenges not found in lower grade levels with students with disabilities. Often high school students with disabilities experience inconsistent attendance, suspensions from school for behavior, as well as difficulty managing increased quantity and quality of academic work. Kiuvara et al. (2012) experienced attrition of a participant for one of the same reasons as the current study: lack of time for homework.

The second limitation was the selection process. Because of the complexity of high school schedules and the need for daily instruction to accomplish the current study's instruction, students were chosen and grouped together by convenience of schedules

without a measure of writing ability or grouping by ability. Given the higher grade levels of 10th and 11th grade and receiving 100% of their education in the general education setting, there was a large variability of writing ability in the sample, resulting in higher performance on some baseline writing measures.

A third limitation was the use of a token economy. Use of rewards for positive writing behaviors may have motivated students' performance, making it easier to teach the strategy. This may have supported student engagement in writing tasks. However, the rewards to students ended at postinstruction and were not part of maintenance or generalization phases.

A fourth limitation was that SRSD POW + TREE strategy instruction was the only writing instruction delivered. No other writing strategy instruction for revision, structure, grammar, or mechanics was part of the intervention with study participants. Also, persuasive writing was the only genre of writing instruction taught. Strategies for narrative or expository writing were not taught to students.

A fifth limitation was the method used to deliver study instruction. This study facilitated instruction through small groups as participants were "pulled out" of their general education content-area classrooms. Within the district where the study schools were located, core curriculum for English for all grades 9-12 is deeply rooted in state standards of learning with regular state assessments being delivered throughout the 4 years of high school. The option was not made available for the researcher to take over an existing classroom, which would have facilitated study instruction for a period of several months in this district. However, the method of delivery for supplemental instruction for

students used most often in the high school setting is “pull out” or “resource” (Zigmond, 2003). In addition, the majority of writing strategy research with general education, special education, or combined classrooms across all grade levels is pull-out instruction.

A sixth limitation of this study was that data from higher stakes assessments and testing was not collected or considered as a measure of the study. This information could be valuable with high school students to measure the success of writing strategy instruction, but there is variability between different state assessments and other standardized high stakes assessments, making for added complexity for including this variable as part of writing instruction research. However, other writing studies have been successful with inclusion of this variable, albeit adding fewer additional measures to the research study (Bui et al., 2006; Schumaker & Deshler, 2003).

Implications

It is clear that, given the small number of writing strategy instruction research studies at the high school level, additional research is needed across all educational settings with both typically performing students and students with disabilities. Given the increased demands made on high school students both with curriculum and possible additional challenges of state and national assessments, this research is important for providing additional support to practice and training for teachers. This study replicated several previous middle school investigations that facilitated both single-paragraph fluency and multiple-paragraph measure studies (Cerar, 2012; Mastropieri et al., 2009, 2010, 2012). In addition, extensions of previous research were included in support of

providing more critical data for high school students and the additional challenges they face.

This study also provided positive information to the small existing body of evidence that teaching students with disabilities strategies for planning and writing persuasive essays can have a positive effect on students in two ways: on how they write (more time spent planning and writing, learning to be efficient performing both skills) and what they write (producing better quality and more complete essays).

First, more research is needed including both single-paragraph fluency and multiple-paragraph essay measures. The information in the current study is different from previous middle school findings. First, in alignment with the above single-paragraph fluency and multiple-paragraph measures, maintenance and generalization should be included as a measure when possible, and also to be assessed at longer intervals. Ten of the 11 high school investigations to date have included maintenance as an additional measure at either a 4-week interval (Chalk et al., 2005; De La Paz & Felton, 2010; Kiuvara et al., 2012; Walker et al., 2005, 2007; Wong et al., 1996), or at both 2- and 4-week intervals (Jacobson & Reid, 2010, 2012). These studies all used only the multiple-paragraph condition for essay measures and reported significant results from baseline to maintenance, but indicated variable results from postinstruction to maintenance. The sole previous research study from this grade level performing generalization was Chalk et al. (2005), indicating findings with variable results. Investigating what conditions facilitate high school students in learning to generalize skills across content areas could provide

much-needed support for this group of students as they navigate the curriculum demands found at these grade levels.

Second, when possible, more writing strategy research should include specific methods for measuring student planning, skills, and the effects on written essay products. Only three previous high school studies actually collected data by measuring time spent planning or concrete evidence of student planning efforts. All of the high school writing research to date measuring student time planning and writing (Jacobson & Reid, 2010, 2012; Kiuvara et al., 2012) has implicated the overall positive effect of this skill on student writing products through reporting positive research findings. The possible influence of the ability to perform advanced planning when writing on high school students' completed written products could be a tremendous support for students with disabilities to navigate high school successfully.

Third, when possible, researchers should attempt to use more extensive qualitative measures to support strategy instruction success with both students and teachers. Researchers should hopefully acknowledge all of the potential consequences and benefits of doing additional qualitative investigation, especially given the limited amount of time high school students have to acquire needed writing skills and improve writing outcomes. Qualitative measures that the current study employed such as interviewing students before and after instruction to confirm social validity, also interviewing multiple content-area teachers associated with participants after postinstruction was completed, could provide additional comparison and support for both researchers and students. This support and feedback relates to students experiencing improvements in their self-efficacy

regarding their writing abilities, which can provide additional data support for positive strategy instruction outcomes. In addition, engaging teachers in a conversation postinstruction could encourage high school English teachers to incorporate writing strategy instruction into their teaching for all students, especially if they have observed the potential positive effects from the strategy intervention. In addition, possible negative or critical feedback provides the researcher with insight into possible changes needed in research methods or structure. For the current study, a portion of the teacher conversations were their requests for further information and professional development for the English teachers at both schools.

Important for the improvement and support of special education practice and teacher education is the constant addition of evidence-based practices for this group of students. Continuous inclusion of evidenced-based practices to the research base is critical for improvement of practice. The current SRSD study design was planned following the quality indicator criteria used to establish an evidence-based practice in single-subject research which is outlined by Horner et al. (2005) in the following ways: (a) a thorough description of participants and setting was provided; (b) dependent variables were detailed, valid, quantifiable, measured repeatedly, and reliability established with interobserver agreement; (c) thorough description of the independent variable with high measurement of fidelity of implementation was provided; (d) baseline conditions were described and baseline phase stability was established before intervention; (e) the design provided five demonstrations of experimental effect at five different points in time, a multiple baseline with multiple probe design; (f) external

validity was addressed with experimental effects being replicated across participants; and (g) social validity was addressed and expressed by the importance of interventions for this population of student.

The current study along with previous SRSD writing studies begins to meet the evidence-based practice criteria for single-subject research as outlined by Horner et al. (2005). This quality criterion supports the viability of this body of research for establishing new and improved practices for students with disabilities.

The current study also expands and adds to the existing body of writing strategy research through successfully extending previous research. This research may lead to supporting other researchers in becoming aware of the possibilities for supporting high school writing research. In addition, this research provides even further support for the differentiated needs of students with disabilities becoming recognized adjacent to the additional demands and challenges this group of students faces at the high school level.

APPENDIX A. PROMPTS BY PHASE

Prompts By Phase

Give each student a piece of blank lined paper and a pencil and copies of paper containing the two prompts.

Say: *“Please write your name and date on the top of the paper.”*

Then say: *“Please listen carefully as I read the prompts.”* Read prompts out loud to the students. *“Please write an essay response to one of the prompts on your paper.”* Read the prompts out loud again to the students.

Persuasive Essay Prompts (2 prompts from prompt ideas)

When the students are finished writing, collect all pencils and papers. They may not make corrections at this time. Be sure to make notes of words that you may have difficulty reading in later transcription.

Phase I: Baseline Testing Prompts

- Day 1: untimed
 - Should you have to take PE in school if you play a team sport? Explain why or why not.
 - Should parents restrict what type of music you listen to?
- Day 2: untimed
 - Is it better to live in the city or the country?
 - Should students your age have a set bedtime?
- Day 3: untimed
 - Should public school students be required to wear uniforms?
 - Should pets like dogs or cats be inside or outside animals?
- Day 3: timed
 - Should students your age be allowed to have a TV in their room?
 - Should schools start later in the morning for students your age?
- Day 4: untimed
 - Should there be a homework limit for high school age students?
 - Should you take public transportation or drive to school or work?

- Day 4: timed
 - Should students be allowed to use vending machines on the campus all day long?
 - Should classes or schools be separated by girls and boys?
- Day 5: untimed
 - Should students your age have to do chores at home?
 - If you could have any pet you want without stipulations, how would you convince your parents to get you that pet?
- Day 5: timed
 - Should students your age have a job in the summer?
 - If you were going on a trip, where would you want to go and why?
- Day 6: timed
 - What is the best sport to play or watch?
 - What is the best season (winter, spring, summer, or fall)?
- Day 6: timed
 - How would you convince your parents to give you \$100?
 - Which type of vehicle is better to have: a car, a truck, or a SUV and why?

Phase II: Fluency Instruction Prompts

- Should Skateboards be allowed at the Mall? (poster)
- Should kids your age go to school in the summer? (poster)
- Should kids your age receive an allowance? (poster)
- Should kids your age help to come up with the school rules? (poster)
- Should students your age be required to do volunteer work over the summer?
- Is it important to recycle?
- Should public school students be required to wear uniforms?
- Should pets like dogs or cats be inside or outside animals?

Phase 3: Postfluency Instruction Testing Prompts

- Day 1: timed
 - Should students your age be allowed to choose their own TV shows?
 - Does the violence on TV and in the movies have a negative impact on society?
- Day 1: untimed
 - Should students be allowed to have water bottles and snacks at their desks?
 - Should students be required to complete public service hours for school?
- Day 2: timed
 - Should motorcyclists be allowed to ride without a helmet?
 - Should restaurants or indoor public places ban smoking?
- Day 2: untimed
 - Should a 10:00 curfew for students your age be enforced?

- Should schools require students to pass through a metal detector each morning?
- Day 3: timed
 - Should students your age be allowed to get pierced without their parent's permission?
 - Should students your age be allowed to buy CDs with warning labels that the lyrics to some songs may not be suitable for children?
- Day 3: timed
 - Should the drinking age be lowered to 18, the same as voting?
 - Should chaperones be required at high school dances?

Phase 4: Multiple-Paragraph Essay Instruction Prompts

Should there be a homework limit for high school age students?

Should you take public transportation or drive to school or work?

Should students be allowed to use vending machines on the campus all day long?

Should classes or school be separated by girls and boys?

If you could have any car what would you choose & why?

Where would your dream vacation be & why?

Should students your age be allowed to carry their cell phones in class?

Should students your age be required to do volunteer work over the summer?

