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The Impact of Self-Regulated Strategy Development on the Expository Writing Performance of High School Students At-Risk for Emotional and Behavioral Disorders

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THE IMPACT OF SELF-REGULATED STRATEGY DEVELOPMENT ON THE EXPOSITORY WRITING PERFORMANCE OF HIGH SCHOOL STUDENTS AT-RISK FOR EMOTIONAL AND BEHAVIORAL DISORDERS

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by
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ABSTRACT

High school students at risk for emotional and behavioral disorders (EBD) experience academic difficulties and gaps in achievement in writing. Research has indicated that evidence-based practices (EBP) are needed to address their writing deficits. Self-Regulated Strategy Development (SRSD) is considered an evidence-based writing practice for students with disabilities. Although SRSD is an evidence-based practice, there is a lack of research investigating SRSD for high school students at-risk for EBD. This multiprobe multiple baseline study investigated the impact SRSD has on the expository writing performance and writing self-efficacy of high school students at-risk for EBD. Results revealed that students' writing performance improved as measured by the number of paragraph elements, holistic quality, and length. Findings in regard to self-efficacy varied. Implications for research and practice are discussed.

DEDICATION

To James, my loving husband. To Harrison Selah, my sweet and witty daughter. To Reed Joshua, my strong and courageous son. To Sharon, my encouraging mama. I thank God for each of you.

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First, I would like to thank my Lord and Savior, Jesus Christ. Without my faith and belief in Him, none of this would have been possible. *Psalm136:1*

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CHAPTER ONE

INTRODUCTION

Background

In 2017, over six million students ages 6 to 21 with disabilities representing 9.2% of the school population received special education services under the Individuals with Disabilities Education Act (IDEA; U.S. Department of Education, 2019). Students with emotional and behavioral disorders (EBD) represented less than 1% of the school population (U.S. Department of Education, 2019). Students who should be receiving services under the emotional disturbance (ED) classification are often under-identified (i.e., no finding of ED or special education services) or misidentified (i.e., receiving special education services in a category other than ED). As a result, it is believed that roughly 12% of school-aged children have emotional and behavioral disorders (Forness et al., 2012), a stark contrast from the <1% who are receiving services.

Students with EBD experience a myriad of poor school outcomes, particularly low academic achievement, high dropout rates, and low rates of graduating with a standard high school diploma (Bradley et al., 2008; Gage et al., 2014; Lane et al., 2008; Wagner et al., 2006; Zablocki & Krezmien, 2012). They are more likely than their peers with and without disabilities to be excluded from school due to disciplinary infractions (U.S. Dept of Education, 2016). In addition to poor school outcomes, students with EBD experience poor post-school outcomes. They face challenges with employment and enrollment in post-secondary education institutions (Bradley et al., 2008; Wagner et al., 2005) and they are more likely to be arrested and incarcerated (Sanford et al., 2011).

The extreme, chronic, inappropriate behavior that students with or at-risk for EBD experience, interferes with their academic progress in the classroom (Kauffman & Landrum, 2018). Consequently, researchers have focused heavily on interventions to improve behavior so that learning outcomes will improve (Wehby et al., 2003). While addressing behavior is of critical importance for students with or at-risk for EBD, attention to academics is of equal importance given the poor academic outcomes this population of students experience (Mattison & Blader, 2013; see also Nelson et al., 2004; Reid et al., 2004).

Academic Characteristics of Students with EBD

Academic deficits for students with EBD typically begin at an early age and persist in adolescence (Nelson et al., 2004). Lack of academic progress has been attributed to academic deficits more than behavior problems (Mattison & Blader, 2013). For example, in a study investigating relationships amongst language skills, academics, and externalizing behaviors, Nelson et al. (2006) found that externalizing behaviors had little or no influence on academics. However, language skills and academic abilities affected students' academic skills. Indeed, students with EBD experience gaps in achievement across all content areas (Nelson et al., 2004; Reid et al., 2004). Specifically, students with EBD performed well below the 25th percentile in reading (Lane et al., 2008). Likewise, in the area of math, Wagner et al. (2006) reported a decline in calculation abilities from the 34th to 24th percentile for students with EBD from elementary to high school. Gage et al. (2014) found that students with EBD performed well below their peers without disabilities in writing. While reading, mathematics, and

writing are all essential in promoting success for students in K-12 education, writing is often used to demonstrate learning across all content areas.

Importance of Writing

Writing is a tool for learning that is possibly one of the most important skills K-12 students can develop (Graham & Perin, 2007a; U.S. Department of Education, 2011). Not only is writing essential for completing school, but it is also important for post-secondary success. Indeed, writing has been referred to as a "threshold" skill and gateway for post-secondary education and employment opportunities (National Commission on Writing (NCOW), 2004). Many institutions of higher education require writing as a part of the application process, which reduces the chances for poor writers to attend (Rogers & Graham, 2008). In the workplace, employees have to write more often due to email and documentation (NCOW, 2004). Writing has also become a natural part of everyday life due to text messages and emails being a primary means for communication (Rogers & Graham, 2008). Consequently, students who fail to learn to write well are at a tremendous disadvantage (Graham & Perin, 2007a).

Writing and Students with EBD

Writing is a complex task that requires attention to rules and mechanics, along with other behaviors. Individuals who write well have the ability to self-monitor and self-regulate (Harris et al., 2008). They can plan, revise, edit several drafts of text, and utilize expressive language skills (Gage et al., 2014; Sreckovic et al., 2014). Unfortunately, these are skills that many students with or at-risk for EBD lack (Gage et al., 2014; Mastropieri & Scruggs, 2014; Sreckovic et al., 2014). More specifically, students with or

at-risk for EBD lack self-regulation skills, which have been linked to their poor educational outcomes (Polsgrove & Smith, 2004). Due to the difficulty they experience with self-regulation, writing can be an incredibly difficult task.

Gage et al. (2014) found that students with EBD performed well-below their peers in writing across narrative, expository, and persuasive genres. Specifically, students with EBD had lower scores on assessments measuring knowledge of capitalization, punctuation, usage, spelling, and revising. Gage et al. (2014) attributed low performance to a lack of ability to persist when faced with complex tasks like writing. In an earlier study, Nelson et al. (2004) found that approximately 83% of students with EBD scored below the mean of the norm group according to the Woodcock Johnson-III Broad Written Language assessment that measured spelling and writing fluency. Another study found that both elementary and secondary students performed below the 25th percentile in written expression measures (Lane et al., 2008). For the writing performance of students with or at-risk for EBD to improve, evidence-based practices (EBP) addressing writing are needed (Ennis, 2016).

Writing Instruction

Before the 1980s, the focus of writing instruction consisted of teaching spelling and grammar skills in isolation (Mills, 2012). Hayes and Flowers (1980) suggested that writing is a three-step process: (a) planning what to write, (a) translating those plans into text, and (c) revising to improve what was written. Consequently, writing instruction in schools has shifted to include a process-based approach. Currently, teachers use a variety of instructional practices to teach writing (Kiuhara, 2009). One practice that is often used

and recommended is strategy instruction because it improves the quality of adolescent writing (Graham & Perrin, 2007a). Strategy instruction in writing teaches students to plan, revise, and edit their compositions.

Expository writing is used to inform, describe, or explain. It is important for high school students to learn expository skills because this type of writing is often used at the secondary level to enhance learning in content area courses (Graham & Perin, 2007b). Additionally, Common Core State Standards (CCSS; 2010) require that this type of writing be embedded across disciplines, such as science and history, as a way to construct knowledge. Unfortunately, writing to learn or construct knowledge at the high school level is often rare in classrooms across the United States (Applebee & Langer, 2011).

One way to teach expository writing is by using the PLANS strategy (1. **P**ick goals, **L**ist ways to meet goals, **A**nd, make **N**otes, **S**equence notes; 2. Write and say more; 3. Test goals). PLANS is a mnemonic goal-setting strategy used in narrative, persuasive, and expository writing (Harris et al., 2008). This strategy was originally developed to help students with learning disabilities break a large writing assignment into small manageable parts to accomplish the ultimate goal. (Graham et al., 1992). PLANS allows students to develop a plan to help guide their writing. In the first step of the strategy, students establish the goals needed to complete the writing assignment. Next, they develop ways they can accomplish their goals. Then, they make and organize notes that are needed to complete the writing task. After students have completed the planning phase of the strategy, they write using the information from their plan. Finally, students

read their writing to evaluate their success in meeting their initial goals (see Graham et al., 1992; Harris et al., 2008).

Self-Regulated Strategy Development

One practice that is considered an EBP for students with EBD is Self-Regulated Strategy Development (SRSD; Ennis & Jolivette, 2014a; Losinski et al., 2014; Sreckovic et al., 2014). SRSD is an instructional framework, created in 1982 by Graham and Harris, that addresses strategies for writing and self-regulation skills (Harris et al., 2008). This integrated instructional approach was created for students who have difficulties with writing, self-regulation, self-efficacy, and the motivation needed to write (Graham & Harris, 2009).

Self-Efficacy

Embedded within the SRSD framework is the development and support of student self-efficacy skills in writing (Harris et al., 2008). Self-efficacy is the belief in oneself to accomplish or perform a particular task (Bandura, 1997). It is believed that self-efficacy in writing is related to writing achievement. Higher levels of writing self-efficacy lead to better writing performance (Pajares, 2003; Pajares & Valiante, 2006).

SRSD and Students with EBD

There are a few studies in the literature that have investigated the impact SRSD has on writing performance and self-efficacy of students with and at-risk for EBD. Cuenca-Sanchez et al. (2012) investigated SRSD with self-determination training for middle school students with EBD in an experimental pre-post group design. The POW+TREE (**P**ick my idea, **O**rganize my notes, **W**rite and say more, **T**opic sentence,

Reasons, **E**nding/**E**xplain reasons, **E**xamine/**E**nding) strategy was used to teach students to write persuasive essays. The experimental group scored higher than the control group on their persuasive essays as measured by length, quality, transition words, and essay parts. A pre-post self-efficacy measure revealed that students in the experimental group outperformed students in the control group at the posttest, indicating that SRSD improved self-efficacy skills in writing. Ennis & Jolivette (2014b) used SRSD instruction to investigate persuasive writing performance and self-efficacy skills for high school students with EBD in a health course. The STOP and DARE mnemonic (**S**uspend judgment, **T**ake a side, **O**rganize ideas, **P**lan more as you write, **D**evelop your topic sentence, **A**dd supporting ideas, **R**eject arguments for the other side, **E**nd with a conclusion) was used to teach six students to write persuasive essays in a multiple probe multiple baseline design. Student writing self-efficacy was measured at the beginning and conclusion of the study. SRSD STOP and DARE resulted in improved writing performance as measured by essay elements, quality, and correct word sequences. Findings regarding self-efficacy were mixed. Some students' self-efficacy scores increased while others decreased. Researchers have not drawn firm conclusions as to why self-efficacy varies in studies. Cuenca-Carlino et al. (2018) used SRSD and the POW + TREE strategy to teach nine high school students with EBD to write argumentative essays and how SRSD influenced students' self-efficacy in writing. Utilizing a multiple baseline design, they demonstrated a functional relationship between SRSD and improved argumentative writing performance. Self-efficacy findings revealed an overall

improvement in mean from pre to posttest, but the findings were not statistically significant.

Rationale

While there have been several studies investigating the use of SRSD for students with or at-risk for EBD, there is a lack of studies conducted at the high school level (Ennis & Jolivette, 2014a; Losinski et al., 2014). Furthermore, the majority of the studies at the high school level have examined the persuasive writing genre. While all genres of writing are important, expository writing is particularly important for high school students due to CCSS requiring content area writing (Graham & Perin, 2007b; CCSS, 2010). To date, no empirical studies have used the PLANS strategy, in isolation, to investigate the expository writing performance of high school students with or at-risk for EBD. Additionally, findings regarding the impact SRSD has on self-efficacy have been mixed across various settings necessitating further investigation (Ceunca-Sanchez et al., 2012; Ennis & Jolivette, 2014b).

Purpose

The purpose of this study is to extend the research of SRSD for students at-risk for EBD in two ways. First, the study will investigate the impact the PLANS strategy has on the expository writing performance of high school students with EBD. Second, the study will examine the impact SRSD has on students' writing self-efficacy. The following research questions will be investigated:

1. To what extent does the PLANS strategy, using the SRSD framework, improve the expository writing performance of high school students at-risk for EBD?

2. To what extent does the SRSD framework improve students' writing self-efficacy?

CHAPTER TWO

REVIEW OF THE LITERATURE

Self-Regulated Strategy Development

Self-regulated strategy development (SRSD) is an integrated instructional framework designed to address an academic skill, in the form of a mnemonic, and self-regulatory skills (Harris et al., 2008). Self-regulatory skills help students think about a task beforehand, monitor performance when carrying out the task, and reflect and make adjustments once the task is completed (Zimmerman & Risemberg, 1997). SRSD embodies explicit instruction and a systematic approach to teaching the writing process.

There are three major goals in SRSD for writing (Harris et al., 2008). First, SRSD helps students with mastering the cognitive processes involved in planning, producing, revising, and editing written language. Next, the framework aids students in developing the ability to self-monitor and self-manage their writing. Finally, SRSD supports students in developing positive attitudes and beliefs about themselves as writers. Embedded throughout the stages of SRSD are self-regulation strategies including goal setting (i.e., setting goal and developing a plan for reaching it; Menzies & Lane, 2011), self-monitoring (i.e., observing one's behavior and recording it; Menzies & Lane, 2011), self-reinforcement (i.e., using positive rewarding self-statements; Harris et al., 2008), and self-instruction (i.e., use of language to self-regulate behavior; Menzies & Lane, 2011).

The research on SRSD in writing has shown that this instructional framework not only improves student writing performance but also their self-efficacy and attitudes about writing (Harris & Graham, 1999). SRSD involves six recursive stages of instruction.

These six stages of instruction are: (a) develop background knowledge, (b) discuss it, (c) model it, (d) memorize it, (e) support it, and (f) independent performance. The following provides a detailed description of each of the stages.

Stage 1: Develop Background Knowledge

During this stage, teachers work with students to ensure they have the background knowledge and prerequisite skills needed to understand the selected strategy (Harris et al., 2008). For example, if a teacher is using a strategy to address an expository writing prompt regarding the scientific method, the teacher would need to make sure that the student has the appropriate vocabulary knowledge (e.g., hypothesis, experiment, conclusion) to complete the writing assignment. Also, during this stage, the teacher will introduce the concept of self-instruction and positive talk. The purpose of introducing these self-regulation skills early on is to develop background knowledge of them as well.

Stage 2: Discuss It

During this stage, the teacher helps students understand the importance, appropriate uses, and benefits of the writing strategy (i.e., the mnemonic) and self-regulation strategies (e.g., goal setting, self-monitoring, self-instruction, etc.; Harris et al., 2008). Students must recognize the benefit of the strategy during this stage so that they are motivated to use it. In this stage, teachers create a way to determine students' present levels of performance (e.g., use previous compositions, develop an assessment, etc.) so that students learn to set their own goals for performance. Students often sign a learning contract during this stage, sealing their commitment to learning the strategy (Harris et al., 2008).

Stage 3: Model It

Teachers model how to use the strategy along with self-regulation processes during this stage. The teacher uses “think-alouds” as self-instruction or self-statements to model the thought process while writing. According to Harris et al. (2008), some possible self-statements the teacher may use are: “What is the prompt asking me to write about?" "I need to focus," "I can do this if I slow down and take my time." It is important that the teacher also models error correction during this stage. (e.g., "Oops! I missed a step in the scientific process. Let me go back and start again"). The students' role during this stage is two-fold: they (a) develop an understanding of how to use the strategy and self-statements, and (b) create their self-statements to use during the later stages (Harris et al., 2008).

