EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT ON THE
WRITING SKILLS AND PROBLEM BEHAVIORS OF STUDENTS WITH
EMOTIONAL AND BEHAVIORAL DISORDERS

By

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ABSTRACT

ROBAI NASABA WERUNGA. Effects of self-regulated strategy development on the writing skills and problem behaviors of students with emotional and behavioral disorders. (Under the direction of DR. YA-YU LO)

Building on existing research on Self-Regulated Strategy Development (SRSD), the current study investigated the collateral effects of social skills prompts on the writing outcomes and problem behavior of students with emotional and behavioral disorders (EBD). Generalization measures involved the use of video prompts to explore their impact (if any) on the overall writing outcomes, and if there was an inclination towards either (i.e., written prompts vs. video prompts). Three upper elementary students receiving special education services in separate behavior support classrooms were taught opinion writing using the SRSD instructional framework. The number of genre elements in participants' written products was measured using a genre elements rubric. Other outcome measures included the quantity of written products and the frequency of occurrence of problem behaviors during 20-min observational sessions. Additionally, pre- and post-intervention social validity data were collected to gain teacher and student perspectives regarding the intervention. Overall results suggested a functional relation between SRSD instruction and the number of genre elements and quantity of students' opinion writing. Specifically, all participants increased their genre elements score by 68% while writing an average of six sentences and 84 words more per essay response after receiving SRSD instruction with social skills prompts. Results for behavior were promising. Implications for practice and suggestions for future research are discussed

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DEDICATION

I dedicate this dissertation first to my two sons, Collins and Mitchell. You are my reason; you have always been my reason. My wish for you is that you each know that with hard work and dedication, you can achieve anything you put your mind on. Please understand that the only limits in life are those that you set for yourself. And to my dad, the "professor" (may you rest in peace). You always wanted your children to pursue careers in teaching and believed there was no career more noble. I hope I made you proud.

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CHAPTER 1: INTRODUCTION

Statement of the Problem

Since the enactment of the Education for All Handicapped Children Act

(EAHCA) of 1975 and the subsequent reauthorizations (i.e., Individuals with Disabilities

Education Act; IDEA 1997; Individuals with Disabilities Education Improvement Act;

IDEIA, 2004), the field of special education has witnessed significant progress towards

providing equal access to education for all children with disabilities (U.S. Department of

Education; USDE, 2010). Notably, (a) more children with disabilities receive high quality

early interventions that prevent or reduce future needs for services, (b) more students

with disabilities attend their neighborhood schools with access to the general education

curriculum and academic classes, (c) more students with disabilities graduate from high

school, (d) more students with disabilities are currently enrolled in post-secondary

programs, and (e) more young adults with disabilities are employed (USDE, 2010).

Unfortunately, not all students with disabilities equally experienced this progress.

Specifically, the overall progress for students with emotional and/or behavioral disorders

(EBD) has been consistently slower in comparison to students in other disability groups.

First, students with EBD tend to be placed in more restrictive environments (e.g., self-

contained classroom and/or separate schools). Second, students with EBD have more

recorded school absences in comparison to any other group. Third, students with EBD

represent the largest number of school dropouts, with a large number leaving without a

high school diploma. In addition, many of these students struggle to gain and maintain postsecondary employment (Landrum, Tankersley, & Hauffman, 2003).

Another area where disparity in progress is apparent for students with EBD is in their academic outcomes. Historically, students with EBD have experienced and continue to experience academic and behavior challenges (Siperstein, Wiley, & Forness, 2011; Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008). Compared to students in other disability categories, students with EBD tend to experience severe academic deficits (Zigmond, 2006). For example, data from the National Assessment of Educational Progress (NAEP) reveal a consistent pattern of poor performance in reading and math (NAEP, 2011; NAEP, 2013; NAEP, 2015) and writing (NAEP, 2011) for students with EBD. This dismal performance is disappointing, considering the initial purpose of EAHC (i.e., to ensure that all children with disabilities have access to a free appropriate public education with special education and related services designed to meet their unique needs, and to assess and assure the effectiveness of efforts to educate all children with disabilities; Beyer, 1989), and the concerted effort to improve the school outcomes for all students with disabilities over the years.

The introduction of the No Child Left Behind (NCLB) law in 2001 raised expectations for accountability for academic outcomes for all students including those with disabilities. In addition, the NCLB legislation limited the number of students with disabilities who could participate in alternative assessments. In particular, students with high incidence disabilities, including EBD, were expected to be taught and assessed at the same level as their typically developing peers. For students with EBD, this implies that regardless of their placement, instruction and assessment they receive is expected to be at

the same high quality as students without disabilities. Although Every Student Succeeds Act (ESSA, 2015) that replaced NCLB relegated the responsibility of choosing standards and assessments back to the states, it still upholds the same accountability expectations for all students. In addition, ESSA requires that academic indicators be weighted much more than other non-academic indicators in every state's accountability systems (Klein, 2016).

Despite the heavy emphasis on accountability, the aforementioned legislations pose a challenge for students with EBD. Teachers who work with students with EBD often struggle with balancing between providing content instruction and responding to behavioral issues (Ennis, 2008). Historically, within the context of EBD classrooms, most teachers tend to focus on addressing behavior first and then teaching academic content once students' behavior was under control (Kauffman, 2003). As a consequence, dealing with student behaviors often has become the hallmark for many separate schools and/or self-contained classrooms, with behavior management taking precedence over academic instruction. Given these dynamics, meeting the academic needs of students with EBD at the prescribed standards has been a challenge. This, combined with the notion that teachers in the self-contained classroom often lack the skills and knowledge to effectively remediate both academic and behavioral/social skills of students within these settings, sets precedence for dismal progress of students with EBD both academically and behaviorally (Bradley, Dolittle, & Barlotta, 2008).

Given the above challenges, students with EBD in separate school settings and self-contained classrooms are more vulnerable to academic failure (Anderson, Kutash, & Duchnowski, 2001; Reid, Gonzalez, Nordness, Trout, & Espein, 2004). This is evidenced

by work from Lane, Barton-Arwood, Nelson, and Wehby (2008), whose investigation found that elementary and secondary group scores of students with EBD in self-contained classroom were well below the 25th percentile on reading, math, and written expression measures. Additionally, behavioral variables (e.g., school adjustment, externalizing, and internalizing behaviors) were predictive of broad reading and broad written expression scores. Moreover, the degree of behavioral incidences was found to correlate with school adjustment; student behaviors seemed to escalate in the initial stages of being moved to more restrictive settings (Lane et al., 2008).

Research offers evidence to support the importance of addressing both academic and behavior challenges of students simultaneously (Ennis, 2015). This is important, as both serve as risk factors for school failure, regardless of whether either is the original dominant factor or if they appear simultaneously (Arnold et al., 1999; Walker, Ramsey, & Gresham, 2004). Specifically, students who repeatedly experience failure academically have been found to be prone to violent and socially unacceptable behavior (Choi, 2007; Miles & Stipek, 2006). Conversely, students' behaviors are likely to improve once they start to experience academic success (Arnold et al., 1999; Lane, 2007).

Strategies that have been found to increase active student responding and thereby promoting academic learning (Heward, 1994) have the potential to improve student engagement and reduce disruptive behaviors. Teacher practices that involve high rates of student responding, frequent positive student-teacher interactions, corrective feedback, formative assessment, contingent specific praise, and differential reinforcement have been found to not only promote student engagement, but also increase academic learning for all students, including those with behavioral challenges (Heward & Wood, 2015).

Clearly, there is a need to build on these or similar approaches when working with students with EBD in order to address both their academic needs and behavioral challenges.

Past research investigating academic performance of students with EBD mainly focused on reading and math with little emphasis on writing (e.g., Alber-Morgan, Ramp, Anderson, & Martin, 2007; Benner, Nelson, Ralston, & Mooney, 2010; Kostewicz, & Kubina, 2008; Scott & Shearer-Lingo, 2002; Strong, Wehby, Falk, & Lane, 2004; Sutherland & Snyder, 2007). In the recent years, there has been a growing interest in the research community to investigate writing interventions and strategies for students with EBD (Graham & Hebert, 2011). This interest stems from emerging evidence suggesting that teaching writing to students may have collateral benefits that span into other academic areas (Bangert-Drowns, Hurley & Wilkinson, 2004; Graham, Gillespie & McKeown, 2013; Graham & Hebert, 2011). Particularly, there has been a keen interest in Self-Regulated Strategy Development (SRSD) for writing instruction that has resulted in numerous investigations on its effects on writing outcomes of students with EBD (Ennis & Jolivette, 2014).

Self-Regulated Strategy Development. SRSD (Harris & Graham, 1992) is a scientifically validated strategy that combines powerful writing instructional strategies with self-regulation skills (i.e., goal setting, self-instruction, self-monitoring and positive self-talk) to help students become effective and competent writers (Harris, 1982; Mastopieri et al., 2015). The main goal of SRSD is to equip students with strategies they need to be successful at writing, while providing with supports that promote engagement and motivation. At the core of this approach is the consideration of the specific needs of

each learner; it can be used with an entire class, small groups, and individual students, across grade levels. The SRSD approach consists of explicit teaching of general and specific writing strategies (e.g., using the right vocabulary, being mindful of one's audience, creating interesting introductions and conclusions), the knowledge required to use the strategies, ways to manage the strategies, the writing process, and one's behavior as a writer (Swanson, Harris & Graham, 2013). The strategies are taught using six instructional stages (i.e., develop background knowledge, discuss it, model it, memorize it, support it, and independent practice) that are recursive in nature; they can be re-arranged, re-combined, revisited, modified or even omitted, depending on student needs (Harris, Graham, Mason, & Friedlander, 2008). SRSD has been specifically found to be effective for students with EBD (Niesyn, 2009; Taft & Mason, 2011). Furthermore, SRSD has been established as an evidence-based practice; specifically, using the guidelines outlined by Horner et al. (2005) for identifying evidence-based practices in special education, Ennis and Jolivette (2014) established SRSD as an evidence-based practice for use with students with EBD.

Most research in SRSD initially focused on middle and high school students (see Baker, Chard, Ketterlin-Gellar, Apichatabutra, & Doabler, 2009; Graham & Perin, 2007; Reid, Hagaman, & Graham, 2014; Rogers & Graham, 2008; Sreckovic, Common, Knowles, & Lane, 2014). In recent years, there has been an increasing amount of research that explored SRSD with elementary age students with promising results for typically developing students (e.g., Adkins & Gavin, 2012; Harris, Graham, & Mason; Mason & Shriner, 2008; Mason, Snyder, Sukhram, & Kedem, 2006) and students with disabilities (e.g., Mason et al., 2006) including those with EBD (e.g., Ennis & Jolivette, 2013; Ennis

& Jolivette, 2014). Additionally, the majority of SRSD investigations with EBD populations target students in separate school settings (e.g., Ennis & Jolivette, 2014; Losinski, Cuenca-Carlino, Zablocki & Teagarden, 2014). However, according to the National Center for Educational Statistics (NCES, 2016), there is a significant number of students with EBD served in self-contained classrooms within the general education settings; without effective interventions, and subsequent documented improvements in social skills outcomes, these students mostly likely progress to more restrictive settings including separate schools (Ennis & Katsyannis, 2017; Kauffman, 2014). Yet, within the SRSD research there exists minimal evidence of studies that specifically target students with EBD in self-contained classrooms within general education settings and particularly at the elementary level. These include Mason and Shriner (2008), who carried out their investigation in an inclusive therapeutic program for students with EBD at a public elementary school where regular classroom teachers and their students identified with EBD were provided with support to promote academic success in the general education setting, and Adkins and Gavins (2012) who conducted their investigation with students with EBD in a self-contained classroom in a public elementary school. Results from these two investigations offered evidence of the effectiveness of SRSD with students with EBD at the earlier grades.

Investigating the effectiveness of SRSD in earlier grades is particularly important, since early intervention for both behavioral and academic difficulties is critical for the long-term success for all students (McClelland, Morrison & Holmes, 2000) and specifically those identified with EBD (Lane, Wehby, Little, & Cooley, 2005). As students move to higher grades and grow older, if not remediated, they are more likely to

fall further behind, thus making the task of intervention more challenging (Lane & Carter, 2006). While early intervention is critical, this should be done using high quality practices supported by research. Several practices have consistently been found to be effective for students with EBD in elementary schools and these include (a) teacher praise, (b) scaffolded independent seatwork, (c) increased opportunities for correct response, (d) student choice, and (e) direct instruction (Niesyn, 2009). In addition, explicit instruction on established rules and procedures, and teaching students self-monitoring and self-management strategies were found to be effective practices for reducing occurrence of behaviors that infringe on instructional time (Niesym, 2009). Incidentally, the SRSD approach has been found to be effective in integrating most of the above suggestions.

As discussed above, when compared to other writing interventions, SRSD has gained more prominence among researchers working with students with EBD. However, despite the fact that there exists well documented success of the SRSD strategy for remediating writing difficulties for this group of students, overall, students with EBD continue to display difficulties in their general academic and behavioral outcomes. In particular, behavioral problems amongst this group of students continue to negatively affect academic outcomes. To address some of the pervasive problems of students with EBD, several researchers have begun to investigate ways in which SRSD can be combined with other research-based interventions to improve their overall school outcomes. However, several gaps in the SRSD research with this population still exist. Some of the gaps are highlighted in the following abstracted summaries. First, Adkins and Gavins (2012) conducted a multiple baseline across participants design study and

implemented SRSD for narrative writing to investigate effects of SRSD with explicit generalization instruction on the story writing of three elementary age students with EBD in a self-contained classroom within a regular public elementary school. Outcome measures included quality and quantity of the written products. Results showed a functional relation between SRSD instruction and the overall quality of the written products, with all of the three participants performing substantially better at post-intervention, maintenance, and generalization than baseline. However, researchers noted that participants in study struggled with positive self-statements relative to their writing abilities and overall academic performance. Therefore, it was recommended that future studies examine ways to extend and/or modify SRSD instruction to meet the individual needs of students with EBD in self-contained settings as well as to address both behavioral and academic needs simultaneously. A clear limitation of this study was the failure to examine student behaviors and social skills and how they were affected (if at all) by the intervention.

Next, Cuenca-Carlino and Mustian (2013) examined the effects of SRSD in tandem with self-advocacy instruction on the writing and self-determination skills of middle school students with EBD. Students were specifically taught how SRSD can be used for self-advocacy through writing. Results indicated improved writing skills and substantial increases in self-efficacy in writing as well as self-determined perceptions. However, one major limitation in this investigation was the lack of maintenance and generalization data to gauge how well the students were able to maintain and generalize the acquired skills beyond the intervention phase. In addition, there was lack of

discussions concerning the effects of participant behaviors on the intervention or whether the intervention had any impact on student social behavior.

In another study, Ennis and Jolivette (2014) investigated the effects of SRSD instruction on the writing, motivation, and self-efficacy of high school students with EBD in an inclusive health class. Results from this investigation demonstrated a clear functional relation between SRSD instruction and improved writing outcomes of student with EBD. However, results for student motivation to write and self-efficacy in writing did not demonstrate a clear functional relation, suggesting further investigation for these outcomes. Additionally, a limitation for this study is that the participants were served in a separate school where all students were receiving some form of behavioral therapies coupled with schoolwide behavioral support. Hence, positive behavioral outcomes could not be conclusively attributed to the SRSD intervention.

In a similar study, Ennis, Jolivette, Terry, Fredrick, and Alberto (2015) investigated the effects of SRSD for persuasive writing instruction on writing outcomes and student engagement of students with EBD. Additionally, student behaviors were examined as variables that influenced the level of student engagement. Post-intervention data indicated significant improvements on quality and quantity of writing as well as increased student engagement. Moreover, student variables, including externalizing/internalizing behavior patterns, predicted writing and engagement. An important limitation of this study, as cited by the authors, was the relevance of writing prompts. In addition, while student behavior was examined as one of the variables that affected engagement during writing tasks, social behavior was not measured as a

dependent variable. One suggestion was that future research should consider the appropriateness and relevance of prompts in relation to the specific student needs.

Most recently, Werunga and Lo (2017) investigated the effects of SRSD using the POW-TREE (Pick your idea, Organize your notes, Write more- Topic, Reasons, Explain your reasons, Ending) mnemonic aid and self-monitoring of off-task behavior of elementary students with EBD in two self-contained classrooms. The dependent variables were the quality and quantity of writing as well as off-task behaviors. This study yielded promising results for SRSD instruction in tandem with self-monitoring in addressing writing deficits and off-task behaviors of students with EBD. Some limitations highlighted in this study were maintaining student motivation during the SRSD instruction as well as maintaining student engagement during writing tasks. Additionally, student behaviors continued to persist outside SRSD intervention suggesting that generalization of skills was still encumbered or missing or not occurring. Based on the results from this investigation, a suggestion for future research included incorporating strategies to address specific student behaviors within SRSD instruction.

To date, few studies have investigated SRSD with student behaviors as dependent variables. One such study is by Lane et al. (2011) who sought to investigate the effects of SRSD instruction for both persuasive and narrative writing on the writing performance, engagement, and problem behaviors of students at risk of EBD. A randomized group pre-post experimental design was utilized, with a total of 44 second grade students across five elementary schools that implemented schoolwide positive behavior supports (SWPBS). Although significant differences were observed for writing performance and student engagement post-intervention in favor of the experimental group, there was no between-

group differences in student behaviors recorded. Moreover, there were no statistical

differences in the participants' behaviors pre- and post-intervention. A limitation noted

within the study is that since students were already part of an active and effective

SWPBS, this may have affected the results of the behavior variable. In addition, the

existence of the SWPBS contingencies may have influenced the positive outcomes on

writing behavior and student engagement, since teachers were able to spend more time on

delivering instruction and less time addressing inappropriate student behavior. For

teachers who do not have an effective behavior management system in place, being able

to deliver effective instruction in SRSD would possibly be a challenge. Evidently, SRSD

is effective in remediating and/or enhancing writing skills and engagement of many

students with EBD (Mastopieri & Scruggs, 2014; Mastopieri, 2015; Sreckovic, Common,

Knowles & Lane, 2014). However, for many of these students, and particularly those in

restrictive settings, behavioral problems as well as academic challenges continue to

persist. Even within the SRSD research community, there is an acknowledgement that

there is still more that needs to be done to address the needs of students with EBD. This

is best summed up by Ennis, Harris, Lane, and Mason (2014) in their article where they

outlined the major concerns in regard to SRSD instruction with students with EBD in

self-contained classrooms and separate school settings. In their article titled "Lessons

learned from implementing Self-Regulated Strategy Development with students with

emotional and behavioral disorders in alternative educational settings," Ennis and

colleagues discussed the following as some of the major gaps in SRSD research with

students with EBD in separate and/or self-contained classroom: (a) developing strategies

for increasing students' academic engagement, (b) further addressing behavioral and

academic needs, and (c) promoting maintenance and generalization. Ennis and Jolivette (2014) reiterated some of these gaps in research by suggesting that future investigations examine student behaviors as a dependent variable.

One way to potentially promote motivation and student engagement in writing is through the use of video prompts; video prompts can potentially allow student to focus by engaging their visual senses and reducing the information processing demands of written prompts. Although not scientifically validated, there is an increasing trend in the use of video prompts by individual teachers in schools, with reported increase in student interest in writing activities as well student engagement (e.g.,Smith, 2013; Spencer, 2016).

In summary, although SRSD has been effective in helping students with EBD improve their writing skills, there exist several gaps that warrant further investigations. Considering the interrelatedness of student behavior and academic achievement, this necessitates addressing both academic and behavioral needs of students with EBD simultaneously. Yet, looking at the existing SRSD research with this population, investigating the effects of the strategy on behavioral outcomes is largely missing. Second, although several investigations have measured student engagement, evidence shows inconsistent results regarding this measure. There is a need to investigate ways to bolster student engagement during writing, and to investigate ways to best meet both academic and behavioral needs of students with EBD, particularly at the elementary school level. This need is both critical and urgent, considering that students whose academic achievement is below grade level in the elementary grades are at risk of further falling back, with the possibility of dropping out and/or poor post-school outcomes (Graham, 2013; Hernandez, 2011). Specifically, there is a need to (a) explore the

collateral effects of SRSD on social behaviors of students with EBD in the self-contained classrooms, (b) increase student engagement within SRSD instruction, and (c) explore ways to address both academic and behavioral needs of students within SRSD.

Given the demonstrated effectiveness of the strategy, SRSD offers an opportunity to address the above needs. One way to address the above need is by having students write about behavior within the SRSD model. Therefore, this study will extend previous work done with SRSD opinion writing using the POW-TREE mnemonic aid by providing participants with behavioral/social skills prompts in both written and video formats.

Purpose of the Study and Research Questions

The purpose of this study was to examine the effects of writing about social behavior using SRSD on the writing skills and problem behaviors of students identified with EBD. The fundamental questions that this study sought to answer were:

1. What are the effects of SRSD on the number of genre elements of the written products of students with EBD in self-contained classrooms?

2. What are the effects of SRSD on the quantity of written products (i.e., total words written and total number of sentences) of students with EBD in self-contained classrooms?

3. What are the effects of SRSD with behavioral/social skills prompts on the percentage of intervals of targeted inappropriate social behaviors of participants?

4. How do the number of genre elements and quantity of written products of participants differ based on the type of prompts (i.e., written prompts versus video prompts)?

5. To what degree do the participants prefer one type of prompts (written vs. video) over the other when given choices?

6. What are the participants' perceptions regarding the intervention and their skill performance (i.e., writing skills and social behavior) on the pre- and post-intervention social validity questionnaires?

7. What are teachers' perceptions regarding the intervention and participants' skill performance (i.e., writing skills and social behavior) on the pre- and post-intervention social validity questionnaires?

Significance of the Study

This study aimed to contribute to the existing research base on SRSD with students identified with EBD in self-contained classroom by addressing some of challenges faced by researchers and practitioners as they continue to seek ways to effectively mitigate both academic and social/behavioral deficits for students with EBD. Specifically, this study sought to increase student engagement during writing task by offering video clips as an alternative form to traditional writing prompts. Students who struggle with writing tend to avoid writing tasks by engaging in undesirable/inappropriate behaviors (Scott, Nelson, & Liaupsin, 2001). Employing strategies that are motivating and engaging in nature has been found to be effective in reducing avoidance behaviors (John, 2000; Scott et al., 2002). Using video clips has the potential to boost motivation and engagement in the writing tasks (Berk, 2009). Second, by providing writing tasks focused on behavioral aspects to which students can relate, this study added a different dimension to typical writing tasks. The study offered participants opportunities to reflect on behaviors that were typical to those exhibited by students identified with EBD. In

doing so, this study had the potential to positively affect behavior change in participants, consequently leading to more time spent on instruction and academic tasks. Third, this study sought to improve the overall writing skills of students with EBD in self-contained classrooms as a response to current research limitations. Finally, this study had the potential to increase teacher buy in, as recommended by Ennis et al. (2014) and Ennis and Jolivette (2014). Writing prompts that are behavior and/or social skills related provide an opportunity to address behavior problems while at the same time teaching writing skills. As discussed previously, teachers working with students with EBD often struggle with addressing both behavior and academic needs, with many opting to deal with behavioral issues at the expense of academic needs.

Delimitations

Setting. This study targeted only students in a public elementary school in two self-contained classrooms. Students with EBD placed in regular classrooms were not included in this study. Additionally, participants in separate schools were not part of the study. This served as delimitation in the sense that there was a possibility of a lack of sufficient participants. To address this, although the projected number of participants was three, five participants were recruited initially with two participants acting as backups.

Dependent variables. There were three dependent variables, including genre elements and quantity of written products, as well as behavioral outcomes. Genre elements were measured in terms of the total number of opinion elements included in the essay, and was scored using a genre elements rubric. Quantity was measured in terms of the total number of words written and total number of sentences. Grammar, spelling, and writing mechanics were not a focus when determining the genre elements and quantity of

the writing products in this study. To ensure that participants were not penalized for grammatical and other writing mechanics errors, all written products were typed and any errors corrected before scoring (Mason et al., 2010).

Participants. Participants in this study were student in grades 3 through 5. Students in the lower grades were not included. Additionally, this investigation only focused on participants with social skills goals addressed in their individualized education programs (IEPs). Any student who did not have at least one social skill addressed in the IEP was not included in the study. Another delimitation was that some potential participants had severe reading deficits, which could affect the participant's writing progress. To address this, all participants were screened for basic reading skills to determine their reading level before being included in the study.

Definition of Terms

Academic Achievement is the extent to which a student performs in academic areas (e.g., reading, language arts, math, science and history) based on set standards. Academic achievement can be short term (e.g., weekly assessments) or long term (e.g., high school graduation) and is measured by achievement tests (Cunningham, 2012).

Emotional and Behavioral Disorder (EBD). Emotional and behavioral disorder (EBD) is a disability classification used in educational settings that allows educational institutions to provide special education and related services to students who have poor social or academic adjustment that cannot be better explained by biological abnormalities or other factors. The term encompasses disorders that meet the DSM-IV criteria for various emotional or behavioral disorders and/or the criteria for emotional disturbance based on the IDEA 2004 definition. A student is labeled as having an emotional and/or

behavioral disorder (EBD) if he or she displays one or more of the following characteristics over an extended period of time and this impacts his/her academic performance: (a) an inability to learn that cannot be explained by intelligence, sensory, or health factors; (b) an inability to build or maintain interpersonal relationships; (c) inappropriate behaviors or feelings under normal circumstances, (d) a general persistent mood of unhappiness or depression, or (e) a tendency to develop physical symptoms or fears associated with personal or school problems [Code of Federal Regulations, Title 34, Section 300.7(b)(9)]. Furthermore, students with EBD could also display "inappropriate behaviors or feelings under normal circumstances" or "a general persistent mood of unhappiness or depression" (IDEA 2004). In addition, a student with EBD may have "a tendency to develop physical symptoms or fears associated with personal or school problems" (IDEA, 2004, p. 46756). Emotional and behavioral diagnoses commonly experienced by teachers include conduct disorders, emotional disturbances, personality disorders, anxiety disorders, attention-deficit/hyperactivity disorder (ADHD; Belson, 2002). For this study, the term "students with EBD" is broadly used to include students who meet at least one of the above criteria, have IEPs with goals addressing social and behavioral skills, and receive special education services with specific behavioral supports in place (e.g., functional behavior assessment, behavior intervention plans, in-school therapy to address behavioral issues, separate setting).

 Externalizing Behaviors are problem behaviors that are directed toward the external environment. They include, but not limited to, physical aggression, disobeying rules, cheating, stealing, and destruction of property (Walker et al., 1996).