Phase 5: Post-Multiple-Paragraph Essay Testing Prompts

- Day 1: untimed
 - Should students your age be allowed to go to the home Redskins games alone?
 - If you got an interview for your dream job, how would you persuade them that you are the best person for the job? Explain.
- Day 2: untimed
 - Should the speed limit on US highways be raised from 55 to 70 miles an hour?
 - Should the age for obtaining a driver's license be raised from 16 to 17?
- Day 3: untimed
 - Should students your age be allowed to vote for the President of the United States?
 - Should people have to finish college before they can play professional sports?
- Day 3: timed
 - Would you rather receive a \$30 gift card as a gift or receive a sweater as a present? Explain why?
 - Should high school students have a dress code?

- Day 4: untimed
 - Is it better to text your friends or talk to them on the phone? Why
 - Should seniors have a curfew? If yes when? If no why not?
- Day 4: timed
 - Should students your age have to do chores at home?
 - Should high school students have a voice in making their school's rules?
- Day 5: untimed
 - Should students your age be allowed to vote for the President of the United States?
 - Is it better for high school students to take a year off (gap year) before attending college as done in several other countries or not? Why?

Phase 6: Maintenance & Generalization Testing Prompts

- Day 1: untimed
 - Should boys and girls your age play on the same sports teams or have separate teams?
 - Should animals be used for research? Explain why or why not.
- Day 1: timed
 - Should people be allowed to talk or text on their cell phones while driving? Explain why or why not.
 - Should your family move to a new city? Explain why or why not.
- Day 2: untimed Generalization
 - Write an essay arguing a position for or against the right to vote for all citizens as stated in the 14th Amendment of the Constitution established after the Civil War during Reconstruction.
 - Write a letter to your state Senator as a voter from 1964 arguing for or against the Civil Rights Act which said no person will be discriminated against because of color, race or gender.
- Day 2: timed Generalization
 - Write an essay arguing a position for the North against slavery or for the South for slavery.
 - After the Civil War, should the North have taken more responsibility for rebuilding during Reconstruction, doing more to help freed slaves and Southerners reclaim their farms and cities? Yes or no and explain.

Extra Prompts

Should 18 yr olds be required to sign up for the draft for required service in the armed forces?

What is a better pet a dog or a fish?

Should students entering college be required to work to help pay for college?

Should high school students be allowed on their computers during a class?

APPENDIX B. STUDENT LEARNING CONTRACT



Learning Contract

Student _____ Date: _____
Teacher _____

Purpose of Instruction: _____

Short-term goal: _____

Long-term goal: _____

Target Completion Date: _____

Signatures: Student _____
Teacher _____

.....
_____ has successfully completed instruction
on _____
and agrees to use it in _____

Date: _____ Student: _____

Teacher: _____

APPENDIX C. TEACHER CONTRACT



The Effects of Self-Regulated Strategy Development on the Written Language Performance of High School Teachers

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RESEARCH PROCEDURES

This study is being conducted to find out the effectiveness of teaching self-regulated strategy instruction for writing in small groups of 2-3 students with students with mild disabilities at the high school level (grades 10 + 11). If you agree to participate, you will be asked to complete a semi-structured interview lasting approximately 20-30 minutes about the students from your class who participated in this study; their written work, progress and attitude since the strategy instruction. This interview will be audio taped by the researcher.

RISKS

There are no foreseeable risks for participating in this research.

BENEFITS

There are no benefits to you as a participant other than to further research in high school writing instruction.

CONFIDENTIALITY

The data in this study will be confidential. Your name will not be included on any collected data. Once data is collected it will be coded, and identifying information will be discarded. All collected materials will be maintained in locked files and offices accessible only to project staff, and viewed only by project staff.

PARTICIPATION

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.

CONTACT

Patricia A. Leins a student at George Mason University will carry out this research. She can be reached at xxx-xxx-xxxx. Additional questions can be directed to her teacher Dr.

Margo Mastropieri at 703-993-xxxx or the George Mason University Office of Research Subject Protections at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.

This study has been reviewed according to George Mason University procedures governing your participation in this research.

CONSENT

I have read this form, and it has been explained to me:

Participation:

_____ Yes, I will be in this study

_____ No, I will not be in this study

Audio taping:

_____ You may audio tape my interview

_____ You may not audio tape my interview

Version date: Version date: 8 August 2011

APPENDIX D. POW + TREE GRAPHIC

POW

P - Pick my idea

O - Organize my notes

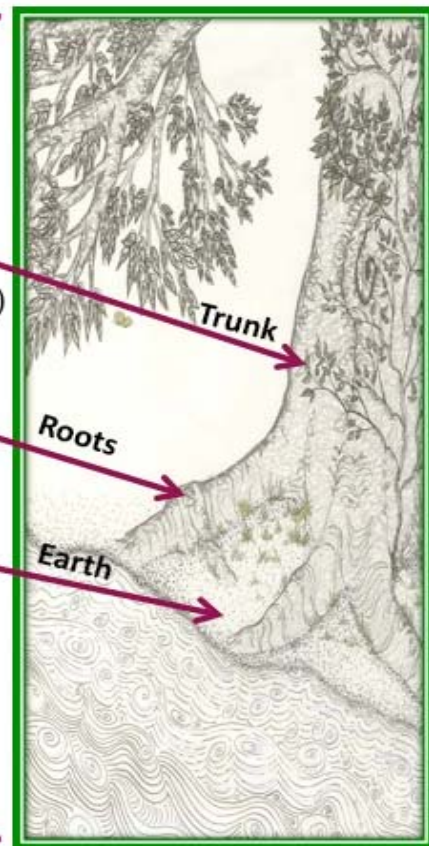
W - Write and say more

Topic sentence

Reasons (3 or more) &
Counter reasons (1 or more)

Explain reasons

Ending and Examine



APPENDIX E. POW + TREE ORGANIZER

POW + TREE

T **TOPIC** Sentence
What do I believe?

--

TW

R **REASONS** -3 or more
Why do I believe this?
Will my readers believe this?

E **EXPLANATIONS**
Say more about each reason.
What details will persuade my reader?

CR **Counter Reason**- 1 or more.
Who might disagree and why?

E **EXPLANATIONS**
Say more about the counter reason(s).

E **ENDING**
What do I want my reader to remember?

--	--

EXAMINE

Check my paper again. Do I have all my parts? Yes _____ No _____
Did I use a capital letter at the beginning of each sentence? Yes _____ No _____
Is there a punctuation mark at the end of each sentence? Yes _____ No _____

APPENDIX F. TRANSITION WORD CHART

Transition Words

Words you can use to show a reason

First	Second	Third	In addition
Another	To begin	Also	Additionally
Next	Finally	My final	Lastly
Furthermore	In the first place	Furthermore	Moreover
_____	_____	_____	_____

Words you can use to show a counter reason

However	Nevertheless	On the contrary	Rather
Yet	Instead	On the other hand	In contrast
_____	_____	_____	_____

Words you can use to conclude your essay

In conclusion	Therefore	With this in mind	To conclude
To summarize	In general	To sum up	Finally
Given these points	For this reason	Hence	In Summary
_____	_____	_____	_____

APPENDIX G. ESSAY EXAMPLES

Students my Age Should be Required to Attend Year Round School

I believe that students my age should be required to attend year round school. To begin, students would be smarter. We would not forget what we learned throughout the school year. In addition, we could take vacations throughout the year. We could enjoy time off in all seasons instead of just summer. Next, we would not miss our friends as much if we had year round school. We can see our friends all the time. Finally, year round school prepares us for the real world. In the real world, people do not get an entire summer off. Yet, some people might think that year round school would take away from vacation time. They think that students need ten weeks of vacation to enjoy summer. However, students in year round school get the same amount of vacation it is just spread out. Other people might think that students should have summers off in order to have a job and earn money. Earning money allow kids to help their families. However, having a job is a big responsibility and students might not be mature enough. In conclusion, attending year round school is a better option.

Students my Age Should Not Attend Year Round School

I believe that students my age should not attend year round school. To begin, some students need to work during the summer. Summer is the only time when you can make a lot of money. In addition, some students would not be able to attend summer

camp. Summer camp is important because you get to learn sports and outdoor activities that school does not teach. Next, some students would not be able to swim on summer swim teams. Swim team is a great way to become competitive swimmers. Finally, attending school during the summer would cost a lot of money. It is hot outside and air conditioning is expensive. Yet, some people might think that year round school helps kids become smarter. Students learn throughout the year and don't forget lessons over the summer. However, summer is a time to explore your own interests that are not related to school. Other people might argue that year round school prepares students for the real world. Workers in the real world have to work all summer. However, activities and hobbies that are unrelated to school are equally important. In conclusion, attending year round school is not a good idea.

APPENDIX H. SELF-STATEMENTS CHART

Self-Statements

To Help Me Get Started

While I Work

To Check My Work



APPENDIX I. TEN LESSON PLANS

Lesson 1

Stage 1: Develop and Activate Background Knowledge

Purpose: Develop student's background knowledge of persuasive writing. Sign contracts and introduce POW + TREE, find persuasive essay parts in a sample essay.

Objectives: Students will sign contract committing to learning the POW + TREE strategy. Students will be introduced to the meaning of the mnemonic POW + TREE and look at a sample essay.

Materials: Agenda, Contracts, POW + TREE mnemonic, GO, handouts, Sample essay, paper, pencils, colored pencils, folders

___1. The lesson will begin with the teacher by reviewing the goals for the day as well as expectations for all sessions. **“During the following weeks we are going to be learning a writing strategy that will help you write persuasive/opinion essays. This writing strategy will be very useful for you. Every day we meet we will have an agenda and our goal is to cover all the items on the agenda. Today's agenda is:”**

Agenda:

1. Sign the Contract
2. Discuss POW + TREE
3. Read and Examine Sample Essay
4. Introduce Graphic Organizer

___2. Contracts

Students will sign a contract in which they will commit to learn the strategy for writing persuasive essays. The teacher will also sign the contracts and commit to teaching the strategy. **“We are going to sign a contract in which you will commit to learn the writing strategy for persuasive essays and I will commit to teach you.”**

- a. The contract will state the purpose of the instruction – to write good persuasive essays
- b. The short term goals (I will (1) memorize the strategy, (2) practice writing essays, and (3) monitor my progress),

- c. The long term goal (write good persuasive essays with POW + TREE and apply the strategy in other settings)
- d. The expected date for achieving the goal,
- e. Point out that the contract will be reviewed after we have finished learning the strategy.

___3. Discuss with the students what the word persuade means and how we write to persuade

- a. Tell the students that today we will begin working on writing. Say **“We are going to learn a writing strategy or tool to help us write papers that tell a reader what you think or believe about a topic. This can be called an opinion/persuasive essay.”**
- b. **“What does the word opinion mean?”** – A view or belief
- c. **“What does the word persuade mean?”** - To convince someone of your position, to plead with or urge someone through reasoning
- d. **“Can you think of any examples where persuasion is used?”**
(Advertisements (toys, food, movies), political campaigns)
- e. **“These are ideas of persuading we may hear everyday. We will be learning how to use writing to persuade a person.”**
- f. **“What does the word essay mean?”** – a written response to a question in sentence and paragraph form

Display POW on top half of POW + TREE chart

___4. Describe and discuss POW:

“Now we are going to learn a trick, which will help you when writing a paper. This writing is called POW”

“Do you know what POW stands for?”