Stage 4: Memorize It

The goal of this stage is for the students to memorize and understand the meaning of each of the steps in the mnemonic. Students may also need to memorize the self-statements or self-instruction from the earlier stages. Although the strategy steps and self-statements were introduced long before this stage, teachers must ensure students have the steps memorized in this stage before moving forward (Harris et al., 2008).

Stage 5: Support It

During this stage, the teacher supports students in their use of the strategy through guided practice and scaffolding. The teacher provides as much support that is needed until students are successful (Harris et al., 2008). Support is gradually removed at a pace where students can eventually complete the strategy independently. Stage 5 is

typically the longest and is completed over multiple instructional sessions. This stage of instruction is critical if students are to master the use of the strategy.

Stage 6: Independent Performance

Students are performing the strategy independently during this stage. Self-regulation techniques are continuing to be used at this point but are eventually faded (Harris et al., 2008). Students must continue to be monitored during this stage of instruction. If they regress or are not performing the strategy independently, reteaching should occur.

SRSD and Students With or At-Risk of EBD

According to Graham & Perin (2007b), when the SRSD framework is used to teach writing strategies to adolescents, the quality of student writing is positively impacted. Much of the research surrounding SRSD has demonstrated its impact on writing for students with learning disabilities (Graham & Harris, 2009). However, SRSD has also been effectively used to teach writing to students with and at-risk for EBD. Its effectiveness for students with EBD has been demonstrated across elementary (Lane et al., 2008), middle (Cuenca-Sanzhez et al., 2012), and high school (Ennis et al., 2015) grade levels. Additionally, some studies have sought to examine the impact SRSD has on self-efficacy skills in writing for students with EBD.

Previous Reviews of the Literature

To date, three systematic reviews of SRSD in writing for students with or at-risk for EBD have been conducted (Ennis & Jolivette, 2014a; Losinski et al., 2014; Sreckovic et al., 2014). In the first review, Ennis and Jolivette (2014a) sought to determine if SRSD

was an EBP for students with and at risk for EBD by using quality indicators (QIs) set forth by Horner et al. (2005) examining treatment fidelity, social validity, and interobserver agreement. Additionally, writing genre, interventionists, dependent variables (DVs), and whether SRSD was administered within a PBIS framework were also examined. A total of the 14 studies met their inclusion criteria. Findings indicated that more than five single-case studies with more than 20 participants, were conducted by more than three researchers in different geographic locations. As a result, SRSD was deemed an evidence-based practice for students with and at-risk for EBD across grades 2-11.

Next, Sreckovic and colleagues (2014) extended the works of Graham et al. (2013) and Ennis and Jolivette (2014a) by (a) applying and including operational definitions of how they interpreted QIs, (b) evaluating single-case articles using Horner et al. (2005) and group design articles using Gersten et al. (2005), and (c) adding a weighting system to determine to what extent each QI was met (i.e., fully met or partially met). The authors identified a total of 13 studies that met their inclusionary criteria. Predominantly moderate to large effect sizes were found across the single case and group design studies. All group design studies (n = 3) met the required QIs for high-quality studies. The single case studies met 80% or more of the QIs. These findings indicate that the SRSD framework in writing is an EBP for students with EBD in grades 2-11.

Finally, Losinski et al. (2014) conducted a meta-analysis to extend the findings of the previous reviews. They calculated effect sizes for both single case and group designs, by using a common effect size metric (Hedges g), and investigated publication bias. They

also sought to find the differences in effects due to moderating variables. A total of 14 studies met all inclusionary criteria. Large effect sizes were found across studies measuring essay elements, quality, and word count. Study design (i.e., single case) and race/ethnicity (i.e., African American) were moderating variables where treatment effects were higher. Limited risk of publication bias was found in journals that tend only to publish positive results. The meta-analysis revealed that SRSD in writing is an EBP for students with EBD.

Purpose

The previous reviews included studies across all grade levels, in which the majority were conducted at the elementary and middle school levels. Additional research is needed at the high school level regarding SRSD across all content areas, multiple settings, and different genres of writing (Ennis & Jolivette, 2014a; Sreckovic et al., 2014). Moreover, it is essential to identify effective instructional practices at the secondary level to promote success for students with EBD during and beyond high school (Lane & Carter, 2006). Therefore, the purpose of this review is to extend and update the findings of the previous reviews by systematically examining the literature investigating the use of SRSD in writing for secondary students (i.e., 7th through 12th grades) with or at risk for EBD. The objectives of this review are to determine (a) the descriptive characteristics (e.g., setting, participants, subject/content area, etc.) of studies examining the SRSD framework in the area of writing for secondary students with or at-risk for EBD; and (b) the intervention components, outcome measures, and quality of studies investigating SRSD writing for secondary students with or at-risk for EBD.

Article Selection

A comprehensive search was conducted in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) standards (Liberati et al., 2009) to locate all relevant articles through a multiple-step process including an electronic search, ancestral search, forward search, hand search, and a search of the gray literature. The search encompassed peer-reviewed studies published from 1987 – 2019. The following databases were used in the electronic search: Education Resources Information Center (ERIC), Education Research Complete, Academic Search Premier, and PsychINFO. The search included terms entered as the following Boolean phrase: (writing) AND ("self-regulated strategy development" OR "SRSD" OR "strategy instruction") AND ("emotional and behavioral disorders" OR "EBD" OR "behavioral disorders" OR "emotional disturbance" OR "disab*"). 536 articles were returned, but 241 remained after duplicates were removed. After screening titles and abstracts, an additional 221 articles were removed. The full text of the remaining 20 articles was assessed for eligibility. 11 articles met all inclusion criteria.

Ancestral Search

An ancestral search was conducted by reviewing titles of articles referenced in literature reviews and articles that met inclusionary criteria in the electronic search. An additional four articles were located. After reading the full-text of each article, all were included.

Forward Search

The Web of Science database was used in a forward search. Relevant articles that were referenced repeatedly in articles that met inclusionary criteria were entered into the database. No additional articles were found in this process.

Hand Search

Behavioral Disorders, Remedial and Special Education, and *Exceptional Children* were used in the hand search. These journals were selected because they are notable journals in special education, and they published previous articles on the topic. The hand search did not yield any additional articles.

Gray Literature

ProQuest was used to search gray literature, which was limited to dissertations. This search returned one additional study. After the full-text screening, the study was included. The comprehensive search yielded a total of 16 studies that met inclusionary criteria. Figure 2.1 outlines the selection process at each phase.

Inclusion and Exclusion Criteria

Studies were included in the review if they met the following inclusionary criteria: (a) experimental investigations of the SRSD framework as the independent variable (IV) and writing performance measured as the DV, (b) participants were secondary- level students (i.e., 7^{th}-12^{th} grades); and (c) participants were students with or at risk of EBD. Studies were eliminated if they (a) failed to investigate writing as a DV, (b) included students who were in elementary grades (i.e., K-6^{th}), and (c) included

participants who had other disabilities (e.g., learning disabilities, intellectual disabilities, etc.) with no indication of being at-risk for an EBD.

Coding Procedures

A coding sheet was designed to include all relevant information from the studies. A third-year doctoral student in special education coded all 16 studies independently. The following variables were used in the coding process: (a) research design, (b) study characteristics, (c) intervention components, and (d) quality indicators.

Research Design

Studies were coded for experimental research design type. Studies were either group or single case research design (SCRD).

Study Characteristics

Studies were coded for settings and sample characteristics. The setting included the type of school (traditional public, residential, alternative, etc.). Variables for the sample characteristics included the total number of participants, gender, ethnicity, and grade level.

Intervention Components

The following variables were coded to examine the intervention components of each study: (a) intervention agent, (b) IV/mnemonic, (c) writing genre, (d) subject/content area, (e) DVs, (f) social validity, (g) fidelity of implementation and fidelity data, and (h) treatment effects. The intervention agent included the researcher or teacher. Mnemonics were coded based on the type of mnemonic used within the SRSD framework (e.g., POW + TREE). Writing genres included the type of writing the study

addressed (e.g., persuasive, expository, narrative, etc.). Subject/content areas were coded based on which curriculum/course was used to teach SRSD (language arts, science, social studies, math, etc.). DVs were coded by the outcome measures used to evaluate writing performance (e.g., quality, length, etc.). Social validity was coded for the type of measure used (e.g., interview, survey, etc.). Fidelity of implementation and fidelity data were coded for the procedure (e.g., checklist), and the degrees of fidelity based on percentages. The coding of treatment effects included the overall outcomes of writing performance across post-intervention and maintenance phases.

Quality Indicators

QIs for Group Comparison and Single-Subject Studies (Cook et al., 2015), based on the Council for Exceptional Children's (CEC) standards for evidence-based practices, were used to evaluate the quality of the selected studies. These standards were vetted by experts in special education research using the Delphi procedure. They demonstrated adequate interrater reliability when piloted in the field. The QIs consist of a total of 28 descriptors (i.e., 22 evaluating SCRD studies, and 24 evaluating group designs) in the areas of context and setting, participants, intervention agents, description of practice, implementation fidelity, internal validity, outcome measures/DVs, and data analysis.

Results

A total of 16 studies investigating the impact of SRSD on the writing performance of secondary students with or at-risk for EBD met inclusion criteria. Table 2.1 outlines the specifics of each of the studies.

Study Characteristics

Research Design

SCRD made up 12 (75%) of the studies. Eight (67%) SCRD studies utilized a multi-probe multiple baseline design. Three (25%) studies used a multiple baseline design. The remaining (8%) study used a multi-probe, multiple baseline design combined with an alternating treatment design. Four (25%) studies utilized group designs. They included pre-post experimental and quasi-experimental (50%), piecewise hierarchical model (25%), and waitlist control (25%).

Setting

A variety of school settings were represented across the studies. The majority (n = 7, 43.75%) were conducted in classrooms for students with EBD in public middle and high schools. The remaining studies were held in specialized day schools (n = 3, 18.75%), alternative schools (n = 3, 18.75%), and residential settings (n = 3, 18.75%).

Participants

A total of 195 participants were included across the entire sample of studies. Individual sample sizes ranged from three to 44. Most of the students were males (n = 145, 74%). All but two studies (Cramer & Mason, 2014; Mason et al., 2011) reported participants' ethnicity with Caucasian representing the highest frequency (n = 111, 57%). Grade levels ranged from 7th-12th, with the most common being middle school grades 7th and 8th.

Intervention Components

Intervention Agent

A variety of intervention agents were used, including researchers, graduate assistants/research teams, and teachers/paraprofessionals. The most common intervention agent was the researcher and graduate assistants (n = 13, 81.3%), followed by teachers (n = 2, 12.5%). Finally, a teacher and paraprofessional combination (n = 1, 6.25%) were the interventionists in the remaining study.

Independent Variable

The specific mnemonic embedded within the SRSD framework served as the IV in each of the studies. Four different mnemonics were used across the 16 studies: POW + TREE (**P**ick my idea, **O**rganize my notes, **W**rite and say more, **T**opic sentence, **R**easons, **E**nding/**E**xplain reasons, **E**xamine/**E**nding), LEAF (**L**isten as the author reads, **E**xplain what you like best, **A**sk evaluation questions, **F**inalize your comments), TWA + PLANS (**T**hink before reading, think **W**hile reading, think **A**fter reading, **P**ick goals, **L**ist ways to meet goals, **A**nd, make **N**otes, **S**equence notes), and STOP & DARE (**S**uspend judgment, **T**ake a side, **O**rganize ideas, **P**lan more as you write, **D**evelop your topic sentence, **A**dd supporting ideas, **R**eject arguments for the other side, **E**nd with a conclusion). POW + TREE was used the most (n = 11, 68.75%), followed by STOP & DARE (n = 3, 18.75%), TWA + PLANS (n = 1, 6.25%), and POW + TREE and LEAF (n = 1, 6.25%).

Genre and Subject/Content Area

All studies reported writing genres and content areas in which the intervention was implemented. Persuasive, argumentative, and summary writing was used in language

arts, health, social studies, and civics content areas. The majority of the studies investigated persuasive (*n* = 13, 81.25%), followed by argumentative (*n* = 2, 12.5%) and summary writing (*n* = 1, 6.25%). Most of the studies were conducted in the language arts content area (*n* =13, 81.25%). The remaining studies were conducted in health (*n* = 1, 6.25%), social studies (*n* = 1, 6.25%), and civics (*n* = 1, 6.25%). Some studies implemented generalization writing prompts in additional content areas (*n* = 4, 25%).

Dependent Variables

DVs evaluating writing performance varied across studies. The most frequently used DVs were essay quality, elements, and length. Essay quality was generally measured by holistic rubrics, where the overall quality of the essays was assessed. The rubrics ranged from 0-9 points. Each of the 16 studies measured essay quality. Essay elements referred to the parts of an essay (e.g., topic sentence, supporting details, conclusion, etc.). All but one study (Cuenca-Carlino et al., 2018) included the number of essay elements. Length was measured by the number of words, sentences, and/or paragraphs included in the essay. Only three studies (Cuenca-Carlino et al., 2018; Ennis & Jolivette, 2014b; Ennis et al., 2015) did not measure essay length.

Transition words, fluency, revisions, and correct word sequences were measured in some studies. Seven studies evaluated the use of transition words *(n* = 7, 43.8%). Seven studies included a fluency measure where students were given a time frame to complete sentences (*n* = 7, 43.8%). Revisions were assessed in two studies (*n* = 2, 12.5%). Two studies evaluated correct word sequences (i.e., caret between adjacent

words that are correctly spelled and punctuated within the context of the phrase or sentence; *n* = 2, 12.5%).

There were a few studies that included additional variables in conjunction with the aforementioned writing measures. Self-efficacy was evaluated in five of the studies using pre-post measures (*n* = 5, 31.3%). Ennis & Jolivette (2014b) included a measure of intrinsic motivation (i.e., what naturally motivates students to write; *n* = 1, 6.3%).). Hauth et al. (2013) and Cerar (2012) assessed strategy knowledge (*n* = 2, 12.5%). Studies conducted by Mastropieri and colleagues (2009; 2010; 2014) and Cerar (2012) included a measure of on-task behavior (*n* = 4, 25%). Cuenca-Carlino et al. (2018) and Cuenca-Sanchez et al. (2012) measured self-determination (*n* = 2, 12.5%). Cuenca-Carlino et al. (2018) evaluated self-advocacy in writing (*n* = 1, 6.3%). Mills (2012) measured errors in mechanics, punctuation, capitalization, and spelling (*n* = 1, 6.3%).

Treatment Fidelity and Social Validity

All 16 studies reported fidelity of treatment with interobserver agreement ranging from a low of approximately 90% to a high of 100%. A variety of procedures were used across studies, including in-person observations, checklists, videotapes, and daily communication. All but one study (Ennis, 2016) reported social validity data. Interviews, writing prompts, and the Children's Intervention Rating Profile was used as social validity measures. The overall consensus of social validity was positive across studies.

Treatment Effects

Based on the 16 reviewed studies, SRSD is an effective intervention to improve writing performance. From baseline phases to post-intervention in the SCRD studies and

pre to post-intervention in the group studies, all reported gains in writing performance as measured by quality, essay elements, and/or length to some extent. In terms of effect sizes, the majority of the studies measuring writing quality and elements demonstrated moderate to large effect size gains. Effect sizes for length varied across the sixteen studies showing small, moderate, and large gains. A total of twelve studies included maintenance phases. Each study reported that the effect either maintained or slightly decreased. However, the decrease never fell below pre-intervention phases in both SCRD and group design studies.

Quality Indicators

Overall, the SCRD studies met at least 90% of the QIs for single subject studies. Seven studies met 100% of the QIs (Ennis & Jolivette, 2014b; Ennis, 2016; Mason et al., 2010; Mason et al., 2011; Cuenca-Carlino et al., 2018; Cerar, 2012; Mills, 2012). Three studies met roughly 95% of the QIs (Hauth et al., 2013; Mastropieri et al., 2009; Hashey, 2015). Two studies met approximately 90% of the QIs (Cramer & Mason, 2014; Mastropieri et al., 2014). The group design studies met at least 83% of the QIs. Ennis et al. (2015) and Cuenca-Sanchez et al. (2012) met 100% of the QIs. Mastropieri et al. (2015) met 96% of the QIs. Mastropieri et al. (2010) met only 83% of the QIs. See table 2.2 for information detailing the specific indicators met for each of the studies.