Internalizing Behaviors are negative behaviors that are focused inward. They may include fearfulness, social withdrawal, and somatic complaint (Walker et al., 1996).

POW- TREE (Pick your idea, Organize your notes, Write and say more- Topic, Reasons, explain, Ending) is a mnemonic aid used to teach students persuasive or opinion writing within the SRSD model (Harris, Graham, Mason, & Friedlander, 2008).

Genre elements. Genre elements in this study referred to the number of genre specific essay elements included in a written response. For this study, these were scored using genre elements rubric (a detailed explanation is provided in the method section).

Quantity of Writing. For this study, quantity of writing referred to the total words written (TWW) and total number of sentences (TNS) included. A detailed explanation of how each of these components were measured is provided in the method section.

Self-Regulated Strategy Development (SRSD) is an instructional approach developed by Karen Harris and Steve Graham which brings together effective strategies for writing and critical strategies for self-regulated behavior of the writing process. SRSD (Harris & Graham, 1992) combines powerful writing strategies with self-regulation skills (i.e., goal setting, self-instruction, self-monitoring and positive self-talk) to help students become effective and competent writers (Harris, Graham, Mason and Friedlander, 2008). The strategies and skills are taught within a framework of six recursive stages (i.e., develop background knowledge, discuss it, model it, memorize it, support it, and independent practice; Harris et al., 2008; Mastopieri et al., 2015).

Self-contained Classroom is a classroom, where a special education teacher is responsible for the instruction of all academic subjects. The classroom is typically separated from general education classrooms but within a regular neighborhood school. A self-contained classroom is a special education placement that falls near the middle of a

continuum of program options that range in restrictiveness, where the general education classroom is least restrictive and a hospital or a homebound placement is most restrictive. Student-to-teacher ratios in self-contained classrooms are usually smaller than that in general education classrooms and other less restrictive special education placements such as resource classrooms. Children who are placed in self-contained classrooms often have multiple, intensive support needs and require comprehensive and highly structured educational and/or behavioral supports (Spencer, 2013).

Self-efficacy in Writing. Self- efficacy is an individual's belief and confidence that he or she will be able to accomplish a specific task; the level of self-efficacy one has at the beginning of a task determines whether he/she will successfully complete it (Bandura, 1997). In writing, self-efficacy refers to the belief and confidence in one's ability to accomplish a given writing task. If students believe that they are incapable of producing a good written product, they are less likely to attempt or engage in writing tasks, and more likely to give up early if they do.

Separate School Setting is a public or private separate school facility specifically designated to serve children with disabilities receiving special education and related services, at public expense, for greater than 50% of the school day (Buchaman, Neese, & Clark, 2016). Separate schools are designed to accommodate educational, behavioral, and/or medical needs of children and adolescents that cannot be adequately addressed in a traditional school environment. Most common separate school settings are public and private day schools; however, there are also public and private residential facilities where students spend time for a specific period of time before they are transitioned back to regular schools (Buchaman et al., 2016).

Video Prompts. For this study, a video prompt referred to a short clip of video (no longer than 3 min) portraying typical classroom situations. Video prompts were used as an alternative to traditional writing prompts. In a written prompt, a student read the prompt (or was read to) and then responded to it in writing. In contrast, with a video prompt, the student watched a scenario presented in the video and then responded to the scenario in writing.

Writing Instruction. Writing instruction occurs when a teacher spends time teaching writing skills and strategies to students, and (a) students have opportunities to create topics that matter to them, (b) audience and purpose for writing are specifically identified in assignments, (c) students are given writing models, assignments, and strategies to guide each of their different writing tasks, (d) students are presented with opportunities to reflect on significant growth—or lack of it—in specific writing skills, (e) students are encouraged to revise, edit, and improve, (and to correct) drafts and then resubmit, (f) students think about what they write through brainstorming, freewriting, role-playing, discussion or other prewriting activities, and (g) both students and teachers are excited about what students write and make efforts to display and publish it (National Writing Panel & Nagin, 2003).

Written Prompts. In writing, a prompt is statement that may consist of a phrase, a sentence, or a group of sentences, and focuses on a topic or an issue, with the purpose of inspiring a response in the form of an essay. A written prompt is presented in text form and requires the student to read the prompt and then respond to it. Alternatively, a teacher can read the prompt to the student (Finkel & Williams, 2002).

Writing Standards. Standards are detailed written statements that describe what students are expected to achieve in each grade. Writing standards define the knowledge and skills needed for writing proficiency at each grade level. Writing standards typically address organized writing strategies, writing purposes, writing evaluation, written English language conventions, and research and inquiry in writing. Standards are to help teachers, families, and the community work together to ensure that students attain a satisfactory level of knowledge and skills (Time4Writing, 2017).

CHAPTER 2: REVIEW OF LITERATURE

This chapter provides a detailed review of literature that informs the current study. The literature review is organized into three strands. The first strand focuses on the characteristics of students with EBD, and educational practices as well as outcomes related to students with EBD. The second strand addresses writing practices across grade levels as they relate to the national writing standards and writing instructional practices and outcomes for students with EBD. The third strand reviews the evidence base for SRSD with a particular focus on students identified with EBD, as well how this evidence base lays a foundation for further exploring ways to address behavioral and/or social skills difficulties of students with EBD. Figure 1 shows the logic model for the conceptualization of this study.
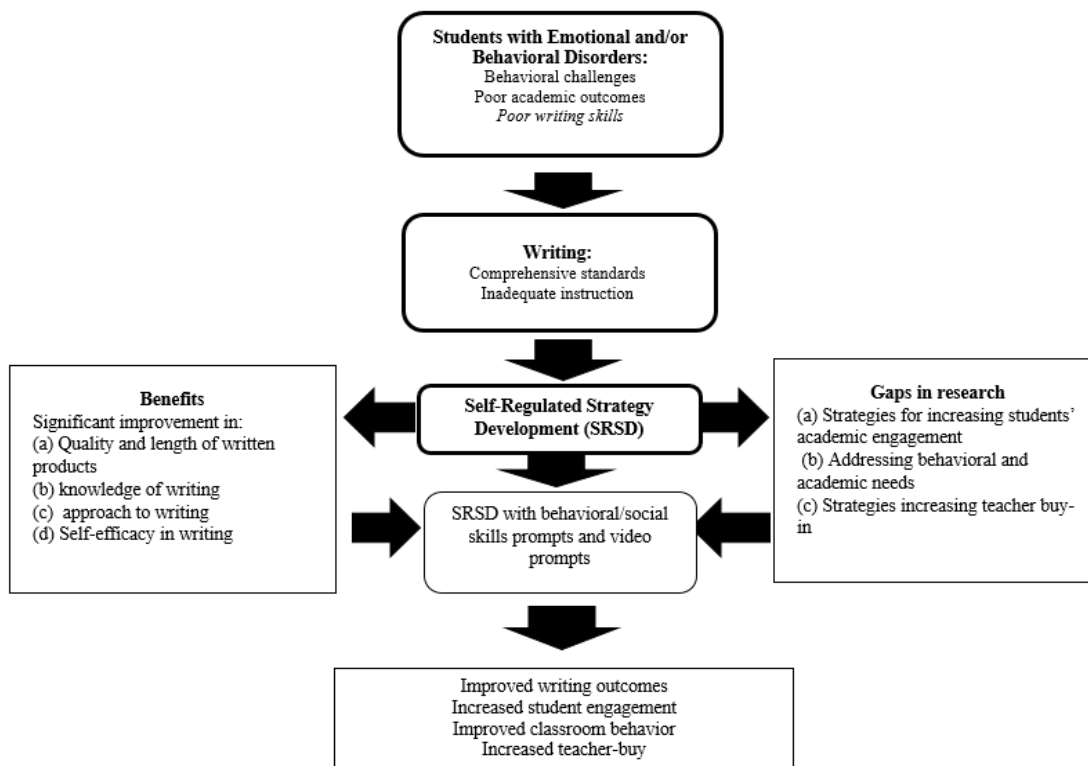
Figure 1: Logic model for SRSD instruction using behavioral/social skills prompts for students with EBD in self-contained classrooms

Students with Emotional and/or Behavioral Disorders

According to the 2016 National Center of Educational Statistics (NCES, 2016) data, a total of 6,555,291 students identified under the Individuals with Disabilities Education Act (IDEA) Part B received special education services during the 2014-2015 school year. Of this number, 5.3% (348,829) received services under the Emotional Disturbance (ED) eligibility, accounting for 0.7% of total student enrolment. Of the total number of students identified under ED, 48% (167,438) received their services exclusively in self-contained classrooms, separate day schools, residential treatment

centers, or homebound. In the following section, a review of characteristics, services and overall achievements of students with EBD will be discussed.

Characteristics of Students with EBD

Heward (2012) described students with EBD as those whose behaviors fall significantly beyond the norms of their cultural and age group, and have a negative effect on students' academic achievements and social relationships. Heward further categorized these behaviors into externalizing behaviors and internalizing behaviors.

According to Walker et al. (1996), most students with EBD exhibit externalizing behavior patterns. These behaviors manifest themselves in various forms that may include students: (a) getting out of their seats; (b) yelling, talking out, and cursing; (c) disturbing peers; (d) hitting or fighting others; (e) ignoring the teacher; (f) complaining; (g) arguing excessively; (h) stealing; (i) lying; (j) destroying property; (k) refusing to comply with directions; (l) having temper tantrums; (n) negatively responding to teacher corrections; and (o) not completing assignments. However, as Rhode, Jensen, and Reavis (1997) content, at the center of all externalizing behavioral issues exhibited by these students is noncompliance (i.e., not following a direction within a reasonable amount of time), whereas display of other behaviors, in most cases, is often an effort to avoid requests or tasks.

In contrast to students with externalizing behaviors, students displaying internalizing behaviors are mainly characterized by very little social interaction (Heward, 2012). For these students, their behavior patterns are directed inward and may be indicative of covert issues such as depression, anxiety, and somatization (Cicchetti & Toth, 1995). Students with internalizing behaviors rarely play with other children of their

own age; they often lack the social skills needed to make friends and have fun, and tend to retreat into daydreaming, and/or illusionary imagination (Walker et al., 1996). Some students tend to inhibit unfounded fear of things, situations or people, and may frequently complain of being sick or hurt (Heward, 2012). Such behavior, when displayed frequently and for long periods of time, limits a child's ability to take advantage of opportunities to learn from the school and leisure activities, and may result in adverse consequences both academically and socially.

In addition to the above behavioral characteristics, students with EBD tend to experience poor academic outcomes. Typically, by the third grade, this group of students begin experience achievement gaps in most academic areas with most performing at one or more years below grade level academically, with the greatest deficits in math and spelling (Project IDEAL, 2017). In many cases, students with EBD have a coexisting learning disability (Project IDEAL, 2017). According to Heward (2012), students who exhibit externalizing behaviors are at the greatest risk for continued deficits in academic functioning. This could be attributed to several factors that may include removal from instructional settings due to behaviors deemed as disruptive (Gunter, Jack, Depaepe, Reed, & Harrison, 1994; Wehby, Lane, & Falk, 2003), and teachers' tendencies to focus on behavioral issues rather than academic instruction (Ennis, 2015). In general, students with EBD are less likely to attend post-secondary schools (Project IDEAL, 2017). Additionally, data compiled over the years show that: (a) about two-thirds of these students cannot pass their grade-level competency assessments; (b) their average grade point (GPA) is the lowest of any group of students with disabilities; (c) they have the highest absenteeism rate of any group of students; (d) less than 25% leave high school

with a diploma or certificate of completion, which is the lowest of any group of students;

and (e) more than 50% of these students drop out of high school (Anderson et al., 2003;

Lane et al., 2008; Reid et al., 2004). Notably, per Hallenbeck and Kauffman (1995), there

exists a strong two-way correlation between academic achievement and behavioral

problems for these students in that "disruptive and defiant behavior of students with

emotional and behavioral disorders almost always leads to academic failure, which, in

turn, predisposes them to further antisocial conduct" (p. 64).

Academic Performance of Students with EBD

Students identified with EBD have historically posed a challenge for educators,

administrators, and policy makers on how to best address their social as well as academic

needs. Before the passage of the Education for All Handicapped Children Act in 1975

(currently authorized as the Individuals with Disabilities Education Act [IDEA]), the

federal support for students with EBD has focused on crafting legislation to support

states' development and maintenance of high-quality programs and services and

translating emerging research into practice at the state, district, and school levels

(Bradley, 2001). Despite these efforts, students with EBD continue to lag behind all other

groups in their educational, behavioral, and social outcomes (Bradley, Henderson &

Monfore, 2004).

While the interrelatedness of students' behavior and academic learning is

apparent, academic learning particularly in the earlier grades is crucial to the success of

all students in the latter grades as well as post-school. Failure to meet grade achievement

standards in the lower grades contributes to a widening academic gap as students move

on to higher grades (Benner, Kutash, Nelson & Fisher, 2013; Courtright & Smith, 2014).

Hence, students with EBD find themselves being limited to less rigorous coursework in high school, which in turn may lead to poor post-school outcomes (Benner et al., 2013; Courtright & Smith, 2014; Gibson & Obiakor, 2014; Savage, McConnell, Emerson, & Llewellyn, 2014), even though existing data suggest that majority of students with EBD possess average to above average intelligence and have the potential to excel academically (Jolivette, Stichter, Nelson, Scott, & Liaupsin, 2000; Kauffman, Mock & Simpson, 2007; Morrison, 2001; Savage et al., 2014). In the following section, a selection of literature addressing the state of academic performance of students with EBD will be presented.

      Review of educational outcomes of students with EBD. As discussed previously, there have been sustained efforts over the years to find ways to increase school outcomes for students with EBD (Bradley, 2001; Ennis, 2015). However, as the issue of poor school outcomes continue to persist amongst this group of students, more recently, there has been an interest in taking a closer look at how these students compare to other students in their academic performance. For example, Reid, Gonzalez, Nordness, Trout, and Epstein (2004) used a meta-analytic approach (Rosenthal, 1984) to explore the extent to which the academic performance of students with EBD differed from their same-age, nondisabled peers or norm groups. Specifically, the meta-analysis aimed to determine if there were differences in academic performance based on: (a) age, gender, race, and socioeconomic status; (b) academic subject areas; (c) placement setting; and (d) method of identification (e.g., identified through Diagnostic & Statically Manual; DSM IV assessment). Twenty-five studies (involving 2,486 participants with EBD) conducted between 1969 and 2000 were included in the meta-analysis and met the following

criteria: (a) published in a peer-reviewed journal; (b) involved participants identified as EBD; (c) included a mean score and standard deviation on at least one academic outcome; and (d) included students between ages 5-21. The MetaWin 2.1 (Rosenberg, Adams, & Gurevitch, 2000 as cited in Reid et al., 2004) was used to assess the grand effect, while the categorical fixed effects model (Hedges & Olkin, 1985 as cited in Reid et al., 2004) was used to gauge which student characteristics moderated effect sizes. Participants in the studies had an average age of 11.22 years, average IQ of 94.89, and majority (80%) of them were boys and Caucasian (69%). The mean effect size (ES) for academic comparison (with nondisabled peers) was -0.6905 (range -3.371 to +0.503; SD = 0.40), signifying that overall, students with EBD performed lower in academics than did nondisabled control or norm groups. Additionally, students with EBD performed significantly lower than the nondisabled peers across all subjects, with math and spelling having the largest ES (-0.81). As far as setting is concerned, results revealed that students placed in residential or self-contained settings performed significantly lower academically (ES = -0.83 and -1.49, respectively) in comparison to their nondisabled peers. Age wise, students with EBD generally performed significantly lower than their nondisabled peers across grade levels. However, students with EBD who were 12 years and older performed worse in comparison to those 12 years and younger. Essentially, this review revealed that (a) students with EBD were generally in jeopardy of academic failure as compared to their nondisabled peers, (b) students with EBD performed worse in math and written language, (c) the risk for academic failure increased as the students got older, and (d) the risk for academic failure increased with more restrictive settings. Reid

et al. also noted that more emphasis has been placed on reading interventions for students with EBD and less focus on math and writing interventions.

Since then, there have been several reviews that targeted specific components of research on the EBD population. For example, Bradley, Doolittle, and Bartolotta (2008) reviewed data from several national longitudinal studies (i.e., the Special Education Elementary Longitudinal Study -SEELS, the National Longitudinal Transition Study-2 - NLTS2, the National Adolescent Child Treatment Study-NACTS) to provide an elaborate picture of issues specific to students with EBD. Results from these reviews revealed dismal gains in the areas of academic achievement, social interactions, and long-term adult outcomes for this group of students. Further analysis in terms of education placement and its effect on academic outcomes for students with EBD showed that fewer students with EBD (25%) received at least 75% of their instruction in the general education classroom. In addition, across all studies, majority of teachers reported using the general education curriculum with minimal evidence of accommodations offered to students with EBD, regardless of placement. The results from this review echoed previous similar reviews (i.e., Bradley et al. 2004; Henderson Klein, Gonzalez, & Bradley, 2005; Wagner et al., 2006). From this review, the following can be inferred: (a) a significant number of students with EBD are placed in more restrictive settings; (b) regardless of placement, the overall academic outcomes for students with EBD are dismal when compared to other students; (c) compared to other students, students with EBD received limited academic support in terms of accommodations.

In another review, Wiley, Siperstein, Bountress, Forness, and Brigham (2008) examined the extent to which schools' socio-economic status (SES), school academic

achievement, and the rate of disciplinary actions correlated to the academic characteristics of students with EBD. School data were acquired from the Massachusetts Department of Education. One hundred forty students ranging from kindergarten to grade 6 were included in the review. Inclusion was based on receipt of special education services under the ED as a primary eligibility. A total of 36 schools within the state of Massachusetts were included in the review, and represented a wide range of school income, school academic performance, and suspension rates. The number of student receiving free or reduced lunch in the schools ranged from 2% to 95% ($M = 44.21\%$, $SD = 33.48\%$). Students performing at an advanced or proficient level ranged from 16% to 88% ($M = 46.29\%$, $SD = 21.19\%$) across the schools. Out of school suspensions (OSS) ranged from 0% to 19% ($M = 3.32\%$, $SD = 4.31\%$) across participating schools. Academic achievement measures consisted of two math subtests (Calculation and Applied Problem Solving) and two reading subtests (Letter-Word Identification and Passage Comprehension) of the Woodcock Johnson-III (WJ-III; Woodcock, McGrew, & Mather, 2001). Results for each subtest were reported as standard scores (i.e., $M = 100$, $SD = 15$) and were comparable to national norms. In addition, teachers who spent substantial instructional time with the participants (including special and general education teachers) completed the teacher version of the Social Skills Rating System (SSRS-T) of academic competence. Massachusetts Comprehensive Assessment System (MCAS) was used to assess the overall academic performance, and student academic functioning scores were compared to those of their schoolmates and classmates. A series of multiple regression analyses were conducted against the three major school variables to assess the relationship between school context and the academic functioning of

students with EBD. Results revealed a strong correlation between the income of the familiesand the academic achievement of students with EBD, with students from schools with a higher SES performing at a higher level than those in low SES. In contrast, school context variables did not predict the MCAS performance of students with EBD relative to same-school peers or the academic ratings of students with EBD by teachers relative to their same-class peers. In summary, although the sample used was small and regionally bound, results from this study revealed two important points concerning students with EBD. First, regardless of their SES and school placement, students with EBD consistently performed below their peers in most academic areas. Second, when compared to their counterparts from higher SES, students with EBD from lower SES were likely to perform worse academically.

Focusing their investigation on single case studies, Vannest, Harrison, Temple-Harvey, Ramsey, and Parker (2011) conducted a comprehensive review of academic interventions with students with EBD. Using the ERIC and psychLIT databases, 34 studies were found that met the inclusion criteria (i.e., was an empirical study, the independent variable was an academic intervention, the dependent variable was an academic performance, and participants were reported to have a diagnosis that met one of the definitions accepted by either state or federal governments as the equivalent of EBD). The search covered studies conducted between 1991 and 2007. The improvement rate difference (IRD- Parker, Vannest, & Brown, 2009) was used to calculate effect size. The 34 studies were organized into 16 groups based on intervention characteristics. For math interventions, with an exception of one study (Lee, Sugai, & Horner 1999; functional assessments), results found cover copy compare (CCC), mnemonics, time modification,

task modification, previewing, functional assessment, choice, opportunity to respond, verbal responding, and planning to be effective with ES ranging from moderate to large (range = 42.65%-88.65%). For reading and language arts, time and task modifications, corrective feedback, task preview, use of reading programs, functional assessment, and computer assisted intervention strategies were found to be effective with ES ranging from 42.65%-95.12%. Only two studies addressing writing (McLaughlin, 1991; Schloss, Harriman & Pfeiffer, 1985) were included (ES = 91.65 and 66.53, respectively). Overall, results from this review provided evidence to suggest that when research-based interventions are implemented with fidelity, students with EBD are more likely to benefit from them.

Academic performance in reading. In the past, most efforts towards improving academic outcomes for students with EBD have focused on reading (Applebee & Langer, 2006; Hebert, Gillespie & Graham, 2013; National Commission on Writing in America's Schools and Colleges; NCWASC, 2004). Indeed, there is sufficient evidence to indicate that practitioners and researchers have often prioritized reading instruction over other academic subjects, and writing in particular. One such evidence is portrayed by Benner, Nelson, Ralston, and Mooney (2010), who completed a meta-analytic synthesis of reading intervention studies from 1970 to 2009 to identify the effects of reading instruction with students with or at risk for EBD. A total of 24 studies (group = 6; single case design [SCD] = 18) met the inclusion criteria. The group studies had a combined total of 187 participants and the SCD studies had 92 participants. The studies were coded for participants, design, independent variable, dependent variables, and outcomes. ES for group studies were computed using the Comprehensive Meta-Analyses Version 2

statistical package (Borenstein & Rothstein, 2005). For SCD studies, ES were computed by calculating the correlation between the baseline and treatment conditions using Rosenthal's (1994) correction procedure. Independent variables (IVs) for the group studies were Nine-Step Think before reading While Reading, and After reading (TWA; Mason et al., 2006), Phonological Awareness Training for Reading, and Stepping Stones to Literacy. IVs for SCD studies included Peer-Assisted Learning Strategies and Peer-Assisted Learning Strategies for Kindergartners (PALS/K-PALS), Corrective Reading, the Horizons Fast-Track A-B reading program, Open Court Core reading, Silent Reading, and Story Mapping. All group studies yielded significant ES for interventions used (range = 0.46-4.31). Majority of SCD studies yield significant ES with 25 ES above 0.6 on measured outcomes (versus 11 with ES below 0.6). Notably, interventions that included self-management and peer-mediation yielded higher ES (range = 0.47-2.71 and 0.82-2.68, respectively) in comparison to the supplemental standard protocol (range = 0.09-2.45). Overall, the interventions included in the synthesis pointed to the potential benefits of utilizing strategies that promote participant engagement by putting participants in charge of part(s) of intervention during the implementation process.

More recently, Burke, Boon, Hatton, and Bowman-Perrott (2015) completed a quantitative synthesis of the published, peer-reviewed, single-case research literature on reading interventions for middle and high school students with or at-risk for EBD. Eleven studies, ranging from 1996-2008, with a total of 44 participants were included in the review. Six of the studies utilized multiple baseline designs whereas four used multiple probe designs, and one used alternating treatments design. Most participants ($n = 35$) were identified with EBD and the rest ($n = 9$) were identified as at risk of EBD.

Participants ranged from age 11 to 18 and their grade placements ranged from 6 to 9. Reading instruction and outcome measures varied across the studies, and included reading fluency, comprehension, or a combination of fluency and comprehension or fluency and behavior. The Tau-U was calculated to determine overall student improvement. An omnibus ES of .59 with (confidence Interval; CI = 0.95) was found across the 11 studies. Specifically, ES of 0.68, 0.65, and 0.21 were recorded for fluency, comprehension, and behavior, respectfully. This implied that the reading interventions had moderate effects but statistically insignificant effects on the students' behaviors. Notably, only three studies in the review looked at behavioral outcomes with statistically insignificant results.

Focusing on studies that specifically included behavioral outcomes, Roberts, Solis, Ciullo, McKenna, and Vaughn (2015) completed a review of literature to investigate how reading interventions impacted behavioral/social skills. Their research questions were: (a) what are the effects of reading interventions on behavioral/social skill outcomes for students in grades k-12; (b) do these effects differ when disaggregated by the quality of the study as determined by the What Works Clearinghouse (WWC) determinants of study rating; and (c) how are positive reading effects from reading interventions related to behavioral/social skill outcomes for students in grades k-12? A total of 15 group ($n = 3$) and SCD ($n = 12$) studies ranging from 1975 to 2013 were included in the review. To be included, each study had to (a) include a reading intervention without behavioral/social skill components, (b) have behavioral/social skill dependent variables, and (c) involve students in grades k-12. The quality of the studies included was measured using the WWC procedure and standards (IES, 2014). A

descriptive comparison of ES was conducted for group design studies whereas visual analysis of data (Horner, Swaminathan, Sugai & Smolkowski, 2012) was used for SCD studies. Overall, results indicated that although the reading interventions were effective in remediating target reading deficits (e.g., phonic, phonemic awareness, fluency, and comprehension), improvement in behavioral outcomes were not statistically significant. However, when compared to group studies, SCD interventions showed a slightly higher positive correlation between reading improvements and participant behaviors/social skills. These findings may have a couple of implications in that reading instruction alone may not be sufficient to improve behavior or social skill outcomes and that providing small group/one-on-one intensive academic interventions may have the potential to improve student behaviors and/or social skills.

Academic performance in mathematics. As previously discussed, reading has historically received more attention in terms of efforts to ensure that students are receiving effective and sufficient instruction and support (Applebee & Langer, 2006; Hebert et al., 2013; NCWASC, 2003). Although not to the similar extent as reading, there have been sustained efforts to provide adequate instruction and support for students in math over the years. Such efforts can be ascertained by looking at various math interventions over the years. For example**,** Templeton, Neel, and Blood (2008) completed a meta-analysis of mathematics interventions for students with EBD to develop a quantitative interpretation of the research available on math interventions for the student population. Fifteen SCD studies (representing 43 participants) from 1976 through 2006 were included in the meta-analysis. To be included, studies had to (a) have math performance as the dependent variable, (c) a math intervention as an IV, (c) include

school-age children and youth with EBD, (d) report results for participants with EBD, (e) have math as part of classroom work, and (f) be written in English. Of the 25 studies included, nine were conducted at the elementary school level, three at the secondary school level, and three across school levels. The IVs in the studies included mnemonics, self-monitoring, self-instruction, constant time delay, peer tutoring, providing choices, strategy identification procedures, functional and instructional analysis, cover copy compare, and cognitive behavior therapy.