“What does it sound like? Can you think of a word that has POW in it?”
POW = POWER

“POW gives you POWER when you write. There are three steps, which will help you get POWER in your writing. The 3 steps are:”

Display the mnemonic POW on top half of POW + TREE chart

P – Pick my idea
O – Organize my notes
W – Write and Say more

“POW gives you power when you write essays. It is a trick good writers use when writing. You combine POW with other strategies (tools) depending on the type of essay you are writing.”

___ 5. Discuss what makes writing a persuasive essay powerful

“Do you know what makes a persuasive essay powerful?

- a. Tells the reader what the writer believes**
- b. Gives the reader at least three reasons why the writer believes what he does (it can have more)**
- c. Explains the reasons**
- d. Considers other peoples points of view**
- e. Has an ending sentence”**

___ 6. Describe and discuss TREE:

“Now we are going to learn a trick which will help you write a paper that tells the reader what you believe or think about something. This is called a persuasive essay. The trick for remembering the parts of a persuasive essay is TREE”

Display bottom half of POW + TREE chart

“Let’s look at the picture here of a TREE – we are going to use this picture to help us remember the parts to a good persuasive essay.

T – topic – The topic sentence is like the trunk of a tree, it is strong and everything is connected to it

R – reasons (3 or more) – The reasons are like the roots of a tree, they support the trunk

E – explanations – The explanations are like the earth, they provide the nutrients to the tree

E – ending and examine – The ending and examine are like the whole tree and the image you see, it is the impression you want to leave your reader with.”

___ 7. Read and examine a persuasive essay

“Now we are going to read a persuasive essay and examine it to find out if the writer used all the parts. We need to look for a topic sentence (the writer stated what he believed), at least three reasons, explanations for the reasons and an ending.”

The student will be given a copy of the essay to read along with the instructor. The student will be asked to underline the topic sentence, the reasons, the explanations and the ending. The student will then be asked to examine the essay and see if all the parts are there.

___8. Introduce the graphic organizer

“We will be using this graphic organizer to help us organize the parts of our essay.” Lie out the graphic organizer and show student how the mnemonic POW + TREE is written on the top as a reminder of the parts that need to be included in an essay.

Model filling out the graphic organizer in note form from the parts they identified in the essay.

Introduce the term **transition words** and discuss with the student that **“these are words the writer used to show a reason or explanation.”** Model where transition words go in the graphic organizer.

___9. Verbally review the POW + TREE mnemonic

___10. Lesson Wrap-up - Check off the agenda

Lesson 2
Stage 2: Discuss It

Purpose: Review POW + TREE, Identify Parts of an Essay, Introduce Student Record Sheet

Objectives: The student will review the POW + TREE strategy. The student and teacher will review parts of a persuasive essay. (If student is having a difficult time identifying parts of an essay, additional essays will be reviewed.) Introduce counter reasons. Teacher will model using self-statements to fill out a graphic organizer and begin writing a persuasive essay. Student will graph a previously written essay on the record sheet.

Materials: Agenda, POW + TREE chart, POW + TREE GO, Transition Word Chart, Sample essays, Student Parts Record Sheet, pencils, colored pencils, paper, folders

___ **1. Instruction will begin with the teacher discussing the agenda: Today's agenda is:**

Agenda:

1. Review POW + TREE
2. Identify parts of an essay
3. Discuss counter reasons
4. Discuss Transition words
5. Discuss Graphic Organizer
6. Identify parts in your essay
7. Introduce Record Sheet

___ **2. Discuss POW + TREE**

“Yesterday we talked about persuasive essays. Do you remember what it means to persuade someone?” To convince someone about your point of view using good reasons and explanations to support your reasons. **“How are we going to be persuading someone?”** Through writing. **“We also learned a strategy to help us write persuasive essays – Do you remember the trick?”**

Review orally POW + TREE – “What are the parts of a good persuasive essay?”

“Do you remember what makes a persuasive essay powerful?”

- a. Tells the reader what the writer believes
- b. Gives the reader at least three reasons why the writer believes what he does (it can have more)
- c. Explains the reasons

- d. Considers other peoples points of view
- e. Has an ending sentence
- f. It makes sense

“To help us remember this we said a good persuasive essay should use the mnemonic TREE. What does TREE stand for again?” (Topic, Reason (3 or more), explanations and ending)

___3. Counter Reasons

“One way to make your essay more powerful is to include another person’s point of view. This is called a counter reason. Try to think of someone who would disagree with your argument. Including another person’s points of view lets the reader know that you are not focused just on yourself but you have considered the view of others. It is also good to provide an explanation to the reason, just like when we provide our reasons to support our belief or topic.”

___4. Practice transition words

“Yesterday we talked about transition word briefly at the end of the lesson. These are words that you find before a reason, counter reason and an ending. There are different types of transition words, for showing a reason, counter reason or an ending.” Show the student their transition word chart. “Can you come up with any additional transition words to write on the chart?”

___5. Graphic Organizer (GO)

“Last time we met, we filled out the graphic organizer after we read an essay to help us find the different parts. The graphic organizer is the O part of POW – which reminds us to “organize our notes.” The graphic organizer also has our mnemonic TREE to remind us of all the parts we need to include in an essay. There is even a space for us to write our transition words and a counter reason. Good writers organize their thoughts before writing in note format, which is what we will do on the GO.”

Review the parts of the GO

___6. Find parts in an essay (Repeat 1-3 times to make sure student can identify all parts).

“Now we are going to read a persuasive essay and examine it to find out if the writer used all the parts. What parts are we looking for?” (prompt if they don’t say) A topic sentence – the writer stated what he/she believed, at least three

reasons, explanations for the reasons and an ending and a counter reason – the parts of TREE.

The student will be given a copy of the essay to read along with the instructor. “Underline the topic sentence, the reasons, counter reason, the explanations and the ending. Examine the essay and see if all the parts are there.”

Model filling out a GO based on parts identified in at least 1 essay (If students struggle with filling out the GO repeat)

____ 7. Examine student essay

“Now we are going to look at an essay you wrote. I have typed the essay for you to make it easier to read and to identify the parts. Tell me the parts of the essay you have included. Now I would like you to fill out a graphic organizer with the parts you identified in your essay – remember just write notes not full sentences.”

“What parts are missing?”

“What could you do to make it better next time?”

____ 8. Graph performance and set goals

Give student a copy of graph. **“We have been talking about what good writers do when they write a paper. We have talked about how they need to plan and organize their thoughts. They also need to monitor their progress. Why do you think this is important?”** (teacher adds if student doesn’t say anything) **We are going to use this graph to help us monitor our progress. We will fill out how many parts were included in an essay. Fill in one space for each part of TREE (topic, one for each reason, one for each explanation, one for each counter reasons, one for an ending).”**

“Do you remember our goal?” To write good persuasive essays

“Next time our goal is to have all the parts and better parts when we write an essay. Next time I will model for you how to write a persuasive essay using all the tools we have learned so far. We want our essay to have 10 parts.”

____ 9. Verbal review POW + TREE

____ 10. Lesson Wrap-up - Check off the agenda

Lesson 3
Stage 3: Model It/Memorize It

Purpose: Review POW + TREE, Model, Introduce Self-Statements

Objectives: The student will state the meaning of POW + TREE and attend while the teacher models how to write an essay. The student will develop and record self-statements and graph an essay written by the teacher.

Materials: Agenda, POW + TREE chart, POW + TREE GO, Transition Word Chart, Self-Statements Chart, Student Parts Record Sheet, Daily Record Sheet
Pencils, colored pencils, paper, folders

___ **1. Instruction will begin with the teacher discussing the agenda. Today's agenda is:**

Agenda:

1. Review POW + TREE, graphic organizer, transition words, and counter reasons
2. Observe the teacher model how to write an essay
3. Self-Statements
4. Graph essay
5. Introduce daily record sheet

___ **2. Review POW + TREE**

“Tell me the parts of a persuasive essay.” (prompt if needed)

___ **3. Review Graphic Organizer**

“The second letter in POW is O – ORGANIZE my NOTES – is organize my notes. Like all good writers, I am going to use the graphic organizer to help me. Remember the Graphic Organizer has spaces for me to write all the parts I need to include in a good persuasive essay.”

“What is my goal? To write a good persuasive essays.”

“A good persuasive essay:

- a. Tells the reader what the writer believes
- b. Gives the reader at least three reasons why the writer believes what he does (it can have more)
- c. Explains the reasons
- d. Considers other peoples points of view
- e. Has an ending sentence

f. It makes sense”

___ 4. Discuss Counter Reasons

“Yesterday we also talked about counter reasons. Can you tell me what a counter reason is?” A counter reason is a way to make your essay more powerful, by presenting another person’s point of view. **“Remember to provide an explanation to the reason, just like when we provide our reasons to support our belief or topic.”**

___ 5. Review Transition Words

“We talked about transition words yesterday. Transition words help us to identify reasons, counter reasons and the ending of an essay. Do you remember some transition words?”

___ 6. Model the Strategy

“Today I am going to model how to write a persuasive essay with your help, using all the materials we have been discussing. Pay attention today for self-statements, or positive things I say to myself as I write.”

a. Read aloud the practice prompt

- **“Some things I can say to myself when I need to start working – “take your time,” “focus on my work,” “a good idea will come”**

b. Pick my Idea

- **“Remember that the first letter in POW is P which stands for pick my idea. Before I start I need to clear my head, focus on what I am doing. OK Dani – you can come up with some good ideas.”**

c. Organize my Notes. Model the entire process by filling in the GO using notes. Have the student help come up with ideas.

- **“Now I can write down ideas for each part**
- **First, What do I believe? What do I want to tell the reader I believe? That is a great idea.**
- **Now I need to think of at least 3 reasons and give an explanation for each reason. Focus, think of good ideas.”** (Talk out and write notes for at least 3 reasons in note form.) **“Those are some great reasons. Can I think of any more reasons? How would I explain the reasons? I also need to remember to use transition words before each reason.”**
- **“How can I make this essay stronger? I can think of another person’s point of view. Who would disagree with what I believe?”**
- **“Ok finally I need end the essay. What could I say? That is a good ending. Nice job Dani.”**

- **“Now I need to look back at my notes and see if there is anything else I can add or if I need to change anything.”**

d. Write and Say More

“Now I can do W in POW – write and say more. I will use the notes from the Graphic Organizer to help me write my essay.

How should I start? I need to tell the reader what I believe. I need to write a topic sentence.” Pause and think and then write out the topic sentence. “Good start Dani. I need to remember to start each sentence with a capital letter and end the sentence with a punctuation mark.”

“Now I have to write down a reason and explanation. Don’t forget to use a transition word. My first reason is”

“And I can explain the reason by”

“Does this make sense?”

“Ok, good job staying focused. My second reason is”

“I can explain the reason”

“Did I remember to use transition words before my reason? Nice work.”