Discussion

The purpose of this review was to systematically examine the literature base of SRSD in writing for secondary students with or at risk for EBD. The review sought to identify study characteristics, intervention components, and quality. The findings in this

review align with previous reviews investigating SRSD for students with and at-risk for EBD.

The first objective was to determine descriptive characteristics for each of the studies. Some important findings stood out in response to this objective. First, the majority of the studies were conducted at the middle school level in seventh and eighth grades. Only six of the 16 studies were done with students in high school grades. While there has been an increase in studies conducted at the high school level since the previous reviews, that level is still lacking when compared to elementary and middle school. Second, consistent with the previous reviews, the majority of the studies were conducted in inclusive school settings. However, there has been an increase in the number of studies done in more restrictive settings (e.g., alternative schools). Even with the increase of studies, researchers should continue to investigate the effectiveness of SRSD in restrictive settings.

The second objective was to determine intervention components, outcome measures, and the quality of each of the studies. Several findings were consistent with prior research regarding intervention components. First, the intervention agent most commonly used was the researcher/research team. Although effective SRSD instruction can be delivered by anyone with appropriate training, it is important and often suggested that classroom teachers serve as intervention agents in research studies (Losinski et al., 2014). Additionally, both teachers and researchers benefit from the teacher serving as the intervention agent in research studies (Cuenca-Carlino et al., 2018; Cuenca-Sanchez et al., 2012). Second, persuasive writing was the genre of choice in the majority of the

studies. Persuasive writing is important for students with EBD because it teaches them to think logically about an issue and resolve that issue rationally (Hauth et al., 2013; Mastropieri et al., 2010). Given students with and at-risk for EBD often face challenges which such skills, this might explain the heavy volume of the persuasive writing genre across the studies. Third, although the intervention occurred across different content areas, the majority of the studies did instruction during the allotted time for English Language Arts instruction. This finding suggests that secondary students write more during English class than they do in other content areas (Applebee et al., 2011). Fourth, SRSD was a socially acceptable intervention in studies evaluating social validity. Not only has SRSD been socially validated amongst student participants, but also teacher participants (Sreckovic et al., 2014).

Consistent with previous reviews, the majority of the studies evaluated writing quality, elements, and length. Such measures are critical when evaluating writing performance (Ennis & Jolivette, 2014). Findings regarding students' writing self-efficacy varied across studies. Some studies reported an improvement in self-efficacy, and others saw no changes that were statistically significant. While the SRSD framework supports and helps to develop self-efficacy in writing, the research has yet to establish consistent findings regarding self-efficacy (Cuenca-Sanchez et al., 2012; Ennis & Jolivette, 2014b).

Several studies met the majority, if not all, of the CEC QIs (CEC, 2014). This finding supports the previous reviews (Ennis & Jolivette, 2014b; Losinski et al., 2014; Sreckovic et al., 2014). In the studies that failed to meet the majority of the QIs, there was a common QI they were all lacking: the QI for internal validity. Specifically,

researchers failed to note if students in the control or baseline conditions had limited access to the treatment intervention. It is important to note that several of the studies not meeting this QI were written before the release of the 2014 CEC Quality Indicators.

Implications for Educators

Teachers believe that writing is important beyond high school (Kiuhara, 2009). Therefore, it is essential for secondary educators to make appropriate adaptations for students who struggle with writing while in school. Students with and at-risk for EBD who experience difficulty writing benefit from writing instruction that incorporates self-regulatory skills (Hauth et al., 2013). Consequently, secondary practitioners should consider the use of SRSD to improve student writing performance.

Furthermore, it is recommended that practitioners utilize the SRSD framework as a method of instruction because it has been deemed an EBP. The use of EBPs is necessary when teaching students with disabilities (Bullock & Gable, 2006). Although this review revealed that SRSD was mostly used in English Language Arts, a few researchers also reported positive results when used in other content areas. This is especially important given the need for teachers to utilize writing in science and social studies under CCSS (2010).

Future Research

Findings in this review reveal several areas for future research. First, due to the high frequency of studies investigating persuasive writing, researchers should consider exploring other genres. Given the CCSS (2010) requirements to use writing to enhance learning across the content areas, the expository writing genre is of particular interest.

Second, researchers should continue investigating SRSD for students with EBD in high schools to lend additional support for its effectiveness. Since the last reviews, only one additional group design study and three SCRD studies have been conducted in high schools. It may be worthwhile to conduct a review of SRSD in writing, reading, and math for secondary students to find an overall impact the framework has on older students. Finally, mixed results were reported in studies investigating the impact SRSD has on students' self-efficacy. In order to draw firm conclusions regarding SRSD and self-efficacy for students with and at-risk for EBD, researchers should include self-efficacy measures in additional studies.

Conclusion

This review sought to extend the findings of previous reviews by examining the descriptive characteristics of studies investigating the impact SRSD has on the writing performance of secondary students with and at-risk for EBD. Although SRSD has been deemed an EBP for students with EBD, the lack of studies conducted at the secondary level warranted a closer look at how this practice is being implemented with our secondary learners. Even though a small number of additional studies have been conducted since the last reviews, it is encouraging to see that there is some work being done at the secondary level.

Figure 2.1

PRISMA Flow Chart

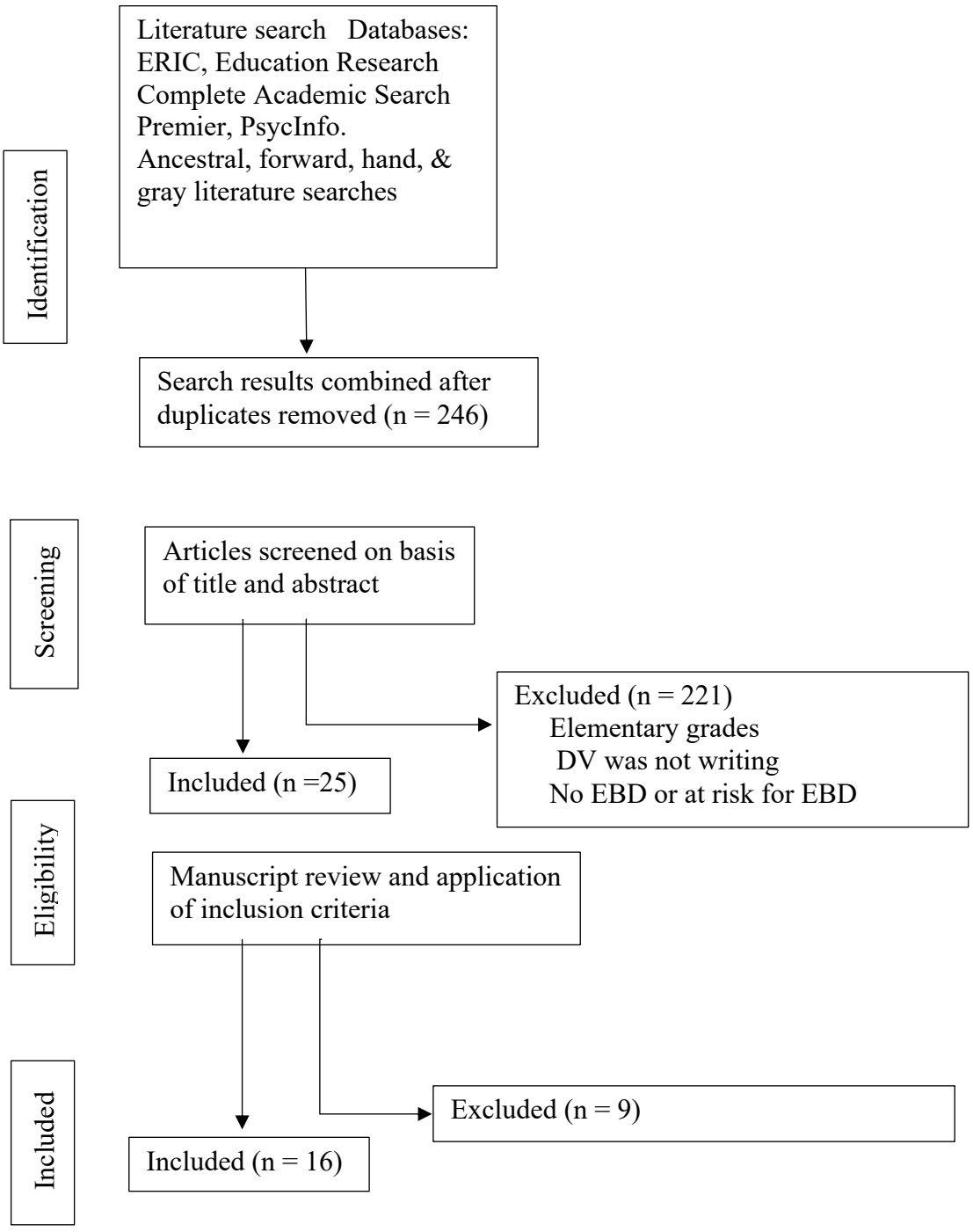


Table 2.1

Participant Characteristics & Intervention Components

Author(s)	*n*	Male	Setting	Grade	Design	Content Area	Genre	Interventionist	IV	DV
Cerar, 2012	7	6	Public school	7-8	SCRD	ELA*	Persuasive	Grad Students	POW + TREE	Quality, elements, length, sentences, paragraphs, transition words, strategy, fluency, self-efficacy, on-task behavior
Cramer & Mason, 2014	8	7	Alternative school	7-8	SCRD	ELA	Persuasive	Researcher	POW + TREE & LEAF	Quality, elements, length, revisions
Cuenca-Carlino et al., 2018	9	4	Alternative school	9, 10, 12	SCRD	ELA*	Argumentative	Teacher & parapro	POW + TREE	Organizational quality, self-advocacy in writing, self-determination, self-efficacy

Cuenca-Sanchez et al., 2012	21	20	Special day school	7	Group	ELA*	Persuasive	Teacher	POW+ TREE	Length, elements, transition words, quality, fluency, self-efficacy, self-determination, knowledge of essay parts
Ennis & Jolivette, 2014	6	2	Residential	9	SCRD	Health	Argumentative	Researcher	STOP and DARE	Quality, elements, correct word sequence, self-efficacy, intrinsic motivation
Ennis et al., 2015	44	24	Residential	7-12	Group	ELA	Persuasive	Teacher	STOP and DARE	Elements, quality, CWS, academic engagement
Ennis, 2016	3	1	Residential	9-11	SCRD	Social Studies	Summary writing of informational texts	Researcher	TWA + PLANS	Quality, elements, length

Hashey, 2015	5	4	Public school	10-11	SCRD	ELA	Persuasive	Researcher	STOP and DARE	Quality, elements, length, transition words
Hauth et al., 2013	8	7	Public school	8	SCRD	Civics*	Persuasive	Research assistants	POW + TREE	Quality, elements, length, sentences, paragraphs, transition words, strategy knowledge, planning
Mason et al., 2010	5	4	Alternative school	7-8	SCRD	ELA	Persuasive	Research assistants	POW + TREE	Quality, elements, length, fluency
Mason et al., 2011	3	3	Public school	9 & 11	SCRD	ELA	Persuasive	Researcher	POW + TREE	Quality, elements, length
Mastropieri et al., 2009	12	11	Public school	8	SCRD	ELA	Persuasive	Researcher	POW + TREE	Quality, elements, length, fluency, transition words, paragraphs on-task behavior

Mastropieri et al., 2010	10	8	Special day school	8	Group	ELA	Persuasive	Researcher & teachers	POW+ TREE	Fluency, elements, quality, length, transition words, on-task behavior
Mastropieri et al., 2014	12	12	Public school	7-8	SCRD	ELA	Persuasive	Researcher	POW + TREE	Quality, elements, length, fluency, paragraphs, sentences, on-task behavior
Mastropieri et al., 2015	32	25	Special day school	8	Group	ELA	Persuasive	Researcher	POW + TREE	Fluency, length, transition words, elements, quality, writing self-concept
Mills, 2012	10	7	Public school	8	SCRD	ELA	Persuasive	Researcher	POW + TREE	Quality, elements, length, revision, fluency, on-task behavior, self-efficacy

Note: * = generalization measure in additional content areas, CWS = Correct Word Sequence

Table 2.2

Quality Indicators

Study	Context & Setting 1.0	Participants 2.0	Intervention Agent 3.0	Description of Practice 4.0	Implementation Fidelity 5.0	Internal Validity 6.0	Dependent Variables 7.0	Data Analysis 8.0	Total QIs Met
Cerar, 2012	1/1	2/2	2/2	2/2	3/3	6/6	5/5	1/1	22/22
Cramer & Mason, 2014	1/1	1/2	2/2	2/2	3/3	5/6	5/5	1/1	20/22
Cuenca-Carlino et al., 2018	1/1	2/2	2/2	2/2	3/3	6/6	5/5	1/1	22/22
Cuenca-Sanchez et al., 2012	1/1	2/2	2/2	2/2	3/3	6/6	6/6	2/2	24/24
Ennis & Jolivette, 2014	1/1	2/2	2/2	2/2	3/3	6/6	5/5	1/1	22/22
Ennis et al., 2015	1/1	2/2	2/2	2/2	3/3	6/6	6/6	2/2	24/24
Ennis, 2016	1/1	2/2	2/2	2/2	3/3	6/6	5/5	1/1	22/22

Hashey, 2015	1/1	2/2	2/2	2/2	3/3	5/6	5/5	1/1	21/22
Hauth et al., 2013	1/1	2/2	2/2	2/2	3/3	5/6	5/5	1/1	21/22
Mason et al., 2010	1/1	2/2	2/2	2/2	3/3	6/6	5/5	1/1	22/22
Mason et al., 2011	1/1	2/2	2/2	2/2	3/3	6/6	5/5	1/1	22/22
Mastropieri et al., 2009	1/1	2/2	2/2	2/2	3/3	5/6	5/5	1/1	21/22
Mastropieri et al., 2010	1/1	2/2	2/2	2/2	2/3	3/6	6/6	2/2	20/24
Mastropieri et al., 2014	1/1	2/2	2/2	2/2	3/3	5/6	5/5	0/1	20/22
Mastropieri et al., 2015	1/1	2/2	2/2	2/2	3/3	6/6	5/6	2/2	23/24
Mills, 2012	1/1	2/2	2/2	2/2	3/3	6/6	5/5	1/1	22/22

CHAPTER THREE

METHOD

The purpose of this research is to investigate the impact SRSD has on expository writing performance and writing self-efficacy. The PLANS strategy was used to teach expository writing skills to high school students with disabilities and at-risk for EBD. A single case research design (SCRD) was employed in this experimental study. The following research questions were investigated:

Research Question 1: To what extent does the PLANS strategy, using the SRSD framework, improve the expository writing performance of high school students at risk for EBD?

Research Hypothesis 1: Students' expository writing performance will improve after learning to use PLANS.

Research Question 2: To what extent does the SRSD framework impact students' writing self-efficacy?

Research Hypothesis 2: Self-efficacy in writing will improve after implementing the SRSD lessons.

Experimental Design

This study utilized a single-case, multi-probe, multiple baseline across participants design to evaluate the effectiveness of the PLANS strategy on students' writing performance. SCRD has often been used to determine evidence-based practices in special education (Horner et al., 2005). SCRD allows for experimental investigations of a single subject or a small number of cases (Kazdin, 2011). The dependent variables (DVs)

in SCRD are measured repeatedly over time. In the multiple baseline across participants design, the intervention is introduced to different participants at different times. Employing multiple probes helps the researcher avoid the daily collection of data for an extended period of time (Kazdin, 2011). Evaluating writing on a daily basis, for students with deficits in writing, can lead to fatigue before the intervention even begins.