Descriptive data, correlations, one-way analyses of variance (ANOVAs), as well as nonparametric procedures, were used to represent and interpret results; overall, the math interventions used in the studies were effective for the students with EBD (average percentages of non-overlapping data [PND] = 84.19). Moreover, there were no significant differences in the PND based on school level suggesting that the strategies were equally effective for younger and older students. Additionally, in 50% of the studies, participants took an autonomous role (e.g., self-monitoring, self-instruction, or self-verbalization cover and copy strategies being a peer tutor). The mean PND for these studies was 83.40, whereas the mean PND of studies where participants had no autonomous role was 83.40. This may suggest that both teacher-directed and student-directed strategies were effective for the students with EBD in the reviewed studies. Notably, majority of the studies ($n =$ 14) focused on math performance and their mean PND was 87.30. Only two studies investigated social behavior as a primary focus and their mean PND was 62.46. In summary, through this review, several factors are evident: (a) mathematics interventions can be effectively implemented across grade levels, (b) both teacher-directed and student-directed interventions have the potential to effectively remediate academic issues for

students with EBD, and (c) more focus needs to be placed on content instruction for students with EBD.

Academic performance in writing/language. Until recently, writing has typically received the least attention when compared to reading and math (Hebert et al., 2013; NCWASC, 2004). However, there is an increasing recognition of the importance of effective writing instruction (Graham, 2013). Specifically, with the introduction of the Common Core State Standards (CCSS, 2010) and the new expectations from Every Student Succeeds Act (ESSA; 2015), schools find themselves having to address writing instruction across curriculums and grade levels. Students with EBD are not exempt from the new standards and expectations. However, just like reading and math, addressing writing deficits for students with EBD poses a challenge for teachers. This is reflected in their overall poor academic outcomes, including writing. For instance, Nelson, Benner, and Cheney (2005) conducted a cross-sectional study to establish the extent to which students with EBD served in public school settings experience language skill deficits based on age and gender. One hundred sixty-six students (boys = 136; girls = 30) receiving services for EBD in a medium-sized urban school district in the Midwest were randomly selected to participate in the study. The participants were in grades k-12 with ages ranging from 7 to 18 years. The average IQ for the sample group was 96.40 (range 93.79-100.50). Majority of participants (84%) were Caucasians. Social adjustment of participants (with focus on internalizing and externalizing behaviors) was measured using the Child Behavior Checklist: Teacher Report Form (TRF; Achenbach, 1991). To measure specific content-related language skills of the participants, researchers used the core subtests (i.e., sentence structure, word structure, concepts and directions, formulated

sentences, word classes, recalling sentences, sentence assembly, and semantic

relationships) of the Clinical Evaluation of Language Fundamentals–Third Edition

(CELF-III; Semel, Wiig, & Secord, 1995). Information on participants' ethnicity, hours

of special education services per day, age of onset, and mean full Scale, Verbal, and

Performance IQ were acquired from individual student records. Analysis of data revealed

the overall language skills of students with EBD were significantly lower than that of the

comparison group. Specifically, 85%, 77%, 89% of participants scored below the mean

of the norm group on the Total Language, Receptive, and Expressive scales, respectively.

ANOVA tests revealed similar results across grade levels. Additionally, one-way

ANOVA, with language type (i.e., receptive versus expressive) as a factor indicated that

students with EBD were more likely to show expressive language deficits than receptive

language deficits. In addition, analysis of the relation of behavior problems to language

deficits suggested that, overall, students with EBD who exhibited externalizing problem

behaviors were more likely to experience language deficits when compared to those with

internalizing behaviors. In summary, this study revealed three important points regarding

students with EBD. First, students with EBD struggled with overall language deficits.

Second, expressive language deficits were more pronounced when compared to receptive

language skills. Finally, students who exhibited externalizing behavior were more likely

to have language deficits than those with internalizing behavior.

In another study, Gage, Wilson, and McSuga-Gage (2014) conducted a causal-

comparative study to compare the writing performance of students with EBD to that of

students without disabilities with a focus on examining the mediating effect of reading.

Researchers obtained data from a large school district in the state of Connecticut that

served majority Hispanic students (70%). A total 114 students from grades 3 through 8 were included in the sample. The criteria for inclusion were either an EBD label ($n = 48$) or Other Health Impaired (OHI) with Attention Deficit Hyperactive Disorder (ADHD) ($n = 66$). The reading and writing results for the participants were first compared with the full sample of 3,187 typical students and then with a 114-student matched sample. The outcome measure was the Connecticut State Mastery Test (CMT) for both reading and writing. Analysis of data revealed students with EBD scored significantly worse than their matched peers in writing (ES = -1.13). Specifically, 80% of students with EBD performed at or below basic writing level, as compared to 30% of their non-disabled peers. This trend of performance was evident across specific writing elements tested (editing, ES = -0.99; revising, ES = -1.06). Moreover, a regression analysis of the mediating effects of reading performance on writing performance found that reading accounted for 59.2% of the total variance in the CMT writing performance. These results were consistent with previous studies that have done comparisons between academic performance of students with EBD and those of their typically developing peers.

Academic Performance of Students with EBD Served in Separate Settings

IDEA requires that students with disabilities, including those with EBD receive educational services in the least restrictive environment (LRE; IDEA 2004). This implies that "to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in the regular classes with the

use of supplementary aids and services cannot be achieved satisfactorily" (IDEA, 2004). This mandate by IDEA has mostly benefitted students with high incidence disabilities with the exception of students with EBD; although some of students with EBD spend at least 80% of their instructional time in general classrooms setting, majority are placed is more restrictive environments, including self-contained classrooms (Ennis, 2015). With this being the case, it is important to get a clear picture of academic outcomes of students with EBD in restrictive environments (including self-contained classrooms and separate settings).

In the era of the inclusion movement, there has been an increasing push to serve students with high incidence disabilities, including those with EBD in the general education classrooms (Fuchs, Fuch & Stecker, 2010; Kloo & Zigmond, 2008; Zigmond & Kloo, 2011; Zigmond, Kloo & Volonino, 2009). However, whether the inclusive setting is effective in meeting the academic needs of students with disabilities continues to be a debatable topic. Opponents of full inclusion have argued that it impedes the ability of special education teachers to provide specialized instruction tailored towards the individual needs of the students (Kloo & Zigmond, 2008; Zigmond & Kloo, 2011; Zigmond et al., 2009). According to the 2016 National Center for Educational Statistics (NCES, 2016) report, in the year 2014, about 15% of students with EBD were either served in self-contained (separate) classrooms or separate schools. This is a significant number of students. Considering previous discussions about the challenges faced by teachers in addressing both academic needs and behavioral challenges of these students, it is important to investigate how well students with EBD in self-contained classrooms

are progressing academically. In this section, literature on the academic status of students with EBD in self-contained settings will be reviewed.

As a part of a larger project (Project E/B), Lane, Wehby, Little, and Cooley (2005) conducted a two-by-two repeated measure model design to compare the progress of students with EBD receiving special education services in either a self-contained school or self-contained classrooms. The purpose of the study was to determine if these students were benefiting from placement in their respective setting. Sixty students (elementary = 33, middle school = 27) from either self-continued classrooms or separate schools were recruited to participate in the study. Twenty-six participants received special education services in self-contained classrooms whereas 34 students received services in a separate school. Majority of the participants (70%) had EBD as their primary disability label. Most participants (75%) were African American. All participants received core curriculum instruction as mandated by the school district (i.e., reading, writing, math, social studies, and science) in addition to social skills instruction. Teachers in these settings were required to prepare lesson plans addressing how the district standards were being addressed and met in their classrooms. Students in the separate schools had more supports in place (e.g., additional aides, mental health counselors, and weekly group therapy) than the self-contained classrooms. A series of repeated measures ANOVAs (time = repeated measure factor; placement = between subjects factor) and a one-way ANOVA for formative and summative assessments revealed significant difference in growth for the participants educated in self-contained classrooms and a self-contained school in all academic areas except for written language ($F(1, 58) = 7.17$, $p = 0.0096$). The written language skills of students in separate schools decreased over the

school year. In addition, the scores for students in both settings were negative, suggesting that their academic skills did not improve as much as those of the normative sample. Overall, there were no significant differences in social skills and behavioral patterns in both groups over time. However, there were notable increases in externalizing behaviors as well as disciplinary contact. In summary, results from this study support existing literature that offers evidence of continued poor outcomes of students with EBD in self-contained classrooms, and the continued need for strategies that address both the social and academic needs of these learners regardless of placement.

A similar study was conducted by Lane, Barton-Arwood, Nelson, and Wehby (2008) but only focused on students in self-contained classrooms. Researchers used a causal-comparative design to determine the extent to which (a) academic, social, and behavioral variables could discriminate between elementary and secondary students with EBD and (b) behavioral and social characteristics could predict academic performance of students with EBD, receiving special education services in a separate setting. Specifically, researchers collected data using the Child Behavior Checklist: Teacher Report Forms (TRF; Achenbach, 1991), standardized reading assessments, and Social Skills Rating System (SSRS; Gresham & Elliott 1990) to assess externalizing and internalizing behaviors of the participants. Additionally, the Walker-McConnell Scale of Social Competence and School Adjustment (Walker & McConnell, 1995) was administered to assess participants' overall school adjustment. Forty-two participants (23 were elementary and 19 were secondary) from nine self-contained classrooms within a general education campus were included in the study. Primary disability identifications

were EBD ($n = 31$), OHI ($n = 5$), learning disability ($n = 3$), speech impairment ($n = 1$), and intellectual disability ($n = 2$).

Analysis of effect size based on group differences showed elementary students performed higher in broad math and reading comprehension in addition to exhibiting lower levels of absenteeism, when compared to secondary students (ES = -2.23, -1.14, and 2.75, respectively). On the other hand, secondary students had higher oral reading fluency, academic competence, school adjustment scores, and exhibited more problem behaviors than elementary students (ES = 4.59, 1.28, 1.25, and 1.46, respectively). Secondary students also had higher problem behavior scores compared to elementary students. Multiple regression to examine the effects of behaviors to academic outcomes found school adjustment and internalizing behavior significant in predicting reading scored ($t = 2.25$, $p = .03$; $t = 2.22$, $p = .033$, respectively). Further, school adjustment was found to be predictive of written expression performance ($t = 2.75$, $p = .009$). Overall, results from this study indicated below average academic performance for this group of students; this was consistent with previous studies (e.g., Lane, Wehby, Little, & Cooley, 2005; Mooney, Epstein, Reid, & Nelson, 2003; Nelson, Babyak, Gonzalez & Benner, 2004; Reid et al., 2004). Of significance were the findings that adjustment to educational setting may have possible collateral effect on academic and/or social outcomes for students with EBD placed in self-contained environments, warranting positive interventions that focus on improving students' overall academic and social outcomes.

In summary, both studies suggest that students with EBD served in self-contained classrooms continue to have poor academic and social skills outcomes; This is important considering that, the premise behind alternative placements, including self-contained

classrooms, is the assumption that self-contained classrooms provide opportunities for small group or individualized intensive instruction for students with severe academic and/or behavior issues. Evidently, for most students in EBD settings, poor academic and social skills outcomes were consistent regardless of whether the primary area of eligibility was EBD or not. In addition, age and grade had little to no impact on their academic outcomes, although the older the students got, the wider their academic achievement gap. This finding is important and provides support for early intervention for academic (including writing) and behavioral issues for students with EBD.

Summary

The preceding section reviewed the overall academic performance of students with EBD as well as academic performance in specific instructional areas. Literature reviewed in this section revealed that students with EBD continue to display academic challenges in the three core academic areas (i.e., reading, math, and writing). In addition, students with EBD in self-contained settings are at a greater risk of severe academic deficits based on the daunting task of balancing between teaching academic content and dealing with the behavior challenges by their teachers. Also evident is that of the three academic areas, writing instruction has historically received the least attention from instructors. Consequently, students with EBD tend to experience significant writing challenges. In the following section, a review of the literature in writing instruction specific to students with EBD will be provided to offer a clear picture on current writing practices for the population as they relate to national standards and beat practices in writing.

Writing Instruction for Students with EBD

Students who struggle significantly with writing in the early elementary grades, including those with EBD, are at a disadvantage in the upper elementary grades and beyond, where writing becomes a critical tool both for learning and representing evidence of that learning (Harris, Graham, & Adkins, 2015). There is mounting evidence that writing about content in science, social studies, and other content areas enhances how much students learn (Graham & Hebert, 2011). Moreover, students who do not learn how to write well in grade school may experience diminished opportunities to attend college; most colleges now require writing samples as part of the evaluation of applicants' qualifications (Graham, 2008). Yet historically, writing has been the most neglected area of instruction (National Commission on Writing in America's Schools and Colleges, 2003). This is reflected in poor writing outcomes for most students, including those with EBD. For example, per National Center for Education Statistics (NCES), in 2012 nearly 75% of grade school students were not able to produce texts that were judged to meet grade-level expectations. This is also evidenced in the Scholastic Achievement Test (SAT) results. For example, in 2012 the average score for participating high school students on the writing portion of the SAT was 488 (out of 800), the lowest score since the assessment was introduced in 2006 (Graham, 2013). Similarly, in 2011, only 27% of 8th and 12th grade students scored at or above proficient on the writing portion of the national assessment of educational progress (Miller & McCurdle, 2011). In the same assessment, 20% of 8th graders and 21% of 12th graders scored "below basic." Although the most current data from NAEP do not include writing performance, most recent SAT scores indicate that most students, including those with EBD, perform poorly in writing,

in comparison to reading and math. According to the College Board (2017) statistics, at 487 and 482, the average mean scores for the writing portion of SAT were lower than those of reading and math, both in 2015 and 2016 (reading 497 and 494; math 512 and 508). These data may be reflective of instructional conditions way before students get to high school, and may imply a need for increased focus on effective writing instruction in earlier grades for all students, including those with EBD.

National Writing Standards

In recent years, there has been an increased acknowledgement of the critical role of writing instruction in promoting academic success for all students both in school, and for college and career readiness (Graham, 2013). The current world economy is the kind in which most jobs demand extensive written communication (Trilling & Fadel, 2009). This realization has led to recognition of the importance of writing and promoted an emphasis on writing in state and national standards. For instance, Common Core State Standards (CCSS, 2010), adopted by most states, require extensive writing across the curriculum, with the intention of preparing students for the kind of learning and thinking they will need for success in higher education and the 21st century workplace (Graham, 2013).

National and state writing standards across grades. Most state writing standards are adapted from the standards created by the National Councils of Teachers of English in Conjunction with the International Reading Association (NCTE/IRA, 1996). The NCTE/IRA developed 12 broad English/Language Arts (ELA) standards. Notably, the writing standards are not stand-alone; they are written as part of the ELA standards. Most states emulate this pattern when outlining their writing standards. A list of writing

standard is provided next to offer a precise picture of writing expectations for students

(see NCTE/IRA, 1996 for context of each standard).

- Students should adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes (Standard 4).

- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes (Standard 5).

- Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts (Standard 6).

- Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience (Standard 7).

- Students use a variety of technological and informational resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge (Standard 8).

- Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities (Standard 11).

- Students use spoken, written, and visual language to accomplish their own

  purposes (e.g., for learning, enjoyment, persuasion, and the exchange of

  information; Standard 12).

Overall, six out of 12 standards directly address writing expectations for students

during k-12 school years. Yet, based on teacher self-reports, there is very little emphasis

placed on writing instruction particularly in the middle and high school grades.

Additionally, although teachers in elementary school engage in more writing activities

comparatively, there exist several factors that impede effective writing instruction in

elementary grades (see Cutler & Graham, 2008; Graham, Harris et al., 2008; Graham,

Morphy et al., 2008, Troia et al., 2015).

The Common Core State Standards. The introduction of Common Core State

Standards (CCSS, 2012) offered great promise for writing instruction (Graham & Harris,

2013; Graham & Harris, 2015; Sundeen, 2016; Troia & Ollinghouse, 2013; Troia et al.,

2015). The CCSS have been hailed by proponents of effective writing instruction as a

roadmap for writing instruction because it emphasizes that "writing is not just something

that happens during language arts, but is integral to all subjects" (Graham & Harris, 2015;

p. 461). However, there are various issues that overshadow the impact, if any, of the

CCSS. First, as discussed above, many teachers are inadequately prepared to teach

writing (Dismuke & Martin, 2016), and hardly engage in meaningful writing instruction

(Sawchuk, 2012). In addition, CCSS has been criticized for (a) not being explicit and

concise on how the standards are to be met within the schools and specific classrooms,

(b) the emphasis placed on summative evaluation, which is deemed problematic,

particularly when it comes to writing instruction, and (c) its failure to provide guidance

for how to best meet the needs of struggling and/or disadvantaged students such as English language learners and students with disabilities, including those with EBD (Graham & Harris, 2015). As stated before, the CCSS provide a comprehensive framework of writing expectations for students at every grade level. However, data gathered from stakeholders, and particularly practitioners, are concerning. Specifically, many teachers, by their own admissions and/or observed writing practices, are not skillfully equipped to execute the writing standards of the new CCSS (Sawchuk, 2012). Moreover, for those teachers who are trained to teach writing, time allocated to teaching writing to the prescribed standards is very limited (Harris & Graham, 2013). Apart from reading and language arts teacher and/or English teachers, most educators in secondary grades (i.e., middle grades and high school) rarely engage in meaningful writing instruction. This is evidenced by two national surveys of secondary teachers. First, Gillespie, Graham, Kiuhara, and Hebert (2014) randomly sampled 800 language arts, social studies, science, and math high school teachers, and surveyed them about their use of writing to support student learning. Results from this survey indicated that majority of teachers, especially those who taught science and math, indicated they did not receive adequate pre-service or in-service preparation on how to use writing to support learning. In addition, writing to learn activities that the teachers employed lacked analysis, interpretation, and personalization of information learned. Overall, the results from the survey revealed that the intensity and frequency use of writing to support learning was directly related to teachers' preparation to apply such strategies and their perceptions of capabilities to teach and use these tools. These results were echoed by Graham, Capizzi, Harris, Hebert, and Morphy (2014) who surveyed a random nationwide sample of 285

sixth to eighth grade language arts, social studies, and science teachers about their preparation to teach writing, beliefs about responsibilities for teaching writing, use of evidence-based writing practices, assessment of writing, use of technology, and adaptations for struggling writers. Results indicated that majority of teachers felt that they were inadequately prepared to teach writing. Most stated that they received little to no pre-service or in-service training in writing. Moreover, very little time was spent on writing or teaching writing. Results from the surveys imply that for struggling students who enter middle school, the lack of commitment to writing instruction places them in jeopardy of falling even further behind. With similar implications for high school (see Gillespie et al., 2014), the prospects of struggling writers in secondary level are not great.

Writing Instruction in Elementary Grades

Based on the CCSS (2010), by the end of fifth grade student are expected to achieve the following: (a) write opinion pieces on topics or texts, supporting a point of view with reasons and information; (b) introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose; (c) provide logically ordered reasons that are supported by facts and details; (d) link opinion and reasons using words, phrases, and clauses such as consequently and specifically; (e) provide a concluding statement or section related to the opinion presented; (f) write informative/explanatory texts to examine a topic and convey ideas and information clearly; (g) introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension; (h) develop the topic with facts, definitions, concrete details, quotations, or other information and examples

related to the topic; (i) link ideas within and across categories of information using words, phrases, and clauses such as in contrast and especially; (j) use precise language and domain-specific vocabulary to inform about or explain the topic; (k) provide a concluding statement or section related to the information or explanation presented; (l) write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences; (m) orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally; (n) use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations; (o) use a variety of transitional words, phrases, and clauses to manage the sequence of events; (p) use concrete words and phrases and sensory details to convey experiences and events precisely; (q) provide a conclusion that follows from the narrated experiences or events; (r) produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience; (s) with guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach; (t) with some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting; (u) conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic; (v) recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources; (w)

draw evidence from literary or informational texts to support analysis, reflection, and research; (x) apply grade 5 Reading standards such as compare and contrast, to writing; (y) apply grade 5 Reading standards to informational texts; and (z) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. These standards align with the notion that teaching of foundational skills of writing (i.e., handwriting, spelling, vocabulary development, sentence structure, the writing process, writing strategies and genre knowledge) in the elementary grades is critical to the overall success of students particularly in the upper grades (Graham, 2013). Compared to middle and high school, there is evidence to indicate that elementary grade teachers are more likely to engage in teaching foundational skills to some extent. Still, as evidenced by the following self-reporting of elementary school teachers, there is more that needs to be done to increase effective instruction of the skills at the elementary grades.

Cutler and Graham (2008) surveyed a random sample of 294 first, second, and third grade teachers from across the United States about their classroom instructional practices in writing. Most responders reported that they employed an eclectic approach to writing instruction. Additionally, most teachers combined process writing and skills instruction in teaching students to write. Most teachers reported using many of the writing strategies included in the survey, although there was variability in the frequency of use of specific strategies. Majority of teachers reported that they engaged their students in (a) drawing a picture and writing something to go with it (94.9%), (b) writing letters to another person (88.8%), (c) journal writing (86.5%), (d) completing worksheets (86.0%),

(e) personal narratives, (79.8%), (f) writing in response to material read (78.1 %), and (g) writing poems (75.6%).

Focusing on spelling instruction, Graham, Morphy et al. (2008) surveyed 168 elementary school teachers to examine their instructional practices in spelling and the types of accommodations they provided for struggling spellers. Participants were first-through third-grade teachers (male = 8; female = 156; grade 1 = 50; grade 2 = 55; grade 3 = 46; multiple grades = 18; urban = 60; suburban = 49; rural = 56) randomly selected from a nationwide Market Data Retrieval list of 558,444 primary-grade teachers from 72,000 private and public schools. Participants completed a questionnaire with two parts. The first part included questions about the teacher, the classroom, and the general spelling program; the second part utilized a 7-point Likert scale and consisted of 20 questions about specific spelling activities or practices. Analysis of pooled data indicated that all teachers devoted an average of 90 min per week to writing/spelling instruction although variability existed in the actual amount spent on writing (SD = 70.64 min). Ninety percent of the teacher reported that students were expected to master words on a spelling list every week. However, the sources of the spelling words were varied. Specifically, most teachers (range 55%-94%) reported engaging in at least 16 of the pooled writing-related activities (i.e., praise, phonic for spelling, phonological awareness, minilessons, feedback on misspellings, spelling games, spelling rules instruction, invented spellings, spelling strategies, unknown words, conferencing, spell checkers, peer-assisted spelling, reteaching, reinforcement and motivational, and word sorting) on a weekly basis. However, when comparing the two groups of students (i.e., stronger spellers versus weaker spellers), only three practices (i.e., parental conferences, teacher-

student conferences, and number of spelling words assigned) yielded statistically significant differences in the way the teachers provided adaptations. These results indicated that in most part, teachers did not provide sufficient supports to assist struggling writers.

Results from the two elementary surveys offer evidence of a more concerted effort in the elementary grades to engage students in writing activities using recommended writing strategies. However, in both studies, lack of preparation and/or professional development is a common theme. Implications from these studies are that: (a) elementary grades offer great promise and opportunity to not only provide effective writing instruction for all students, but also to intervene early, for those students who struggle with writing including those with EBD; and (b) to accomplish this, there needs to be a concerted effort to support teachers increasing their knowledge of functional strategies for effectively incorporating writing instruction across the curriculum.

In summary, as is evident from above, the CCSS writing requirements for students at the elementary level are rigorous and call for schools, administrators, and teachers to invest sufficient time and resources to meet the demands of these standards. Yet, as evidenced by teacher self-reports (Gillespie et al.,2014; Graham, Capizzi et al., 2014; Graham, Harris, Mason et al., 2008; Graham, Morphy et al., 2008; Young, 2015) and overall writing outcomes for k-12 students (NCES, 2012; Graham, 2013; Miller & McCurdle, 2012, Young, 2015), writing instruction across grade levels is far from where it needs to be.

Effective Writing Practices

Over the years, there have been several publications presenting data on effective writing practices for all students including struggling writers that are rooted in research (e.g., Graham et al., 2012; Graham, 2008; 2013). These publications suggest the following components of effective writing practices.

- *Teaching writing as an essential part of the curriculum*. According to Graham et al. (2012), central to any successful writing curriculum should be the collective perception that writing is an important and critical piece of the entire school experience. This perception should be reflected in the planning as well as the execution of any given school curriculum. In addition, there should be sufficient allocation of materials, personnel training, instructional and assessment time, if students are to gain competence in their writing skills. Using multiple approaches to teach writing, Troia (2014) reiterates the importance of teachers recognizing that teaching written expression requires flexibility and adjustment of strategy based on students' skill level as well as individual needs. In addition, teachers need to be competent in their knowledge of writing instruction as well as different approaches to effectively impart that knowledge to their students.

- *Teaching students the writing process*. When teaching writing, the focus should be on helping learners to demonstrate their understanding of the elements of the writing process that may include planning, idea generation, drafting, revising as well as editing (Graham, McKeown, Kiuhara, & Harris, 2012; Graham & Perin, 2007; Graves, 1975; Murray, 1980). In addition, writing instruction should involve explicit teaching, increased opportunities for practice, and scaffolding

especially for younger writers and struggling writers (Graham, 2013, Graham & Sandmel, 2011).

- *Teaching students to write with a purpose.* Graham, Bollinger et al. (2012) content that writing instruction should be geared towards assisting students to create written products with their audience in mind. In so doing, teachers help their students reflect on their purpose for writing and how they can keep their target audience hooked on their written product (Graham, McKeown, et al., 2012). This involves teaching students how to structure their compositions as well as the use of vocabulary, creativity, and imagination (Graham, Bollinger et al., 2012; Graham McKeown et al., 2012 Ollinghouse & Wilson, 2013).

- *Assessing student writing and providing effective feedback.* Comprehensive feedback is (and should be) a critical component of any effective writing instruction (Troia, 2014). All students need sufficient feedback to help them improve their writing content as well as form and structure. Employing rubrics and similar forms of evaluation helps in moderating factors that may impede effective feedback (e.g., teachers' reliability, students' level of reading, students' grasp of writing mechanics). Explicit rubrics can also be useful for student self-evaluations, which have been found to be effective for improving writing (Graham, Harris, & Hebert, 2011; Harris, Graham. Mason & Friedlander, 2008).