“Another reason is”

“I can explain the reason”

“I have three reasons and three explanations – good work”

“What else could I do to make my essay stronger? I could add a counter reason. A counter reason could be”

“I can explain the reason”

“Am I using all my parts so far? What do I need to do next?”

“I need to end my essay. I need a transition word and I need to leave my reader with a clear picture of what I believe.”

“My ending”

“Great job, I’m done!”

____ 7. Self-Statements

Pass out self-statement chart to student.

“Another thing good writers do is talk to themselves in positive ways. Why do you think this is important? Think about a time you were on a sports team, or cheering for your favorite team. What are some things you say to yourself or your team?” Give students a chance to give their own input. Write out these answers. **“ You tell yourself positive things, not negative things. Since we are working on becoming good writers, it is important for you to talk to yourself in a positive way.”**

“Write some things they could say to yourself on your self-statement chart.”

“What are some things I said or things you could say to yourself:

- a. to get started?**
- b. while you work?**
- c. when you finished?”**

Jot their ideas down on the self-statement chart. **“You do not need to say these things out loud, you can whisper them or say them to yourself.”**

____ 8. Graph Essay

Model how to graph essay on the student parts record sheet. **“Remember good writers monitor their progress. How are we going to monitor our progress?”** (let student respond) **“Let’s fill out the student record sheet – remember we fill in one space for each part of TREE. How many parts did we have in our essay? Remember we want to have at least 10 parts.”**

____ 9. Daily Record Sheet

Students will be given a daily record sheet to record their progress each day.

“Let’s use the daily record sheet to rate our performance. Check off each item in the column that you completed today and write down today’s date.”

____ 10. Lesson Wrap-up - Check off the agenda

Lesson 4

Stage 5: Support It

(Repeat as often as necessary until student is ready to move on without the GO)

Purpose: Guided practice - Let the student lead as much as possible. Prompt and help as needed

Objectives: The student will review POW + TREE and collaboratively write a persuasive essay with teacher. The student will identify essay parts in essay.

Materials: Agenda, POW + TREE chart, POW + TREE GO, Transition Word Chart, Self-Statements Chart, Student Parts Record Sheet, Student Daily Record Sheet, Prompts (list of multiple prompt choices for repeating this lesson, pencils, colored pencils, paper, folders

___ **1. Instruction will begin with the teacher discussing the agenda. “Today’s agenda is:”**

Agenda:

1. Review POW + TREE
2. Review Transition Words
3. Write an essay (Use self-statements)
4. Graph essay

___ **2. Review POW + TREE**

“Tell me the parts of a good persuasive essay.”

___ **3. Review Transition Words:**

“On this piece of paper can you write down as many transition words as you can think of in two minutes?” Compare the list to the transition word chart.

___ **4. Collaborative Writing – Support It**

“Today you are going to begin writing persuasive essays on your own, with my help. Make sure you use all the material we have been using to help you write. Don’t forget to use a capital letter at the beginning of a sentence and to have a punctuation mark at the end.

You will do great! Remember to use self-statements and speak to yourself in a positive manner.”

Give student:

Graphic Organizer

Transition Word Chart
Self-Statement Sheet
Practice Prompt

Guided Help:

“Remember the first letter in POW is “P” – Pick my Idea. What is it you believe? Remember to use self-statements when beginning to help you think of ideas and reasons.”

“The second letter in POW is “O” – Organize my Notes. What are you going to use to help you organize your notes?” Graphic Organizer

“What is the mnemonic that will help you organize your notes?” TREE **“What should your goal be?”** To write a good persuasive essay, to tell the reader what you believe, it must have at least three reasons, explanations and an ending. **“How can you make your essay stronger?”** Add a counter reason and explanation. **“And most importantly, what you write needs to what?”** It needs to make sense.

Let the student generate their notes –

“Remember to look back over your notes to make sure you have all the parts or if there is anything that needs to be added or changed.”

“The last letter in POW is “W” – Write and Say More – now you need to write your essay using your notes. Remember to use self-statements” – I can write my paper, I need to focus. Let the student work independently on essay. Help if necessary. (If the student does not finish during the time, they can continue during the next lesson.)

____ 5. Graph Essay

“Remember good writers monitor their progress. How are we going to monitor our progress?” Student record sheet Let student fill out the student record sheet – **“remember fill in one space for each part of TREE. How many parts did you have in your essay?”** **“Did you use self-statements? Which ones did you use?”**

____ 6. Lesson Wrap-up - Check off the agenda

Lessons 5-6
Stage 6: Independent Performance
(Repeat 2 or 3 times)

Purpose: Independent practice/Wean off supportive materials

Objectives: The student will draw an organizer/organize notes and write a persuasive essay with at least 8 parts independently.

Materials: Agenda, Transition Word Chart, Self-Statements Chart, Student Record Sheet, Prompts (list of multiple prompt choices for repeating this lesson, pencils, colored pencils, paper, folders

___ **1. Instruction will begin with the teacher discussing the agenda. “Today’s agenda is:”**

Agenda:

1. Review POW + TREE
2. POW + TREE reminder
3. Draw own graphic organizer
4. Write an essay independently
5. Graph essay

___ **2. Review POW + TREE**

“What are the parts of a good persuasive essay?”

___ **3. Wean off Graphic Organizer**

“When you are asked to write a persuasive essay in class, you will not have a graphic organizer, so you will need to make your own in order to help you organize your notes.” Demonstrate how students can write down the mnemonic POW + TREE at the top of a page in order to jot down ideas next to each part prior to writing.

“On this piece of paper can you write down as many transition words as you can think of in two minutes?” Compare the list to the transition word chart.

___ **3. Writing - Wean off Support**

(If student did well in lesson 4, they may not need much support. Teacher should determine how much guidance to give student, and how much they need to do independently)

“Please get out self-statement chart.” Put out 2 essay prompts. **“Pick one prompt to write about.”** Let the student work independently but prompt and help as necessary. The student can make notes on a blank piece of paper where they wrote their reminder. Go through each of the following processes.

“Remember the first letter in POW is “P” – Pick my Idea. Refer student to self-statement chart to help them with their thinking. – My mind needs to be free. What do I believe? Why do I believe this?”

“The second letter in POW is “O” – Organize my Notes. I will use TREE to help me organize my notes and plan my ideas on a piece of paper. What should our goal be?” To write a good persuasive essay, to tell the reader what you believe, It must have at least three reasons, explanations and an ending. **“To make my essay stronger you could add counter reasons and explanations. And most importantly, what you write needs to what?”** Make sense

After the student has written their notes say – **“I must remember to look back over my notes to make sure I have all the parts and to see if there is anything that needs to be added or changed.”** Help them do this.

“The last letter in POW is “W” – Write and Say More” – Encourage and remind student to start by saying **“What is it I have to do here? I have to write a good persuasive essay. A good opinion/persuasive essay makes sense and has all the parts. I need to remember to use transition words. Remember to use self-statements, remember to start each sentence with a capital letter and end each sentence with a punctuation mark.”** – **“I can write my paper, I need to focus.”** Let the student work independently on essay. Help if necessary. Make suggestions if parts can be improved. (If the student does not finish during the time, they can continue during the next lesson.)

____ 4. Graph Essay

“Remember good writers monitor their progress. How are we going to monitor our progress?” Student record sheet - Let student fill out the student record sheet – **“remember fill in one space for each part of TREE. How many parts did you have in your essay?” “Did you use self-statements? Which ones did you use?”**

____ 5. Lesson Wrap-up - Check off the agenda

Lessons 7-8 Fluency

Purpose: To learn how to write a good persuasive essay in 10 minutes

Objectives: The student will discuss the components of a Quick Write essay, complete an essay in 10 minutes and graph how many essay parts they included and set a goal of how many parts they will write in their next essay

Materials: Prompt, POW + TREE Chart, Self-Statements, Transition Word Chart, Paper, Pencils

___ **1. “For the past few weeks we have been writing persuasive essays. You have done a GREAT job writing essays and learning these skills. Today we are going to discuss writing essays when we have a time limit or a shorter amount of time to write them. Before we start let’s go over today’s agenda.”**

___ **2. Discuss agenda. “Today’s agenda is:”**

Agenda:

1. Review POW + TREE
2. Discuss writing a quick essay
3. Model how to write a quick essay
4. Graph essay and set goal for next essay
5. Student will write essay in 10 minutes
6. Student will graph essay and set a goal for next essay

___ **3. Review POW + TREE.**

“What are the parts of a persuasive essay?”

___ **4. Quick Write**

“When you have to a time limit on how long you can write an essay, your essay still needs to have all the parts, needs to be well organized and it needs to make sense.”

“Can you think of some times in school when you may have a limited amount of time to write an essay?” (Allow students time to respond – essay questions on a test, answering questions for social studies or science for homework, in-class writing assignments)

“You can use POW + TREE even if what you have to write is not a persuasive essay. When you are writing you want to make sure you have included a topic, reasons, explanations and an ending.”

___5. Model how to write an essay in 10 minutes

Include self-statements as you model. Ask student for ideas in order to take up the entire 10 minutes. If there is time left make sure to model the importance of examining your work.

1. Set timer for 10 minutes
2. Post the prompt and read it aloud
3. Jot down ideas with help from the student – Write TREE on a piece of paper and make and write one word reminders rather than phrases.
4. Begin writing. Be sure to think aloud about transitions.
5. If you finish before the time goes off say: “I still have more time, so I could add another reason or explanation or I still have time, so I can check my work and make sure my essay makes sense.”
6. When timer goes off, put pen down
7. Discuss what parts were included and what parts were missing. Point out transition words. Ask students to point out self-statements you used while working.

___6. Graph Essay

Model filling out the POW + TREE student fluency record sheet. Make a goal of having more parts next time when doing a Quick Write. “**This time I had _____ parts in my paragraph, next time I want to have _____ parts.**”

___7. Student’s Turn

“**It is your turn to write an essay in 10 minutes.**” Give them paper, pencil, a prompt and a timer. Let the student work independently. Assist if needed.

___8. Graph Essay.

Once the timer goes off, have student graph their essay and set a goal for next time.