Recruitment, Participants, and Setting

Recruitment

After Institutional Review Board approval, the primary researcher reached out to the Special Education Director of a rural school district in the Southeastern United States. The director granted permission for the researcher to meet with a high school special education teacher for possible recruitment. After meeting with the special education teacher, principal, and human resources, permission was given to recruit students for the study. The special education teacher sent home permission forms to screen all students. Upon returning forms, the special education teacher administered three screeners for each student: (a)Woodcock Johnson-IV Writing Samples subtest (WJ-IV; Schrank et al., 2014), (b) the Strengths and Difficulty Questionnaire (SDQ; Goodman, 1997), and (c) the Student Risk Screening Scale Internalizing and Externalizing (SRSS-IE; Lane et al., 2008b). The WJ-IV *Writing Samples* subtest is used to identify writing deficits. In addition to writing skill deficits, students' attitudes towards writing may influence performance on this test (Schrank & Wendling, 2018). WJ-IV has a median internal consistency coefficient of 0.93 (Schrank & Wendling, 2018). Additionally, SRSD is a suggested intervention for students who perform poorly on this test (Schrank &

Wendling, 2018).

The SDQ and SRSS-IE were used to assess the risk status of students who may not be labeled as ED. The SDQ is a 25-item measure that assesses five domains: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationships, and prosocial behavior. The teacher version of the SDQ has high internal consistency ranging from an alpha of .70-.88 (Goodman, 1997). SDQ scores placed students into one of three risk categories: normal, borderline, or abnormal (see Lane et al., 2012). The SRSS-IE is a 12-item, one step, screening tool used to detect antisocial behavior patterns. The screener was originally developed for elementary level students, but recent studies have validated its use at the high school level (Lane et al., 2008b; Lane et al., 2012; Lane et al., 2016). The level of risk is determined as low, moderate, or high (see Lane et al., 2012). All screeners were scored by the special education teacher and primary researcher. After screeners were scored, consent forms to participate in the study were sent to parents of potential participants.

Participants

Students were eligible for the study if they (a) received special education services under the ED classification in accordance with IDEA eligibility criteria, or were identified as at-risk for behavior disorders as measured by a score of *moderate/high risk* on the SRSS and/or a score of *borderline/abnormal risk* on the SDQ, and (b) had IEP goals in writing or scored below 40 on the WJ-IV writing samples subtest. A total of three students met the eligibility criteria. One student was removed, during the baseline phase, after being expelled from school, leaving two total participants. In an effort to

establish a functional relationship, another student (i.e., Micah) was recruited for the study. The three students were males in grades 11 and 12. Table 3.1 provides specific demographic information and screening data for each participant.

Table 3.1

Participants

					Behavior Screeners			Writing	
	Gender	Ethnicity	Grade	IDEA Eligibility	SRSS-IE	SDQ	Behavior Problems	WJ-IV Samples	IEP Goal
Kenan	Male	Black	12	SLD	Mod-Low	Borderline	Maintaining Attention	17.5	Yes
Daniel	Male	White	11	OHI	High-High	Abnormal	Unpredictable conduct issues, difficulty getting along with adults	22	Yes
Micah	Male	White	11	SLD	High-High	Abnormal	Sadness, anxiety, problems getting along with peers	N/A	Yes

Note. SRSS-IE = Student Risk Screening Scale-Internalizing/Externalizing (Lane, Kalberg, Parks, & Carter, 2008); SDQ = Strengths and Difficulties Questionnaire (Goodman, 1997); WJ-IV = Woodcock Johnson-IV (Schrank, McGrew, & Mather, 2014); IEP = Individualized Education Plan; IDEA = Individuals with Disabilities Education Act; SLD = Specific Learning Disability; OHI = Other Health Impairment.

Setting

The study was conducted at a rural traditional high school serving approximately 1,300 students in grades 9-12. Approximately 90% of the students were White, 3% Hispanic, 3% Two or more races, 3% Black, and 1% identified as Asian, Native Hawaiian/Pacific Islander, and American Indian. 40% of the enrolled students qualified for free and reduced lunch. Participants were served in a special education support setting for one 90-minute period every other day. In the support classroom, students received supplemental instruction pertaining to their IEP goals and post-secondary goals. The SRSD intervention took place during the students' special education support period in a separate location in the school (e.g., cafeteria, lounge, empty classroom).

Measures and Scoring

Writing Prompts

Expository writing prompts were administered during each phase of the intervention (see Appendix A). The prompts were developed by the researcher and a certified secondary English teacher. The English teacher has seven years of high school English teaching experience and four years of administrative experience in an alternative school serving students with and at risk for behavior disorders. The prompts were developed based on their opinion of high-interest topics and everyday high school student experiences. Additionally, the prompts were reviewed by two content experts with research experience in writing assessment at the secondary level. The probes were administered to each student in the same order.

Dependent Variables and Scoring

Reliability

Paragraphs were scored by two trained scorers who were special education doctoral students. One scorer served as the primary scorer, while the other scorer's data was used to establish reliability across all phases of the study. Before scoring, the two scorers met with the researcher for training. Sample paragraphs were scored, and all disagreements were discussed until scores were agreed upon. Scorers were trained to inter-rater reliability of 100%. Prior to sending paragraphs out for scoring each week, participant responses were corrected for spelling and punctuation errors. It is common to remove mechanical errors in writing research in order to reduce the chance of errors negatively impacting the scorer's judgment (Graham, 2006; Mason et al., 2010). Inter-rater reliability was completed for 50% of the writing probes across all phases of the study. Reliability across participants was 91% for elements, 87% for quality, and 100% for length.

Essay Elements

Paragraphs were scored for the number of included elements. Participants received one point for including each of the following elements: topic sentence, three supporting details (i.e., one point for each detail), one explanation for each detail (i.e., for a total of three points), and a conclusion sentence (see Appendix B).

Quality

Holistic quality measures the overall impact of writing (Graham & Harris, 2003). Paragraphs were scored using a 0-9 point (0 = lowest, 9 = highest) holistic quality rubric

adapted from Mills (2012). Essay elements, logical sequencing, and coherence were all included in this measure. A score of 0 indicated that the student did not attempt the paragraph. A paragraph including all eight elements received a quality score of 5. A paragraph received a quality score of nine if it included more than eight elements and was written in a logical sequence. To determine appropriate quality scores, the researcher and two scorers read a variety of sample paragraphs to match scores with paragraphs (see Appendix C).

Essay Length

Each paragraph was measured for the number of words written. The Microsoft Word *word count* feature was utilized to determine the number of total words included in each of the paragraphs.

Writing Self-Efficacy

The Measure of Self-Efficacy (MSE; see Appendix D), developed by Ennis and Jolivette (2014b), was used to evaluate students' self-efficacy about the writing process. The measure was administered as a pre-post assessment. The MSE includes three sections: (a) Approach to Writing (15 statements using a 5-point Likert scale yielding a low score of 15 and a high score of 75), (B) Confidence about Writing (18 statements on a 100-point scale where 0 = no chance and 100 = complete certainty), and (C) Feelings about Writing (seven statements using a 5-point Likert scale yielding a low score of seven and a high score of 35). The higher scores indicate the use of good writing behaviors, higher levels of confidence in writing ability, and positive feelings about overall writing.

Fidelity of Implementation

SRSD lessons were audio recorded. A checklist was used to evaluate the fidelity of the SRSD lessons (see Appendix E). Fidelity data were calculated by taking the sum of the completed steps divided by the total steps and multiplied by 100. The intervention agent completed a checklist for 100% of the SRSD lessons. A trained doctoral student used the checklists to evaluate 11% of the SRSD lessons. Additional sessions were recorded, but it was not possible to retrieve the recordings for fidelity checks due to a technological error.

Social Validity

An adapted version of the Children's Intervention Rating Profile (CIRP: Witt & Elliot, 1985) was used to evaluate student acceptance of the SRSD intervention. The CIRP is a validated measure that consists of seven statements on a six-point Likert scale ranging from *I agree* to *I do not agree*. The score range for the CIRP is 7-42, with three items reversed scored. The higher the score, the higher the acceptance rate. The CIRP has high internal consistency with an alpha of 0.86 (Turco & Elliot, 1986). In addition to the scale, students were allowed to make written comments. The CIRP was scored by the primary researcher (see Appendix F).

Procedures

All lessons of the intervention were taught by the primary researcher. The researcher is a Black female doctoral student with a bachelor's degree in special education and a master's degree in school administration. The researcher has eight years of classroom experience teaching students with learning disabilities and EBD. The

researcher has also been a part of another research team investigating SRSD in a secondary classroom.

Data collected during baseline served as the control. SRSD was used during the intervention phase to teach expository writing using the PLANS mnemonic. Participants entered the post-intervention phase once the criteria for mastery were met during the intervention phase. When the first student reached mastery during the intervention phase, the second student began the intervention. This cycle continued until all students completed the post-intervention phase.

Baseline

During this phase, the pre MSE was administered along with four to six expository writing probes. While in baseline, the participants were continuing to receive writing instruction in the special education classroom. The teacher utilized a district-wide writing program. Participants entered the intervention phase in a staggered fashion based on their baseline performance.

SRSD Intervention

The SRSD PLANS lessons were adapted from Harris et al. (2008). Lessons were modified to teach students to write paragraphs instead of essays. The intervention consisted of seven total lessons across six instructional periods (lessons 4 and 5 were combined), approximately 25-35 minutes each. Three writing probes were given to participants across lessons six and seven.

Participants reached the postintervention phase when the following criteria were met: (a) 100% accuracy of knowing the steps in PLANS, and (b) a score of 6/8 essay

elements in two paragraphs. Table 3.2 outlines the overlap between the stages and lessons. Appendix G provides scripted lesson plans. The following is a description of the SRSD stages and lessons.

Stage One: Develop Background Knowledge

Stage one consisted of one lesson. During this lesson, the interventionist (a) reviewed parts of an expository paragraph, (b) discussed the usefulness of PLANS, and (c) had students commit to learning the strategy over the next several weeks. Students received their learning strategy contract.

Stage Two: Discuss It

During this stage, lesson two was taught. In lesson two, the interventionist (a) reviewed the components of a well-written paragraph, (b) discussed how planning helps with the writing process, and (c) showed students how the PLANS strategy was used to develop a paragraph. Each student received their copy of the PLANS mnemonic chart, worksheet, and goals chart (see Appendix H). Students participated in the discussion, listened, and observed as the steps in PLANS were explained.

Stage Three: Model It

In this stage, the interventionist modeled how to plan and write a good expository paragraph using the PLANS strategy. The interventionist used "think aloud" and personal self-statements to demonstrate her thinking process while planning and writing. The students observed the modeled lesson and developed their self-statements to assist them while writing.

Stage Four: Memorize It

While students practiced memorizing the steps of PLANS in previous stages, the goal of lesson four was to have the steps memorized with 100% accuracy. Lesson four began with a rapid-fire exercise. Upon completing the exercise, students were quizzed on the steps in PLANS. All students proceeded to lesson five once they demonstrated memorizing PLANS with 100% accuracy.

Stage Five: Support It

This stage took place across multiple days. Lesson five was considered guided practice. Writing prompts were selected, and students used the PLANS strategy to write a paragraph collaboratively with the interventionist. The first intervention phase data point was collected during lesson five.

In lesson six, the instructor began to scaffold the supports students were using to complete their paragraphs. Students wrote one paragraph with this lesson and attempted not to rely on any of the PLANS supports. Students were allowed to move on to the next stage if they included at least six paragraph elements. If students included less than six paragraph elements, lessons were repeated until mastery was met.

Stage Six: Independent Practice

During lesson seven, students wrote their paragraphs independently. Writing prompts were selected, and students were instructed to write a good expository paragraph without any of the supports or help from the interventionist. This lesson was repeated until mastery was met.

Post Intervention

Upon reaching mastery, students entered the post-intervention phase. Directions and procedures for completing the paragraphs were consistent with directions given during baseline and the independent practice lesson. Five prompts were selected, and students wrote five individual paragraphs without supports. The post MSE was also given during this phase.

Table 3.2

SRSD Lesson Outline

SRSD Stage	Lesson	Criterion for Mastery
1: Develop Background Knowledge	1: PLANS-What is it?	Instructor completion of lesson
2: Discuss It	2: PLANS-How is it Used?	Instructor completion of lesson
3: Model It	3: Modeling	Instructor completion of lesson
4: Memorize It	4: Do You Remember?	100% of strategy steps in PLAN
5: Support It	5: Guided Practice 1 6: Guided Practice 2	6/8 essay elements 6-8/8 essay elements on 1 of 3 paragraphs
6: Independent Practice	7: On Your Own	6/8 essay elements on 1 essay to move to post-intervention

Data Analysis

Data were analyzed by using a combination of visual analysis and Points Exceeding the Median (PEM). Visual analysis was performed in accordance with Kratochwill et al. (2010) using a four-step process to examine changes in level, trend, variability, the immediacy of effect, overlap, and patterns in the data across phases. The four-step process includes: (a) documenting a predictable baseline pattern of data, (b) examining the data within each phase of the study, (c) comparing data across similar phases, and (d) determining if there are three different demonstrations of experimental effect at different times. PEM is calculated by finding the percentage of data points in the treatment phase above the median in the baseline phase. The maximum PEM score is 100% or 1.0. A PEM of .94 or above is indicative of a highly effective intervention, .76-.93 moderately effective, and anything below that is questionable or not effective at all (Ma, 2006).

CHAPTER FOUR

RESULTS

Fidelity of Implementation

The intervention agent adhered to and completed a checklist for 100% of the SRSD lessons. Fidelity collected by the interventionist ranged from 95% to 100%, with an average of 97%. Fidelity collected by the trained doctoral student ranged from 91%-92%, with an average of 91.5%. The SRSD lessons were implemented with high fidelity.

Writing Outcomes

Student writing performance was evaluated using visual analysis, as shown in Figures 4.1, 4.2, and 4.3. Paragraph elements are graphed in Figure 4.1 by the number of total elements included in each paragraph across all instructional days. The quality of each paragraph, shown in Figure 4.2, contains the holistic quality score of each participant's paragraph across instructional days. Figure 4.3 denotes the length of the paragraphs as graphed by the total number of words across instructional days. Descriptive statistics were calculated to include the mean and standard deviation of each participant's elements, quality, and length scores across baseline, intervention, and post-intervention phases. Table 4.1 contains those descriptive statistics along with the effect size calculation PEM. Additionally, the mean and standard deviation were calculated to show overall outcomes for the three writing measures across baseline, intervention, and post-intervention, depicted in Table 4.2. The following sections discuss the results of each writing measure. First, the overall intervention outcomes are discussed. Next, individual outcomes are presented for each participant.