- *Teaching writing skills.* Teaching basic writing skills must be a major part of writing instruction (Graham, 2013). Students need such skills as spelling, capitalization, punctuation, grammar, and handwriting to be able to successfully engage in meaningful written expression. It is, therefore, imperative that teachers

make a sustained effort to explicitly teach these skills alongside authentic writing activities (Andrews et al., 2006; Graham & Perin,2007; Troia & Graham, 2003).

- *Using writing as a tool for learning*. Students at all grade levels are taught various academic content (e.g., reading, math, science, social studies). These areas offer an excellent opportunity for effective writing instruction and practice to occur (Beers & Howell, 2005; Graham & Hebert, 2011). Teachers can take advantage of these opportunities to engage students in writing that will be both meaningful and authentic (Mason et al., 2009).

- *Fostering independence and reflection in writing*. The end goal of any effective writing instruction should be the development of learners who are both independent and reflective with their writing (Beers & Howell, 2005; Troia, 2014; Yancy, 1998). This can be enhanced through teaching such strategies as goal setting, self-monitoring during the writing process, and self-evaluation of written products in the context of set goals. Teachers can further assist their students in the process towards self-efficacy by providing them with explicit rubrics for each component to be evaluated. In addition, teacher modeling and scaffolding during the writing process helps to promote and sustain self-efficacy (Graham, Bollinger, et al., 2012; Graham, McKeown, et al., 2012; Graham & Perin, 2007; Rogers & Graham, 2008).

- *Creating a supportive writing environment*. Effective writing has a lot to do with motivation and self-efficacy. As noted by Graham (2013), it is imperative that teachers intentionally develop and foster nurturing environments where learners feel encouraged as well as supported to write. This can be accomplished through

various means that may include providing authentic and relevant tasks and topics

for writing, modeling, conferencing, collaborative writing activities, rewards, and

individualized supports for struggling writers (Graham, 2013). When teachers

create a community of writers within their classrooms, most students are likely to

be motivated to engage in the writing process, regardless of their skill levels

(Graham & Perin, 2007; Rogers & Graham, 2008).

Approaches to Writing Instruction

As discussed previously, teaching students how to be effective writers is a

multidimensional endeavor. However, in most instances when addressing writing

instruction, major emphasis is placed on teaching students basic writing skills that may

include spelling, handwriting, grammar, semantics, and syntax. There are numerous

programs or approaches that are specifically developed for teaching these skills. Some

examples include *Handwriting without Tears* (Owens, 1994) and the *CASL Handwriting*

program (Graham & Harris, 1999) specifically designed to teach young students letter

formation and handwriting, and *Grammar Alive* (Haussamen, 2003) which provides

teachers with informal, hands-on techniques to grammar instruction in the classroom.

Many educators have utilized these and other similar programs to teach specific writing

skills. Although mastering isolated writing skills is essentially for all students, it is

equally important that students learn strategies for elaborative expressive writing

(Graham, 2013; Troia, 2014). As noted by Graham and Harris (2016) and Graham

(2013), many students have difficulties engaging in sustained writing activities and

producing meaningful texts. Teaching students the writing process that involves planning

and revising has been found to be effective (Graham& Perin, 2007; Rogers & Graham,

2008; Troia, 2014). Below are four of the most commonly used writing approaches that include some level of planning and revising.

Interactive Writing. Interactive Writing (McCarrier, Pinnell, & Fountas, 2000) is a group writing experience that helps children attend to the details of letters, sounds, and words while creating meaningful text. Interactive writing is designed for students in early phases of writing and is best when used with children in prekindergarten through grade 2. The target skills for interactive writing are letter formation, letter names, phonemic awareness, spelling, high-frequency words, concepts about print, early reading, and organizing and composing narrative and expository text. According to McCarrier et al. (2000), the interactive writing instruction involves negotiating, constructing, and rereading the text. First, the students and teacher negotiate the writing topic and the detail of the text to be written. Next, the teacher and students construct the text together by sharing the pen to create a sentence or brief story. During this time, the teacher guides students by focusing their attention on applying letter-sound correspondence, segmenting and blending, letter identification and formation, and high frequency word recognition. Students are encouraged to correct any letter formation and/or spelling mistakes with the teacher's help. Finally, the group-created text is reread each time a new word is written for reading practice.

There exists sufficient evidence to support interactive writing as an effective approach to writing instruction with early elementary students. For example, Roth and Guinee (2011) conducted a randomized control pre-post group design study to examine the effects of Interactive Writing on the independent writing of first graders enrolled in urban schools in a large metropolitan area. One hundred one students (experimental = 49;

control = 52) were recruited to participate in the study. The experimental group received 10 min of instruction on interactive writing for 5 days a week while the control group receive 10 min of writing instruction using teacher created strategies. Post-intervention assessment results showed greater growth on measures of independent writing for the experimental group when compared to the control group. Moreover, participants in the interactive writing group significantly improved in skills in generating ideas for writing, organization, word choice, sentence fluency, spelling of high-frequency words and other words, capitalization, punctuation, and handwriting. These results demonstrated the potential for interactive writing to improve students' ability to be independent and skillful writers, if delivered consistently. Moreover, interactive writing could be beneficial to upper elementary students (e.g., Roth & Dabrowski, 2014; Wall, 2008).

The Writing Workshop. The Writing Workshop (Graves & Murray, 1980) focuses on providing students time and opportunities to use the writing process to create written text. Writing Workshop is designed for use in all grade levels. Each grade level has specific units of study tailored to meet developmental and curricular needs. The main components of the Writing Workshop are writing, conferencing, and sharing. Students typically have a large number of topics from which they can choose and are free to embrace a variety of writing styles. The teacher acts as a mentor author, often modeling writing techniques and conferring with students as they move through the writing process. At the beginning of each workshop, the teacher provides direct writing instruction through a mini-lesson. This is followed by a minimum of 45 min of active writing time. At the end of each workshop, students share their writing with each other (Calkins, 2006). The use of invented spelling is encouraged; conventions are addressed as

students edit—oftentimes before a piece goes to publication. (D'On Jones, Reutzel, & Fargo, 2010). Overtime, improved spelling is used to gauge student overall growth.

The writing workshop has been widely used in the past with documented effectiveness in improving students' overall writing skills as well as self-efficacy in writing. For instance, D'On Jones et al. (2010) conducted a 16-week pre-post randomized control group study to compare the effects of two methods of writing instruction (i.e., the writing workshop and interactive writing) on kindergarten students' acquisition of early reading skills (phonological awareness, alphabet knowledge, and word reading). Five kindergarten teachers who taught total of eight combined kindergarten classes per week, were randomly assigned to a treatment. A total of 151 kindergarteners participated with 75 receiving interactive writing instruction and 76 receiving writing workshop instruction. Results of the growth model showed student growth over time to be significant for all three measures for both intervention groups with no significant differences between groups. Based on these results, it was recommended that in choosing between these two methods of instruction, teachers should base their choice on student needs and their own strengths regarding each method rather than whether one was better than the other.

Units of Study. Units of Study for Teaching Writing (Calkins, 2003) is a commercial available program designed for students in grades k-8. It builds on the writing workshop framework by offering grade-by-grade plans for teaching writing workshops that help students meet global writing standards. The plans focus on opinion/argument, informational, and narrative writing and are meant to help teachers: (a) teach opinion/argument, information, and narrative writing with increasing complexity

and sophistication; (b) unpack standards as they guide students to attain and exceed those expectations; (c) foster high-level thinking, including opportunities to synthesize, analyze, and critique; (d) develop and refine strategies for writing across the curriculum; (e) support greater independence and fluency through intensive writing opportunities; (f) include strategic performance assessments to help monitor mastery and differentiate instruction; (g) provide a ladder of exemplar texts that model writing progressions across grade levels; and (h) teach and learn teaching while receiving strong scaffolding and on-the-job guidance.

Being a Writer. Being a Writer (Elbow & Belanoff, 2003) is a commercially available flexible writing curriculum designed for grades k-6 based on the Writing Workshop model that works to build a community of writers using rich literature and high-quality trade books that can spark both social and writing development. Modeled after the Writing Workshop, Being a Writer has many similarities with the Writing Workshop (Elbow & Belanoff, 2003). The main difference between the two is that (a) with Being a Writer, writing is viewed as a content area rather than a skill taught alongside other content areas, and (b) student writing topics are based on works of literature that is read by the students (The National Writing Project, 2015).

Being A Writer is a relatively new program and there is no existing evidence within peered reviewed journals to vouch for its effectiveness. However, there is mounting evidence of the program gaining popularity particularly with the inception of the CCSS; many school districts as well as individual schools are investing in the program with increasing positive reports of its effectiveness. For example, in 2012, the Hatboro-Horsham school district in Pennsylvania launched Being a Writer as the district-

wide writing program in elementary schools, after a 2-year pilot with two elementary

skills resulted in significant improvement of students' writing across all grade levels (see

https://www.collaborativeclassroom.org/success-stories/being-a-writer).

Although the preceding writing programs have been found to be effective for

elementary age students, most existing evidence focuses on typically developing students

in general educational settings. Research on the effects of the strategies on students with

disabilities, including those with EBD is not well-documented.

Self-Regulated Strategy Development

Self-Regulated Strategy Development (SRSD), like Interactive Writing and the

Writing Workshop, focuses on teaching students the process of writing. However, SRSD

goes beyond the writing process, to instruct students on self-regulation to promote

motivation and resiliency during the writing process and develop independent writers

with high levels of self-efficacy in regards to writing (Harris & Graham, 2016; Harris,

Graham & Mason, 2003; Mastopieri et al., 2015). In addition, compared to other writing

programs that incorporate planning and revising, SRSD has been used more frequently

with students with EBD, with positive results as far as improvement of written products.

The next section goes into a detailed review of literature of SRSD.

Summary

Based on the national standards, and the CCSS, the writing requirements for

students across grade levels are demanding in nature, and require a collaborative effort to

build a foundation on which all students, including those with EBD, can develop essential

writing skills. Considering that teachers in secondary grades are less likely to engage in

meaningful writing instruction, it is critical that teachers in the elementary grades

intentionally plan for and provide meaningful writing instruction for all students in order to extend the opportunity for these students to successfully engage in writing tasks in later grades and beyond. This can be accomplished through utilizing existing writing curriculums that are supported by research and incorporate the foundational writing skills (i.e., handwriting, spelling, vocabulary development, sentence construction, the writing process, writing strategies, and genre knowledge).

Self-Regulated Strategy Development

Amidst efforts to improve and promote writing skills and efficacy for students with and without disabilities (Blanch, Forsythe, Van Allen, & Roberts, 2017; Mo, Kopke, Hawkins, Troia & Olinghouse, 2014; Trioa et al., 2015; Young, 2015), Self-Regulated Strategy Development (SRSD) has emerged as an evidence-based practice for writing instruction for students with and without disabilities including those with EBD (Harris & Graham, 2016). In addition, several reviews of writing instruction have been conducted over the years, most of which point to the effectiveness of SRSD as an effective writing instruction strategy for students with and without disabilities.

First conceptualized by Karen Harris (Harris & Graham, 1996), SRSD is designed to encourage writing independence through teaching students cognitive and self-regulation strategies for regulating the writing process. SRSD consists of six instructional stages that facilitate the student's mastery of strategy use. These stages are recursive and include (a) developing pre-skills and background knowledge, (b) discussing the specific strategy, (c) modeling the strategy, (d) memorizing the strategy, (e) providing guided practice, and (f) independent practice (Harris, Graham, & Mason, 2003). At the core of SRSD instruction is the emphasis on goal setting, self-monitoring, self-instruction, and

self-reinforcement to support student self-regulated learning. Instruction within the SRSD model is scaffolded by gradually shifting responsibility for strategy use and self-regulation of the writing process from the teacher to the student. Instruction is criterion-based rather than time-based. Students must demonstrate mastery of a stage or procedure before moving to the next phase of instruction. The instructional stages and self-regulation procedures in SRSD instruction support students' attention in using writing strategies (Mason, Benedek-Wood & Valasa, 2009). Furthermore, the support and guidance that teachers provide during SRSD instruction through the use of prompts and interaction foster maintenance of learning (Harris, Graham & Mason, 2003; Harris & Graham, 2016).

Essentially, SRSD incorporates (a) process writing instruction, (b) comprehensive writing instruction, (c) strategy instruction, (d) teaching prewriting, planning and drafting, (e) teaching revising and editing, (f) text structure instruction, (g) text models, (h) using rubrics, (i) providing feedback, (j) construct representation and scoring in writing assessment, (k) objective scoring of written products, (l) self-regulation and metacognition reflection, (m) goal setting, conferencing, and teacher modeling, (n) providing authentic and relevant writing tasks and motivation, and (o) making adaptations, all of which are recommended as critical for effective writing (Troia, 2014). In addition, SRSD has been effectively used across genres (e.g., opinion/persuasive writing, expository writing, narrative writing); one distinctive aspect of SRSD is the development of mnemonic aids for genre specific instruction. Further, SRSD has been used effectively to improve students' content area writing skills (Baker, Chard, Ketterlin-Geller, Apichatabutra, & Doabler, 2009; Graham & Perin, 2007; Mason et al., 2009;

Rogers & Graham, 2008). Moreover, there is sufficient evidence to demonstrate the effectiveness of SRSD across grade levels and groups of students, including those with disabilities (Graham & Harris, 2016). In particular, SRSD has been extensively used with students who had EBD classification with well documented evidence of its effectiveness on remediating writing difficulties (Ennis et al., 2014). The following sections provide a review of the literature attending to SRSD in general, SRSD with students with disabilities, and SRSD studies with students with EBD.

Meta-Analyses and Systematic Reviews on SRSD

Since 1992, SRSD has been used to provide writing instruction to students across grade levels and disabilities including those with EBD. Over this period of time, there have been numerous reviews of interventions to both gauge the effectiveness of the strategy and inform future research and practices. A few of those reviews are discussed next.

Graham and Perin (2007) conducted a meta-analysis of writing intervention research that included 123 experimental and quasi-experimental studies in an effort to document instructional practices that improved the quality of adolescent students' writing. The studies included in the review were from 1964 through 2005, and had participants ranging from grades 4 to 12. A total of 11 interventions implemented across 123 studies were examined. Specific elements examined by the review included process writing ($n = 21$), Grammar instruction ($n = 14$), strategy instruction ($n = 20$), summarization ($n = 4$), text structure ($n = 5$), prewriting ($n = 5$), inquiry ($n = 5$), procedural facilitation ($n = 4$), peer assistance when writing ($n = 7$), study models ($n = 6$), product goals ($n = 5$), feedback ($n = 5$), word processing ($n = 18$), and extra writing ($n =$

6). Of the 11 interventions, studies that employed SRSD instruction yielded the largest

ES (1.14). Additionally, interventions that included goal setting and strategy instruction,

which are components of SRSD, also yielded significant ES (.70 and .82, respectively).

A similar review was completed by Rogers and Graham (2008). However, unlike

Graham and Perin (2007), this was a meta-analysis of single-case design (SCD) writing

intervention studies. Eighty-eight SCD studies, ranging from 1984 to 2006, that

employed a complete writing intervention were included in their review. Across the

included studies, participants ranged from grades 2 through 12 and included students with

and without disabilities. Treatments used across the studied were categorized and

analyzed as follows: strategy instruction for planning/drafting ($n = 25$); self-monitoring

($n = 8$); goal setting for productivity ($n = 7$); reinforcement ($n = 6$); prewriting activities

(n =5), sentence construction ($n = 5$); strategy instruction editing ($n = 5$), strategy

instruction paragraph construction ($n = 5$); word processing ($n = 5$); teaching

grammar/usage ($n = 4$); feedback on writing ($n = 4$); strategy instruction other ($n = 4$),

strategy instruction revising ($n = 2$), direct instruction of a broad array of skills ($n = 2$),

goal setting for grammar/sentence construction ($n = 2$), word processing plus ($n = 2$),

dialogue journals ($n = 1$), direct teaching of self-regulation strategies ($n = 1$); repeated

writing ($n = 1$); and verbal encouragement ($n = 1$). Analysis of results from each study

revealed that interventions that taught students strategies for planning/drafting both

narrative and expository text using SRSD yielded the highest median and percentage of

nonoverlapping data [PNDs] (95.5% and 98%, respectively). Moreover, interventions

that employed elements of SRSD, including editing and reinforcing students' writing,

also showed large PNDs and medians (PND 90%; 57-100).

Other reviews looked specifically at studies that used SRSD. One such review was by Baker, Chard, Ketterlin-Geller, and Apichatabutra (2009). In their review, Baker et al. evaluated 21 studies (16 SCD & 5 experimental) that examined the effect of SRSD instruction on academic outcomes of students with or at risk for learning disabilities, using Gersten et al.'s (2005) and Horner et al.'s (2005) quality indicators. Specifically, for the SRSD SCD studies, 9 out of the 16 studies achieved a mean score of 3 or above in each of the seven quality criteria categories, thus meeting Horner et al.'s standards for an evidence-base practice (i.e., at least five studies that meet criteria). Similarly, 4 of the 5 SRSD group studies included in the evaluation met Gersten's standards for a high-quality practice (i.e., at least four acceptable studies, or two high-quality studies to support the practice). Combined, both SCD and group studies evaluated in the review provided sufficient evidence to support SRSD as an evidence-based practice for students with disabilities.

In a more recent review, Sreckovic, Common, Knowles, and Lane (2014) used Horner et al.'s (2005) quality indicators for SCD studies and Gersten et al.'s (2005) quality indicators for group design studies, to conduct a systematic review of SRSD investigations with students identified with EBD. To be included in the review, all studies had to (a) be true experimental, quasi-experimental, or SCD studies with data represented either descriptively or graphically, (b) have participants with identified EBD or at risk for EBD, (c) be implemented in an educational school setting, (d) feature an SRSD writing intervention and writing outcomes, and (e) be written in English and published in peer-reviewed journals. A total of 13 studies (group = 3; SCD = 10) that met the inclusion criteria were evaluated. Participants in the included studies ranged from grades 2 to 11

with ages from 7-17 years; they were classified as at risk for EBD, or labeled as having EBD, ED, or serious emotional disabilities. Using the binary scale (i.e., met/not met) coding scheme, all reviewed studies met at least 80% of the high-quality indicators, providing evidence for SRSD as an effective practice for students with EBD.

In general, SRSD has been found to be effective in remediating writing challenges of students across disability classifications. This is evident from Taft and Mason's (2011) review of SCD studies that utilized SRSD intervention for students with disabilities other than SLD. A total of 15 studies were included in the review. The studies included were conducted in elementary schools (*n* = 11), middle school (*n* = 3) and high school (*n* = 1). Disability categories represented in the review included EBD, ADHD, Speech-Language Impairment (SLI), Asperger's Syndrome, ASD, mild mental retardation (MMR), and orthopedic impairment (OI). All studies reviewed reported positive writing outcomes across writing genres for a diverse group of students with disabilities and in various settings (e.g., separate settings, self-contained classrooms, mainstreamed students, full inclusion students) which was consistent with previous studies that targeted students who were identified with a learning disability or as struggling writers. This review provided further support of SRSD as an effective intervention for all students with disabilities across grade levels and in varied placements.

Overall, all the reviews point to the effectiveness of SRSD in improving writing skills of students including those with EBD. The next section reviews individual SRSD investigations with different groups of students, including those without disabilities and those with disabilities, and specifically those with EBD.

SRSD and Students without Disabilities

Numerous investigations have yielded evidence to support the effectiveness of SRSD in improving writing skills of typically developing students. One such study was by Harris and colleagues (2012), who conducted a randomized controlled pre-post experimental study to examine the effect of Tier 1 SRSD instruction on story writing and opinion essay writing skills of students with and without behavioral challenges. Specifically, the researchers wanted to investigate if (a) SRSD instruction in story writing and opinion writing at Tier 1 could improve the writing of students at risk of social and behavioral disabilities and their matched peers, in terms of quality, length, and basic structural elements, (b) SRSD instruction in the two genres was effective at Tier 1 for students with and without challenging behaviors, (c) general education teachers could implement SRSD at Tier 1 with integrity following professional development, (d) teachers and students found SRSD to have acceptable social validity, (e) there was a difference in on-task behaviors among students with and without behavioral challenges before and after SRSD instruction, (f) students with challenging behaviors showed an overall decrease in problem behaviors after SRSD instruction, and (g) students' cognitive ability moderated intervention outcomes. Twenty teachers from three inclusive elementary schools in a rural district in a southern state were randomly assigned to either story writing condition or opinion essay writing condition. A total of 301 students participated and received the intervention assigned to their teacher. Pre-screening was conducted to provide an estimate of cognitive ability and identify students at risk of behavior difficulties and those without risk to be included in the study, as a matched sample. The two groups served as each other's control. The opinion group utilized the

POW-TREE (Pick your idea, Organize your noted, Write more- Topic, Reasons, Explain your reasons, Ending) strategy of SRSD while the story group utilized the POW WWW, What=2, How=2 strategy of SRSD. Results revealed that whole-class SRSD instruction at Tier 1 enhanced the writing performance of students with challenging behaviors and of a matched group of students without challenging behaviors. Moreover, treatment integrity scores were above 85% across all measures. However, story writing intervention groups performed better than opinion groups in terms of number and quality of story elements and quality of story writing. On the other hand, SRSD opinion group produced arguments with more transition words, better opinion elements, and greater quality writing than SRSD-story-instructed group. Finally, neither of the SRSD interventions significantly influenced on-task behavior and there were no significant differences in behavior among students with challenging behaviors before and after intervention.

In a follow-up study, Harris, Graham, and Adkins (2015) conducted a randomized controlled trial design to investigate the effects of practice-based professional development (PBPD) and SRSD as a Tier 2 intervention on story writing skills of at-risk writers in second grade. Specifically, the researchers investigated if: (a) general education teachers could implement SRSD at Tier 2 with integrity following PBPD; (b) teachers would find SRSD instruction in writing to have acceptable social validity; (c) PBPD in SRSD instruction in story writing, followed by teacher implementation at Tier 2, could improve the story writing of second grade students in terms of inclusion of story genre elements and story quality at posttest and maintenance; (d) intervention resulted in higher teacher reports of intrinsic motivation for writing and effort during writing among their students; and (e) intervention effects generalized to writing personal narratives. Teacher

participants received training on SRSD a few weeks before the start of the school year, and continued to receive coaching and support during the intervention. Students were randomly assigned to either SRSD instruction ($n = 27$) or control ($n = 26$) within each teacher's classroom. Intervention was delivered in small group format (2-4 students) within the classroom. Twenty-min lessons were taught three times a week for a total 19 sessions. Students in the control group worked on writing activities in centers within the classroom while the SRSD instruction was going on with the intervention groups. Analyses of the group means of both intervention groups (11) control groups (11) revealed that teachers implemented SRSD at Tier 2 with strong integrity. Teacher interviews also indicated that all 11 teachers believed SRSD instruction made an important difference in their students' writing and their attitudes about writing. Furthermore, the ANOVA measures yielded a statistical significance for group by time of assessment interaction for both elements and story quality measures, suggesting that SRSD was effective in improving the writing quality of struggling writers. Similarly, for intrinsic motivation and effort, there was a statistical significance between the conditions, with SRSD participants exhibiting increased motivation and effort in their writing. Overall analysis of posttest and maintenance data showed students in SRSD groups producing better quality written products for both writing measures when compared to the control groups.

In summary, the preceding two investigations with typically developing students at the elementary school level offer evidence to support SRSD as an effective practice for teaching genre-specific writing skills. The following section will address the effects of SRSD with students with identified disabilities.

SRSD and Students with Disabilities

In addition to improving and/or enhancing writing skills for typically developing students (Harris et al., 2012; Harris et al., 2015), SRSD intervention has been widely used with well-documented success for students with specific learning disabilities (SLD; Graham & Harris, 2016). There is also an increasing evidence base to support its effectiveness in students with disabilities other than learning disabilities (Graham & Harris, 2016; Taft & Mason, 2011). For example, Jacobson and Reid (2012) employed a multiple probe across participants design study to investigate the effectiveness of a persuasive writing instruction using the SRSD model on the writing outcomes of high school students diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). All participants, three white males, received their special education services under the Other Health Impaired (OHI) category. All participants received academic support in the general education setting, with pullout out special education services. None of the participants were on any medications to treat for their diagnoses. The STOP and DARE (Suspend judgment, Take a side, Organize ideas, Plan more as you write; Develop your topic sentence, Add supporting ideas, Reject at least one argument for the other side, End with a conclusion) mnemonic aid was used to instruct students on writing persuasive prompts within the SRSD implementation. Post-intervention assessment revealed a marked improvement in the number of essay elements, length, and holistic quality of written products of all three participants. Moreover, all participants maintained the acquired skills 3 weeks beyond the intervention period. Finally, the participants were observed to spend more time on planning their writing after the intervention.

In another study, Evmenova et al. (2016) used a multiple baseline design across three groups of students to investigate the effects of computer-based graphic organizers (CBGO; Evmenova & Regan, 2012) with embedded SRSD strategies on the quality and quantity of persuasive written products of nine middle school students (boys = 7; girls = 2) identified with high incidence disabilities. Specifically, researchers in this study wanted to find out if the use of CBGO would have an impact on the number of words, number of sentences, number of transition words, number of essay parts, and the holistic writing quality of persuasive paragraphs of the participants, and if these effects will maintain post intervention. Represented in the participant sample were students with SLD ($n = 2$), EBD ($n = 4$), Autism Spectrum Disorder (ASD; $n = 3$), and ADHD ($n = 1$). All participants had both writing and behavioral goals on their IEPs. Participants received instruction in groups based on classroom placement with members from one class forming an instructional. Participants were instructed on how to plan and compose a persuasive essay using the CBGO. Students typed all essay responses on the computers. A visual analysis of the results indicated an overall improvement on quality measures (i.e., transition words, essay parts, and holistic writing). Additionally, most students showed improvement on quantity measures in terms of the number of words and sentences from baseline to intervention and maintenance conditions. Specifically, eight out of the nine students increased the words written, all students increased the number of sentences, all students increased the number of transition words used, and all students increased the essay elements and the holistic quality of the writing. The results demonstrated that SRSD could be effectively imbedded with technology to teach and promote quality written products of students with high incidence disabilities.