___7. Lesson Wrap-up – Check off the agenda

Lesson 9- Multiple-Paragraph Essays A	Materials
<p>Purpose: Modeling the entire process for writing a persuasive essay.</p> <p>Objectives: The students will orally say the mnemonic for POW + TREE and state what each letter stands for. The students will attend to the teacher’s modeling lesson. The students will locate essay parts in a previously written essay. The students will write self-statements for the POW + TREE writing strategy.</p> <p>____ A. Discuss the goals for the day</p> <p>____ Today’s goals is to:</p> <ol style="list-style-type: none"> 1. Review POW + TREE, transition words, self-statements 2. Observe the teacher model how to write an essay 3. Graph the essay <p>____ B. Briefly review POW + TREE, transition words, and self-statements</p> <p>C. Model the Strategy- “Today I am going to model how to write an essay using everything we already know. Pay close attention to how I expand the essay into multiple paragraphs and is similar to, but different than our one paragraph essays. Also remember that I need to talk to myself in positive ways.”</p> <p>“This first portion is going to seem every familiar to you all, but I still expend you all to pay attention.</p> <p>____ I. Pick my Idea</p> <ul style="list-style-type: none"> • Lay out a copy of the prompt. Then explain: “Remember that the first letter in POW is P - pick my idea. Today we are going to practice how to write a good multi-paragraph opinion essay. To do this we have to think free.” • Read aloud the practice prompt: I know we have done this prompt before as a one paragraph essay, but now will use the same prompt to write a multi-paragraph essay “EMAIL vs. SNAILMAIL” Explain to the students’ things that you say to yourself when you want to think of good essay ideas or parts. “I need to take my time, and do a good job.” <p>____ II. Organize my Notes</p> <ul style="list-style-type: none"> • The second letter in POW is O- ORGANIZE my NOTES. As the students: “What do I need to do, to do this part of POW? Then draw out the GO and make sure to write the POW + TREE reminder to help you. • Model the entire process for organizing your Notes by completing the entire GO. Use problem definition, planning, transition words, self-evaluation, and self-statements as you go. Follow the steps and 	<p><u>Materials:</u></p> <p>Student record sheets, Paper, pencils, folders, Writing pad, and colored markers</p>

statements below, filling in, ad lib statements where indicated. Ask the students to help you with ideas and the writing, but **be sure you are in charge of the process**:

- Say, “What is it I have to do? I have to write a good opinion essay. My essay needs to makes sense and have all the parts.

Dialogue: “ I am going to model out loud writing an essay”

___ “First, what do I believe - what do I want to tell the reader I believe?” (Now - talk out and fill in notes for Topic Sentence). “I believe email is better than snail mail” “Good one part down!”

___”Now I better figure out at least 3 reasons and give an explanation for each reason. Let my mind be free, and think of good ideas.” (Now talk out and briefly write notes for at least 3 reasons- not in full sentences - use coping statements at least twice.)

TW	Reason	Explanation
First	fast	Receive quickly, and respond in minutes; similar to conversation
In addition	attachments	Pictures, essays, or scanned art work
Lastly	Save money	Envelopes, stamps, and paper; use resources you already have at home

___ “I now know I need to include a counter reason. “What is a counter reason and why is it important? For example in this case: Who would disagree with me? Who might think snail mail is better than email? I know a I would as a child! I would disagree as a child because on my birthday I would receive birthday gift with money in the mail. Well, that is a good reason; however these days through the use of email and the internet you could send someone an ecard.”

TW	Counter reason- snail mail is better Me	Explanation	Refute it- Turn back and remember to use a tw
Yet	Birthday cards	You feel special when you would receive birthday cards in the mail	However, through email and the internet you can send someone an ecard on their birthday.

___After generating notes for all essay parts say – “Now I can look back at my notes and see if I can add anything more to my GO.”

___ **III. Write and Say More**

- A.** Say, “**Now I can do W in POW - write and say more. I will use the notes in the GO to help me write my essay. I can write my opinion essay and think of more good ideas or million dollar words as I write. During this part you really need to pay attention because this is the part that is different from what we did before.**” (Now - talk yourself through writing the essay; the students can help). Use a clean piece of paper and print.
TALK ABOUT THE ESSAY PARTS AND WHAT YOU ARE WRITING IN EACH PARAGRAPH. Start by saying:

___ **"How Should I start? I need to tell the reader what I believe, I need a topic sentence."** So in Paragraph 1 (P1) – You first write the topic sentence. Tell the reader what you believe, which is the main idea of your essay. Then in this paragraph I am only going to mention my reasons and I need to remember to use TW to introduce each reason.

I believe email is better than snail mail. There are three reasons why I believe this. First email is faster than snail main. In addition you can send attachments along with your emails. Lastly you save money by using email.

___ **“Good, My first paragraph is done. Now in my second paragraph and the rest of my body paragraphs, I have to restate each reason and explain my reason to have at least 3 sentences per paragraph.”** So in P2 I will start my paragraph with a TW, then I will write my reason. To support my reason I will give an explanation or example to support this reason.

First, email is faster than snail mail. When you send an email the other persons receives the email within minutes and can respond back to you immediately. It’s kind of like having a conversation through the computer with the person. You don’t have to wait the couple of days it takes to receive a letter in the mail.

___ **“Now on P3, what is it I have to do? I have to write my next reason. Again I will start with a TW, then my reason and my explanation.**

In addition, when you send an email you can also send attachments. For example you can send pictures, scanned art work, documents, and even music to send along with your email to people. Also you don’t have to pay extra to send hard copies of these attachments through the mail.

___ **Good I am doing an excellent job. Now on P4 I will have to write my third reason. Again I will start with a TW, my reason, and explanation.**

Lastly, you can save money by using email. You don’t have to spend money on gas driving to the post office. Also, you don’t have to buy envelopes and stamps, but can use the internet that most people have in the convince of your home.

___ **Excellent I am doing an excellent job. I wrote my three reasons and explanation for each. Now, I better think about the counter argument. Who might have a different opinion than mine? On P5 I will begin with a TW for showing the counter argument/opposite view and then I will state what the other’s position might be and then provide an explanation for that position.**

On the contrary, some people might think snail mail is better than email because on your birthday you receive birthday cards. When you receive birthday cards on your birthday, you feel special. (Good I wrote the counter reason and explained it, now I have to turn back and provide reasons to refute other people position) However, through the internet and email you can still send people birthday cards called an ecard.

_____ Now, on P6 I will write my ending or summary of the three reasons you have given. Restate your topic statement or belief and follow with the summary of your three reasons. Wrap it up!

In summary, I believe email is better than snail mail. I believe this because email is faster, you can send attachments, and you can save money. People should use email!

_____ Review by asking, “Have I shown the reader all my reasons with explanations?” Do I have all the TREE parts? Do I have at least 3 sentences in each paragraph?”

A. GRAPH THE ESSAY

___I. Model how to graph this essay on the **Student Record Sheet**. Ask students, “Does this essay have at least 10 parts?”

B. Lesson wrap-up check off agenda and letting them know we’ll be writing an essay together tomorrow.

Lesson 10- Multiple-Paragraph Essays B
REPEAT THIS LESSON AS NECESSARY

Purpose: Guided practice

Objectives: The students will orally state the mnemonic for POW + TREE and what each letter stands for. The students will collaboratively write an opinion essay with the teacher. The students will identify orally parts of the essay that is written.

A. Review goals for the day

1. Review POW + TREE
2. Write an essay
3. Graph the essay and use self-statements

B. Review POW + TREE. Can do verbally as a class, with partners, or have students write it on a piece of paper.

C. Collaborative Writing – Support It. “Today you are going to write an essay by yourself, with my help. You would use all the material we have been using and I am sure you will do great! Remember to use self-statements to help you gain confidence in you writing!!! You will do great!”

____ **I.** Give each student a blank piece of paper to draw a GO on. Put out practice prompt: [insert prompt] Although all students are writing about the same topic, they should all come up with their own ideas for topic, reasons, counter reasons explanations, and ending, and write their own essays. This time let the students lead as much as possible, but prompt and help as much as needed. Go through each of the following processes - students can share and use the same ideas, but each student should write an opinion essay using their own notes:

____ **II.** Say, “Remember that the first letter in POW is P - pick my idea.” Refer students to their self-statements for creativity or thinking free. Help each student decide what they believe and start to think of good reasons why.

____ **III. Guide students through the GO-** Say, “The second letter in POW is O- ORGANIZE my NOTES. I will use TREE to help me. You’ll need to create your GO to organize your notes.” After students have generated notes for all essay parts say – “remember to look back at my notes and see if I can add more notes for my essay parts.”

Help students as much as they need to do this, but try to let them do as much as they can alone. Encourage them to use other self-statements of their choice while they write. If students do not finish writing today, they can continue at the next lesson.

D. IV. Guide students through writing the essay- This is the part that is the most different from a one paragraph essay to a multi-paragraph essay. Say, “The last letter in POW is W - write and say more.” Encourage and remind the students to start by saying “What is it I have

to do here? I have to write a good multi-paragraph essay - a good essay has all the parts and makes sense.” I can write my essay and think of more good ideas and transition words as I write. Think back to the essay I wrote the other day and what parts of TREE of on each paragraph.”

_____ When writing it is important you remember the order of the paragraphs. Your essay should begin with the topic sentence and mentioning the reasons. Use transition words.

Verbally discuss what parts of TREE are included in each paragraph. If students really struggle with this with you guiding them does help, give them the paragraph checklist to use to help them write their essay

C. Graph the Essay and self-statements

_____ **I.** When finished, have each student graph their essay. Ask each student to determine if their essay has at least 10 parts or 11 if counting refute. Let them fill in the graph. Reinforce them for reaching 10 or more. Ask student to give you an example of a self-statements they used.

D. Lesson wrap-up: Check off agenda

List of other prompt choices for repeating this lesson: GO IN THIS EXACT ORDER

Lesson 2a: Should there be a homework limit for high school age students? Or Should you take public transportation or drive to school or work?

Lesson 2b: Should students be allowed to use vending machines on the campus all day long? Or Should classes or school be separated by girls and boys?

Lesson 2c: If you could have any car what would you choose & why?
Where would your dream vacation be & why?

Lesson 2d: Should students your age be allowed to carry their cell phones in class? Or Should students your age be required to do volunteer work over the summer?

APPENDIX J. POW + TREE DAILY RECORD SHEET

Name _____

POW+TREE Daily Record Sheet

Use this sheet to track how you did and what you complete each day. Look at the example on the first column.

Rate how well you did today -



3



2



1

Date	10/8											
Rate your performance today.	3											
Completed Graphic Organizer												
Wrote Topic												
Wrote Reasons												
Wrote Explanations												
Wrote Counter Reason & Explanation												
Wrote Ending												
Number of Transition Words	5											
Examined Essay (capitalization, punctuation)												
Used Self Statements												

APPENDIX K. PARTS RECORD SHEET



Student Parts Record Sheet

[illegible]

APPENDIX L. FIDELITY CHECKLIST

Fidelity Checklist

Directions- Check off all the elements of the lesson that were completed. Please note at the end how well done the lesson was along with any other pertinent comments.

Lesson 1

Stage 1: Develop and Activate Background Knowledge

Purpose: Develop student's background knowledge of persuasive writing. Sign contracts and introduce POW + TREE, find persuasive essay parts in a sample essay.

Objectives: Students will sign contract committing to learning the POW + TREE strategy. Students will be introduced to the meaning of the mnemonic POW + TREE and look at a sample essay.

___ **1.** The lesson will begin with the teacher by reviewing the goals for the day as well as expectations for all sessions.