Table 4.1

Individual Intervention Outcomes

		Baseline			Intervention			Post-Intervention			
		M (*SD*)	Slope	*SE*	M (*SD*)	Slope	*SE*	M (*SD*)	Slope	*SE*	PEM
Kenan	Elements	2.50 (1.29)	-1.00	0.00	9.00 (2.00)	-1.0	2.45	9.33 (2.34)	0.06	2.61	1.0
	Quality	2.00 (0.82)	-0.40	0.77	8.00 (1.00)	-1.0	0.00	7.50 (1.05)	-0.14	1.13	1.0
	Length	111.25 (14.5)	5.70	15.30	175.67 (40.62)	-17.50	51.85	183.33 (25.40)	10.86	17.05	1.0
Daniel	Elements	3.83 (1.60)	-0.37	1.61	7.67 (0.58)	0.00	0.82	6.80 (2.39)	-1.10	1.89	0.8
	Quality	3.67 (1.63)	-0.51	1.48	7.67 (0.58)	0.00	0.82	6.20 (2.05)	-0.90	1.70	1.0
	Length	82.50 (18.20)	-6.77	14.60	178.33 (51.42)	2.00	72.67	111.40 (19.91)	-0.90	22.93	1.0
Micah	Elements	2.60 (0.89)	0.00	1.03	7.67 (1.53)	1.00	1.63	13.00 (4.30)	0.10	4.96	1.0
	Quality	2.00 (1.0)	0.10	1.14	7.67 (1.53)	1.00	1.63	8.00 (1.73)	-0.80	1.37	1.0
	Length	39.80 (6.53)	-3.10	4.99	86.33 (40.00)	40.00	0.82	149.80 (60.67)	-14.30	65.01	1.0

Note. M = Mean; SD = Standard Deviation; *SE* = Standard Error; PEM = Points Exceeding the Median

Table 4.2

Overall Intervention Outcomes

	Baseline M(SD)	Intervention M(SD)	Post-Intervention M(SD)
Elements	3.07 (1.39)	8.11(1.45)	9.69 (3.84)
Quality	2.67 (1.45)	7.78 (0.97)	7.25 (1.69)
Length	75.93 (31.88)	146.78 (59.42)	150.38 (47.36)

Note. M = Mean; SD = Standard Deviation

Elements

The scores for elements during the baseline phase ranged from one to six total elements across participants. The overall mean for the number of included elements was 3.07 (*SD* = 1.39). During the intervention phase, the scores were between six and 11, with a mean of 8.11(*SD* = 1.45). At post-intervention scores ranged from four to 20 with a mean of 9.69(*SD* = 3.84).

Kenan

A visual analysis was performed of Kenan's graphed data of the number of paragraph elements. Only four baseline data points were collected on Kenan due to ethical concerns. He was becoming frustrated which is why he was first to enter intervention. In writing research, probing extensively during each phase can lead to negative consequences (Harris et al., 2019). Kenan's performance during baseline demonstrated a downward trend. The number of elements included in his paragraphs continued to decline with each administered probe. To prevent writing fatigue before the intervention began, Kenan was moved to the intervention phase. The SRSD intervention revealed an immediate change in level, as shown by the final baseline point and the first

point in the intervention phase. Although the first intervention point was a collaborative essay written with the interventionist, an immediate change in level was also seen from baseline to post-intervention. The change in level demonstrated a functional relationship between the independent and dependent variables. There was some variability in Kenan's scores at the post-intervention phase, but his overall performance was higher than any points during baseline, revealing no reduction in performance. Additionally, there was a change in trend, decreasing to increasing across baseline and post-intervention phases. Kenan's final data point was collected to demonstrate that the effects of the SRSD intervention were maintained during the course of the study. Kenan's mean performance was a score of 2.5(*SD* = 1.29) during baseline and 9.33(*SD* = 2.34) at the post-intervention phase. PEM for Kenan was 1.0, indicating the SRSD instruction was highly effective in regard to Kenan's writing performance for the number of paragraph elements.

Daniel

The visual analysis of Daniel's baseline phase revealed variability in the data, with a slightly declining trend line. His final baseline point increased from two to four total elements. Daniel's intervention performance remained stable as supports were faded out. Daniel showed a change in level from his final baseline point to the first post-intervention point, demonstrating a functional relationship. Daniel's post-intervention data demonstrated a decreasing trend. There was an overlap in the data across baseline and post-intervention phases. Daniel's mean performance at baseline was a score of 3.83(*SD* = 1.60). His mean performance increased at post-intervention to 9.33(*SD* = 2.00). Daniel's PEM was .8, indicating a moderate effect.

Micah

A visual analysis for Micah indicated a stable trend in data at the baseline phase. Micah demonstrated a slight decrease in performance once intervention supports were removed entirely in the intervention phase. A change in level was shown from the final baseline point to the first post-intervention data point. Although Micah's data was variable in the post-intervention phase and showed some decrease in performance at the end, his post-intervention levels remained above baseline levels. Overall, Micah's data from baseline to post-intervention revealed a functional relationship. Micah's mean performance at baseline was 2.60(*SD* = 0.89). At post-intervention, Micah's mean score was 13.0(*SD* = 4.30), demonstrating an improvement in mean from baseline. All of Micah's post-intervention points were above the baseline median (PEM = 1.0), indicating a large effect.

Quality

The holistic quality scores during baseline ranged from one to six across participants. The overall mean at baseline was 2.67(*SD* = 1.45). During the intervention phase, the scores were between six and nine, with a mean of 7.78(*SD* = 0.97). At post-intervention scores ranged from six to nine with a mean of 7.25 (*SD* =1.69).

Kenan

A visual analysis revealed that Kenan had a declining performance during baseline, demonstrating a downward trend. The intervention phase showed that the quality of his paragraphs declined as SRSD supports were faded out. However, a change in level from baseline to intervention reveals that the quality of his writing improved.

Kenan's post-intervention data was variable, but all points remained above the highest point in the baseline phase. Kenan's final data point further demonstrates that the effectiveness of the SRSD intervention remained several weeks after the intervention was removed. Overall, the visual analysis of Kenan's data revealed a functional relationship between the independent and dependent variables. Kenan's mean holistic quality score at baseline was 2.0 (*SD* = 0.82) and improved at the end of the post-intervention phase, with a mean of 7.5 (*SD* = 1.05). Kenan's PEM was 1.0, indicating that the SRSD intervention had a high effect on the quality of Kenan's writing.

Daniel

The baseline visual analysis of Daniel's holistic quality scores showed a slightly declining trend in the data points. His final baseline point increased from two to three. Daniel's intervention performance remained stable as supports were faded out. Daniel showed a change in level from his last baseline point to the first post-intervention point, demonstrating a functional relationship. Daniel's post-intervention data demonstrated a decreasing trend. There was some overlap in the data across baseline and post-intervention phases. Daniel's mean performance at baseline was 3.67(*SD* = 1.63). His mean performance increased at post-intervention to 6.20(*SD* = 2.05). Daniel's PEM was 1.0, indicating a large effect.

Micah

A visual analysis for Micah indicated an upward trend in data at the baseline phase. Micah had a slight decrease in performance once intervention supports were removed in the intervention phase. A change in level was seen from the final baseline

point to the first post-intervention data point. This change in level demonstrated a functional relationship between the independent and dependent variables. Although Micah's data showed a decline in performance at the end of post-intervention, the data levels remained above baseline. Micah's mean performance at baseline was 2.0(*SD* =1.0). At post-intervention, Micah's mean score was 8.0(*SD* = 1.73), demonstrating an improvement in mean from baseline. Micah's post-intervention points were above the baseline median (PEM = 1.0), indicating a large effect.

Length

The scores for length during the baseline phase ranged from 33 to 126 total words across participants. The overall mean for the length at baseline was 75.93 (*SD*= 31.88). During the intervention phase, the scores were between 46 and 218, with a mean of 146.78(*SD* = 59.42). At post-intervention scores ranged from 78 to 223 with a mean of 150.38 (*SD* = 47.36).

Kenan

A visual analysis of Kenan's baseline length phase showed an increasing trend in the data. There was some variability in the data during the baseline phase. In the intervention phase, Kenan's data showed a decreasing trendline, but none of the data points fell below the baseline level. Although there was not an immediate change in level from baseline to post-intervention, there was an upward trend of the data. Overall, there was not a functional relationship demonstrated by the visual analysis of Kenan's data. Kenan's mean length at baseline was 111.25(*SD* = 14.5) and increased at post-

intervention to a mean of 182.33 (*SD* = 14.5). Kenan's PEM was 1.0, indicating a large effect.

Daniel

The visual analysis for Daniel's baseline data for the length of paragraphs revealed a downward trend. Daniel's intervention performance was variable. He demonstrated a change in level from the final baseline point to the first intervention point, but the data plummeted as supports were faded. Daniel showed a slight change in level from his final baseline point to the first post-intervention point, demonstrating a functional relationship. Daniel's post-intervention data demonstrated a decreasing trend. There was some overlap in the data across baseline and post-intervention phases. Daniel's mean performance at baseline was 82.50(*SD* = 18.20). His mean performance increased at post-intervention to 111.40(*SD* = 19.91). Daniel's PEM was 1, indicating a large effect.

Micah

A visual analysis of Micah's baseline data indicated a decrease in trend. During the intervention phase, Micah demonstrated a continuous increase in performance even when SRSD supports were no longer available. A change in level was shown from the final baseline point to the first post-intervention data point, demonstrating a functional relationship. Although Micah's data showed a decrease in performance during post-intervention, levels remained above baseline. Micah's mean performance at baseline was 39.80(*SD* = 6.53). At post-intervention, Micah's mean score was 149.80(*SD* = 60.67), demonstrating an improvement in mean from baseline. Micah's post-intervention points were above the baseline median (PEM = 1.0), indicating a large effect.