In addition to increasing writing skills, SRSD has been found to be effective in improving academic skills beyond writing. For instance, Cuenca-Carlino, Freeman-Green, Stephenson, and Hauth (2016) conducted a multiple probe across pairs design study to evaluate instructional effects of SRSD on the ability of middle school students to solve multi-step mathematics equations. Participants were six (1 male, 5 females) students identified with SLD who struggled with problem solving skills in math. Participants received grade-level problem solving instruction using the SRSD procedure, 4 days per week, 45 min per session, over a period of 12 weeks as a Tier 2 intervention within the Response to Intervention (RtI) framework. A mnemonic, Don't Catch My Cat Whiskers, was developed to address the specific math intervention. Each word of the mnemonic stood for a step necessary to solve a multi-step equation: *Don't* represented *Distributive property*; *Catch* represented *Combine like terms*; *My* represented *Multiple (or divide)*; *Cat* represented *Check your solution*; *Whiskers* represented *Way to go! you are done*. Participants were taught to memorize and apply these steps using SRSD instructional stages. A visual analysis of the results indicated a functional relation between SRSD instruction and students' ability to solve multi-step equations. Moreover, five out of the six participants were able to maintain their gained skills beyond the intervention. In addition, as indicated by pre- and post-intervention student surveys, all participants viewed themselves as more competent in solving multi-step math problems after receiving SRSD instruction, further providing support for SRSD an effective strategy for content instruction beyond writing.

SRSD and students with EBD. Interventions using SRSD have been utilized extensively with students with EBD in general education setting as well as separate

settings or self-contained classrooms. Specifically, SRSD has been employed to teach opinion and/or persuasive writing to students with EBD, with well-documented evidence of continued improvement of writing skills as well as academic behaviors of students in this group (Ennis, Harris, & Lane, 2014; Graham & Harris, 2016; Sreckovic et al., 2014). Initially, most SRSD studies with this population were mainly conducted at the middle and high school grades. In recent years, there has been a concerted effort to include the elementary school students with EBD in SRSD studies. In the following section, a review of selected studies involving students with EBD in general education settings as well as separate and/or self-contained settings is provided.

SRSD with high school students with EBD. There have been numerous investigations on the effects of SRSD with students with EBD in high school level. Mason, Kubina, and Hoover (2011) conducted a multiple baseline across participants design study with three high school students with EBD (15-17 years old) to evaluate the effectiveness of SRSD for quick writing instruction. The participants received instruction in an inclusive English classroom in a regular public school. SRSD instruction with POW-TREE for persuasive writing was provided individually to each participant. Outcome measures included the quality of the written products (scored using a 7-point holistic measure), number of persuasive parts written, and number of words written within a 10-min writing session. Participants' performance in writing a persuasive quick write was measured before, during, and after the intervention. An additional maintenance data point was collected to examine long term effects. An analysis of data showed an overall improvement in the quality of written products (PND = 0.79 post-intervention; 0.83 maintenance), number of response parts (PND = 0.68 post-intervention; 0.50

maintenance), and total words written (TWW, PND = 0.68 post-intervention; 0.66 maintenance). In addition, all participants viewed SRSD with POW-TREE as a useful strategy to help them improve their writing. Within-student performance presented great variability which may imply existence of mitigating factors to the effectiveness of the SRSD instruction that warrant further investigation.

SRSD with high school students with EBD in separate and/or self-contained classrooms. Some SRSD investigations focused on high school students in separate settings that included separate schools or self-contained classrooms within a regular public school. One example is that of Ennis and Jolivette (2014), who conducted a multiple probe across pairs of participants design study to investigate the effects of SRSD persuasive writing instruction on the persuasive writing skills and self-efficacy of six high school students with EBD in a health class. The STOP and DARE mnemonic aids were employed in teaching persuasive writing to the participants. Instruction, based in an urban residential school (grades 1 to 12) for students with EBD, took place outside the health class; students were taught in pairs. Outcome measures included the writing portion of the WJ-III, essay elements, holistic quality of written products, measure of self-efficacy, and correct word sequences. All outcome measures were administered at baseline and at post-intervention. Overall, post-intervention results indicated a substantial improvement in all outcome measures. The mean differences between baseline and post-intervention were as follows: essay elements, 9.17; quality of written products, 6.35; and correct word sequences, 64.09. In addition, four participants completed the Self-efficacy measure at both baseline and post-intervention. For these participants, their post-intervention scores increased from baseline, indicating that they all viewed themselves

more positively as writers after receiving instruction in SRSD. Moreover, all participants

rated the intervention positively, attributing their improved skills to the strategy. In

addition to confirming previous research on the effects of SRSD, findings from this study

showed that SRSD can be effectively incorporated in specific content instruction to

improve writing skills of students beyond the language arts curriculum within a separate

setting.

More recently, Ennis (2016) conducted a multiple probe across participants

design study to investigate the effects of SRSD to teach summary writing of

informational texts to three high school students with EBD served in a residential facility

using the TWA+PLANS (i.e., Think before reading, think While reading, think After

reading + Pick goals, List ways to meet goals, And, make Notes and Sequence notes)

mnemonic aid. Intervention was delivered individually to each student by the researcher.

The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), the Systematic

Screening for Behavior Disorders (SSBD; Walker & Severson, 1992), and the WJ-III

were administered to all participants at baseline and post-intervention. Additional

outcome measures were summary elements, quality of written products and total words

written. Assessments probes were administered two to three times weekly non-

consecutively, both at baseline and post-intervention. The intervention involved students

reading informational texts (between 250-300 words) related to social studies topics

taught within a week of each participant's intervention session, and then summarizing the

information using the TWA+PLANS. Visual analysis was used to evaluate the level,

trend, and stability of data from baseline, intervention, post-intervention, and

maintenance. ES were evaluated using the improvement rate differences (IRD) and

Hedges *g*. Overall, participants made significant gains in all outcome measures as indicated by ES; results revealed a mean of 100% IRD for all participants and as well as large ES (i.e., < .8; Shadish, Hedges, & Pustejovisky, 2014) for all intervention outcome measures. Specifically, all participants doubled their baseline scores for summary elements and quality of summaries. In addition, two participants more than tripled their baseline scores for total words written. These results add to evidence base for SRSD as a viable intervention for writing within specific content area instruction for high school students with EBD.

In summary, as evidenced by the preceding studies, SRSD can effectively be used to support students with EBD in high schools in various ways, including to increase quality and quantity of written products, summarization, and content area writing (Ennis, 2016; Ennis & Jolivette, 2014; Kubina & Hoover, 2011).

SRSD with middle school students with EBD. Most SRSD investigations with the EBD population in middle grades have targeted either students in separate schools or self-contained classroom, with a few exceptions. One such exception is a study by Hauth, Mastopieri, Scruggs, and Ragan (2013), who examined the effects of SRSD in tandem with civics and math content area writing on the quality and quantity of written products of eighth grade students with EBD. Eight students (male = 7; female = 1), who had self-regulation and self-advocacy goals in their IEPs as well as low to average performance on writing assessments, participated in the study. All participants in the study received their services in the general education setting. Using a multiple baseline across participants design, researchers implemented a two-phase intervention: (a) teaching SRSD using the POW-TREE method as phase 1; (b) post-intervention testing for phase 1; (c) teaching the

POW-TREE strategy in civics and math as phase 2; and (d) post-intervention testing for phase 2. Results revealed notable improvement in all areas from baseline through post-SRSD for all participants. With 100% PND across all measures from baseline to post-intervention, visual analysis of data suggested a functional relation between the intervention and the writing outcomes in both phases of the intervention.

SRSD with middle school students in separate and/or self-contained classrooms. As stated above, there is a more extensive body of research investigating SRSD with middle schools in separate schools and/or self-contained classrooms. These include, Mason, Kubina, Valasa, and Cramer (2010), whose multiple baseline across participants design study examined the effects of SRSD persuasive writing, with the POW-TREE mnemonic aid, on the quality and quantity of written products of five middle school students (seventh and eighth grades) with severe EBD in an alternative school. The intervention was delivered one-on-one and included 30-min sessions and an additional 10-min fluency practice. Outcome measures included total number parts, quality of writing (7-point holistic scoring), and total words written. In addition, the writing portion of the WJ-Fluency was administered to participants at baseline and post-intervention, A visual analysis of data indicated overall improvements in quality and quantity of written products for all participants. These improvements were maintained over time. In addition, there was evidence of stability of data during the intervention, post-intervention, and at maintenance as opposed to notable variability at baseline.

Similarly, Mastopieri et al. (2010) investigated the effects of SRSD with POW-TREE mnemonic aid on persuasive writing quality and quantity of students with EBD in a separate setting. However, unlike the study by Mason et al. (2010), the intervention was

delivered to the entire class ($n = 10$) of eighth graders. Although all participants showed improvement in quality and quantity of their persuasive essays, there were numerous challenges faced by the interventionists. First, due to frequent interruptions (stemming from behavioral issues and other school-based interventions), the intervention lasted longer than other SRSD intervention studies (4 months). Additionally, instruction to the entire group was challenging for the teacher. Specifically, there were high levels of off-task behaviors; participants were either disruptive or just disengaged with the tasks at hand. This contributed to the atypically long period of SRSD implementation (more than 4 months of instruction). In addition, although maintenance and generalization data were high than pre-intervention data, they significantly dropped from the post-intervention performance, suggesting a need for continued instruction in form of booster lessons.

In another study, Cuenca-Sanchez, Mastropieri, Scruggs, and Kidd (2012) used a teacher-implemented pretest-posttest design to investigate the effects of teaching SRSD with persuasive writing instruction in tandem with self-determination on the writing outcomes, self-determined knowledge, and self-efficacy on writing competency of middle school students with EBD in a separate setting. Participants were randomly assigned to either the experimental group or the control group. In addition to receiving instruction in POW-TREE, the experimental group ($n = 11$) received instruction in self-determination and on how to use POW-TREE as a self-advocacy tool. The control group ($n = 10$) received writing instruction using an established writing curriculum. Both groups received instruction over a period of 33 days which consisted of 30-min lessons 4 days a week. Results showed the experimental group outperformed the control group on all outcome measures (i.e., persuasive essay-writing components, ability to recall the

parts of a persuasive essay, self-efficacy measure, self-determination knowledge). Moreover, the experimental group maintained most of their gains and generalized skills to science and social studies. Social validity measures for teachers and students favored the SRSD intervention over the school curriculum.

In a follow-up study, Cuenca-Sanchez and Mustian (2013) conducted a teacher-implemented multiple probe across participants design study to investigate the effects of blending persuasive writing and self-determination instruction on the writing and self-determination skills of nine middle school students in a self-contained classroom for students with EBD. The setting and participants were similar to those in the Cuenca-Sanchez and colleagues (2012) study. The SRSD procedures were followed in teaching participants to write persuasive essays followed by instruction on self-determination. Participants received individual instruction 4 days per week, 40 min per session, for 14 to 23 days. Data were analyzed visually, and indicated level changes and a functional relation between the SRSD/self-determination instruction and students' writing skills. Specifically, substantial improvements were observed in all outcome writing measures (i.e., number of words written, transition words, number of essay parts, and overall quality) for all participants. Additionally, there was a notable increase in the participants' knowledge of self-determination and views of themselves as competent writers. Overall, ratings of SRSD and self-determination instruction by teachers and students were favorable. These results corroborated those of Cuenca-Sanchez and colleagues, confirming the effectiveness of SRSD, taught alongside self-determination, in improving writing skills as well as self-efficacy in writing tasks of learners with EBD.

In summary, as evidenced by the preceding investigations involving middle school students with EBD, SRSD can be effectively used to positively increase their learning in writing (Mason et al., 2010, Mastopieri et al., 2010), and other content area such as science and math (Hauth et al., 2013). In addition, when combined with other research-based interventions such as self-advocacy or self-determination instruction, SRSD has the potential to promote self-efficacy and self-determined behaviors for students with EBD (Cuenca-Sanchez et al, 2012; Cuenca-Sanchez & Mustian, 2013).

SRSD with elementary school students with EBD. As discussed previously, SRSD has been extensively used with students in secondary grades (i.e., middle and high school). However, due to the overall recognition of the importance of early intervention for students with EBD (Caldarella, Williams, Hansen & Wills, 2015; Frey et al., 2015; Garwood, Varghese & Vernon-Feagans, 2017), SRSD research involving students with EBD at the elementary level has been on the rise. There also have been numerous investigations with elementary school students with EBD in both general education settings and separate settings.

SRSD with elementary school students with EBD in general education settings. One of the earliest investigations with students with EBD was conducted by Mason, Snyder, Sukhram, and Kedem (2006), who used a multiple baseline across groups of participants design to investigate the effects of SRSD with the TWA+PLANS mnemonic aid on the expository writing skills of 9 fourth grade students in a traditional elementary school. All participants were identified as low academic achievers although only four had been legally identified with a disability (one of these students had EBD). Instruction was provided in three small groups. Participant were randomly assigned to one of the three

groups. Twenty reading passages were selected from fifth grade science and social studies books to be used for the intervention. Outcome measures were reading comprehension measured through oral and written retell of the passages. Participants were instructed on how to make an outline and apply the TWA+PLANS mnemonic aid to read and respond to passages presented to them. Post-intervention results revealed substantial improvements in oral and written retells of passages read for all participants including the student identified with EBD. Notably, all participants were observed making outlines and notes while reading; they were also observed using the notes in their oral and written retelling of read passages, a practice that was not observed pre-intervention. An analysis to examine the quality of responses also revealed high quality responses post-intervention when compared to the responses pre-intervention (mean difference = 2.17-3.00). These results supported SRSD as a viable tool for remediating reading comprehension, enhancing the ability of struggling students to effectively represent their understanding either orally or in written form. Although only one student with EBD was included in the study, this early investigation pointed to the potential of the SRSD strategy to be used with students with EBD at the elementary school level.

In another study, Mason and Shriner (2008) conducted a multiple baseline across participants design study to examine the effects of SRSD persuasive writing instruction using the POW-TREE mnemonic aid on the writing performance of students with EBD. Participants included six students with EBD as a primary area of eligibility, and were either in second, third, fourth, or fifth grades. All participants received their services in an inclusive elementary school. Outcome measures were essay elements, length, quality, and number of transition words. Participants were given prompts prior to instruction to

establish a stable baseline before intervention, and immediately after instruction to establish independent criterion performance. An additional maintenance prompt was administered to each participant 2 weeks after the intervention. A generalization prompt was administered by one of the teachers to determine if participants could transfer the skills to regular writing tasks. Overall, participants showed an improvement in essay elements, length, quality, and number of transition words, with some variability (PNDs = 77%-100%). Five of the participants consistently performed above baseline scores for all of the dependent variables at post-intervention, maintenance, and generalization. Participants rated the SRSD favorably, with all attributing their improved writing skills to the POW-TREE mnemonic aid. However, researchers noted that most participants, though not returning to the baseline performance, dropped in their performance at maintenance and generalization (compared to post-intervention). This may suggest a need to find strategies to maintain gains beyond the intervention and may involve strategies to promote perseverance and intrinsic motivation on the part of the learners with EBD.

SRSD with elementary school students with EBD in separate settings and/or self-contained classrooms. In addition to SRSD investigations with elementary age students with EBD in general education settings, investigations with students in separate settings and/or self-contained classrooms have been increasing. For example, Adkins and Gavins (2012) conducted a multiple baseline across participants design study and implemented SRSD with the POW+WWW (What = 2, How = 2) mnemonic aid to investigate effects of SRSD with explicit generalization instruction on the story writing of second and third grade students with EBD in a self-contained classroom within a regular public elementary school. Three second and third grade African American students (2 boys, 1 girl) were

selected for the study, based on their having EBD as their primary eligibility, being placed in a self-contained classroom, and being identified as struggling writers. The outcome measures included total words written, number of essential writing elements, and holistic quality. Additionally, social validity data were collected to determine the acceptability of the intervention. A visual analysis of data showed all the three participants performing substantially better at post-intervention, maintenance, and generalization than baseline on the story writing and narrative probes. Specifically, all participants did not exceed 15 words in all of the baseline essays. However, after the intervention all participants included an average of 51 words or more in their essays. Participants increased essential elements from below three (out of seven) to at least six elements at post-intervention. Similarly, quality of writing increased from below two (out of eight) to above four for all participants. These gains generalized to personal writing tasks. Moreover, social validity data showed that participants had an overall positive view of themselves as competent writers after receiving SRSD instruction. The results support the use of SRSD as a viable strategy for academic instruction. However, the researchers recommended that future studies examine ways to extend and/or modify SRSD instruction to meet the individual needs of students with EBD in self-contained settings as well as to address both behavioral and academic needs simultaneously. Specifically, researchers noted that participants in this study struggled with positive self-statements relative to their writing abilities and overall academic performance. As a result, the researchers recommended that future investigations with similar participants consider instructing participants in self-affirmations and/or self-statements prior to engaging students in the SRSD instruction.

In another study, Ennis et al. (2013) conducted a pretest and posttest group experimental study to examine the extent to which effects of SRSD using the STOP and DARE mnemonic aid could generalize to regular writing tasks within the classroom. Twenty-five upper elementary students (third through sixth grades) were recruited from a total of 74 students in a separate k-12 school serving students with EBD. The experimental group ($n = 16$) received instruction in SRSD persuasive writing with the STOP and DARE mnemonic aid while the control group ($n = 9$) receive teacher generated writing instruction in revision and essay components. Outcome measures included student engagement during writing instruction, number of essay elements, TWW, and the quality of written products. In addition, the writing position of the WJ-III was administered as a generalization measure. After 16 weeks of intervention, the experimental group showed greater gains in the overall quality and quantity of written products. Specifically, although there were no significance differences between the two groups' writing elements, the experiment group outperformed the control group in all variables at posttest. Furthermore, experimental group students outperformed their counterparts in the control group on the WJ-III generalization measure. Students in the experimental group also were found to be more engaged during writing instruction when compared to students in the control group.

In summary, it is apparent from the preceding studies that when implemented with fidelity, SRSD is effective in remediating writing difficulties for all students including those with and without disabilities. Moreover, SRSD is effective for elementary school, middle school, and high school students. In particular, SRSD is effective for improving writing skills of students with EBD served in in inclusive and separate settings

at the high school and middle school levels. Additionally, the preceding reviews point to the potential effects of SRSD in remediating writing struggles of elementary school students with EBD in inclusive and separate and/or self-contained settings. However, there is an apparent gap in the SRSD research on the impact of the strategy on the behavior and social skills outcomes of students with EBD in self-contained classrooms. Considering the challenges faced by teachers of students with EBD in separate and/or self-contained settings (i.e., addressing both academic and behavioral challenges), there is clearly a need to explore the potential effects of SRSD instructions on the behavioral outcomes of these students.

SRSD and Behavioral Outcomes for Students with EBD

Preceding reviews offer evidence to support the effectiveness of SRSD in remediating writing skills of students with EBD in separate and/or self-contained settings. In addition, increased student engagement during writing activities has been noted with the use of SRSD. However, sustained engagement beyond SRSD continues to pose a challenge for both instructors and students with EBD. Moreover, problem behaviors for this student population continue to persist thereby posing a challenge for teachers on how to effectively remediate the problem behaviors and increase instructional time (Ennis, Harris, Lane, & Mason, 2014). Additionally, post-school outcomes for most students with EBD continue to be poor and the lowest, when compared to other groups for students (Zigmond, 2006). Clearly, teachers need strategies that will target both academic and social skills (or problem behaviors) to increase both academic and social outcomes of students with EBD. In a synthesis of research in SRSD with students with EBD, Ennis et al. (2014) highlighted similar concerns by identifying (a) developing strategies for

increasing students' academic engagement, and (b) further addressing behavioral and academic needs, as some of the major gaps in SRSD research with students with EBD.

The notion that academic and behavioral challenges for students with EBD in self-contained classrooms and/or separate settings should be addressed simultaneously is indeed valid, considering that there is evidence pointing to the interrelatedness of academic performance and behavior. As discussed previously, on one hand, students who struggle academically are most likely to engage in negative behaviors to escape tasks that they deem challenging (Algozzine, Putman, & Horner, 2010; Algozzine, Wang & Violette, 2011; Fessler, Rosenburg & Rosenburg, 1991). On the other hand, for students with existing behavior challenges, if unchecked, the behavioral challenges may impede their learning of academic content, leading to eventual poor academic outcomes. With this understanding, it is therefore imperative to address both academic underachievement and challenging social behaviors at the same time to curtail further repercussions stemming from either of the factors when working with students with EBD. The following investigations attempted to accomplish this by implementing SRSD as a Tier 2 intervention within the implementation of schoolwide positive behavior support (SWPBS).

Little and colleagues (2010) conducted two multiple baseline design studies to examine the effects of SRSD as a Tier 2 intervention for second grade students at risk of EBD and writing difficulties. One study consisted of students with internalizing behaviors ($n = 6$) and the other study consisted of students with externalizing behavior ($n = 7$). Systematic screening procedures (i.e., Systematic Screening of Behavior Disorders [SSBD], Student Risk Screening Scale [SRSS], Test of Written Language 3 [TOWL-3])

were used to identify participants from four inclusive elementary schools. None of the participants were receiving special education services at the time. Baseline observations showed that a third of second grade teachers taught planning and/or revision strategies, but none of the students engaged in revisions or prewriting instruction. SRSD procedures were not being taught and very little grammar instruction occurred at baseline. Participants in each study were taught persuasive writing using SRSD instruction with the POW-TREE mnemonic aid. Outcome measures included functional essay elements (i.e., topic/stand, reasons, ending), TWW, and quality of written product (scored using a holistic measure). Visual analyses of data showed students with internalizing behaviors experiencing notable improvements across all writing variables; all participants had 100% PNDs for persuasive essay elements. All participants, except one, had 100% PNDs for TWW. However, only half of the participants had PNDs above 50% in quality. Similar trends were noted in the results of students with externalizing behaviors (7/7 students with 100% PNDs for essay elements; 5/7 students with 100% PNDs for quality; 6/7studentd with 80+% PNDs for TWW). Overall, both groups of students rated the intervention positively with most stating that other students could benefit from the intervention. Teachers also rated the intervention positively at both baseline and post-intervention, indicating that their perception of the benefits of the intervention did not change during the intervention. Notably, there were no significant differences in the performance of students in the two groups, implying that SRSD was effective for all students at risk of EBD regardless of their behavioral characteristics. Another observation from this study is that although the intervention was implemented within the context of

SWPBS, data on participant behaviors were not collected, suggesting an area for future research.

In the following year, Lane et al. (2011) conducted a randomized group pre-post experimental study to examine the effects of SRSD instruction with two genres (i.e., persuasive writing and story writing) of elementary school students at risk of EBD and writing difficulties. Forty-four second grade students identified through SWPBS as having both behavioral problems and writing difficulties were recruited from five inclusive elementary schools to participate in the study. All of the five participating schools were implementing SWPBS at the time of the study. As in Little et al. (2010), the SSBD, SRSS, and TOWL-3 were administered to confirm the eligibility of participants, and to provide researchers with a baseline for comparison. Outcome measures were writing performance, student engagement, and problem behavior. Writing probes were administered before and after the intervention by the researcher (in the intervention room) and teachers (in the regular classroom); analyses were completed to determine if differences in student performance existed based on administration. Additionally, a series of one-way, fixed-effects multivariate analyses of variance (MANOVAs) using the general linear model were estimated to examine group differences in students' performances in their opinion essay writing, story writing, academic engagement during writing, and problem behaviors (based on teacher and parent ratings). For persuasive writing, statistically significant results were found (in both researcher- and teacher-administered prompts) between baseline and post-intervention scores in all the three dependent variables. However, the intervention group had larger margins of differences in comparison to the control group (elements = 2.39; quality = 2.13; TWW = 22.09

versus 0.43, 0.38, 7.57, respectively). Similar patterns were observed for story writing, although statistical significance was only found on story elements and quality (researcher administered) and story elements (teacher administered). Post-intervention comparison of academic engagement between the two groups yielded significant differences in favor of the intervention group (ES = 0.84). One-way ANOVA did not yield significant differences in behavior of students in both groups post-intervention. Social validity measures showed teachers rating SRSD intervention slightly lower at post-intervention as compared to pre-intervention. Participants, on the other hand, rated the intervention more favorably post-intervention as compared to baseline.

In conclusion, determining the effect of SRSD instruction on the social skills/behavioral outcomes of students with disabilities is still an area that needs further investigation. Based on the preceding studies, there is still a need for exclusively exploring ways to investigate strategies that positively impact writing and behavioral outcomes for students with EBD, particularly those in self-contained settings, within the SRSD framework.

Summary

The preceding literature offer clear evidence to support SRSD as a viable approach in remediating as well as enhancing writing skills of all students including those with EBD. For students with EBD, skills acquired via SRSD instruction are critical in improving self-perception in regard to writing. This is particularly important for this population since poor self-perceptions have been linked to behavioral issues (Algozzine et al, 2007; Algozzine et al., 2011; Fessler, et al., 1991). In addition, the evidence showing SRSD as effective with students with EBD in separate settings and/or self-

contained classrooms is encouraging, given the challenges faced by teachers in these settings when trying to meet both academic and behavioral challenges of their students (Ennis, 2015). Moreover, with increasing literature to support the effectiveness of SRSD, students with EBD at the elementary school is important considering that early intervention is critical for the overall success of students with EBD in later grades and beyond (Kamps, Kravits, Stolze & Swaggart, 1999; Lewis, Jones, Horner & Sugai, 2010). As is evident from the preceding literature, the substantial research in SRSD with students with EBD, including those in separate settings, lay a foundation to further explore ways to address the persistent issues with this population. Specifically, there is a need to address academic and behavioral outcomes, as well as bolstering student engagement and motivation within the SRSD framework. One way to possibly accomplish this could be through the use prompts geared towards social skills both in written and video forms.

Summary of Literature Review

The preceding review of literature presents several important factors that provide a solid foundation for further investigation. First, students with EBD, particularly those served in separating settings and/or self-contained classroom, are at a substantial risk of school failure, based on their dual needs (i.e., academic and behavioral supports). These needs are magnified by the teachers' purported inadequacy to address both academic and behavioral challenges within the separate settings. If not addressed early, these students are in jeopardy of falling further behind academically as they progress through higher grades, which may result in more severe consequences such as increased absenteeism, school dropout, and poor post-school outcomes.

While writing instruction has been generally short-changed in favor of reading and math, this is more exacerbated when it comes to students with EBD. Writing can be a daunting task for any student, particularly in the absence of effective writing instruction. For students with EBD, when presented with such a task, they tend to display disruptive behaviors as an avoidance technique. Given the challenges already experienced by teachers within the separate settings, it is easier to not engage these students in such writing tasks rather than to deal with behaviors that may result from presenting them with the tasks. However, not engaging students in writing poses another huge challenge that has the potential to negatively affect students with EBD. With the CCSS (2010), writing standards for all students are extensive. In particular, by the end of Grade 5, students are essentially expected to have a good grasp of all the foundational writing skills (i.e., handwriting, spelling, vocabulary development, sentence construction, writing process, writing strategies, genre knowledge).