___ **2. Contracts**

Students will sign a contract in which they will commit to learn the strategy for writing persuasive essays. The teacher will also sign the contracts and commit to teaching the strategy

___ **3. Discuss with the students what the word persuade means and how we write to persuade**

Display POW on top half of POW + TREE chart

___ **4. Describe and discuss POW:**

Display the mnemonic POW on top half of POW + TREE chart

___ **5. Discuss what makes writing a persuasive essay powerful**

___ **6. Describe and discuss TREE:**

Display bottom half of POW + TREE chart

___ **7. Read and examine a persuasive essay**

The Student will be given a copy of the essay to read along with the instructor.

The student will be asked to underline the topic sentence, the reasons, the explanations and the ending. The student will then be asked to examine the essay and see if all the parts are there.

___ **8. Introduce the graphic organizer**

Lie out the graphic organizer and show student how the mnemonic POW + TREE is written on the top as a reminder of the parts that need to be included in an essay.

Introduce the term **transition words** and discuss with the student that **“these are words the writer used to show a reason or explanation.”** Model where transition words go in the graphic organizer.

___ **9. Verbally review the POW + TREE mnemonic**

___ **11. Lesson Wrap-up - Check off the agenda**

___/10 Total

Lesson 2

Stage 2: Discuss It

Purpose: Review POW + TREE, Identify Parts of an Essay, Introduce Student Record Sheet

Objectives: The student will review the POW + TREE strategy. The student and teacher will review parts of a persuasive essay. (If student is having a difficult time identifying parts of an essay, additional essays will be reviewed.) Introduce counter reasons. Teacher will model using self-statements to fill out a graphic organizer and begin writing a persuasive essay. Student will graph a previously written essay on the record sheet.

___ **1. Instruction will begin with the teacher discussing the agenda: Today’s agenda is:**

___ **2. Discuss POW + TREE**

___ **3. Counter Reasons**

___ **4. Practice transition words**

___ **5. Graphic Organizer (GO)**

___ **6. Review the parts of the GO**

___ **7. Find parts in an essay (Repeat 1-3 times to make sure student can identify all parts).**

Model filling out a GO based on parts identified in at least 1 essay (If students struggle with filling out the GO repeat)

___ **8. Examine student essay**

“What parts are missing?”

“What could you do to make it better next time?”

___ **9. Graph performance and set goals**

Give student a copy of graph. **They also need to monitor their progress. We are going to use this graph to help us monitor our progress.**

“Do you remember our goal?” To write good persuasive essays

“Next time our goal is to have all the parts and better parts when we write an essay. We want our essay to have 10 parts.”

___ **9. Verbal review POW + TREE**

___ **10. Lesson Wrap-up - Check off the agenda**

___/10 Total

Lesson 3

Stage 3: Model It/Memorize It

Purpose: Review POW + TREE, Model, Introduce Self-Statements

Objectives: The student will state the meaning of POW + TREE and attend while the teacher models how to write an essay. The student will develop and record self-statements and graph an essay written by the teacher.

___ **1. Instruction will begin with the teacher discussing the agenda. Today’s agenda is:**

___ **2. Review POW + TREE**

“Tell me the parts of a persuasive essay.” (prompt if needed)

___ **3. Review Graphic Organizer**

“What is my goal? To write a good persuasive essays.”

___ **4. Discuss Counter Reasons**

“Yesterday we also talked about counter reasons. Can you tell me what a counter reason is?” A counter reason is a way to make your essay more powerful, by presenting another person’s point of view.

___ **5. Review Transition Words**

___ **6. Model the Strategy**

___ **7. Self-Statements**

Pass out self-statement chart to student.

Jot their ideas down on the self-statement chart

___ **8. Graph Essay**

Model how to graph essay on the student parts record sheet.

____ **9. Daily Record Sheet**

Students will be given a daily record sheet to record their progress each day.

____ **10. Lesson Wrap-up - Check off the agenda**

____/10 Total

Lesson 4

Stage 5: Support It

Purpose: Guided practice - Let the student lead as much as possible. Prompt and help as needed

Objectives: The student will review POW + TREE and collaboratively write a persuasive essay with teacher. The student will identify essay parts in essay.

____ **1. Instruction will begin with the teacher discussing the agenda. “Today’s agenda is:”**

____ **2. Review POW + TREE**

____ **3. Review Transition Words:**

“On this piece of paper can you write down as many transition words as you can think of in two minutes?” Compare the list to the transition word chart.

____ **4. Collaborative Writing – Support It**

Give student:

Graphic Organizer
Transition Word Chart
Self-Statement Sheet
Practice Prompt

Guided Help:

____ **5. Graph Essay**

“Student record sheet Let student fill out the student record sheet

____ **6. Lesson Wrap-up - Check off the agenda**

____/6 Total

Lessons 5-6

Stage 6: Independent Performance

Purpose: Independent practice/Wean off supportive materials

Objectives: The student will draw an organizer/organize notes and write a persuasive essay with at least 8 parts independently.

___ **1. Instruction will begin with the teacher discussing the agenda. “Today’s agenda is:”**

___ **2. Review POW + TREE**

“What are the parts of a good persuasive essay?”

___ **3. Wean off Graphic Organizer**

Demonstrate how students can write down the mnemonic POW + TREE at the top of a page in order to jot down ideas next to each part prior to writing.

Compare the list to the transition word chart.

___ **3. Writing - Wean off Support**

(If student did well in lesson 4, they may not need much support. Teacher should determine how much guidance to give student, and how much they need to do independently)

___ **4. Put out 2 essay prompts. Let the student work independently but prompt and help as necessary. The student can make notes on a blank piece of paper where they wrote their reminder. Go through each of the following processes.**

After the student has written their notes say – **“I must remember to look back over my notes to make sure I have all the parts and to see if there is anything that needs to be added or changed.”** Help them do this.

___ **5. Encourage and remind student to start. Let the student work independently on essay. Help if necessary. Make suggestions if parts can be improved. (If the student does not finish during the time, they can continue during the next lesson.)**

___ **6. Graph Essay**

___ **7. Lesson Wrap-up - Check off the agenda**

___ **/7 Total**

Lessons 7-8 Fluency

Purpose: To learn how to write a good persuasive essay in 10 minutes

Objectives: The student will discuss the components of a Quick Write essay, complete an essay in 10 minutes and graph how many essay parts they included and set a goal of how many parts they will write in their next essay

___ **1. “For the past few weeks we have been writing persuasive essays. You have done a GREAT job writing essays and learning these skills. Today we are going to discuss writing essays when we have a time limit or a shorter amount of time to write them. Before we start let’s go over today’s agenda.”**

___ **2. Discuss agenda. “Today’s agenda is:”**

___ **3. Review POW + TREE.**

“What are the parts of a persuasive essay?”

___ **4. Quick Write**

“Can you think of some times in school when you may have a limited amount of time to write an essay?” (Allow students time to respond – essay questions on a test, answering questions for social studies or science for homework, in-class writing assignments)

___ **5. Model how to write an essay in 10 minutes**

Include self-statements as you model. Ask student for ideas in order to take up the entire 10 minutes. If there is time left make sure to model the importance of examining your work.

8. Set timer for 10 minuets

9. Post the prompt and read it aloud

10. Jot down ideas with help from the student – Write TREE on a piece of paper and make and write one word reminders rather than phrases.

11. Begin writing. Be sure to think aloud about transitions.

12. If you finish before the time goes off say: “I still have more time, so I could add another reason or explanation or I still have time, so I can check my work and make sure my essay makes sense.”

13. When timer goes off, put pen down

14. Discuss what parts were included and what parts were missing. Point out transition words. Ask students to point out self-statements you used while working.

____ **6. Graph Model Essay**

Model filling out the POW + TREE student fluency record sheet.

____ **7. Student's Turn**

Give them paper, pencil, a prompt and a timer. Let the student work independently. Assist if needed.

____ **8. Graph Essay.**

Once the timer goes off, have student graph their essay and set a goal for next time.

____ **7. Lesson Wrap-up – Check off the agenda**

____/7 **Total**

Lesson 9- Introducing & Modeling Multiple-Paragraph Essays A

Purpose: Modeling the entire process for writing a multiple-paragraph persuasive essay.

Objectives: The students will orally say the mnemonic for POW + TREE and state what each letter stands for. The students will attend to the teacher's modeling lesson. The students will locate essay parts in a previously written essay. The students will write self-statements for the POW + TREE writing strategy.

___ **1. Discuss the goals for the day**

___ **2. Briefly review POW + TREE, transition words, and self-statements**

___ **3. Model the Strategy**

Pick my Idea

Lay out a copy of the prompt. Read aloud the practice prompt:

Model the entire process for organizing your Notes **by completing the GO**

Write and Say More

___ **4.** So in Paragraph 1 (P1) – You first write the topic sentence.

___ **5.** P2 I will start my paragraph with a TW, then I will write my reason.

___ **6.** P3, what is it I have to do? I have to write my next reason. Again I will start with a TW, then my reason and my explanation.

___ **7.** P4 I will have to write my third reason. Again I will start with a TW, my reason, and explanation.

___ **8.** P5 I will begin with a TW for showing the counter argument/opposite view and then I will state what the other's position might be and then provide an explanation for that position.

___ **9.** P6 I will write my ending or summary of the three reasons you have given. Restate your topic statement or belief and follow with the summary of your three reasons.

___ **10.** Review by asking.

___ **11. GRAPH THE ESSAY**

___ **12.** Model how to graph this essay on the Student Record Sheet. Ask students, **“Does this essay have at least 10 parts?”**

___ **13. Lesson wrap-up check off agenda and letting them know we'll be writing an essay together tomorrow.**

___ **/13 Total**

Lesson 10- Multiple-Paragraph Essays B

Purpose: Guided practice

Objectives: The students will orally state the mnemonic for POW + TREE and what each letter stands for. The students will collaboratively write an opinion essay with the teacher. The students will identify orally parts of the essay that is written.

___ **1. Review goals for the day**

___ **2. Review POW + TREE. Can do verbally as a class, with partners, or have students write it on a piece of paper.**

___ **3. Collaborative Writing – Support It. “Today you are going to write an essay by yourself, with my help.**

___ **4. Give each student a blank piece of paper to draw a GO on. Put out practice prompt:** This time let the students lead as much as possible, but prompt and help as much as needed. Each student should write an opinion essay using their own notes.

___ **5. Refer students to their self-statements for creativity or thinking free. Help each student decide what they believe and start to think of good reasons why.**

___ **6. Guide students through the GO-** After students have generated notes for all essay parts say – “remember to look back at my notes and see if I can add more notes for my essay parts.”

Help students as much as they need to do this, but try to let them do as much as they can alone. Encourage them to use other self-statements of their choice while they write. If students do not finish writing today, they can continue at the next lesson.

___ **7. Guide students through writing the essay-** This is the part that is the most different from a one-paragraph essay to a multi-paragraph essay.

___ **8. When writing it is important you remember the order of the paragraphs. Verbally discuss what parts of TREE are included in each paragraph**

___ **9. Graph the Essay and self-statements**

___ **10. Lesson wrap-up:** Check off agenda

___/10 Total

APPENDIX M. HOLISTIC QUALITY SCORE

Score of 10. Persuasive essay includes topic sentence, more than three reasons with at least three explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer's argument. Writer uses more than one counter argument/point in the essay.