Figure 4.1

Paragraph Elements

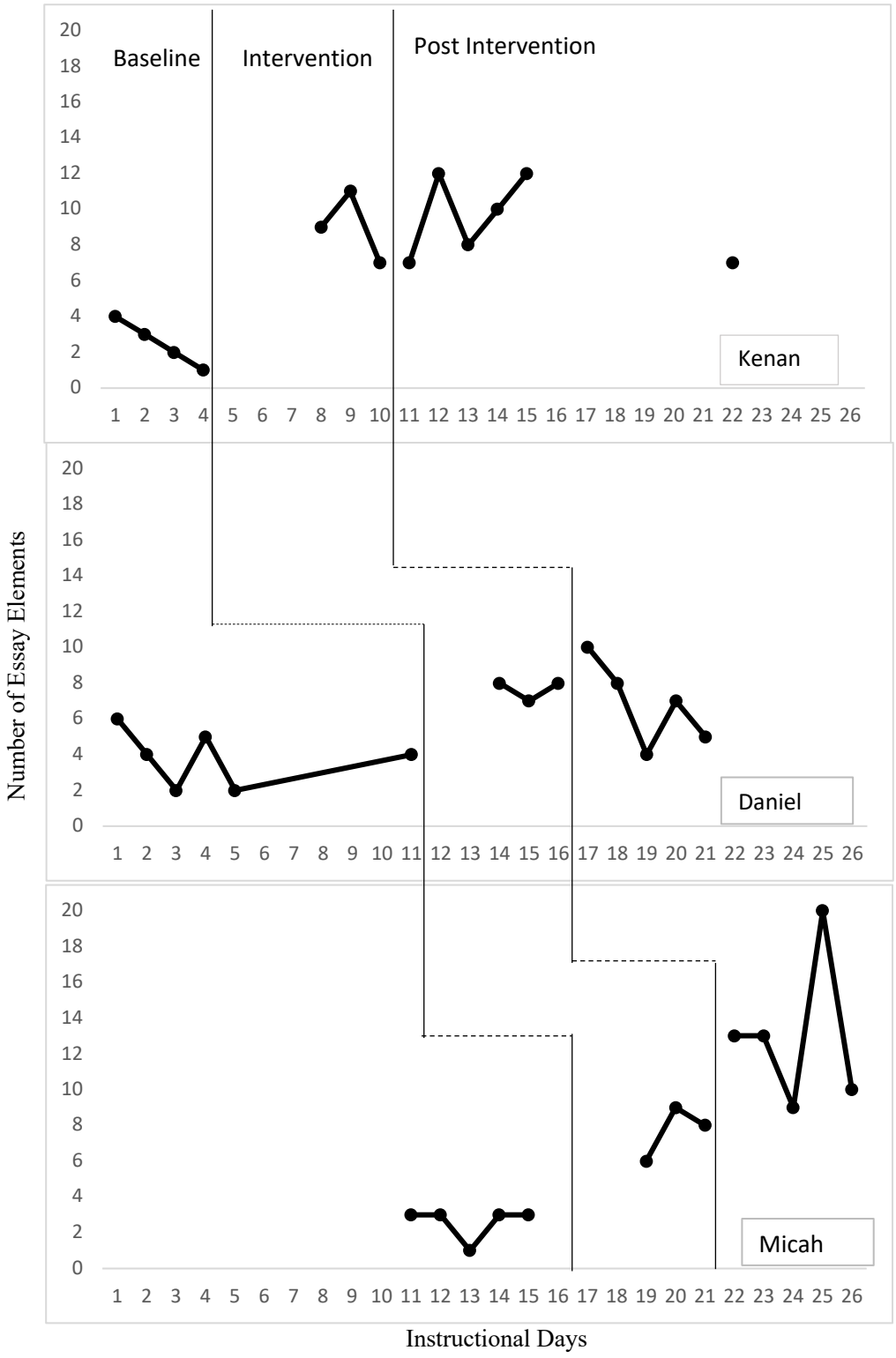


Figure 4.2

Holistic Quality

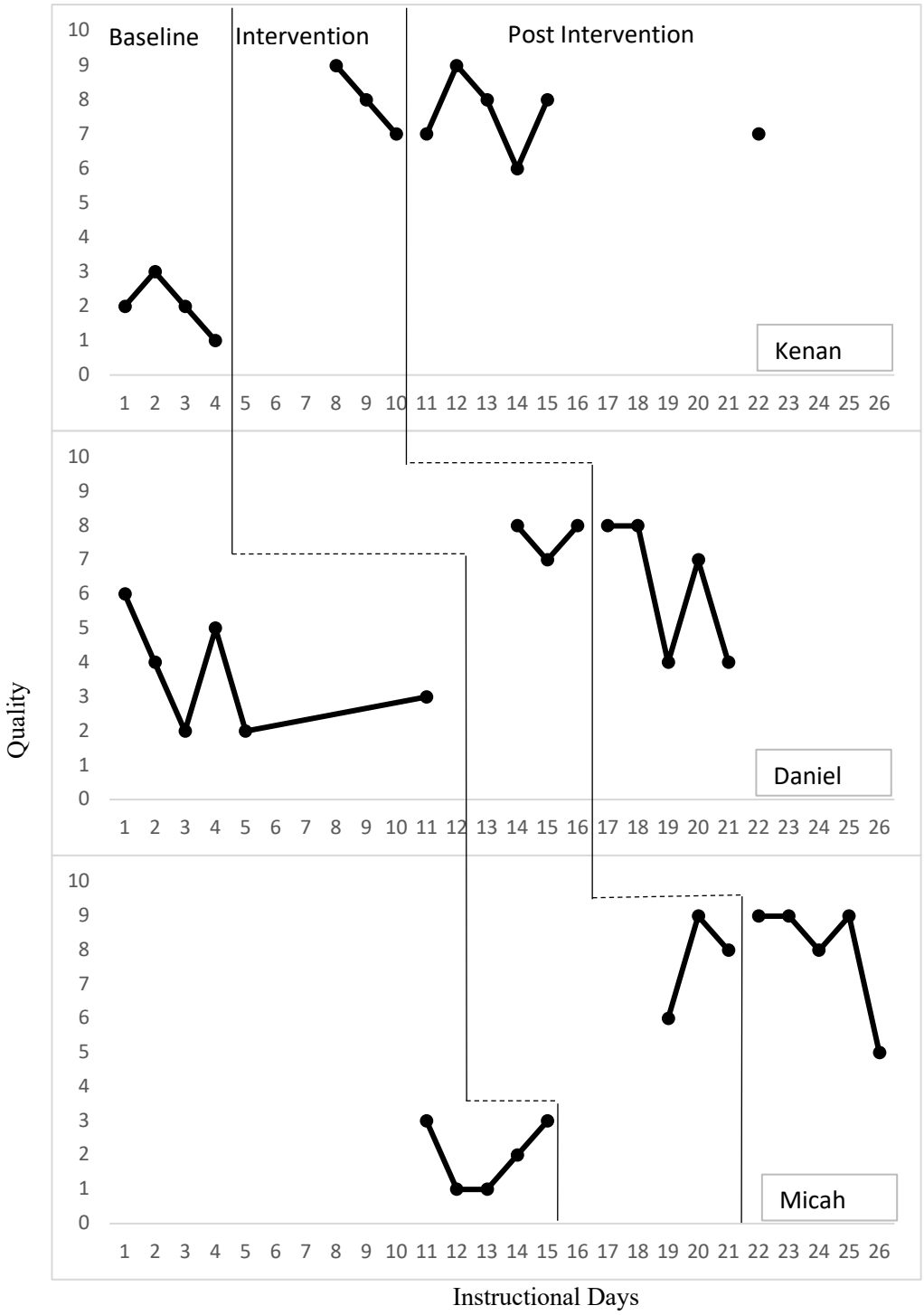
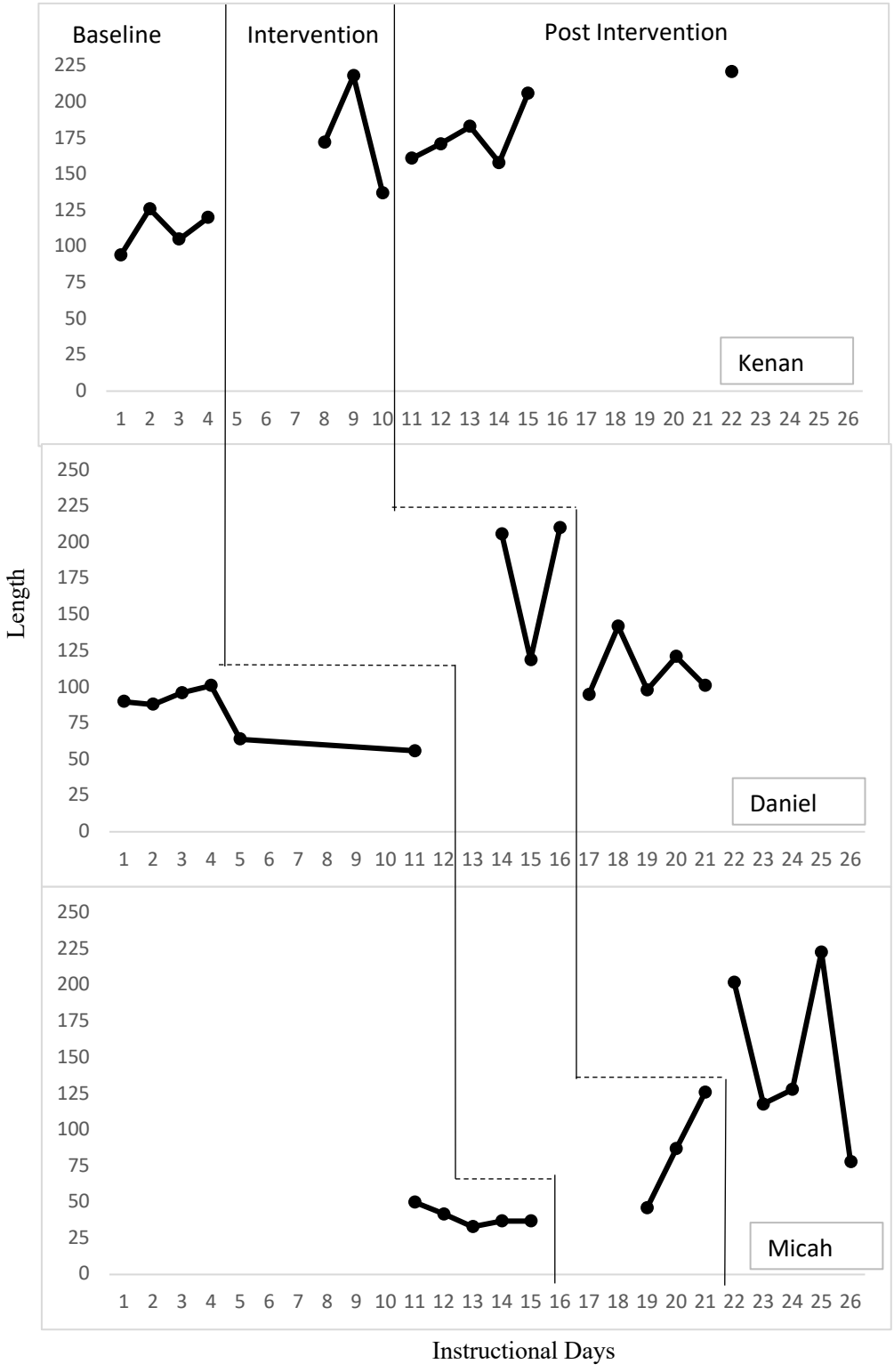


Figure 4.3

Paragraph Length



Self-Efficacy

Participants' writing self-efficacy scores were mixed. Kenan was the only participant who showed an increase from pretest to posttest on all three sections of the MSE (i.e., *approach to writing*, *confidence about writing*, and *feelings about writing*). His greatest area of growth was seen in the *confidence about writing* section. Daniel had increasing scores in the *approach to writing* and *feelings about writing* areas. He had decreasing scores in *confidence about writing*. Micah had increasing scores from pretest to posttest in his *approach to writing* and *confidence about writing*. Micah had decreasing scores in the area evaluating his *feelings about writing*. Table 4.3 provides specific details of the MSE for each participant.

Table 4.3

Measure of Self-Efficacy

	Approach to Writing		Confidence about Writing		Feelings about Writing	
	Pre	Post	Pre	Post	Pre	Post
Kenan	49	55	59.44	70	18	23
Daniel	51	53	70.28	65	15	17
Micah	41	55	37.22	58	19	13

Social Validity

The CIRP scores for the SRSD PLANS intervention ranged from 11 to 41, with an average score of approximately 31. This average indicates that overall, the intervention was acceptable. The wide range in scores is because one participant rated the SRSD intervention an 11, indicating a low level of acceptability. This student's CIRP

revealed that he: (a) did not like the intervention, (b) thought there were better ways to teach writing, and (c) did feel the intervention would help him in his other classes. The other two participants had scores of 40 and 41, indicating a high level of acceptability. These students' CIRP revealed that they: (a) liked the intervention, (b) thought the intervention was fair, and (c) would use the intervention in other courses.

CHAPTER FIVE

DISCUSSION

The purpose of this study was to investigate the impact the SRSD framework had on the expository writing performance and writing self-efficacy of high school students at risk for EBD. The overall findings align with prior research indicating SRSD improves the writing performance of students with and at-risk for EBD (Ennis & Jolivette, 2014a; Mason et al., 2010; Mastropieri et al., 2014). Results regarding writing self-efficacy were mixed. Overall, the majority of participants found that SRSD was a socially acceptable intervention.

Writing Performance

The first research question addressed to what extent did the PLANS strategy, using the SRSD framework, improve the expository writing performance of high school students at-risk for EBD. Consistent with the hypothesis, student writing performance improved. PEM indicated moderate to large effect size gains in elements, quality, and length from baseline to post-intervention for all three participants. When given the appropriate writing instruction and supports, such as SRSD, students at-risk for EBD can improve their writing skills (Cramer & Mason, 2014; Cuenca-Carlino et al., 2018; Ennis, 2016). Particularly, utilizing the SRSD framework and the PLANS strategy helped students to (a) write paragraphs that included more elements, (b) write more coherent paragraphs that improved the overall quality of the writing, and (c) write longer paragraphs.

Micah's performance was the best demonstration of the effectiveness of the SRSD framework. Before collecting baseline data, Micah shared his frustrations about writing and his reluctance to complete the probes. His baseline data demonstrated those feelings. During the intervention phase of the study, it seemed as if the use of self-statements made a tremendous difference in Micah's writing ability. Even during the post-intervention phase, he would often use his self-statements as a reminder that he could get his thoughts out on paper. As a result, the quality of his writing improved.

Kenan's performance was variable throughout each phase of the study, but overall his writing improved after the implementation of PLANS using the SRSD framework. Before the study, Kenan's special education teacher was concerned about his ADHD and lack of ability to focus, which resulted in unorganized writing. Kenan's baseline data demonstrated this incoherent writing. After the intervention, Kenan utilized the actual plan, or guide for writing, that the PLANS strategy allowed him to develop. Using this guide seemed to have positively impacted the overall organization and coherence of his paragraphs.

Daniel's variability in performance across all phases of the study is inconsistent with most of the SRSD writing research. Several factors may have influenced his outcomes and are worthy of discussion. First, a concern Daniel's special education teacher had was his inconsistent behavior patterns. She felt that when he was happy, he worked well. On days when he was unhappy, he often refused to work. During the study, the intervention agent noted there were days when Daniel was visibly upset, and his writing performance was lower than days he seemed happy. Second, Daniel had several

absences throughout SRSD instruction. It is possible that these absences influenced his variable outcomes. Last, Daniel's third post-intervention data point plunged below baseline levels. Unfortunately, this particular probe was administered shortly after returning to school from the Christmas holidays. Daniel likely regressed due to the time off from school.

A notable theme was demonstrated across two participants' visual analyses. Trends for all measures were not always in the same direction. For example, Kenan's data revealed an increase in trend during post-intervention for elements and length, but a decrease in trend for quality. It is possible that Kenan was more concerned with producing a product with more words than one that was organized and coherent. Similarly, Micah's data showed a rise in trend during post-intervention for elements, but a decline in trend for quality and length. Like Kenan, it is possible that he was more concerned with producing a product with more elements than one of better quality. These findings demonstrate that writing more information to increase length or elements will not necessarily yield a high-quality response. Such findings have been noted in other SRSD research (Cramer & Mason, 2014).

Writing prompts seemed to have influenced scores on some measures. For example, the third baseline prompt given to all participants was the lowest baseline score for the elements measure. Students were given the prompt, “If you could redesign your school building, describe what you would change.” This particular prompt did not appear to be of high interest to any of the students, which may be the reason all three scored low. Similarly, students’ experiences seemed to have influenced their writing outcomes. For

example, students were given the prompt, "Describe your favorite childhood memory." Micah wrote with great enthusiasm and yielded high scores in quality and elements. Daniel, however, stated that he did not have any positive childhood memories and wrote very few sentences causing his overall scores for that particular probe to be very low. Certain writing topics can trigger unpleasant memories, which may impact performance (see Ennis et al., 2014).

Self-Efficacy and Social Validity

The second research question addressed to what extent did the SRSD framework improve self-efficacy skills of high school students at-risk for EBD. Our hypothesis was not entirely correct. It was predicted that writing self-efficacy would improve after SRSD instruction. One student, Kenan, improved across all self-efficacy measures. After SRSD instruction, Kenan's self-efficacy in writing, as measured by the MSE, revealed that he (a) had a better approach to writing, (b) was more confident in his writing ability, and (c) felt better about writing overall. Daniel and Micah, on the other hand, improved in some areas, but not others. For example, Daniel's MSE scores suggest that while he had a better approach to writing and felt better about his writing overall, he had less confidence in his writing ability after SRSD instruction. Interestingly, he felt better about writing but less confident. Given Daniel's inconsistency during the entire study, it is possible that his mood on the days of the pre and post MSE influenced his responses. Micah's MSE scores suggest he had a better approach to writing and more confidence in his writing ability, but his overall feelings about writing changed very little. It is possible that while the SRSD framework helped to improve his confidence and approach to writing, he still did not

enjoy it. These mixed findings are consistent with the research surrounding SRSD and students' writing self-efficacy (Cuenca-Sanchez et al., 2012; Ennis & Jolivette, 2014b). As a result of the SRSD framework, writing self-efficacy improves for some students, but not all.

The majority of the participants found SRSD to be a favorable intervention which aligns with prior research (Hauth et al., 2013; Mason et al., 2011; Mastropieri et al., 2014). Kenan and Micah found the SRSD PLANS instruction to be a highly acceptable intervention. Their results on the CIRP revealed that they not only liked SRSD PLANS, but they thought it would help them to do better in school. Also, they felt the program would be a good tool to teach other students to write. In the comments section of the CIRP, Micah stated, "I really enjoyed the program. The teacher really helped me. I am writing better than I was before." Daniel's CIRP ratings revealed that he did not like the writing program. Also, he did not think the program would help him do any better in school. However, he did feel that the writing program was fair.

Meeting the Goals of SRSD

The three major goals of SRSD in writing were demonstrated in this study: First, SRSD helped students with mastering the cognitive processes involved in planning, producing, revising, and/or editing written language (Harris et al., 2008). Using principles of explicit instruction to teach participants the PLANS strategy helped them to (a) set goals, (b) develop a plan for their expository writing prompts, and (c) use that plan to complete the writing task. Second, the SRSD framework aided students in developing the ability to self-monitor and self-manage their writing (Harris et al., 2008). During the

study, students were observed setting goals, using self-instruction, and using positive self-talk. Third, SRSD supported students in developing positive attitudes and beliefs about themselves as writers (Harris et al., 2008). Kenan's MSE scores demonstrated how SRSD is used to develop and improve students' attitudes and beliefs about writing.

Implications for Practitioners

Educators (i.e., teachers, administrators, paraprofessionals, etc.) have the greatest opportunity to impact student outcomes with intervention and instruction (Bradley et al., 2008). The results from this study, and others investigating SRSD in writing for secondary learners, lend support for its use in high school classrooms educating students with and at-risk for EBD. By using SRSD, educators have the opportunity to improve not only student writing skills but also their self-regulation skills. This is important for high school special educators given that students with and at-risk for EBD typically have academic needs that develop in early grades but persist in high school (Nelson et al., 2004). Also, it is essential because secondary students need evidence-based practices, such as SRSD, to perform at a rate commensurate with their peers (Bullock & Gable, 2006; Ennis, 2016).

This study demonstrated the effectiveness of SRSD PLANS on expository writing performance. Expository writing is writing used to inform, describe, or explain. Given the emphasis in the CCSS (2010) on requiring writing to be used as a tool to inform and construct knowledge across various content areas, teachers must be equipped to teach expository writing. Educators are encouraged to use SRSD PLANS as a method of teaching this type of writing.

The social validity aspect of this study also lends support for teachers utilizing SRSD in the classroom to teach high school students at-risk for EBD expository writing. The majority of the students in the study found SRSD PLANS to be a highly effective instructional framework. If teachers use SRSD and students feel more positive about their writing; as a result, it may improve interactions between teachers and students. Improving interactions between students and teachers has implications for improving student outcomes (Bradley et al., 2008).

Limitations

While this study has demonstrated several positive findings, it is not without limitations. One major limitation of this study is the report of treatment fidelity. Due to a technological error, only 11% of the audio recordings were retained for interrater reliability. However, the primary researcher adhered to steps in each lesson and completed 100% of the checklists with high fidelity. Also, permanent product analysis was used as a secondary method of calculating interrater reliability for treatment fidelity. Another limitation that was beyond the researcher's control was the impact of the daily schedule of the school. Classes were held on an A/B schedule. Students attended four 90-minute classes on A day and four different 90-minute classes on B day. The days rotated throughout the week. As a result, if a student received SRSD instruction on a Thursday A day, they would not receive instruction again until the following Monday B day, which leaves several days the student would be without instruction. As a result of the schedule, each phase of the study took longer to complete than initially planned. The researcher was given permission to be in the school for a certain number of weeks. At the end of that

period, she was granted permission to stay an additional two weeks to finish collecting post-intervention data on the third student. Therefore, maintenance data was only collected for Kenan, who was the first student to enter post-intervention.

A final limitation is that this study did not address the mechanics of writing. Although an increase was seen across all writing measures, all mechanical writing errors were removed before scoring, which is typical in writing research to reduce scoring bias (Graham, 2006; Mason et al., 2010). However, the intervention agent noted many punctuation and grammatical errors for all three participants across all phases of the study. Because writing is important beyond high school and often used in jobs and postsecondary education (NCOW, 2004), mechanics may need to be addressed in future studies.

Future Research

Future research investigating expository writing for high school students is warranted. To date, few studies have investigated SRSD and expository writing for high school students with and at-risk for EBD. This study used general expository writing prompts that were not related to school academic subjects. Researchers should consider exploring SRSD and expository writing using prompts related to topics covered in content area courses such as mathematics, social studies, and science.