For students with EBD served in separate and/or self-contained classrooms, meeting the writing requirements is obviously a daunting task, considering the existing academic and behavioral challenges experienced within these settings. Clearly, students with EBD could benefit from researched-based strategies that target both academic skills, including writing, as well as behavioral challenges. Given (a) the urgency with which effective writing instruction and/or remediation is needed particularly in the early years, and (b) the evidence to suggest that the elementary school teachers embrace writing instruction at a higher rate than secondary school teachers, it is logical that efforts to research and offer supports for writing instruction continue at the elementary grades. To this end, SRSD offers great promise.

The evidence base to support SRSD as an effective instructional approach for students with EBD is clear and goes beyond the preceding literature review. Overall, (a) SRSD is effective in remediating writing difficulties as well as enhancing content learning, (b) the effectiveness spans across grade levels and writing genres, (c) students who are taught SRSD tend to be more engaged in learning activities for which the SRSD instruction occurs, and (d) with proper training, teachers can effectively implement SRSD with fidelity. However, what is clearly missing from existing literature is ways to address problem behaviors within the context of SRSD. Ennis et al. (2014) highlighted this gap in SRSD research by specifically pointing to the need for developing strategies for increasing students' academic engagement as well as simultaneously addressing behavioral and academic needs of students with EBD. Although evidence suggests the possible link between improved performances of students with EBD and increased on-task behavior especially after SRSD instruction, to date there are no existing investigations that have established a direct correlation between the SRSD instruction and improved social skills goals. It is also important to note that previous SRSD research has mainly utilized writing prompts created by Harris and Graham for genre-specific writing or researcher-created prompts for content area writing. To date, there are no studies that have investigated SRSD with behavioral prompts as well as video prompts as the independent variable. In addition, apart from measuring student engagement and off-task behavior, very few SRSD studies have evaluated specific behavior outcomes in the context of SRSD instruction.

CHAPTER 3: METHOD

This chapter includes descriptions of participants, setting, the experimenter, and the design of the study. In addition, this chapter consists of a detailed description of research materials, independent and dependent variables, instructional procedures, testing and scoring procedures, fidelity and reliability measures, as well as data analysis instruments and procedures.

Participants

Student participants. Participants for the study were selected from two self-contained classrooms for students with EBD. The local education agency (LEA) labeled these classrooms as specialized behavior support (SBS) classrooms. Recruitment and consent procedures followed rules and regulations of the LEA, and adhered to the university's institutional review board (IRB) procedures. A total of four participants were recruited for the study. However, due to time constraints, only three participants were able to go through the entire intervention including post-intervention data.

Inclusion criteria. The inclusion criteria for the student participants were as follows: (a) attended grade 3, 4, or 5; (b) had a behavior support plan and/or an IEP with at least one social/behavioral goal; (c) could write a complete sentence independently; (d) read at least on a first-grade level; and (e) had a signed parental consent (see Appendix A) and student assent (see Appendix B). Additionally, Curriculum-Based Measurement (CBM; Shinn, 1989) for reading and writing were administered prebaseline to potential participants to determine their need for writing instruction (CBM writing) and reading levels (CBM reading). For writing, opinion writing prompts used in a previous study

(Werunga & Lo, 2017) were used; classroom teachers administered several prompts to the entire classroom and then the experimenter reviewed the responses of selected potential participants. Using opinion writing prompts was deemed appropriate since the SRSD intervention was for opinion writing. All selected participants were able to construct a minimum of one complete sentence for at least two CBM writing prompts; this was sufficient to determine their ability to construct a sentence independently. For reading, potential participants also participated in the Oral Reading Fluency (ORF) portion of CBM using reading fluency probes from EasyCBM (Alonzo, Tindal, Ulmer & Glasgow, 2006). According to Wright (2010) when using CBM, administrators can decide on measurement pool, which may include basal reading series or literature selections that are sorted according to readability. Based on the grade eligibility criteria (i.e., grades 3-5), the experimenter decided to administer three third grade CBM reading probes to each potential participant, and followed Fuchs and Fuchs' (2011) guidelines in determining participants' reading level. According to Fuchs and Fuchs, when choosing the types of reading probes to administer, teachers need to (a) determine the grade level text at which they expect the student to read competently by year's end, (b) administer three passages at this level passages, (c) use the CBM word identification fluency measure if the student reads fewer than 10 correct words in one minute, (d) move to the next lower level of text and try three passages if the student reads between 10 and 50 correct words in one minute but less than 85-90% correct, and (e) move to the highest level of text where he/she reads between 10 and 50 words correct in one minute if the student reads more than 50 correct words in one minute. All three participants read at least 145 words correctly in one minute. Since the assessment was only to determine if

the students were able to read at least on a first grade level, this information was deemed sufficient and therefore no further reading assessments were conducted. Student participants were also required to sign their assents immediately following the return of signed consents from their parents.

Exclusion criteria. Exclusion criteria for the student participants was as follows: (a) attended a grade other than 3, 4, or 5; (b) did not have a behavior support plan and social skills were not addressed in the IEP; (c) was not able to write a complete sentence independently; (d) scored below first grade reading level on the ORF of CBM; and (e) did not have a signed parental consent and/or student assent.

The participants were three students attending SBS classrooms; two were in the fourth grade and one was in the fifth grade. According to their IEP progress reports, academic progress reports, and teacher statements, all three participants selected were performing below grade level in in all academic areas. All three participants exhibited externalizing behaviors; two received services under the OHI eligibility and one received services under the Serious Emotional Disturbance (SED). Their IEP goals were categorized as "Academic/Functional" and did not directly address academic skills. Instead, the participants' IEP goals all focused on social/behavioral skills that had adverse effects on their academic performance.

Rashad. Rashad was a 10-year-old fourth grade African American male student receiving special education services under the OHI eligibility. He had a diagnosis of ADHD and Oppositional Defiance Disorder (ODD). A reevaluation report showed that he had been diagnosed with mild autism at the age of 4 years; later evaluations revealed autistic tendencies but his physician did not think they were significant enough to warrant

a diagnosis. Rashad's IEP goals addressed (a) getting teacher's attention appropriately, (b) using positive language and appropriate voice tone, and (c) completing assignments on time. Rashad also had a behavior intervention plan (BIP) addressing compliance to directions, accepting responsibility, and completing assigned tasks promptly. Rashad's teacher stated that Rashad struggled with taking responsibility for his actions and that he had a poor self-image. He was heard calling himself "stupid" and" dumb." Student behavior documentation indicated that he was easily frustrated with tasks and would often express this through storming off and engaging in destructive behaviors (e.g., flipping chairs and desks over, ripping up papers, pushing and shoving others). The average prebaseline CBM reading score for Rashad was 165 words per minute, which placed him above third grade reading level.

Cory. Cory was a 10-year-old fifth grade African American male student receiving special education services under the OHI eligibility. He had a medical diagnosis of ADHD and ODD. He took medications for his ADHD diagnosis. Cory's IEP goals addressed asking for assistance and/or getting teacher's attention appropriately, using appropriate language when frustrated, and avoiding aggressive physical contact during a conflict. Cory's teacher stated that Cory mostly engaged in inappropriate attention-seeking behaviors such as pouting, refusing to complete assignments, and verbally attacking other students who received attention from the teacher. His teacher also stated that Cory responded well when working with female adults as opposed to male adults. The average prebaseline reading CBM score for Cory was 145 words per minute, which placed him above third grade reading level.

***Kasim*.** Kasim was a 10-year-old fourth grade African American male student receiving special education services under the SED eligibility. Psychological and educational reports revealed average to above average scores (within the 58% percentile). In addition, Kasim was diagnosed with ADHD, ADD and Disruptive Mood Dysregulation Disorder (DMDD). Kasim's IEP goals addressed coping skills in frustrating situations, avoiding physical and verbal aggression, taking responsibility for his actions, complying with adults' requests, and managing his time well during small group and independent activities. He had an FBA and a BIP addressing these issues. Kasim's teacher stated that he often engaged in bullying behavior towards classmates. In addition, Kasim was observed instigating other students by calling them names when the teacher was not looking on several occasions. His physical aggression escalated when he perceived himself to be in trouble and when he was asked to go to an isolated spot to "cool down." The average prebaseline reading CBM score for Kasim was 161 words per minute, which placed him above third grade reading level.

All participants had participated in either Woodcock-Johnson III (WJ-II) or IV (WJ-IV) comprehensive assessments for reading, math and written expression at some point. Rashad's records indicated WJ-IV was last administered in 2014; results showed low-average range performance in letter-word identification, passage comprehension, written expression, and writing samples. His sentence writing fluency fell within the low range, whereas math calculation and reasoning were both in the average range suggesting that math was an area of strength and written expression was an area of weakness for him. For Cory, records indicated WJ-III was last administered in 2014; results indicated average range performance in basic reading, passage comprehension, math calculation

and reasoning. Writing scores were not reported. For Kasim, records indicated WJ-IV was last administered in 2017; results showed high-average range performance in letter-word identification and written expression, suggesting that these two were areas of his strength. His math calculation, math reasoning, writing samples, and passage comprehension all fell in the average range. See Table 1 for demographic information as well as academic and social performance for the student participants.

Table 1. Student participant information.

Note: [1] Based on Woodcock-Johnson IV (WJ-IV) or Woodcock-Johnson III (WJ-III) reading fluency; [2] Based on WJ-IV Reasoning; [3] Based on WJ-IV

Demographics	Rashad	Cory	Kasim
Age/Grade	10 / fourth	10 / fifth	10 / fourth
Eligibility	OHI	OHI	SED
Ethnicity	African American	African American	African American
Reading[1]	89 (20th percentile)	104 (60th percentile)	120 (91st percentile)
Writing[2]	81 (11th percentile)	Not available	110 (74th percentile)
Math[3]	102 (57th percentile)	91 (22nd percentile)	102 (55th percentile)
IEP Goals & Behavioral Needs	Avoiding impulsive reactions, complying to directives, alternatives to verbal and physical aggression, relating positively with peers	Getting adult attention appropriately, seeking assistance when frustrated, using socially acceptable language	Coping skills, complying to directives, alternatives to physical aggression, managing time during small group or independent work

Teacher Participants. Teacher selection was based on student participants being assigned to their class. A total of two teachers were part of the study. Their roles included (a) recommending potential participants based on the aforementioned inclusion criteria, (b) completing social validity questionnaires before and after the intervention by offering their perceptions regarding the intervention, and (c) completing a teacher survey on their writing practices in the classroom. To familiarize teachers with the intervention, the experimenter conducted a 20-30-min informational session. This took place immediately following the IRB approval, and involved a brief overview of SRSD and the time requirements for implementation of the intervention. After completing the information session, the teacher participants provided signed teacher consents (see Appendix C).

Mrs. Boykin. Mrs. Boykin was a 53-year-old African American female with a master's degree in special education. Her teaching credentials included Exceptional Children: General Curriculum with EBD endorsement. By the time of the intervention, Mrs. Boykin had been working with students with EBD for 15 years. Thirteen of those years were spent as a teacher assistant in several special education classrooms. She had been teaching at the participating school for 2 years. Mrs. Boykin had training in the Boys Town Educational Model, which was part of the district's requirement for working with students in the SBS classroom setting.

Mr. Hicks. Mr. Hicks was a 35-year-old African American male with a master's degree in special education. His teaching credentials included Exceptional Children: General Curriculum with EBD endorsement. By the time of the intervention, Mr. Hicks had been teaching special education for a total of 7 years; all were at the participating school. Mr. Hicks also had training in the Boys Town Educational Model. In addition to

Boys Town, Mr. Hicks reported that he used Positive Action Behavior Management program with his students. It was not clear if this program was adopted by the school district, although Mr. Hicks stated that all materials for the program were provided by the district (a description of the Positive Action program is provided below in the classroom routine section).

Experimenter

The experimenter for this study was a doctoral candidate in special education. She had over 12 years of experience teaching students with disabilities at elementary schools. She also held a North Carolina teaching license in mental disabilities and special education general curriculum. At the time of the study, the experimenter had college teaching experiences for three undergraduate or graduate level courses, including "Teaching Written Expression to Learners with Special Needs," "Teaching Reading to Elementary Learners with Special Needs," and "Diagnostic Assessment." In addition, the experimenter had recently been part of two research studies that involved elementary age students with or at risk of EBD. One of the studies, designed and implemented by the experimenter, investigated the effects of SRSD and self-monitoring on writing and off-task behavioral outcomes of upper elementary students with EBD. The experimenter served as the primary data collector and interventionist to deliver the intervention (see the procedural fidelity section for measures to protect data from bias).

Reliability and Fidelity Raters

Two graduate students were recruited and trained by the experimenter to complete reliability and fidelity checks for the study. The first rater was a first year doctoral student who was also the program specialist elementary special education programs at a local

school district. She had been at the district for over 27 years, working with students with disabilities in different capacities. Supervising all personnel working with students with EBD was part of her role in her position at the time of the intervention. She served as the first rater on procedural fidelity data and the second scorer for intervention outcome measures. She also rated the written prompts for content validity. The second rater was a third year doctoral student with over 15 years working with students with disabilities. At the timer of the intervention, she was working on her dissertation. She had over 3 years of experience in single-case research and served as the second rater on procedural fidelity data.

Setting

The study took place in a Title 1 elementary school in a suburban area within the southeastern region of the United States. At the time of the study, the school served a K-5 student population of about 717. The ethnicity breakdown within the school was 53% Black, 31% Hispanic, 8% Asian, and 6% White. At the time of the study, 98% of students were receiving free or reduced-priced lunches and 21.2% of the students were English language learners. The school had 10.2% of students receiving special education services with 2.5% students being served in EBD self-contained settings. Participants were selected from two self-contained classrooms for students with EBD at the school. All SRSD intervention sessions and assessments took place outside the students' classroom in a designated room within the school, with the approval of school administration.

Schoolwide behavior management. At the time of the study, the school participated in schoolwide positive behavior support (SWPBS) and was ranked as a

Green Ribbon School based on the state's Positive Behavior Intervention and Support (PBIS) criteria. Schools implementing PBIS in this state might receive state recognition with Exemplar, Model, or Green Ribbon status, with Exemplar being the highest and most desirable recognition. Behavioral expectations for all students were defined using a behavior matrix (Powers of the Paw), and consisted of three major themes (i.e., be responsible, be respectful, and be safe). Enforcement of rules was applied at the classroom level, with classroom teachers reinforcing the behavioral expectations both at the classroom level and school level. School contingencies included earning of "Paw Points" which could be used to purchase items in the "Paw store" twice a week.

Classroom behavior management. At the time of the study, both SBS classrooms were using Boys Town Educational Model (BTEM), a behavior management system prescribed by the LEA for all classrooms serving students with EBD within the county. Based on the description provided on the district's website, BTEM is a school-based intervention strategy that focuses on managing behavior, building relationships, and teaching social skills. It emphasizes preventive and proactive practices rather than reactive responses to address students' problem behavior. BTEM employs a token economy system; each student carries a point sheet with him or her. Students earn positive points for appropriate behaviors and negative points for inappropriate behaviors. Specific life skills (e.g., accepting criticism or consequences, disagreeing appropriately, accepting "no" for an answer, giving positive criticism, and resisting peer pressure) are taught as expectations in the classroom, and skill teaching occurs when a student earns negative points for inappropriate behaviors related to the specific life skills. Students may re-earn positive points by articulating appropriate or replacement behaviors for

inappropriate behavior. In addition, students earn positive points for academic tasks or progress. Students can move up in levels by earning positive points, and they have opportunities to cash in their points for tangible rewards such as pencils, erasers, and pens. The school prided itself as very effective in implementing BTEM for the students in the SBS classrooms; all the adults working with these students, including the two classroom teachers, had received training in BTEM. The BTEM skills were reinforced throughout the day and adults outside the students' classroom were enlisted to help reinforce those skills. In addition, the district had assigned a behavior support technician (BST) to provide extra support in case of severe behavioral episodes from the students. The BST was enlisted to provide a "life skills" talk to the students during morning meetings.

Classroom routine. Instruction for the entire school typically began at 8:30 in the morning**.** Both teachers in the two SBS classes followed the same daily routine that consisted of (a) morning meeting (10 min), (b) independent morning work (30 min), (c) whole class instruction (30 min), (d) small group instruction (30 min), (e) assigned seatwork (45-60 min), (f) lunch (30 min), (g) BTEM group activity (45 min), (h) specials (45-75 min), and (i) enrichment activities (30-45 min). For small group instruction, the teacher and teacher assistant each worked with four to five students. After small group instruction, students were expected to complete assigned seatwork quietly, with the teacher and teacher assistant consulting with each student. What students did for morning work varied from day to day, but for most of the time, it involved completing writing assignments.

Writing instruction. Although both teachers stated that they engaged in writing instruction, they both acknowledged that they did not use a specific writing curriculum or strategy, and that writing instruction was sporadic. However, Mr. Hicks reported that he engaged his students in some writing activities through a program called Positive Action (Allred, 1994) during the enrichment block. As described by Flay, Allred, and Ordway (2001), Positive Action is a K-6 program that combines "a school curriculum, together with schoolwide climate, family, and community components that is designed for elementary age students. It consists of over 140 fifteen-to-twenty-minute lessons that can be delivered daily. The program is based on theories of self-concept, learning, behavior, and school ecology" (p. 71).

Participants were pulled out of class for SRSD instruction and assessment during small group instruction block and the enrichment activities block. Observational data were collected during either direct instruction, teacher-directed group activities, or independent seat work.

Variables and Measurement

Independent variable. The independent variable was SRSD. A detailed description of SRSD is provided in the intervention section (under "Procedures").

Dependent variables. There were three dependent variables, including the number of genre elements included in written responses, quantity of participants' written responses to writing prompts, and participants' problem behavior. The genre elements score of written responses served as the primary dependent variable and was used to make condition change decisions.

This study used the POW-TREE mnemonic aid as part of the intervention; in the past, SRSD investigations that employed the POW-TREE mnemonic aid for opinion/persuasive writing (e.g., Mason et al, 2010, Mason et al., 2011; Mastropieri et al., 2010) have used writing prompts initially created by Harris and Graham (2008) or variations of these prompts. In contrast, all prompts used in this study were prepared by the researcher and provided social contexts within the school environment. In addition, video prompts were used for generalization measure. To date, there are no SRSD studies that have exclusively used social skills prompts. Further, all existing SRSD studies have used written prompts; there is no existing evidence of the use of video prompts within SRSD instructional framework. Therefore, the focus of this study was to determine how prompts targeting social situations, and addressing social skills would affect participants' writing and classroom social behaviors. Details about the written and video prompts are provided under the "Development of written social/behavior prompts" section and the "Generalization" section, respectively.

Genre elements of written responses. Participants' written products were scored using a genre elements rubric (see Appendix D). Written responses received scores ranging from 0 to 25. The components of the rubrics were as follows: (a) a topic sentence/statement that stated the behavior or action chosen (0-2 points; A score of 2 was awarded if the topic sentence included an opinion and the opinion was related to the prompt. A score of 1 was awarded if the topic sentence was included but was not related to the prompt. A zero was given if a topic sentence was not included in the response.); (b) at least two reasons with explanations as to why the participant thought the behavior was appropriate/inappropriate (0-4 points; A student received a score of 4 if he included at

least two reasons with an explanation of each. A student received a score of 3 if he either included two reasons with one explanation or one reason with two explanations. A student received a score of 2 if he gave either two reasons and no explanation or one reason and one explanation. A student received a score of 1 if he only gave one reason and no explanation. Finally, a student received a zero if he did not give any reasons for his opinion.); (c) at least two consequences that the participant thought might result from the behavior or action (0-4 points; A score of 4 points was awarded for at least two consequences and explanations of each. A score of 3 was awarded for either two consequences and one explanation or one consequence with two explanations. A score of 2 was awarded for either one consequence and one explanation or two consequences and no explanation; a score of 1 was awarded for one consequence, and a zero was given if no consequences were included.); (d) at least two alternative ways that the situation could been handled (0-4 points; A score of 4 was awarded for at least two alternative behaviors/actions with an explanation of each, a score of t3 was awarded for either two alternative behaviors/actions with one explanation or one alternative behavior/action with two explanations, a score of 2 was awarded for either one alternative behavior/action with one explanation or two alternative behaviors/actions with no explanations, 1 point was awarded for only one alternative behavior/action with no explanations, and a zero was given if no alternative behaviors/actions were included.); (e) a conclusive statement reinforcing why the chosen behavior or action was deemed appropriate/inappropriate and why the alternative behavior was more appropriate/inappropriate (0-2 points; A score of 2 was awarded if both the opinion and the alternative behavior/action were reiterated, a score of 1 was awarded if either only the opinion or the alternative behavior/action was

reaffirmed, and a zero was given if a conclusive statement was not included.). In addition, the number of transition words (range 0-5 points) and social skills vocabulary (range 0-4 points) used were included on the genre elements rubric. The total possible points to be earned per written product were 25.

Quantity of written responses. Quantity was measured as total words written (TWW) and total number of sentences (TNS). TWW was determined by counting all words included in each written response using the Microsoft word count function. Spelling errors were not counted against participants. To eliminate rater bias, the experimenter typed each participant's response and corrected spelling errors before having the writing being scored (Mason, Kubina, Valasa, & Cramer, 2010; Mason & Shriner, 2008). TNS was determined by manually counting all the sentences included in the final written product. In the event that participants failed to use correct punctuations (e.g., period, exclamation mark, question mark) to indicate the ending of a sentence, the scorer(s) used their best judgment to determine the ending of given sentences.

For the baseline condition, each participant responded to five written prompts and two video prompts (up to 2 min in length) for generalization. For the post-intervention condition, each participant responded to five written prompts and one video prompt. For the maintenance condition, each participant responded to two written prompts and one video prompt. After the maintenance condition, there was an additional condition (choice) where participants were given a choice of either a written prompt or video prompt. This brought the total number of prompts per participant to 17 across the course of the study. However, not all participants were able to participate in all conditions due to time constraints (see Chapter 4 for details). Each participant was instructed to take a position

regarding a behavior or action from the prompt that he wrote about it. The experimenter informed the participant that she would not provide assistance during the planning and writing of the essay. However, participants were told that they would receive assistance with spelling if they asked for it. During baseline assessment, each participant was instructed to try his best to respond to the writing prompts. During post-intervention assessment, the experimenter reminded the participant to use strategies learned and to create a graphic organizer to assist him in planning for the writing. To ensure uniformity in administration of prompts, the experimenter read instructions from a script (see Appendix E). In addition, all written prompts were read to each participant, and were repeated at participant's request. Participants were not timed during the assessments although each typically had up to 45 min to complete their writing.

 Problem behavior. Problem behavior was defined as any observable (passive or active) actions that were counter to the expected classroom behaviors related to the specific activity occurring at the time of observation, and had the potential to interfere with the learning of the participant or the learning of others in the classroom. These included but were not limited to (a) failing to respond to teacher directives, (b) delaying to get started on an assigned task more than 10 s of being instructed to do so, (c) disrupting class instruction by holding conversations with others that were unrelated to tasks at hand, and (c) displaying off-task behaviors. Off-task behaviors were defined as (a) working on tasks other than those assigned by teacher either individually or in a group, (b) staring in space or other objects for more than 10 s during instruction and/or during individual seatwork, and (c) disrupting the teacher with questions or statements unrelated to topic being taught or discussed. Measurement of this variable was conducted

using a partial interval recording method. The presence or absence of target behavior were recorded following a 10-s observe and 5-s record time interval using a simple interval timer (SIT) app on the iPhone. A check mark was recorded each time the participant was observed engaging in the target behavior(s) any time during each 10-s interval. Each observational session lasted for 20 min for a total of 80 intervals. A percentage was then computed by dividing the total number of intervals during which a participant was observed engaging in the target problem behavior by 80 and multiplied by 100. Data were then charted into a graph for visual analysis (See Appendix F for a data collection form).

Development of Written Social/Behavior Prompts

As described previously, the experimenter developed the written prompts. The written prompts were based on social situations described in "Don't Get Mad: Anger Alternatives Game" (Guidance Group, 2011). The game was designed to teach emotional intelligence in small group counseling sessions and typically involved one to five players. There were 99 scenarios provided in the original game. The experimenter selected 57 scenarios that depicted school and/or classroom situations and modified them to reflect typical classroom situations. The experimenter then added three of her own prompts for a total of 60 prompts (details of the game can be found at http://www.socialskillscentral.com/free/Dont_Get_Mad.pdf). Each prompt consisted of three sentences describing a specific scenario in a school/classroom environment that involve at least one student caught in a situation that is likely to evoke a negative/inappropriate reaction or response on the student's part. To control for the impact of reading level, all prompts were rated using a Lexile score to ensure that they

were within the reading level of participants (i.e., grade 1 to grade 5) (see Appendix G for a sample written prompt and Chapter 4 for the content validity results). To ensure that the prompts addressed typical behaviors of students in the K-5 environment, 30% of randomly selected prompts were evaluated by a rater who rated the prompts for appropriateness using a rating form (see Appendix H) for content validity (Rater 1's qualifications are described in the Reliability and Fidelity Raters section). The rating form consisted of three items, addressing whether the prompt included a social situation that could elicit a negative reaction from a student, whether the behaviors/actions portrayed would typically occur in a school environment, and whether the behaviors/actions portrayed would typically occur with elementary students.

Interrater Agreement

The experimenter completed the initial scoring of written products using the genre elements rubric (Appendix D). To determine interrater agreement (IRA) for the genre elements and quantity of written responses, a trained rater scored at least 30% of the written products (typed and corrected for spelling and grammatical errors) across experimental conditions using the same data collection procedure. The experimenter provided the scoring training for the for the second rater. All writing samples to be used for training (including the anchor papers) were prepared by the experimenter and were based on the writing prompts the experimenter developed. The experimenter first demonstrated how to score a well-written prompt and one that is not well written using the genre elements rubric (Appendix D), while the second rater observed. Then both the second rater and the experimenter each scored the same essay separately and compared their scores. Any discrepancies in their scores were discussed. Scoring practice continued

until an IRA of 95% was reached for at least three consecutive essay practices. For the genre elements score of written responses, a percentage of agreement was calculated for each participant using the item-by-item comparison method by dividing the number of agreed items by total number of items and multiplying by 100. For the quantity of written responses, IRA was calculated using the gross method by comparing the TWW and TNS data obtained from the experimenter and the second scorer.