Score of 9. Persuasive essay includes topic sentence, more than three reasons, at least 3 explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer's argument. Writer uses 1 counter argument/point in the essay.

Score of 8. Persuasive essay includes topic sentence, more than three reasons, at least 2 explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer's argument.

Score of 7. Persuasive essay includes topic sentence, three reasons with at least two explanations, and ending sentence. Essay is written in a logical sequence that strengthens the writer's argument.

Score of 6. Persuasive essay includes topic sentence, three reasons with at least 1 explanation, and ending sentence. Essay's sequence is weak, therefore limiting the writer's argument.

Score of 5. Persuasive essay includes topic sentence, three reasons, and ending sentence.

Score of 4. Persuasive essay includes four of the following parts: topic sentence, reasons, and ending sentence.

Score of 3. Persuasive essay includes three of the following parts: topic sentence, reasons, and ending sentence.

Score of 2. Persuasive essay includes two of the following parts: topic sentence, reasons, and ending sentence.

Score of 1. Persuasive essay includes one of the following parts: topic sentence, reason, and ending sentence.

Score of 0. No essay parts.

APPENDIX N. TEACHER RECRUITMENT SCRIPT AND PARENT RECRUITMENT LETTER

Script for Teacher Recruitment Session

Introduction:

Thank you all for coming today to this meeting. My name is Pat Leins & I am a 3rd yr PhD student at George Mason University's College of Education and Human Development. I am here to discuss your possible participation in a research intervention study to investigate the effectiveness of teaching self-regulated strategy instruction for writing in small groups of 2-3 students with students with mild disabilities at the high school level (grades 10 + 11). Both your district and principal have given their stamp of approval.

As both English and Special Education teachers in the inclusive setting, you are aware of the challenges that reading and writing bring for many of your students. As educators become more aware through state assessments of special populations and achievement; literacy skills, especially writing, are becoming a topic of interest and concern. Little information or research is available about writing instruction in the inclusive classroom setting for grades 9-12. Student scores on state writing assessments are the only outcomes of your instructional practice available to measure acquisition of skills; with a worrisome percentage of general education students and even more students with disabilities scoring below average. Recent studies show that writing strategy instruction has been successful with students in elementary and middle school grade levels for both general education students and students with disabilities. Knowing the importance of writing skills for high school students for future individual success, investigating changes in writing instruction using strategies proven to support students in the inclusive classroom is important.

The purpose of this study is to investigate the effectiveness of teaching self-regulated strategy instruction for writing in small groups of 2-3 students with students with mild disabilities at the high school level (grades 10 + 11). Can this writing strategy support high school writing instruction in the inclusive setting and assist with instructional practice? *I will be the sole researcher performing the instruction and interviews with students and teachers.* All data collected will be coded, so your identity and comments will be confidential and all data is stored in locked files at George Mason. Interviews will be scheduled at a mutually agreed upon time between classroom teachers and myself before the 4 week student maintenance measure. Interviews will be audio taped along with written notes, and you will have the option of skipping questions if you choose or expanding on any that are of particular interest. If you decide to participate, and then change your mind, at any time you may elect to remove yourself from the study.

As a former Special Education teacher at the high school and middle school levels, I understand and appreciate the value of your time and participation. I hope you will view this as an opportunity to contribute and potentially improve writing instruction for high school students. Now, I will answer any questions you have.



**The Effects of Self-Regulated Strategy Development on the
Written Language Performance of High School Students
with Mild Disabilities**

Margo A. Mastropieri and Patricia A. Leins
(703) 993-xxxx; Fax: (703) 993-xxxx
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PARENT RECRUITMENT FORM

Dear Parent,

My name is Pat Leins and I am a 3rd yr PhD student at George Mason University's College of Education and Human Development. Your son/daughter has been selected to participate in a research study I am conducting to find out the effectiveness of teaching self-regulated strategy instruction for writing in small groups of 2-3 students with students with mild disabilities at the high school level (grades 10 + 11).

Many students struggle even into high school learning necessary reading and writing skills. However, recent studies show that writing strategy instruction has been successful with students in elementary and middle school grade levels for both general education students and students with disabilities. Realizing the importance of writing skills for high school students for future individual success, this study hopes to support student achievement by investigating the effectiveness of writing strategy instruction.

If you agree to let your child participate, your child will receive writing instruction in a small group with the researcher 3 - 5 days a week for 40 minutes during a period of approximately 6 weeks. Students participating in the study will also be asked to complete one questionnaire and several writing tests at the beginning of the instruction and again at the end of the instruction, as well as completing two interviews (before instruction + immediately after instruction) about their writing and school assignments.

The study will take place at your child's school during regular school hours during a period outside of scheduled instruction. In addition, we would like to examine data from school records, such as, age, gender, previous test scores, and ethnicity. No personally identifiable information will be taken. All data collected in the study will be private, coded and confidentiality maintained. Both your district and principal have given their stamp of approval.

As both a parent and teacher, I understand and appreciate you allowing your child to participate in this research. I hope you will view this as an opportunity to contribute and potentially improve writing instruction for high school students.

Thank you,
Pat Leins, M.Ed

APPENDIX O. PARENT CONSENT AND STUDENT ASSENT



PARENT CONSENT FORM

**The Effects of Self-Regulated Strategy Development
on the Written Language Performance of High School
Students with Mild Disabilities**
Margo A. Mastropieri and Patricia A. Lens
(703) 993-XXXX, Fax: (703) 993-XXXX
Email: xxxxxx@xxx.xxx, xxxxxx@xxx.xxx

RESEARCH PROCEDURES

This study is being done to find out the effectiveness of teaching self-regulated strategy instruction for writing in small groups of 2-3 students with students with mild disabilities at the high school level (grades 10 + 11). If you agree to allow your child to participate, she/he will be asked to complete one questionnaire and four small tests at the beginning of the instruction and again at the end of the instruction, as well as 3 interviews (before instruction, immediately after instruction & one month after) about their writing and school assignments. If you agree to let your child participate, your child will receive instruction in a small group with the researcher 3 - 5 days a week for 40 minutes during a period of approximately 6 -8 weeks. Two follow-up visits will occur at about 4 weeks after the study is finished for 40 minutes each. The study will take place at your child's school during regular school hours during a period outside of scheduled instruction. In addition, we would like to examine data from school records, such as, age, gender, previous test scores, and ethnicity. No personally identifiable information will be taken.

RISKS

There are no risks in taking part in this research.

BENEFITS

There is no direct benefit to your child taking part in this study. Your child may benefit indirectly from participation by learning a writing method that could help them complete writing assignments in school.

CONFIDENTIALITY

The data in this study will be private:

1. Your child's name will not be used in the results
2. A code will be placed on your child's work
3. The researcher only, will be able to link work to your child
4. Videotaped teaching sessions will only be used to make sure all the lesson materials are being covered and will not be shown outside of the research facility

5. You will be asked to share information on your child's records that you have (such as - standardized test scores, grades, and Individual Education Program) and medical records (such as - information regarding your child's diagnosis).
6. Interviews will be audio taped and then transcribed with a code assigned to the data transcribed.

PARTICIPATION

Your child's involvement is voluntary. Your child may withdraw from the study at any time, for any reason without penalty. There are no costs to you or any other party.

CONTACT

Patricia A. Leins a student at George Mason University will carry out this research. She can be reached at xxx-xxx-xxxx. Additional questions can be directed to her teacher Dr. Margo Mastropieri at 703-993-xxxx or the George Mason University Office of Research Subject Protections at 703-993-4121 if you have questions or comments regarding your child's rights as a participant in the research.

This study has been reviewed according to George Mason University procedures governing your participation in this research.

CONSENT

I have read this form and:

Participation:

_____My child may participate

_____My child may not participate

Audio taping:

_____My child may be audio taped

_____My child may not be audio taped

Videotaping:

_____My child may be videotaped

_____My child may not be videotaped

Parent/Guardian Signature

Name of Child

Printed Name

Date

Version date: 8 August 2011



STUDENT ASSENT FORM

**The Effects of Self-Regulated Strategy Development on
the Written Language Performance of High School
Students with Mild Disabilities**

Margo A. Mastropieri and
Patricia A. Leins
(703) 993-xxxx; Fax:

(703) 993-xxxx

Email: xxxxxxx@xxx.xxx; xxxxxxx@xxx.xxx

PROCEDURES

The reason for this study is to find a way to help students write better on school assignments and papers. I want to know if you want to be in this study.

I you decide to work with me, this is what will happen:

1. You will work with me in a small group of 2-3 fellow students
2. We will work on writing.
3. At the beginning and at the end of the instruction, you will complete one questionnaire and four small tests.
4. You will also participate in 3 interviews, (before instruction, immediately after instruction & one month after) which will be audio taped.
5. We will meet 3 -5 days a week for 40 minutes for about 6 -8 weeks. Four weeks later, for two days I will check on your writing.
6. I will videotape our lessons so that I can check my teaching.
7. I will look at your school records to see your grades and other information.

RISKS

There are no risks to being in this study.

BENEFITS

There is no benefit to you being in this study. The writing method may help you with writing work in school.

CONFIDENTIALITY

Your name will not be used in the report. I will be the only one to know what you wrote. I will keep this information in a safe place.

PARTICIPATION

You do not have to be in the study. Nobody will be mad if you say no. If you say yes and change your mind after we start, that is ok. If there is something you do not understand you can ask me.

CONTACT

My name is Patricia A. Leins. I am a student at George Mason University. If you have questions my phone number is 703-xxx-xxxx. My teacher's name is Dr. Margo Mastropieri. Her number is 703-993-xxxx. George Mason University knows about this study. They said it is OK for me to do it. If you have questions about this study call 703-993-4121.

CONSENT

I have read this form, and it has been explained to me:

Participation:

_____ Yes, I will be in this study

_____ No, I will not be in this study

Audio taping:

_____ Yes you can audio tape the interviews

_____ No, you cannot audio tape the interviews

Videotaping:

_____ Yes, you can videotape the sessions

_____ No, you cannot videotape the sessions

Version date: 8 August 2011

APPENDIX P. SEMISTRUCTURED PREINSTRUCTION STUDENT INTERVIEW

Semi-Structured Preinstruction Student Interview

- 1) Do you like to write?
- 2) When asked to write a paper for school, how do you feel? Why?
- 3) Can you tell me about a recent writing assignment? –Did you enjoy the assignment?
- 4) Do you think you are a good writer?
- 5) Can you tell me what you do when you have to write a paper?
 - a) When you write is it easy to get ideas for your paper?
 - b) Do you have a hard time deciding how to organize (structure – what goes 1st, 2nd, 3rd) your paper?
 - c) Do you do any planning before you write a paper?
 - d) Do you like to write for fun?
 - e) What do you think could help you with your writing?
 - f) Do you know any tools that help you with your writing?