Self-efficacy findings were inconsistent across study participants. That has been the consensus across studies investigating the impact of SRSD on student writing self-efficacy. Self-efficacy improves for some students, but not all. Researchers should consider whether investigations of self-efficacy should continue. If these investigations

do continue, it may be worthwhile to consider shifting the research question regarding SRSD and student writing self-efficacy. Future researchers may want to investigate, in a qualitative study, why self-efficacy improves in some students, but not others.

Summary

Findings from this study reveal that the PLANS strategy, embedded within the SRSD framework, improved writing performance as measured by elements, quality, and length. SRSD also can impact some students' writing self-efficacy. Findings further demonstrate that SRSD is a socially acceptable intervention for high school students at-risk for EBD. Educators should consider using the SRSD framework to teach various genres of writing for students who struggle with writing. Researchers should continue to investigate the effectiveness of SRSD for high school students with and at-risk for EBD.

APPENDIX A

Expository Writing Prompts

1.	Explain the negative consequences of dropping out of school.
2.	Describe the characteristics of your ideal job.
3.	Explain the benefits of finishing high school.
4.	Describe your favorite childhood memory.
5.	Think of a person you admire. Explain why you admire this person.
6.	Describe the traits of a good leader you know.
7.	Explain why a decision you made was the right one.
8.	Explain why a decision you made was the wrong one.
9.	Describe a responsibility you have now or will have in the future.
10.	Describe what makes your favorite teacher a good teacher.
11.	If you could redesign your school building, describe what would you change.
12.	Describe your most favorite style of music.
13.	Describe your least favorite style of music.
14.	Describe the positive or negative effect the internet has on communication.
15.	Describe your favorite sport.
16.	If you could be another person for a day, describe who you would be and why.
17.	Describe your favorite thing to do over the summer.
18.	Describe your favorite movie or TV show.
19.	Describe your favorite activity at school.
20.	Describe your favorite thing to do in your hometown.

APPENDIX B

Number of Essay Elements

Element	**Score of 0: Not Included** **Score of 1: Included**
Topic Sentence	_____**/ 1**
Supporting Sentence # 1	_____**/ 1**
Supporting Sentence # 2	_____**/ 1**
Supporting Sentence # 3	_____**/ 1**
Detail/Example # 1	_____**/ 1**
Detail/Example # 2	_____**/ 1**
Detail/Example # 3	_____**/ 1**
Ending Sentence	_____**/ 1**
Total Score:	_____**/ 8**

APPENDIX C

Holistic Quality Scoring Rubric

Score of 9. Expository essay includes topic sentence, more than 3 supporting sentences, more than 3 example/detail sentences, and an ending sentence. Paragraph is written in a logical sequence.

Score of 8. Expository essay includes topic sentence, 3 supporting sentences, 3 example/detail sentences, and an ending sentence. Paragraph is written in a logical sequence.

Score of 7. Expository essay includes topic sentence, 3 supporting sentences, 2 example/detail sentences, and an ending sentence. Paragraphs is written in in a logical sequence.

Score of 6. Expository essay includes topic sentence, 3 supporting sentences, 1 example/detail sentences, and an ending sentence. Paragraph's sequencing is limited.

Score of 5. Expository essay includes topic sentence, 3 supporting sentences, and an ending sentence.

Score of 4. Expository essay includes at least 4 of the following essay elements: topic sentence, supporting sentence, example/detail sentence, and an ending sentence.

Score of 3. Expository essay includes at least 3 of the following essay elements: topic sentence, supporting details, explanations of the details, and ending sentence.

Score of 2. Expository essay includes at least 2 of the following essay elements: topic sentence, supporting detail, explanations of the details, and ending sentence.

Score of 1. Expository essay includes at least one of the following essay elements: topic sentence, supporting detail, and ending sentence.

Score of 0. No essay elements.

APPENDIX D

MEASURE OF SELF-EFFICACY

The following questionnaire asks you about the writing you do in school. There are no correct answers. Please answer each item in the way that best fits your feelings about writing.

1. Approach to Writing

Students write in different ways. Please read the following and circle the number 1-5 that best describes how you write.

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I give a lot of detail when writing.	1	2	3	4	5
My writing happens with little planning.	1	2	3	4	5
I make sure my writing is organized and easy to follow..	1	2	3	4	5
I closely examine what the writing assignment calls for.	1	2	3	4	5
My writing clearly expresses what I think.	1	2	3	4	5
I start with a fairly detailed outline.	1	2	3	4	5
I use a lot of examples and definitions to make things clear in my writing.	1	2	3	4	5
I never think about what to do when I write.	1	2	3	4	5
I easily find good words for what I want to say when writing.	1	2	3	4	5
I plan out my writing and stick with the plan.	1	2	3	4	5
I put a lot of ideas in my writing.	1	2	3	4	5
I keep my topic or theme clearly in mind as I write.	1	2	3	4	5
I immediately know what I want to say when writing.	1	2	3	4	5
I use my time wisely when writing.	1	2	3	4	5
I think about my readers while I write.	1	2	3	4	5

2. Confidence about Writing

Students differ in how confident they are about doing various assignments and activities in courses. **In relation to writing**, rate how confident you are that you can do each of the following by indicating a probability of success from 0 (no chance) to 100 (complete certainty). The scale below is for reference only; you don't need to use only the given values. You may assign **any number** between 0 and 100 as your probability.

0	10	20	30	40	50	60	70	80	90	100
No Chance		Very Little Chance		Little Chance		50/50 Chance		Good Chance	Very Good Chance	Complete Certainty

_____	I can spell my words correctly.
_____	I can write complete sentences.
_____	I can punctuate my sentences correctly.
_____	I can write grammatically correct sentences.
_____	I can begin my paragraphs in the right spots.
_____	I can quickly think of the perfect word.
_____	I can think of many ideas for my writing.
_____	I can put my ideas into writing.
_____	I can think of many words to describe my ideas.
_____	I can think of a lot of original ideas.
_____	I know exactly where to place my ideas in my writing.
_____	I can focus on my writing for at least 35 minutes.
_____	I can avoid distractions while I write.
_____	I can start writing assignments quickly.
_____	I can control my frustration when I write.
_____	I can think of my writing goals before I write.
_____	I know when and where to use writing strategies.
_____	I can keep writing even when it is difficult.

3. How I Feel About Writing

Students have different attitudes about writing. Please read the following and circle the number 1-5 that best describes your overall feelings about writing.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I enjoy writing.	1	2	3	4	5
I don't like to write.	1	2	3	4	5
Writing is fun.	1	2	3	4	5
I feel bad when I write.	1	2	3	4	5
I like to write at school.	1	2	3	4	5
I like to write at home.	1	2	3	4	5
Writing is a good way to spend my time..	1	2	3	4	5

APPENDIX E

FIDELITY CHECKLISTS

PLANS Lesson 1(Develop Background Knowledge)

____ 1. Introduce expository writing and describe how it will help students in their classes.

____ 2. Describe the parts/elements of an expository paragraph and check for student understanding of the parts/elements.

____ 3. Read sample paragraph aloud.

____ 4. Discuss parts that were included in the paragraph.

____ 5. Discuss parts that were missing from the paragraph.

____ 6. Discuss how the writer could have made the paragraph longer.

____ 7. Tell students that you are going to teach them a strategy that will help them write expository paragraphs. (emphasize that this strategy can be used for other types of paragraphs, but for now we will be working with expository texts). Introduce PLANS

____ 8. Tell what each letter of PLANS stands for.

____ 9. Tell what steps 2 and 3 are in PLANS.

____ 10. Students have the opportunity to respond/discussion evident.

____ 11. Have students sign the learning contract.

Number of steps possible today: _____ Number completed today:_____

Notes:

PLANS Lesson 2 (Discuss It)

____ 1. Quiz on steps in PLANS (can be done verbally)

____ 2. Give students PLANS goals chart and worksheet.

____ 3. Describe how to Pick goals for what you want your paragraph to say.

____ 4. Describe how to List ways to meet goals.

____ 5. Explain that the A in PLANS does not mean anything.

____ 6. Describe how to make Note about the kind of things that will be used in the paper.

____ 7. Describe how to Sequence notes.

____ 8. Describe the importance of writing and saying more.

____ 9. Describe how to test goals.

____ 10. Review the parts to include in a well-written expository paragraph.

____ 11. Students have the opportunity to respond/discussion evident.

____ 12. Remind students of quiz the next class period.

Number of steps possible today: _____ Number completed today:_____

Notes:

PLANS Lesson 3 (Model It)

____ 1. Quiz on steps in PLANS (can be done verbally)

____ 2. Tell students you will show them how to write a good expository paragraph using PLANS.

____ 3. Write steps to PLANS on a sheet of paper and refer back to it as modeling.

____ 4. Select topic and model how to check for understanding of the topic.

____ 5. Pick goals for writing paragraph.

____ 6. List ways to meet goals.

____ 7. Remind students that the A is just a filler.

____ 8. Make Notes for writing the paragraph.

____ 9. Sequence notes.

____ 10. Use "think-alouds" while writing the paragraph.

____ 11. Test goals.

____ 12. Model how to use self-statements.

____ 13. Have students develop their own self-statements.

____ 14. Students have the opportunity to respond/discussion evident.

____ 15. Remind students of quiz the next class period.

Number of steps possible today: _____ Number completed today:_____

Notes:

PLANS Lesson 4 (Memorize It)

____ 1. Rapid Fire practice of PLANS

____ 2. Quiz on PLANS

Number of steps possible today: _____ Number completed today:_____

Notes:

PLANS Lesson 5 (Support It)

____ 1. Quiz on steps in PLANS (can be done verbally, repeat lesson 4 if student does not master steps with 100% accuracy)

____ 2. Present students with writing prompt.

____ 3. Read topic aloud or have student read the topic aloud.

____ 4. Tell students that you will work as a team to write the paragraph together.

____ 5. Check for understanding of the topic.

____ 6. Help students select goals for writing the paragraph.

____ 7. Ensure that students have completed their PLANS worksheet.

____ 8. Remind students to refer to their self-statements if they get frustrated.

____ 9. Write paragraph collaboratively with student (allow student to do as much of the paragraph as possible).

____ 10. Students have the opportunity to respond/discussion evident.

____ 11. Remind students of quiz the next class period.

Number of steps possible today: _____ Number completed today:_____

Notes:

PLANS Lesson 6 (Support It)

____ 1. Quiz on steps in PLANS (can be done verbally)

____ 2. Present topic to student.

____ 3. Review the elements/parts of a well-written expository paragraph.

____ 4. Remind students of the supports they can use as they are writing.

____ 5. Students write the paragraph.

____ 6. Students have the opportunity to respond/discussion evident.

____ 7. Remind students of quiz the next class period.

Number of steps possible today: _____ Number completed today:_____

Notes:

PLANS Lesson 7 (Independent Practice)

____ 1. Quiz on steps in PLANS (can be done verbally)

____ 2. Tell students they will be writing their paragraphs independently with no supports, but they are allowed to jot down the steps to PLANS on a sheet of paper.

____ 3. Students write paragraph independently.

Number of steps possible today: _____ Number completed today:_____

Notes:

APPENDIX F

Adapted Version of The Children's Intervention Rating Profile (CIRP)

Read the statements below and check the number that best measures your response.	I Agree					I Do Not Agree
	6	5	4	3	2	1
1. The writing program was fair.						
2. The teacher was too harsh on me.						
3. Being in this writing program caused problems with my friends.						
4. There are better ways to teach writing to me.						
5. This writing program is good to teach other students to write.						
6. I like this writing program.						
7. I think this writing program will help me to do better in school.						

Comments:

APPENDIX G

Lesson 1: PLANS-What Is It?

Stage One: Develop Background Knowledge

Objectives
The students will:

- Commit to improving writing performance by signing the Learning Strategies Contract

Materials

- Learning Strategies Contract
- PLANS mnemonic chart
- Sample paragraphs
- Paper and pencils

Procedures
Give students a Learning Strategies Contract. Explain that you are going to help them learn a strategy for improving their writing. Establish a criterion for performance by examining the example essays and brainstorming together the elements that are included in a good paragraph.

--Review Sample Essay

> **Say:** We are going to spend the next several days working to improve your expository writing. Expository writing is writing to inform or explain. For example, you may write about the steps in a process, or write to explain your favorite sport. Being able to write good expository paragraphs is going to really help you in your classes. In our expository paragraphs, we will be including certain parts. Those parts include a topic sentence, supporting details, and an ending sentence. These should not be new terms to you as these are things you have learned in the past. Are you familiar with topic sentences, supporting details, and ending sentences? *(in the event that students do not remember, review each part)*
>
> Today, we are going to read a paragraph where the writer is trying to explain his ideal car. Take a moment and read the paragraph to yourself and when you finish, I will read it aloud.
>
> *Student reads paragraph*
>
> *Instructor reads paragraph aloud*
>
> **Say:** Based on the parts I mentioned earlier—topic sentence, supporting details, explanation sentences, and an ending sentence, which parts are included in the paragraph? (*A discussion takes place about which parts are included).* Which parts may be missing? (Another discussion about what is missing.) Now let's look at how long the

paragraph is. Let's count the words. It's a bit short. Do you think the writer could have written a few more words?

--Establish a Goal to Learn the Strategy

Say: I am going to teach you a strategy that will help you write good expository paragraphs. Although, we are going to practice this strategy with only one form of writing for now, you can use it with ANY type of writing and that is what I love about it. The strategy is called PLANS *(give student copy of PLANS mnemonic chart)*. PLANS is a mnemonic where every letter means something specific that will help you write your paragraph. Let's take a look to see what each letter in PLANS stands for *(have student say aloud the meaning of each letter).* Great! That is step number 1 in PLANS. Now tell me what steps 2 and 3 are (student reads 2 and 3 aloud). Right! What I need from you now is to commit to really learning and memorizing the steps in the strategy. If you agree to learning the steps, I would like for you to sign this learning contract. *(student signs contract)*

Lesson 2: PLANS-How Is It Used?

Stage Two: Discuss It

Objectives

The students will:

- Identify goals for writing essays using the PLANS mnemonic chart.
- Identify the parts of an expository paragraph.
- Identify the steps in PLANS

Materials

- PLANS mnemonic chart
- PLANS worksheet
- PLANS goals chart
- Student paragraphs
- Paper and pencils

Procedures

Quiz students on the steps in PLANS. Give each student a copy of PLANS goals chart and worksheet. Discuss each step in PLANS.

--Quiz for PLANS and Review

> **Say:** First, we will begin by reviewing the steps in the PLANS strategy. What does the letter P stand for? *Pick goals*. L? *List way to meet goals*. A? *And*. N? *Make Notes*. S? *Sequence notes*. What were the parts of a well-written paragraph?
>
> We are going to develop a goal for your writing. Let's look at some of your previous work provided by your teacher so that we can set a goal for where we want you to be by the end of this writing program we are doing. *Review one of their paragraphs and work on setting a goal.*
>
> Now let's talk about what parts we want to include in a good paragraph.

--P for Pick Goals

> **Say**: Now that you are beginning to memorize the steps, we are going to discuss exactly what each of them means while we talk about writing a good paragraph. (Give each student a copy of the PLANS mnemonic chart).
>
> The first thing you need to do before you write a paragraph is to figure out what you want to do. In other words, you must PICK GOALS for what you want your paragraph to say. The goals that you set for your paragraph should direct what you want to do.

For example, if your teacher has given you a prompt where you have to describe your favorite thing to do in your hometown, the first thing you would do is to set goals for the purpose of your paragraph. I might pick a goal to write a paragraph that will explain/describe a topic to my reader. Can you think of any other types of goals that I might set?