Training for the problem behavior data collection took place at the beginning of the study; the experimenter and the second observer conducted prebaseline observations of the participants for at least one session each. Discrepancies in the in-vivo prebaseline observations were discussed and resolved. Observations for training continued until IRA of 90% or above for three consecutive prebaseline observations was achieved. Interrater agreement for the problem behavior data collection was determined by the experimenter and a second observer observing each participant at the same time using split headphones to listen to the same audio prompt produced by the SIT app on the iPhone, and use the same data recording system for at least 30% of the observations across participants and experimental conditions. At the end of each observation, IRA was determined using interval-by-interval comparison of each recording and was calculated by dividing the number of agreements by the total number of agreements plus disagreements and multiplied by 100.

Experimental Design

The research design was a multiple probe across participants design (Horner & Baer, 1978). Data were collected in three conditions (i.e., baseline, post-intervention, and maintenance). Generalization was embedded within each condition by providing video

prompts instead of written prompts. An additional condition (choice) was added after maintenance. In this condition, each participant was allowed to choose between a written prompt and a video prompt. This allowed the experimenter to see if there was a preference in the type of prompts (written or video) across participants for two additional data points. All participants entered the baseline condition simultaneously. There was a total of five data points for the written prompts and at least three behavioral data points for each participant during the baseline condition. For writing, this included one initial data point, one additional data point midway, and three consecutive data points immediately prior to entering the intervention condition. For behavioral data, participants were probed every three to four sessions with at least one behavioral data point collected right before entering the intervention. Change of condition was determined using the genre elements score. The participant with the lowest score on the genre elements of written responses along with a stable baseline entered the intervention condition first, whereas the remaining participants were probed. Entrance to the post-intervention assessment condition was based on a participant's completion of all intervention lessons and meeting mastery (see detailed description mastery requirements under the Procedures section). There were five post-intervention data points for the written prompts and at least three behavior data points; these data points were sufficient to demonstrate stability and establish sufficient patterns to infer future performance, which fulfilled Horner and colleagues (2005) requirements for determining the quality of a single case research study for establishing an evidence-based practice. This also was in line with past SRSD investigations that have used multiple writing prompts across conditions (Sreckovic et al., 2014). To allow for experimental control, entrance to the experimental condition was

staggered with one participant receiving SRSD instruction while the remaining participants remained in baseline. A second participant entered the intervention phase when he has demonstrated a stable baseline, and after the intervention participant has completed all lessons and was receiving post-intervention assessments for at least two sessions demonstrating improvement in genre element scores. This pattern was repeated for the third participant. In this way, there was a level of concurrence in the intervention implementation across participants, and allowed for demonstration of effects across participants and at different points in time, which is another requirement for determining the quality of a single case research design study (Horner et al., 2005). The experimenter made all phase decisions in consultation with her academic advisor by ensuring that there was stability in baseline, immediacy of effects from baseline to post-intervention and/or an increasing trend in post-intervention data, consistency of intervention effects across participants.

Procedures

Baseline. During baseline, all participants were receiving all instruction in their SBS classroom for students with EBD by a special education teacher. For literacy instruction, the classroom teachers followed the Balanced Literacy Framework (Au, Carroll, & Scheu, 2001), a prescribed district-wide reading program. Typically, balanced literacy consists of the following components: (a) read alouds, whereby readers are engaged in discussing a text throughout the reading; (b) shared reading, whereby students read a common text with teacher support; (c) reading mini-lessons that involve direct and explicit instruction; (d) independent reading where student choose their preferred texts and practice skills taught during the mini-lesson; (e) conferencing, whereby the teacher

meets with students individually to discuss goals, strengths and areas of need; (f) small group work for guided reading and strategy instruction; and (g) assessments, which can be either formative or summative (Lynch, 2018). Of these components, both teachers were observed involving their students in reading mini-lessons, conferencing, small group lessons, and formative (informal) assessments on a consistent basis. To gauge the prevailing classroom writing practices, the experimenter conducted classroom observations during the writing block of instruction, and documented the instructional practices using the observation of classroom writing practices form from Graham, Harris, Fink-Chorzempa, and MacArthur (2003; see Appendix I). In addition, classroom teachers completed the Teacher Survey of Classroom Writing Practices (Cutler & Graham, 2008; see Appendix J) to determine their writing practices within the classroom (results of the observation are detailed in Chapter 4). There was no additional writing instruction outside of the classroom. For the management of student behaviors, the Boys Town behavior management system (described previously) was in place in both the SBS classrooms.

For the baseline data collection, written prompts were administered to one participant at a time in a separate room. Students were not timed during assessments and they had up to 45 min to complete their writing. Each prompt consisted of a scenario where at least one student is faced with a situation that is likely to evoke a negative response/action. The experimenter read aloud the scripted instructions (Appendix E) to each participant to ensure consistency. Additionally, the experimenter conducted 20-min observations of participants during the writing/language arts portion of instruction, and recorded observed target behavior(s) on a behavior recording sheet (Appendix F).

Intervention. The SRSD instruction was provided on a one-on-one basis outside of participants' classroom. Participants received SRSD instruction on opinion writing provided by the experimenter during the writing portion of the language arts instruction block. Each intervention session lasted between 30-45 min. Each participant received a total of five lessons. The length of each lesson varied depending on the specific needs of each participant; some lessons required several sessions to complete. The entire study lasted for 12 weeks. It took an average of 15 sessions (range 12-18) for each participant to complete the entire intervention and meet mastery. This average was slightly higher than most previous studies with similar participants (e.g., Ennis & Jollivette, 2014).

Materials. For the SRSD instruction, the participants received a set of materials to assist them with learning and mastering opinion writing lessons. All lessons followed the general six-stage SRSD format (described in the SRSD instruction section below). Each participant had a binder with the following materials:

Participant contract. Students' signed assent forms (Appendix B) served as an informal contract to show a commitment to learning SRSD and were placed at the front of the binder as a reminder and motivator to the participants. Before having the student sign the assent form, the experimenter told the participant that she had reviewed all of his writing that he wrote (i.e., prebaseline and baseline) and had seen that he had great potential to be an excellent writer. She explained that she would like to teach him some strategies to further improve his writing skills, especially in giving opinion and supporting that opinion and would like his permission to do so. After the participant gave a verbal agreement, the experiment read the contents of the assent form and explained to the student (as needed) what it meant. The experimenter then asked the participant for the

second time if he would like to commit to working with her to improve his writing skills. Finally, the participant was asked to sign and date the consent form as an evidence of his commitment.

POW-TREE-e chart. The POW-TREE mnemonic aid (Harris, Graham, Mason & Friedlander, 2008) for the opinion writing genre was used, but modified to reflect the focus of the study (i.e., writing about specific behavior). Each participant was provided with an 8.5-by-11-inch chart (Appendix K) to assist him with memorizing the mnemonic aid. An elaborate description of POW-TREE-e is provided under the SRSD instruction section below.

POW-TREE-e graphic organizer. The POW-TREE graphic organizer was adopted from Mastopieri (2015) and modified to align with the writing tasks. The graphic organizer (Appendix L) helped participants with structure as they composed their opinion essays. Additional spaces were provided for transition words next to each letter of the acronym to cue participants to include transition words for developing smooth flowing essays.

Transition words chart. Each participant was provided with a list of transition words (Appendix M). The initial transition word list was modified after the first three sessions with the first participant, to make it more user-friendly (both the original and modified versions are included in Appendix M). The modified transition word list included specific words or phrases to use in the different sections of the TREE (e.g., to state your opinion in the topic sentence, you could use "in my opinion," "the way I see it," or "I believe").

Anchor essays. Each participant had three anchor essays. Each essay had three variations of responses (i.e., low level, medium level and high level). This allowed for flexibility in the content of written responses based on each participant's reading level. The anchor essays were used during the SRSD instruction to provide participants with examples of well written final products and to give them the opportunity to read and identify the parts of a well written opinion essay. The experimenter wrote all anchor essays (See Appendix N for sample anchor essays).

Graphing paper. Each participant was provided with copies of graphing paper to chart their writing progress. Graphing paper was customized to align with the requirements of the writing tasks (see Appendix O).

Self-instruction sheets. Each participant had copies of a self-instruction/self-statement sheet. Self-instruction sheets were used for students to practice when and how to use self-instruction during the writing tasks. Self-instructions sheets were adopted from those provided by Harris, Graham, Mason, and Friedlander (2008; See Appendix P for an example of the self-instruction sheet). In addition, participants were provided with a list of self-talk phrases from which they could select and use before, during, and after completing each writing task.

A chart of selected social skills vocabulary. During instruction time, each participant received a chart with social skills vocabulary. The experimenter used this chart for instruction and modeling. The chart served the purpose of helping participants correctly label behaviors and/or actions as they describe them during essay composition. The initial vocabulary list was modified after the first three sessions with the first participant to make them easy to understand. The modified vocabulary list was used by

the rest of participants. The modification included target vocabulary words, their definitions, and antonyms. In this way participants were able to get a clear picture of the meaning of the words, before using them in their essays (both the original and modified versions are included in Appendix Q).

Essay response paper. Initially the experimenter had intended to provide each participant with a note book. However, a few sessions into the intervention with the first participant, it was apparent that writing in a notebook was challenging for him and caused unnecessary distraction since he was left-handed. The experimenter, therefore, created a prompt response paper instead (see Appendix R for a sample) to be used by all participants. All student responses were filed in a binder.

The experimenter provided and maintained all intervention materials. The experimenter had a binder to store copies of all participant materials (described above) and scripted lesson guides for SRSD. In addition to the binder, writing supplies (e.g., paper, pens, and pencils) and other pertinent materials including video recorder and a portable container for storage and organization of all study materials were available for use as needed during the study.

Genre-specific mnemonic. In this study, participants were taught opinion writing using SRSD. One of the most common mnemonic aids that has been used in teaching opinion writing using SRSD is POW-TREE (Harris, Graham et al., 2008). A slightly modified version of POW-TREE was used for opinion writing instruction as follows: The first part of the mnemonic aid remained the same, and represented:

- P- Pick your idea
- O- Organize your notes

- W- Write and say more

The second part of the mnemonic aid modeled after Mason and colleagues (2010) who

embedded counterarguments. However, in this study, alternative behaviors/actions were

used in place of counterarguments, and an extra *e* was added (TREE-*e*; see Appendix K).

These variations and additional changes in the mnemonic aid are described below:

- T- Topic (opinion regarding depicted behavior/action)

- R- Reasons (at least two reasons for why you think the behavior is

  appropriate/inappropriate)

  Alternative behavior/action (at least two replacement behaviors or actions)

  - E- Explain (at least two reasons why the alternative behaviors/actions are

    better/not better choices)

- e- ending (reiterate why the alternative behavior or action is a better or not better

  choice in comparison to the initial behavior or action)

    SRSD instruction. For this study, SRSD instruction followed the SRSD lessons

for persuasive writing developed by Harris (2008), with a few modifications to fit the

focus of the study (original lessons can be found at http://kc.vanderbilt.edu/projectwrite).

SRSD instruction took place using the SRSD's six recursive instructional stages. These

include (a) developing skills and background knowledge, (b) discussing it, (c) modeling

it, (d) memorizing it, (e) supporting it (i.e., providing guided practice), and (f)

independent practice (Harris et al., 2003). Each participant received a total of five lessons

on opinion writing provided in 30-45-min sessions. The number of times each lesson was

taught varied from participant to participant. Lessons were repeated as needed for each

participant, based on his needs until the mastery criterion was met. For this study, the

mastery criterion was a score of at least 20 out of 25 total points (i.e., 80%; see Appendix D) with a minimum of 10 points being from the genre elements rubric. Assessing for mastery was completed during Lesson 5. Overall instruction lasted between 12 and 18 sessions across participants.

Lesson 1: Develop background knowledge/Discuss it. The "develop background knowledge" and "discuss it" stages were both covered under Lesson 1. Combining these stages was appropriate since both serve the broader purpose of orienting the learner to the concept of writing as a skill and SRSD as a framework that would help the learner to achieve proficiency in the skill. Additionally, SRSD literature proposes combining SRSD stages as an effective way to delivery of instruction (Graham & Harris, 2017). Moreover, previous investigations have combined some phases during delivery of SRSD instruction (e.g., Cerar, 2012 combined the "model it" and "memorize it" stages). Here, the experimenter introduced opinion writing to the participant, and discussed what the genre entailed. The experimenter also introduced the POW-TREE-e mnemonic to the participant using the mnemonic chart and discussed its purpose. Characteristics leading to success in writing (e.g., self-regulation, self-talk, goal setting, coping, self-evaluation of performance) were discussed. The experimenter described specific terms using examples and nonexamples (e.g., "self-talk involves saying positive things to yourself to help you stay motivated to keep on writing especially when you are having a hard time with the writing process"). The participant then was provided with the transition word list (Appendix M) to use when transitioning from one idea to another. The experimenter went over the transition words with each participant explaining the meanings and providing examples of occasions when each transition word could be used appropriately. Then a

chart of selected social behavior vocabulary (Appendix Q) was introduced to the participant. The experimenter discussed the meaning of each of the selected words and explained examples and nonexamples. An anchor opinion response was used to illustrate the POW-TREE-e parts, transition words, and social skills vocabulary usage in a written response. The experimenter and the participant, together, read a prompt that corresponded to the anchor essay, and then read the anchor essay together, identifying the TREE-e parts, transition words, and social skills vocabulary. Next, the experimenter and the participant, together, charted the number of parts included in the anchor essay, in addition to counting the transition words and social skills vocabulary words. The participant then reviewed his baseline responses by recording and charting the number of parts written on a graph. Following this, the participant and experimenter discussed the writing process and the use of self-instructions. The experimenter explained the self-instruction sheet and demonstrated to participants how it could be used before, during, and after writing to assist them in completing the essay. With the assistance of the experimenter, the participant created a preferred list of personal positive self-instructions from the provided list or developed his own list. At the completion of Lesson 1 activities, the experimenter informed the participant that in the following lessons the participant would learn how to write opinion essays using the POW-TREE-e mnemonic aid. Finally, the experimenter and participant set a goal for the next lesson, based on the results from the review (e.g., increase the number of parts included in the essay by two, use at least three transition words). Lesson 1 lasted for two to three sessions across participants.

Lesson 2: Model it. The focus of Lesson 2 was to provide participants with a visual demonstration of how to use SRSD steps to complete an opinion essay. The

experimenter began with a review of the POW-TREE-e mnemonic aid. This was followed by a quick review of the self-instructions selected by the participant. The experimenter then selected a prompt and read it out loud. Next, the experimenter modeled planning using the graphic organizer for opinion writing, followed by writing a complete essay. This was all completed while thinking out aloud and using self-instructions and positive statements (e.g., I can do this; I have plenty of tools to help me in the process, let me see, what do I need here?). Next, the participant selected one of the baseline prompts. The experimenter and the participants then worked together on rewriting the selected prompt, constantly discussing all the components included and reasons for inclusion. The participant then graphed the number of response parts in the revision with the experimenter's help. The experimenter gave specific praise for any improvements on the revised writing (e.g., "I think we did a great job in this essay! We included three parts! We also gave four reasons instead of the three that we are required to give! That is a great improvement! Let's see if you can beat today's record tomorrow. How many parts would you like to include in tomorrow's lesson? Let's set some goals for tomorrow."). To end the lesson, POW-TREE-e and the other essential components of the SRSD procedure were reviewed. Lesson 2 was completed in one to two sessions across participants.

Lesson 3: Memorize it. The main purpose of Lesson 3 was to ensure that the participant had memorized and mastered the mnemonic aid for the opinion writing genre as well as all other essential components (e.g., transition words, social skills vocabulary, self-instruction) needed to successfully complete an essay. The lesson began with POW-TREE-e review and memorization. Next, a blank graphic organizer, the transition word list, the self-instruction sheet, and a prompt response paper were given to the participant.

Then, the participant chose one of the remaining baseline prompts for writing practice. Together, the participant and the experimenter read the prompt and brainstormed ideas to respond to the prompt. The experimenter encouraged participants to use self-instruction sheets as needed. At the end of the writing task, the participant charted and graphed the number of parts included in his essay. The experimenter and the participant then discussed improvements in the written response, and the participant set a goal for the next lesson. Lesson 3 was the longest to complete for all participants; sessions ranged from three to five across participants.

Lesson 4: Support it. The purpose of Lesson 4 was to encourage independence in applying the SRSD steps by to weaning off scaffolds and other support materials (i.e., the graphic organizer, self-instruction sheet, transition words list, and social skills vocabulary). The lesson began with reviewing all the SRSD steps learned in Lessons 1-3, including the POW-TREE-e mnemonic aid. The participant selected a prompt from the remaining baseline prompts and worked on it without supporting materials. The experimenter encouraged the participant to write down his own strategy notes and remember the transition words and personal self-instructions while planning and composing the essay. The experimenter only provided verbal prompting as needed in this lesson. Like in the previous lesson, the participant graphed the number of parts included in the essay. During this lesson, the experimenter provided verbal support as needed (e.g., remind the participant to use self-instruction statements, use social skills vocabulary and transition words, double check the graph to ensure accuracy) as well as verbal praise for completed steps. Based on the performance on the final written product, the participant

set a goal for the next session. Lesson 4 was repeated as needed and lasted two to four sessions across participants.

Lesson 5: Independent practice/Mastery. The purpose of Lesson 5 was to ensure fluency in the use of SRSD procedures to compose complete opinion essays. In this lesson, the participant engaged in the entire SRSD process for opinion writing with minimal prompting from the experimenter. The experimenter was to observe for mastery and offer support to participants as requested. This was followed by the participant practicing writing a response and graphing the results. Lesson 5 was repeated as needed based on individual student performance on the written response and ranged from three to four sessions across participants. For two of the participants (i.e., Rashad and Cory), the experimenter had to return to previous lessons to reteach and refresh some strategies and skills. In Lesson 5, it was evident that Rashad was struggling with the ending sections of his essays while Cory struggled with differentiating between the first part of the TREE (i.e., giving reasons for your opinion) and the second part (i.e., giving and explaining your reasons for the alternative behavior or actions). Mastery during the intervention phase was demonstrated by the participant including at least 20 out of 25 essay elements in three consecutive written responses during independent practice. See Appendix S for scripted instruction.

Overall, each participant spent between 12 to 18 instructional sessions (i.e., 360-540 min) in the SRSD intervention condition. Once a participant met the mastery criterion during Lesson 5 instruction, the SRSD instruction ended and the participant entered the post-intervention assessment condition.

Post-intervention assessment. Immediately following the intervention, each participant was assigned five writing prompts (one prompt per day) for 5 consecutive days. This took place by the experimenter presenting a packet of prompts in an envelope to the participant. The participant was asked to pick three colors from a choice of pink, yellow, red, orange, and blue. The experimenter pulled three prompt cards with matching colors chosen by the participant. The participants would then read the three prompts and select one from the three to which he preferred to respond. The two prompts that were not selected would then be put back into the envelop. This procedure helps to ensure that all participants had equal and unbiased access to prompts. In addition, having a choice of the prompt fostered commitment and engagement of participants during the writing process. Participants also responded to one video prompt (for generalization) during the post-intervention assessment. The experimenter used the scripted instructions (Appendix E) utilized during baseline for all post-intervention assessment. Participants were not required to graph their written products at the end of each assessment, but were allowed to if they wished to do so. In addition, social skills/behavior data were collected during post-intervention writing assessment condition.

Maintenance. During the maintenance condition, participants were assessed using written prompts once a week for 2 consecutive weeks to determine the degree to which the skills learned were being maintained. The first maintenance data point was collected one week after the final post-intervention data point for each participant. Participants also responded to one video prompt during the maintenance condition. Additionally, for the inappropriate behavior data collection, each participant was

observed once a week for 2 weeks. During the maintenance condition, participants received regular instruction within their assigned classrooms as in the baseline condition.

Generalization. Generalization of skills were assessed throughout the study using video prompts. Although there is no existing formal research related to the use of video prompts for writing, there is emerging evidence that points to the potential benefits of video prompts to increase engagement and motivation for students. For example, Spencer (2016) created video writing prompts for his high school class and observed increased engagement and motivation to write amongst all of his students in comparison to traditional prompts. Moreover, the increased motivation and engagement was observed across genres. In another account, Smith (2013) discovered that using strategically selected video clips from YouTube as writing prompts was effective in keeping her elementary-age students engaged in writing during the times of the school year when productivity was diminished (e.g., days leading to holiday breaks and days leading to summer breaks). More recently, there has been notable increase in the number of websites (e.g., www.teachhub.com) that provide a variety of video writing prompts for teachers. Therefore, in an effort to diversify ways to meet the needs of students with EBD (including motivation and engagement during writing tasks), exploring the use of video prompts was a worthwhile endeavor.

The experimenter administered all of the video prompts (i.e., two at baseline, one post-intervention, and one during maintenance). The experimenter accessed the videos via the YouTube mobile app on an iPhone since her computer did not have the necessary permissions to access the YouTube website using the district's internet. Because there was a limited number of video prompts, participants did not have the opportunity to

select video prompts. Instead, the experimenter selected all the prompts for the

participants, and they all watched the same prompts for baseline, post-intervention, and

maintenance. All videos used for generalization were retrieved from McIntyre's (2016)

YouTube channel and were originally created and used for classroom management

professional development at Michigan State University in the 1970s. Although the videos

were prepared a little over 40 years ago, the student behaviors and teacher actions are still

relevant and very similar to current student behaviors and classroom interactions. A

typical video prompt was between 40 s to 2 min in length, and involved at least one

student involved in a situation that would most likely cause or elevate negative

responses/actions on the part of the student (for an example of the video prompt, see

https://www.youtube.com/watch?v=iEaW6eBynpQ&index=11&list=PLiBZatNRYeQW

V4TOUzHTzXYRstt6TSNz0). Participants were given scripted instructions (Appendix

E). Additionally, to investigate if there is an inclination toward a specific prompt format,

participants responded to two additional prompts during the maintenance condition in

their preferred format (i.e., written or video prompts).

Overall, including generalization prompts, participants wrote a minimum of 13

assessment essays. Rashad wrote seven essays at baseline, six essays during post-

intervention, three essays during maintenance, and two essays beyond maintenance for a

total of 18 essays. Cory wrote six essays at baseline, six essays during post-intervention,

and four essays during maintenance for a total of 16 essays. Kasim wrote only 14 essays,

with eight at baseline and six during post-intervention). Although this may appear to be

excessive writing for assessment purposes, it is in line with previous SRSD studies (e.g.,

Cuenca-Carlino & Mustian, 2013; Evnenova et al., 2016), and is consistent with the

the effects and benefits of the SRSD intervention for improving students' writing skills and/or social behaviors. Since the social skills prompts added a new dimension to the existing SRSD interventions, pre-existing questionnaires were deemed inadequate in accurately capture all aspects of the intervention. Therefore, the experimenter developed the students' pre- and post-intervention questionnaires. The pre-intervention questionnaire consisted of seven items and the post-intervention questionnaire consisted of 12 items, all on 6-point Likert scale (i.e., strongly disagree, disagree, slightly disagree, slightly agree, agree, strongly agree) to solicit the participants' perceptions regarding SRSD and the degree to which the intervention supported their writing and social behaviors. Participants also had the option of making comments about the intervention in narrative form (see Appendices V and W).

Procedural Fidelity

All intervention sessions were videotaped for procedural fidelity measure. Each lesson had a separate procedural fidelity checklist to represent the specific content of each SRSD lesson. A trained rater (rater 1) rated a minimum of 30% of intervention sessions for each participant using a yes/no checklist with 12 items to determine the degree to which the procedural steps were followed. Each lesson had a different rubric to specifically address the components of that lesson, for a total of five checklists (see Appendix X). The procedural fidelity was calculated by dividing the number of steps performed correctly by the total number of applicable steps and multiplying by 100 to yield a percentage. Additionally, interobserver agreement of the procedural fidelity data was measured by having a second rater (rater 2) to randomly review at least 30% of the videotaped sessions identified for procedural fidelity. Data from both scorers were

compared using an item-by-item analysis. The interobserver agreement of the procedural fidelity data was calculated by dividing the number of agreement by the total number of agreements plus disagreements and multiplied by 100.

The experimenter trained the two raters to score the quality of the intervention implementation separately by going over the items on the procedural fidelity forms (Appendix X). Second, each rater watched and rated a videotaped session. Next the experimenter went over the score with each rater individually. Discrepancies were discussed and resolved. For the actual procedural fidelity interrater agreement, each rater scored the assigned videos separately. If they had a discrepancy, they discussed and resolved it between the two of them. The experimenter only reviewed the final rating to calculate the IRA for procedural fidelity (see participants section for a description of each rating).

CHAPTER 4: RESULTS

This chapter addresses the findings of the study. Sections include results of (a) interrater agreement, (b) content validity, (c) procedural fidelity, (d) genre elements and quantity of written responses, (e) problem behavior, (f) teacher writing instruction practices, and (g) social validity.

Interrater Agreement

Written responses. Interrater agreement (IRA) data were calculated for the genre elements and quantity of participants' written responses. All initial scoring for written responses was completed by the experimenter prior to change of phase. Except for Rashad, whose baseline IRA scoring was completed while he was already in the intervention, all remaining IRA scoring for all participants was completed before change of phase. To calculate IRA, a second rater (trained by the experimenter) rated an average of 74% of participants' written responses across conditions (i.e., baseline = 100%; post-intervention = 56%; maintenance = 67%) and participants. The overall mean IRA across conditions was 99.7% (range 99.1% to 100%). Specific IRA for each condition was as follows: 100% for baseline, 99.1% (range 97.3% to 100%) for post-intervention, and 100% for maintenance. See Table 2 for the mean and range of IRA results on the genre elements and quantity of written responses made by participants.

Problem behavior. Interrater agreement data for participants' problem behavior were collected for an average of 42.8% of all observation sessions across conditions and

participants. For Rashad, IRA data were collected for 33% during baseline, 33% during post-intervention, and 33% during maintenance. For Cory, IRA date were collected for 60% during baseline, 25% during post-intervention, and 33% during maintenance. For Kasim, IRA data were collected for 75% during baseline sessions and 50% during post-intervention sessions (maintenance data were not collected for Kasim). The overall mean IRA across conditions and participants was 98.1% with a range of 97.6% to 98.8%. Specific IRA for each condition was as follows: 98.1% (range of 97.4% to 99.6%) for baseline, 97.6% (range of 94% to 100%) for post-intervention, and 98.8% (range of 97.5% to 100%) for maintenance. See Table 2 for the mean and range of IRA results on the problem behaviors exhibited by each participant.