APPENDIX Q. ESSAY PARTS PROBE

Directions for Parts Probe

Distribute blank paper and say: *“Write your name and date on the paper. Now, write the parts of a good persuasive essay in the space below.”*

Name: _____

Date: _____

Write the parts of a good persuasive essay below.

APPENDIX R. SEMISTRUCTURED POSTINSTRUCTION AND MAINTENANCE STUDENT INTERVIEW

Semistructured Postinstruction and Maintenance Student Interview

- 1) Do you like to write now or is it any easier or just the same?
- 2) When asked to write a paper for school in the last month, how did you feel? Why?
- 3) Can you tell me about a recent writing assignment? –Did you enjoy the assignment?
- 4) Have you changed as a writer? Do you think you are a better writer?
- 5) Can you tell me what you do now when you have to write a paper?
 - a) When you write is it easier to get ideas for your paper?
 - b) What do you do to decide how to organize (structure – what goes 1st, 2nd, 3rd) your paper?
 - c) Do you do any planning before you write a paper?
 - d) Do you like to write for fun?
 - e) What else do you think could help you with your writing?
 - f) Do you know any tools that help you with your writing? Describe them.

APPENDIX S. STUDY-SPECIFIC INTERVIEW

Social Validity Questionnaire

Directions: Tell students you are going to ask them some questions about what they learned about writing.

1. Tell me the writing strategy that you learned to use. (looking for POW + TREE and what each step means Be sure to prompt here with “can you tell me more” to ensure you obtain all student knows about the strategy—remember we are also looking for counter arguments here now, too)
2. Draw a picture of the graphic organizer we used (ask student to label the parts or you write in labels if the GO is unclear)
3. What did you like most about this strategy?
4. Has using the POW + TREE strategy helped you become a better writer? How?
5. What did you learned when working with your writing teacher?
6. How do you think POW + TREE could help other students?
7. If you were the teacher, would you add anything to help students learn to write?
8. If you were the teacher, what would you change in the POW + TREE lessons? Why?
9. From the POW + TREE lessons, what things have most helped you become a better writer?
10. We used different writing time periods. One type allowed you as much time as you wanted to write an essay. The other type only allowed you ten minutes. Tell me which method you preferred and why.
11. Have you used POW + TREE in any other classes? If yes, ask, what other classes or assignments and how has it helped? (e.g., what class or classes? How did you do on those assignments? Better or worse than before?)
12. Tell me how you have used counter arguments in your writing. Why are counter arguments important?

APPENDIX T. STUDENT TIME ON TASK CHART PLANNING AND WRITING OBSERVATION

Student Time on Task Chart for Planning and Writing Observations Student # _____

Conducted by: _____ Date: _____

PHASE: circle one Baseline Postfluency Postmultiple Maintenance

Operational Definitions: Circle number(s) related to behaviors observed use lines for notes

Time Spent Planning Includes

1. Student engagement with a graphic organizer or notes on writing

2. Student is using pre-writing strategies i.e.; listing, webbing

3. Student is visibly “thinking” before writing either aloud or silently

Time Spent Writing Includes

1. Student engagement in writing persuasive

essays _____

2. Student uses writing instruments paper pencil/word processor

3. Student may be revising and editing after the process begins

4. Short pauses < 1 minute to regroup or “think” while composing

TIME PLANNING:	TIME WRITING:
Start: _____	Start: _____
Stop: _____	Stop: _____
Start: _____	Start: _____
Stop: _____	Stop: _____
Start: _____	Start: _____
Stop: _____	Stop: _____
Start: _____	Start: _____

Stop: _____	Stop: _____
Start: _____	Start: _____
Stop: _____	Stop: _____

TOTAL: _____	TOTAL: _____
Name: _____	Date: _____

Planning Measure Procedure: The researcher will observe each student participant within their group once during an untimed and once during a timed measure for each of the 6 phases of the study (2 observations per phase for 12 total per student). Student behavior will be observed as defined on the recording measure. The researcher will record start and stop times for both planning and writing, as both can occur intermittently, during a student's writing session while completing one writing prompt either timed or untimed. Unrelated behaviors such as talking to others, shuffling or moving papers, or looking out the window for an extended period will be recorded and noted on the Planning Record.

APPENDIX U. SEMISTRUCTURED MAINTENANCE TEACHER INTERVIEW

I. Demographic information

First, I would like to gather some background information.

- 1) How many years have you been teaching?
- 2) What is the highest degree you have?
- 3) What teaching license(s) do you hold?

II. Student Questions

Now I'd like to ask some questions about the individual students from your class that participated in the writing study.

- 1) Can you identify the students in your class that were participants in this study?
- 2) Describe their writing performance prior to the study?
- 3) After the study instruction during the last month, describe any changes in these students' writing performance?
- 4) Were there any particularly significant changes?
- 5) Describe the written products of these students after the study.
- 6) Did you observe behavior changes among any of the students?
- 7) Based on your observations, do you feel this instruction had a positive impact on these students?

APPENDIX V. DEPENDENT MEASURES SCHEDULE

Dependent Measures Schedule

Phase I-Baseline Testing

Session 1 1st untimed prompt (20min)* + WIAT II (Paragraph + Word Fluency) (20)*

Session 2 2nd untimed prompt (20) + WIAT II (Sentence, Essay) (20)

Session 3 3rd untimed prompt (20) + 1 10-minute timed prompt + Parts of essay probe (5)

Session 4 4th untimed prompt (20) + 2nd timed prompt (10)

Session 5 3rd + 4th timed prompts (20) + Student Interview (15)

Session 6 5th untimed prompt (20) + 5th timed prompt (10)

Phase II Instruction – Fluency Lessons 1-8

2 Parts of essay probes

Phase 3-Postfluency Instruction Testing

Session 1 1st & 2nd timed prompt (20) + 1st untimed prompt (20)

Session 2 3rd & 4th timed prompt (20) + 2nd untimed prompt (20)

Session 3 5th timed prompt (10) + Parts of essay probe (5)

Phase 4- Instruction – Multiple-Paragraph Essay Lessons 9 + 10

2 Parts of essay probes

Phase 5-Post-Multiple-Paragraph Essay Instruction Testing

Session 1 1st untimed prompt (20) + WIAT II (Paragraph + Word Fluency) (20)

Session 2 2nd untimed prompt (20) + WIAT II (Sentence, Essay) (20)

Session 3 3rd untimed prompt (20) + 1 10-minute timed prompt (10) + Social Validity measure (10)

Session 4 4th untimed prompt (20) + 2nd timed prompt (10) + Parts of essay probe (5)

Session 5 5th untimed prompt (20) + Student Interview (10)

Delay Interval

Phase 6-Maintenance + Generalization Testing

Session 1 1st untimed prompt (20) + 1 10-minute timed prompt

Session 2 1st untimed Generalization prompt + 1st timed Generalization prompt + Parts of essay probe

*Estimated number of minutes for measure.

APPENDIX W. DIRECTIONS FOR PROMPTS AND PARTS PROBE




1. Directions for Prompts: Pat's Dissertation

- **Untimed:** Give each student a piece of blank lined paper and a pencil and copies of paper containing the two prompts.
 - Say: *"Please write your name and date on the top of the paper."*
 - Then say: *"Please listen carefully as I read the prompts."*
 - Read prompts out loud to the students. *"Please write an essay response to one of the prompts on your paper."*
 - Read the prompts out loud again to the students.
 - When the students are finished writing, collect all pencils and papers. They may not make corrections at this time. Be sure to make notes of words that you may have difficulty reading in later transcription.
 - **Timed:** Give each student a piece of blank lined paper and a pencil and copies of paper containing the two prompts.
 - Say: *"Please write your name and date on the top of the paper."*
 - Then say: *"Please listen carefully as I read the prompts."*
 - Read prompts out loud to the students. *"Please write an essay response to one of the prompts on your paper. You will have 10 minutes to write your response. I will give you a 5 minute warning and a 2 minute warning during the time. When the time is up I will say 'STOP!' "*
 - Read the prompts out loud again to the students.
 - Then say: *"Is everyone ready? Okay START!"*
 - When the students are finished writing, collect all pencils and papers. They may not make corrections at this time. Be sure to make notes of words that you may have difficulty reading in later transcription.
-

APPENDIX X. POW + TREE FLUENCY RECORD SHEET

Name _____ POW+TREE Fluency Record Sheet

Use this sheet to track how you did. Look at the example on the first line.

1) Rate how well you did today -  3  2  1

Goal: _____

Date	10/8											
Rate your performance today.	 3											
Completed Graphic Organizer												
Wrote Topic												
Wrote Reasons												
Wrote Explanations												
Wrote Counter Reason & Explanation												
Wrote Refute to CR												
Wrote Ending												
Number of Transition Words	5											
Examined Essay												
Used Self Statements												

of parts: _____

APPENDIX Y. WEEKLY INSTRUCTIONAL QUESTION

Name: _____

Date: _____

How are you feeling about writing and what we are learning?

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BIOGRAPHY

Patricia Leins spent two years at Skidmore College between 1974 and 1976. In 2004, after a successful career in finance, she earned a Bachelor of Arts in Child Psychology and Counseling from George Mason University. In 2008 she earned a Master of Education in Special Education from George Mason University.

Within the field of special education, Ms. Leins began teaching by spending a year as a substitute teacher in both Loudoun and Clarke Counties. In the summer of 2001 she taught English in the summer school program for Clarke County Public Schools. In spring 2002 Ms. Leins began working as a special education resource and language arts teacher at The Hill School, in Middleburg, Virginia, continuing in this position until August 2009.

In November 2008, Ms. Leins began working part time as a research assistant on the U.S. Department of Education Office of Special Education High Quality Teacher Grant 325T with Dr. Kelley Regan at George Mason University for two years. In January 2009 she began her doctoral program. In August 2009, Ms. Leins accepted research assistantships with both Dr. Tom Scruggs and Dr. Margo Mastropieri.

From 2010 through 2012, Ms. Leins participated as a graduate researcher with the GMU-PSU Writing Project Grant (R324A070199-07) from the U.S. Department of Education. The grant's focus was to study writing instruction for adolescents with emotional and behavioral disorders (EBD). This grant was awarded to PSU with a subcontract to GMU with leadership by Dr. Mastropieri.

In 2010 she was a recipient of the Special Education Doctoral Leadership Cohort Program Fellowship under the leadership of Dr. Margo Mastropieri and Dr. Thomas Scruggs with funding from U.S. Department of Education, Office of Special Education Programs Grant # H325D070008. Ms. Leins also served as an adjunct professor for George Mason University during spring, summer, and fall semesters 2011, teaching four graduate-level courses in the Special Education program. Ms. Leins remained a full-time research fellow until September 2012, when she accepted a position as Visiting Assistant Professor of Special Education at the University of Massachusetts Amherst for a 1-year term.

Ms. Leins returned to Virginia to a position as a high school special education teacher in fall 2012, teaching English and history in the special education program at Fauquier High School. She continues to work as a teacher with Fauquier County Public Schools and as an adjunct instructor for the College of Education and Human Development at George Mason University.