As you can see, there are many types of goals that will help me write my paper. I can set goals for how much I want to say, for the types of things I want to include, for the types of words I want to use, and so on. Also, the type of goals that I pick will depend on the type of paragraph or paper I am writing. Goals for an essay might be different from goals for a paragraph. To help you pick your goals for your paper, I will give you a PLANS Goals Chart with sample goals. You can use this chart anytime that you are asked to write.

- Review each of the goals on the PLANS Goals Chart. Read each goal to the student and have he/she orally repeat it.

Say: When using the PLANS Goals Chart, we pick one goal from each section—A, B, and C.

Now let's return to our PLANS mnemonic chart. If I had to write a paragraph to describe my favorite thing to do in my hometown, my first step will be to pick my goals (point to this on the PLANS Goals Chart). I would do this by looking at my PLANS goals chart and pick one goal from the A, B, and C sections. Then I would write my goals on the PLANS worksheet. (Show the students the PLANS worksheet). For instance, I would pick (select "describe/explain a topic to my reader", "paragraph that has all parts", and "paragraph 70 words or longer" and explain why you picked each). Next, I would write each of my goals down on the PLANS worksheet so that I remember them. Then I would put a star by the most important one (e.g., 'describe/explain topic…').

--L for List Ways to Meet Goals

Say: Once I have written down my goals, I need to think about how I will meet or accomplish the goals. Next to each goal on the PLANS Worksheet, I would list one or more things that I can do to meet my goals. For example, if I am writing a paragraph to describe my favorite thing to do in my hometown, and one of my goals is to explain a topic to my reader, one way I might be able to successfully meet this goal is by making sure I have fully explained the favorite thing so that someone not from my hometown may understand it. I can do this with my supporting details. For example, if one of my favorite things to do in my hometown is to attend the cross-town rivalry high school football games, I may check my supporting reasons to see if they give my reader a good description of the games. I would ask myself, would my reader understand what these football games are really like? If the answer is yes, then I would keep it; if the answer is no, then I would try to think of different explanations.

--A

Say: The A in PLANS doesn't mean anything when it comes to our actual writing. It is

just a filler letter used to make a word that will help with remembering the strategy.

--N for Make Notes

Say: Once I have finished picking my goals and listing ways to meet those goals, I would make notes about the kinds of things that I might use in my paragraph. This may include specific reasons, key words I might use, etc.

--S for Sequence Notes

Say: When I finished making all of my notes, I would think about what I wanted to come first in my paper, then second, third, and so forth. I would put a 1 by what I wanted first, a 2 by what I wanted second, a 3 by what I wanted third, and so forth.

--Write and Say More

Say: Once I have finished PLANS, I would be ready to write. My notes would be my plan, and my plan would guide what I would write. However, as I write, I may think of other things to say, and I want to be sure to include them as well To help me do this, I will remind myself to say more as I write and to remember my goals.

--Test Goals

Say: The final step is to test to see if I met my goals. To do this, I would read my paragraph again and check to see if I met all the goals that I had set. For example, if I set a goal to write 60 words, I would count the number of words written, write the number next to my goal, and write Yes if I met my goal and No if I did not. Now for the parts of a paragraph, I would check to see if I included each part; if so, I would write Yes next to my goal. If I were missing parts, I would write the parts I had left out. For my goal to write a paragraph that describes/explains a topic to my reader, I would ask myself if the paragraph really described to the reader my favorite thing to do in my hometown. If I believed that it did, I would write Yes next to my goal; otherwise, I would write No next to it. If I did not meet any of my goals, I would think about how I might meet those goals on my next writing assignment or revise this paragraph.

--Practice PLANS

(If time permits, tell the students that they will work on memorizing the steps for planning and writing. Give the student a set of PLANS cue cards)

Say: To help you remember the steps, we will do an exercise called rapid fire. We will take turns saying the steps. This is called rapid fire because you are trying to name the steps as rapidly as you can. If you need to look at the cue card, you may; however, don't rely on the card too much because I will put it away after several rounds of rapid fire.

--Wrap-Up

Say: Thank you for your attention today and for making steps to become better writers. The next time that we meet, I will check to see if you can remember the steps in PLANS.

Lesson 3: Modeling

Stage Three: Model It

Objectives
The students will:

- Attend to teacher's modeled lesson
- Write personal self-statements
- Verbally state the parts of the PLANS strategy

Materials

- PLANS mnemonic chart
- PLANS worksheet
- PLANS goals chart
- PLANS cue cards
- PLANS self-statement sheet
- Paper and pencils

Procedures
Quiz students on the steps in PLANS. Model the PLANS steps for writing a paragraph, which include the use of detailed self-statements. Students will develop personal self-statements to help them when using the strategy.

--Quiz for PLANS and Review

> **Say:** First, we will begin by reviewing the steps in the PLANS strategy. What does the letter P stand for? *Pick goals*. L? *List way to meet goals*. A? *And*. N? *Make Notes*. S? *Sequence notes*. What do we do once we have our plan? *Write and say more*. And finally, we? *Test goals*.

--Introduce Modeling

> **Say:** Today, I will show you how to use PLANS to write a good paragraph. Please remember that we could use the PLANS for other types of writing, too, like stories.
>
> As I show you how to use PLANS to write a paragraph, I will talk aloud. The things we say to ourselves while we work are very helpful.
>
> Let's start with our prompt. What is the prompt asking me to write about? It is asking me to describe my favorite thing about my hometown. First, I will do PLANS.

--PLANS

Say: To help me do PLANS, I will write the steps on this piece of paper. This will help me remember each step of PLANS. Also, I will use the PLANS worksheet when I write my goals, when I decide the ways to meet my goals, and when I make my notes. Now that I have written PLANS on my paper, I will do the first step of PLANS, which is Pick my goals. I will pick one goal from each section. As I pick a goal. I will write it in abbreviated form at the top of my paper, and I will leave a little space in between each one so I can List ways to meet goals.

I have to write a paragraph to "describe my favorite thing about my hometown. I want to be sure that I pick goals that will be right for this type of paragraph.

First, I will read all of the goals under 1. Now I have to select the appropriate goal to match what I am writing about. Which goal should I select? I should select the goal: 'I will describe/explain something to my readers'. (write this down: I am selecting this goal because I want to give a description. Repeat these procedures for the other goals under 2—using examples and nonexamples)

Now I need to select a goal for how long my paragraph will be or what I plan to include in my paragraph. For this paragraph, I really want to make sure I include all the parts. Remember the parts to a paragraph we have been talking about? Good, I have selected three very good goals that will help me write a better paragraph. These goals will guide what I do. I will write a paragraph that will describe to my readers my favorite thing about my hometown, that will have all the parts, and will make sense once I check my work by rereading it. Which of these 3 goals is the most important? That's right, the first one: describe a topic to my readers. Let's put a star by it to remind us that this is the most important goal. Great, I've done a good job.

Now that I have written my goals, I need to list ways to meet them. For each goal, I list at least one way to meet that goal. My first goal is the describe a topic to my readers. What are some things I can do to reach this goal? One thing I can do is to be sure to give a good description/explanation for each detail. How can I be sure that my descriptions are good? I can test each description I write.

When making notes, I can ask myself: Will my readers really be able to imagine what I am describing about my hometown? If not, I won't use that reason. So, one way I can meet my first goal is to test my explanations. Let me ask you a question: Which do you think would be a better? A paragraph with one good explanation, or a paragraph with three good explanations? Yes, a paragraph with 3 good reasons would be better. Great, we have thought of some good ways to help us meet our first goal.

Let's think about some ways to meet our second goal. Can you think of any ways that I can be sure that my paragraph has all the parts? (use any viable recommendation that the students offer and reinforce).

We need to think about how we will meet our third goal which is reread my paragraph and see if it makes sense. Can you think of ways that I can make sure my paragraph makes sense and answers the prompt? (Use any viable recommendations the students offer). Great, we have done a good job of thinking of ways to meet our goals.

I need to make some notes for what my paper will say. When making my notes, I want to remember my goals. I want to first think about what I am attempting to describe. Then, I want to think of details to further explain the things I described. I also want a good conclusion sentence. When thinking of these details, be sure to say to yourself, "let me take my time. Good ideas will come to me"

I now need to sequence my notes, which means I must decide what will come first, second, third, and so forth. What do you think should come first? Yes, what I am describing. (put a one next to that note. Continue sequencing until finished).

--Model How to Write the Paper

Say: I have done a very good job of planning my paragraph. Now, I need to use PLANS to help me write my paragraph. As I write, I may also think of other good things to say, and I will want to be sure to use them in my paragraph. (write the essay while thinking aloud. Be sure to use planning, definition, evaluation, and reinforcement statements—(i.e., what do I need to do next? Will my reader understand this? Can I say more here? Can I elaborate on the details, give examples, add words, and possibly add more than 3 supporting details?)).

--Test Goals

Say: Great, I think my paragraph looks very good. Now I want to check to see if I have met my goals. To do this, I will look at each goal, read my paper, and test. If I meet my goal, I will put a Yes next to my goal. If I did not, I will put a No. (Be sure to ask students if they have any questions)

--Self-Statements

Say: When I showed you how to use PLANS to write my paragraph, I talked aloud, the things I said to myself helped me write a better paragraph. For example, when I was trying to think of things to describe, what did I say to help me? That's right. I told myself to "take my time". This helped me think of ideas. (Record this on the self-statements sheet)

Can you think of other things that you might say to yourself that would help you write better papers? (wait for student responses and record them on the self-statements sheet). We don't have to say these things aloud; once we learn them, we can think them in our heads or whisper to ourselves.

--Wrap-Up

Say: Thank you for your attention today and for making steps to become better writers. The next time that we meet, I will check to see if you can remember the steps in PLANS.

Lesson 4: PLANS-Do You Remember?

Stage Four: Memorize It

Objectives
The students will:

- Memorize the steps in PLANS

Materials

- PLANS mnemonic chart
- PLANS cue cards
- PLANS self-statements sheet

Procedures
Practice the strategy until the students can fluently recite the steps. Quiz students at the end of the lesson.

--Rapid Fire Practice

Say: Today you are going to memorize the PLANS steps. We cannot move forward to writing on your own until you have the steps memorized. We are going to start with a rapid fire exercise. It is called rapid fire because you are trying to name the steps as rapidly as you can. You may look at the PLANS cue cards if you need to, but don't rely on the card too much because I'm going to put them away after a couple rounds of rapid fire. (it is okay to allow students to paraphrase the steps as long as it does not change the meaning to the steps).

--PLANS Quiz

Say: I am now going to quiz you on the steps. Take out a sheet of paper and write down the steps in PLANS.

--Review Goals & Self-Statements

Say: Now get out your PLANS goals chart and Self-Statements sheets. Let's review each of the goals we talked about last session. (review goals and make sure student understands or is able to paraphrase the goals. What about our Self-statements. Let's review the types of self-statements you can make while you are using PLANS and writing.

--Wrap-Up

Say: During our next session, you will actually begin to write. Do not forget the steps in the PLANS strategy.

Lesson 5: Guided Practice 1

Stage Five: Support It

Objectives

The students will:

- Write an essay using PLANS, collaboratively, with the teacher.

Materials

- PLANS mnemonic chart
- PLANS worksheet
- PLANS goals chart
- Self-statements sheet
- PLANS rehearsal checklist
- Paper and pencils

Procedures

Ask students to rehearse PLANS and let them know this is a test. Record their performance on the PLANS Rehearsal Checklist. If they are below 100%, go back to lesson 4 and have them do rapid fire practice. If they are at 100%, then move forward with this lesson. Do not have them practice writing essays until they meet 100% mastery. Have students write an expository paragraph with you.

--Quiz PLANS

> **Say:** We are going to start today with a quiz on the steps in PLANS. Can you tell me what the P in PLANS stand for? L? A? N? S? That is step 1. What is step 2? Step 3? (*If students have 100% mastery, move forward. If not, repeat lesson 4 until they answer with 100% accuracy, record attempt on the rehearsal sheet).*

--Choose Essay Topic

> For the next several days, you will practice using PLANS to write paragraphs. Get out your PLANS mnemonic chart, worksheet, self-statement sheets, and goals chart. Now I am going to give you a prompt to write about. (Choose topic from prompt list)
>
> I like that topic! This should be fun to write about. We are actually going to write the paragraph together, but I am going to let you do as much of the work as possible.

--Collaboratively Write the Paragraph

> According to what we have learned the past few days, what is the first thing we should do before we begin to write our essay? That is correct we are going to read our topic and make sure we understand it. (have student read topic) Great! What do we do next? That is

right, we jot down the steps in PLANS if we need to. So we begin by picking our goals for writing our paragraph. Let's look at our PLANS goal sheet, pick our goal, and then record them on our Plans worksheet..(continue to go through the entire mnemonic and fill out the worksheet with the student)

I think we are now ready to write. Remember that as we are writing, if you get tired or are feeling discouraged, take a look at your self-statements sheet for encouragement. It is okay to get frustrated or tired, just remember we do not want that frustration to keep us from completing our assignment.

Help student to develop a paragraph with all the elements. Allow students to do as much of the work as possible. It is okay to prompt and remind students as they are working during this lesson. If student gets frustrated remind them of the self-statement sheets.

--Wrap-Up

Say: You did a really good job today! The next time we meet we are going to look back at this essay to see if we met our goals and included all of our parts. Also, we will have another quiz on the steps in PLANS. Again, thank you for working to improve your writing. I will see you next time.

Lesson 6: Guided Practice 2

Stage Five: Support It

Objectives
The students will:

- Write an essay using PLANS, collaboratively, with the teacher.

Materials

- PLANS mnemonic chart
- PLANS worksheet
- PLANS goals chart
- Self-statements sheet
- PLANS rehearsal checklist
- Paper and pencils

Procedures
Ask students to rehearse PLANS and let them know this is a test. Record their performance on the PLANS Rehearsal Checklist. Have students write an expository paragraph with you. This lesson will be repeated until the student has written at least 1 paragraph with 6 of the 8 essay elements.

--Quiz PLANS

> **Say:** We are going to start today with a quiz on the steps in PLANS. Can you tell me what the P in PLANS stand for? L? A? N? S? That is step 1. What is step 2? Step 3?

--Choose Essay Topic

Say: Today you will practice using the PLANS steps. You will be writing a paragraph. I want you to write the paragraph using PLANS. If you need to look at the cue cards, you may, but rely on them only when you need to. I will be here to make sure that you use the procedures correctly and to provide help when you need it. Remember your steps and the elements of a good essay (Give student topic and direct them to begin. Prompt and provide as much assistance as necessary)

--Wrap-Up

Say: You did a really good job today! I will review your paragraph to see if you need another day of practice or if you are ready to move on.

Lesson 7: On Your Own

Stage Six: Independent Practice

Objectives
The students will:

- Write an essay using PLANS.

Materials

- Paper and pencils

Procedures
Present students with writing prompt. Have them write a paragraph, independently.

Say: I am going to give you a prompt to write about. You will use the PLANS strategy to write your paragraph. You will have to write the paragraph on your own without any of the PLANS supports. Do you have any questions about the directions. (Give students writing prompts and answer any questions before beginning).

After collecting the paragraph, say: Thank you for your participation today. I will review your performance and let you know how you did.

APPENDIX H

Goals Chart

1. **Goals for Starting My Essay**

_____ Write a paper to explain/describe a topic

_____ Write a paper that summarizes a reading

_____ Write a paper that explains the steps in a process

2. **Goals for Writing My Essay**

_____ Write an essay that includes 3 paragraphs

_____ Write an essay that includes 5 paragraphs

_____ Write a paragraph that includes all the elements

3. **Goals for Checking My Work:**

_____ Read my paper: Does it make sense?

PLANS Worksheet

Pick Goals:

1. 2. 3.

List ways to meet goals:

1. 2. 3.

And, make Notes (On your own paper)

Sequence notes (On Your Own Paper)

PLANS

P Pick Goals
L List Ways to Meet Goals
A And
N Make Notes
S Sequence Notes

1. Do

2. Write and Say More

3. Test Goals

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