Content Validity

Thirty percent (18 prompts) of social skills prompts were randomly selected and rated for content validity. Rater 1 rated each of the 18 prompts for their inclusion of ideal social situations within the school environment and for their age/grade appropriateness (reading difficulty) (see rater 1's qualifications in Chapter 3 under the Participants section). The overall content validity score was 100%. The Lexile score range for all prompts was 300-950 which was equivalent to grades 2-4 reading range.

Table 2. Results of IRA for participants' written responses and level of problem behaviors.

Student	Skill	Baseline	Post-Intervention	Maintenance	Choice
Rashad	*Genre elements*	100% (No range)	100% (No range)	100% (No range)	N/A
	Quantity of writing	100% (No range)	100% (No range)	100% (No range)	N/A
	Problem behavior	97.5% (range 95-100%)	94% (No range)	97.5% (No range)	N/A
Cory	*Genre elements*	100% (No range)	97.3% (range 96-100%)	100% (No range)	N/A
	Quantity of writing	100% (No range)	100% (No range)	100% (No range)	N/A
	Problem behavior	97.4% (range 94.6-100%)	98.8% (No range)	100% (No range)	N/A
Kasim	*Genre elements*	100% (No range)	100% (No range)	N/A	N/A
	Quantity of writing	100% (No range)	100% (No range)	N/A	N/A
	Problem behavior	99.6% (range 99.8-100%)	100% (No range)	N/A	N/A

Procedural Fidelity

All interventions were recorded using a GoPro camera. To determine procedural fidelity, first, a minimum of 33% of intervention sessions were selected and rated by a trained rater; the rater reviewed every third session. Next, at least 30 percent of the rated sessions were double-scored by a second trained rater for IRA. Overall, procedural fidelity across participants for the SRSD instructional sessions was 98.9% (range 98%-100%). For Rashad, 33% of all his interventions (4 out 12) were rated by both raters; procedural fidelity was rated at 98% (range 92-100%) with 100% agreement for IRA. For Cory, 39% of his sessions were scored by rater 1 and 71% of the scored sessions were rated by rater 2. Procedural fidelity for Cory was 98.9% (range 92-100%) with 99.5% IRA. For Kasim, 50% of his sessions were scored by rater 1 and 57% of the scored sessions were scored by rater 2. Procedural fidelity for Kasim was 100% with 100% IRA.

Genre Elements in Written Responses

Participant performance on the written prompts was scored using a genre elements rubric (Appendix D) to measure the number of genre elements in participants' written responses. Overall, participants' writing performance improved from baseline to post-intervention by 68%, and from baseline to maintenance by 64% (note, maintenance data were collected for only two participants). Data showed a functional relation between SRSD and obtained scores on genre elements for all participants. At baseline, the average score for written prompts across all participants was 3 (out of 25; range 2-6). The average post-intervention writing score was 20 (range 18-25), and the average score for maintenance was 16 (range 15-17). A visual analysis of pre-intervention data revealed overall low scores on the genre elements of written products (fewer than 6 opinion

elements) with high stability. During the post-intervention assessment, all participants demonstrated an immediate increase in their scores with 16 or more points for each written response. In addition, their performance across responses was generally stable, except for one data point for Cory and for Kasim. During the maintenance condition, Rashad's and Cory's number of genre elements in their written responses decreased slightly when compared to the post-intervention data, as is demonstrated by a slightly lower level. However, there were no overlapping data between baseline condition and the post-intervention or maintenance condition and there were three demonstrations of effects at three different points in time. The data show that there is a clear functional relation between the SRSD intervention and the participants' inclusion of genre elements in their writing as measured by the genre elements rubric. Table 3 shows the mean scores and ranges by condition for each participant, and Figure 2 provides a graphical representation of participants' writing performance based on the genre elements rubric (see solid data points for written prompts). See Appendix Y for students' writing samples during baseline and post-intervention sessions.

To determine the accuracy of transcribed essays, Rater 1 completed a side by side comparison of at least 50% of all essays written across conditions. The TWW and TNS were counted for each matched pair. Additionally, the rater compared altered words to the original ones and noted reasons they were altered (e.g., spelling, grammar, punctuation). Results from these comparisons revealed only minimal alterations from hand-written essays; all had to do with correction of grammatical errors.

Rashad. At baseline, Rashad's average score was 1.9 out 25 (range 1-2). The average post-intervention score was 18 out 25 (range 17-20). At maintenance, Rashad

averaged 15 out 25 (range 14-16). Rashad opted for a video prompt for the choice condition and included 16 essay elements in his essay. A visual analysis of Rashad's data revealed a low and stable trend in terms of the number of genre elements. Immediately following the intervention, there was an immediate and substantial increase in the number of genre elements with some stability. There was a slight drop in the number of genre elements in Rashad's essays during the maintenance condition. This pattern continued into the choice condition.

Cory. At baseline, Cory's average score was 3 out 25 (range 2-4). The average post-intervention score was 20 out 25 (range 16-21). At maintenance, Cory averaged 17 out 25 (range 16-19). A visual analysis of Cory's data revealed a low and stable trend in terms of the number of genre elements at baseline. Immediately following the intervention, there was an immediate and substantial increase in the number of essay elements (i.e., level) with stability for the first four data points for the written prompts. There was a notable drop in the number of genre elements in Cory's last post-intervention essay, which carried over to maintenance. However, consequent maintenance data points depicted a slight increase in level indicating inclusion of more essay elements in his responses. Cory was not exposed to the choice condition due to the school year ending.

Kasim. At baseline, Kasim's average score was 4 out 25 (range 4-6). The average post-intervention score was 22 out 25 (range 16-25). Maintenance data were not available due to the end of the school year. A visual analysis of Kasim's data revealed a low and stable trend in terms of the number of genre elements at baseline. Immediately following the intervention, there was an immediate and substantial increase in the number of genre elements (i.e., level) with an overall stable trend for four out of five data points for

written prompts. There was a notable drop in level for the fourth post-intervention data point but the last data point went back to the level similar to the original post-intervention level. Kasim was not exposed to the maintenance and choice condition because of the end of the school year.

Generalization. Results of video prompts did not indicate noticeable differences in performance from written prompts. Specifically, all participants' genre elements scores on the written responses for the video prompts were consistent with the performance on the written prompts during each of the experimental conditions. Rashad's scores were 2 and 2 at baseline, 17 at post-intervention and 14 at maintenance. Cory's scores were 3 and 4 at baseline, 21 at post-intervention, and 19 at maintenance. Finally, Kasim's scores were 2 and 5 at baseline, and 25 at post-intervention. See the open data points in Figure 2.
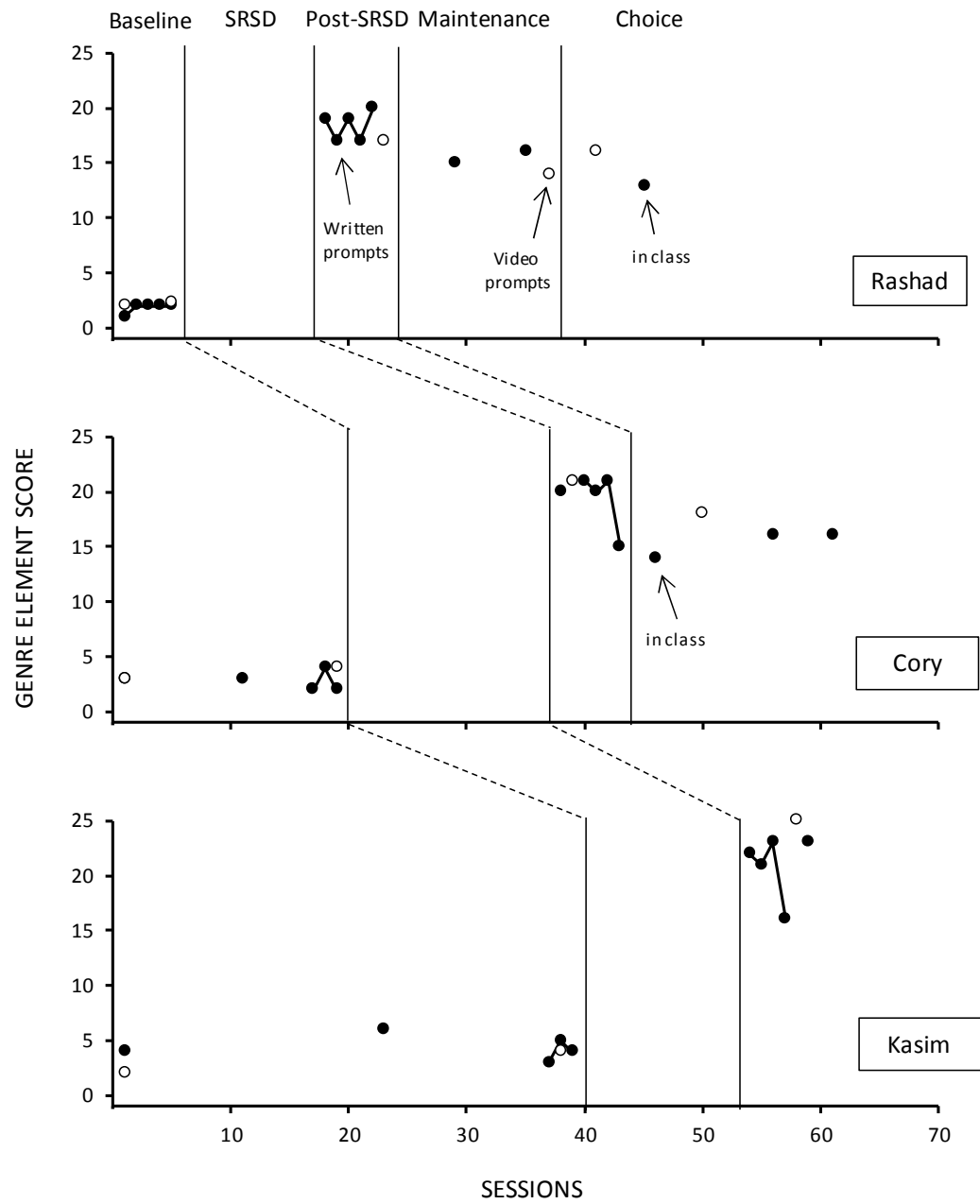
Figure 2. Participants' genre elements rubric score (out of 25) by experimental conditions

for both written prompts (solid data points) and video prompts (open data points).

Quantity of Written Responses

Data for the total words written (TWW) and total number of sentences (TNS) written were collected to measure quantity of participants' written responses. All participants increased TWW and TNS from baseline to post-intervention. Overall, visual analysis of baseline data revealed stable and consistently low scores in terms of TWW and TNS per essay across participants. Post-intervention data show an immediate increase in the number of words written and number of sentences included in each response across participants with a stable trend. In addition, it is evident that the number of sentences included positively correlated to the number of words written in each response for all participants. At baseline, the mean TWW in each prompt response per participant was 14 (range 5-31), and the mean TNS was 1 (no range). At post-intervention, the mean TWW in each prompt response per participant was 111 (range 70-131 and the mean TNS was 8 (range 6-11). During maintenance, mean TWW in each response per participant was 95 (range 70-128), and the mean TNS was 7 (range 6-8). Table 3 shows the mean scores and ranges by condition for each participant. Figure 3 shows a graphical representation of participants' TWW (solid data points) and TNS (open data points) performance across conditions.

Rashad. Rashad wrote an average of seven words and one sentence per written response at baseline. This number increased to 87 words and eight sentences post-intervention. During the maintenance phase, Rashad wrote an average of 79 words and seven sentences. For the choice condition, Rashad wrote a total of 78 words and include seven sentences. A visual analysis of his data revealed a high level of stability at baseline. There was an immediate increase in level following the intervention with a very slight

decreasing trend for both TWW and TNS. Similarly, there was a slight decrease in level in TWW and TNS during maintenance. During the choice condition, the level of TWW and TNS remained similar to the level of performance during the post-intervention.

Cory. Cory wrote an average of 16 words and one sentence per written response at baseline. This number increased to 122 words and eight sentences post-intervention. During the maintenance phase, Cory wrote an average of 110 words and eight sentences. Cory was not exposed to the choice condition due to the school year ending. A visual analysis of data revealed consistent stability during the baseline condition for both TWW and TNS data; his essays were generally short and consisted of only one sentence at baseline. However, immediately following the intervention, there was an immediate and clear increase in level for TWW with some variability and an immediate increase in level for TNS with consistent stability. For the last post-intervention essay, there was a slight drop in the TWW. During the maintenance condition, the data path started with an increased level of performance for TWW but dropped to a lower level for the last data point. Cory's increased level in TNS remained consistent (i.e., 8) across the post-intervention and maintenance conditions. Cory did not participate in the choice condition due the school year end.

Kasim. Kasim wrote an average of 18 words and one sentence per written response at baseline. This number increased to 124 words and nine sentences post-intervention. Maintenance data were not collected for Kasim due to the end of the school year. A visual analysis of data revealed low and stable at baseline for both TWW and TNS. Although longer in comparison to the TWW and TNS scores for the other two participants, Kasim's essay were generally short and consisted of only one long sentence

at baseline. Immediately following the intervention, there was an immediate and substantial increase in level with high degree of stability for the first four TWW post-intervention data points. The last TWW post-intervention data point dropped to a lower level of performance for Kasim. On the contrary, the post-intervention data for TNS showed an immediate increase in level from baseline, but with an overall decreasing trend. Kasim did not participate in the maintenance and choice conditions due the school year end.

Generalization. Results from video prompts for quantity showed no noticeable differences from those for written prompts. All participants each wrote one sentence for all their baseline prompts. At post-intervention and maintenance, Rashad included 70 and 70 TWW and 6 and 6 TNS, respectively. Cory included 130 and 128 TWW and 8 and 8 TNS. Kasim's post intervention results were 128 TWW and 8 TNS. See the solid and open triangles in Figure 3 for the TWW and TNS, respectively, on the video prompts for each participant.
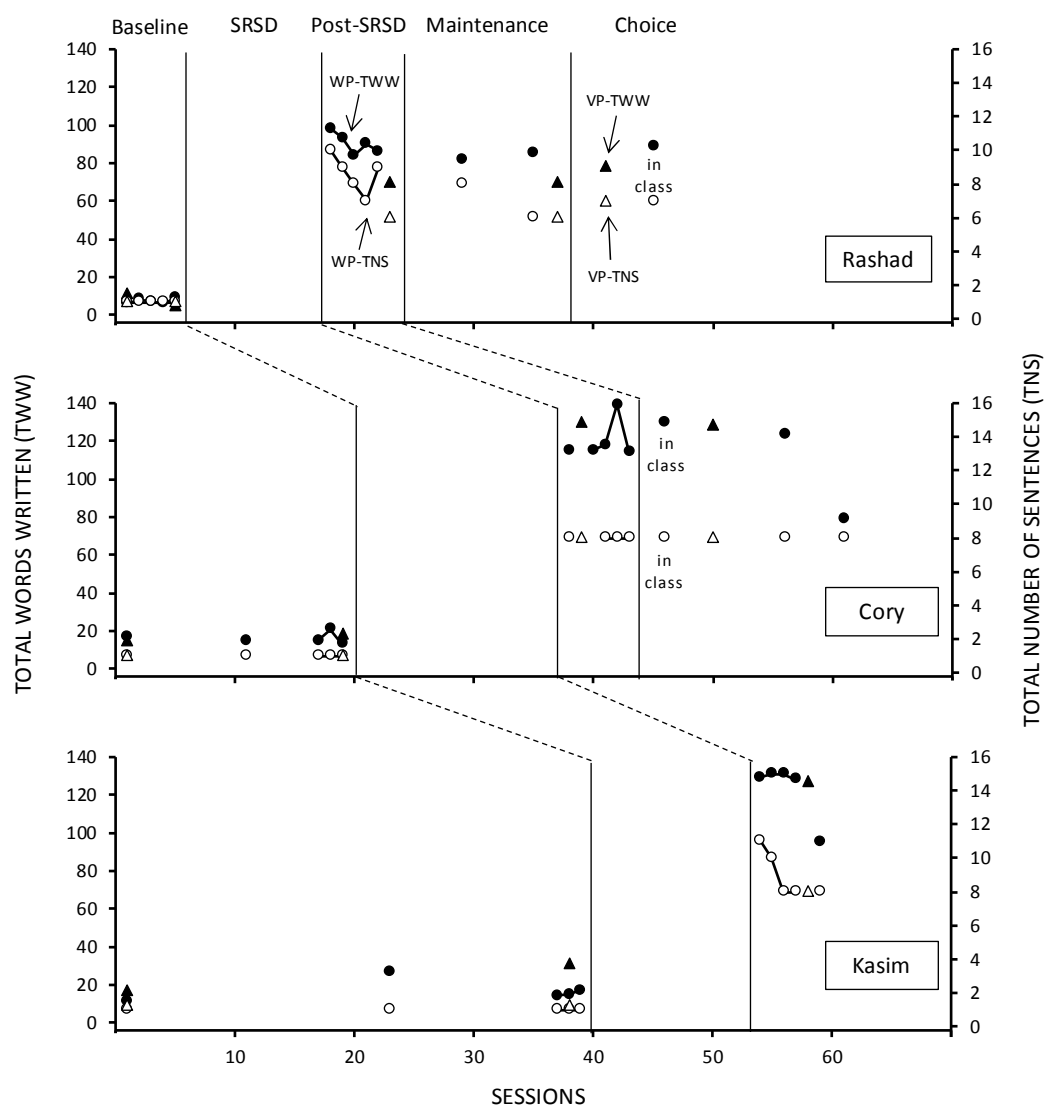
Figure 3. Participants' total words written (TWW) and total number of sentences (TNS)

by experimental conditions for both written prompts (WP; open and closed circles) and

video prompts (VP; open and closed triangles).

Table 3. Participants' writing performance across conditions. *Note*. TWW = Total Words Written; TNS = Total Number of Sentences

Student	Skill	Baseline	Post-Intervention	Maintenance	Choice
Rashad	*Genre elements*	1.9 (range 1-2)	18 (range 17-20)	15 (range 14-16)	16
	TWW	7 (range 5-11)	87 (range 70-98)	79 (range 70-85)	78
	TNS	1 (no range)	8 (range 6-10)	7 (range 6-8)	7
Cory	*Genre elements*	3 (range 2-4)	20 (range 16-21)	17 (range 16-19)	N/A
	TWW	16 (range 13-21)	122 (range 114-139)	110 (range 79-128)	N/A
	TNS	1 (no range)	8 (no range)	8 (no range)	N/A
Kasim	*Genre elements*	4 (range 3-6)	22 (range 16-25)	N/A	N/A
	TWW	18 (range 11-31)	124 (range 95-131)	N/A	N/A
	TNS	1 (no range)	9 (range 8-11)	N/A	N/A
Mean	*Genre elements*	3 (range 1-6)	20 (range 18-22)	18	N/A
	TWW	14 (range 5-31)	111 (range 70-139)	94.5	N/A
	TNS	1 (no range)	8 (range 6-11)	7.5	N/A

Problem Behavior

Baseline data depicted high levels of variability in occurrence of problem behavior during observational sessions across participants (mean = 41.4%; range = 12.5-71.4%). Post-intervention data revealed overall lower percentages of intervals of problem behavior (mean = 17.6%; range = 6.5-28%) with a 23.8% reduction of problem behavior across participants. Maintenance data revealed a continuation of post-intervention trend (mean = 7.9%; range = 0-15.7 %). A visual analysis of baseline data shows a rapid increase and stable trend for Rashad, a rapid decrease and stable trend for Cory, and notably low level of problem behaviors with a gradual increasing trend for Kasim. Post-intervention data depicted an immediate decrease in problem behavior with an overall downward trend for Rashad, a moderate decrease in problem behavior with a downward trend to a very low level for Cory, and a moderate drop in problem behaviors with the second data point falling at the initial baseline level for Kasim. For maintenance, Rashad's data depicted a continued decrease in problem behavior, whereas Cory's problem behavior remained at a very low level with high stability. Maintenance data were not collected for Kasim, and behavioral data were not collected for the choice condition. Based on these inconsistencies, the results for problem behavior were deemed promising at best. Table 4 represents mean and range of behavioral data for all participants. Figure 4 shows for a graphical representation of participants' level of problem behaviors across conditions. Descriptions of individual student behavioral data are as follows:

Rashad. At baseline, Rashad exhibited moderate to high levels of problem behaviors (mean = 71.4%; range = 56.2%-91.6%) with a rapid increase of problem behaviors, as indicated by the upward trendline during baseline. Following SRSD

instruction with social skills prompts, Rashad's percentage of intervals of problem behavior reduced by 43% (mean = 28%; range = 18.6%- 39.2%) with an immediate change/reduction in level when compared to baseline condition. Maintenance data revealed a 54.3% reduction of problem behavior (mean = 16.7%; range = 8.8%-23.8%) when compared to the data at baseline.

Cory. At baseline, Cory exhibited moderate levels of problem behavior (mean = 40.4%; range = 21%-72.5%) with a general downward trend of problem behaviors. Immediately following SRSD instruction with social skills prompts, Cory's problem behavior rates reduced by 32.1% (mean = 8.3%; range = 0%-17.5%). Maintenance data revealed a 40% reduction of problem behavior (mean = 0.4%; range = 0%-1.3%).

Kasim. At baseline, Kasim exhibited overall low levels of problem behavior (mean = 12.5%; range = 0%-37.5%) with an increasing trend. After the SRSD instruction with social skills prompts, Kasim's problem behavior rates reduce by 6.8 % (mean = 5.7%; range = 0%-11.3%). Maintenance data were not collected for Kasim due to school year ending.
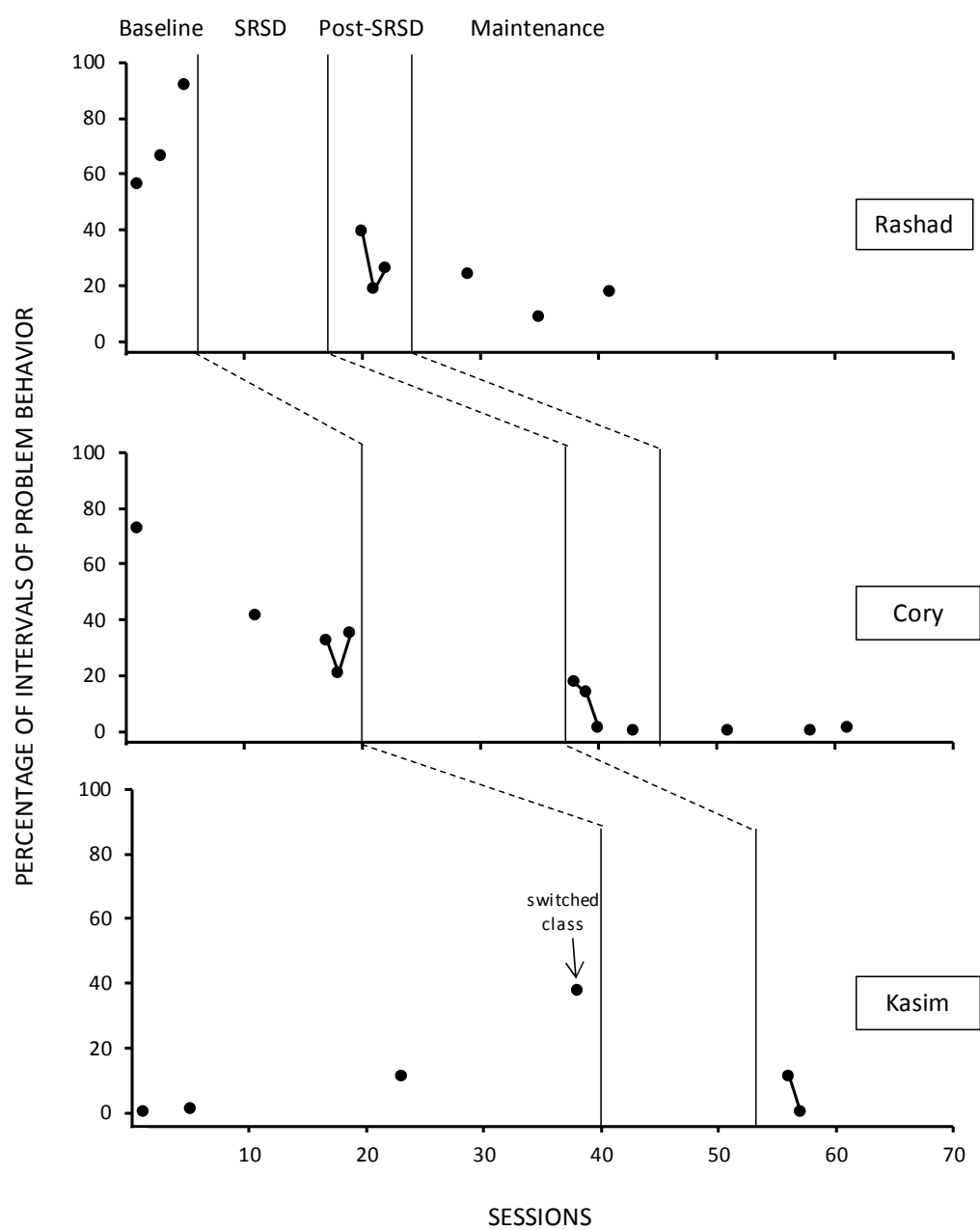
Figure 4. Percentage of intervals of problem behaviors exhibited by participants across

the experimental conditions.

Table 4. Mean and range of problem behavior occurrence for all participants across conditions.

Student	Baseline	Post-Intervention	Maintenance
Rashad	71.4%	28%	16.7%
	(range 56.2-91.6%)	(range 18.6- 39.2%)	(range 8.8-23.8%)
Cory	40.4%	8.3%	0.4%
	(range 21-72.5%)	(range 0-17.5%)	(range 0-1.3%)
Kasim	12.5%	5.7%	N/A
	(range 0-37.5%)	(range 0-11.3%)	

Teacher Instructional Practices in Writing

To determine the extent to which the participants' teachers engaged in writing instruction, both teachers completed the Teacher Survey of Classroom Writing Practices (Cutler & Graham, 2008). The survey had two parts (i.e., Likert rating section and descriptive section). The Likert rating section consisted of 41 writing activities, each with a range of 0-7 responses (i.e., 0 = never, 1 = several times a year, 2 = monthly, 3 = several times a month, 4 = weekly, 5 = several times a week, 6 = daily, and 7 = several times a day). The responses for both teachers varied greatly. Mrs. Boykin's responses depicted a higher and more involvement with the listed writing activities; of the 41 listed activities, Mrs. Boykin indicated that she was involved with (a) three activities once a month (i.e., let students select their own writing topics, let students sharing their writing

with peers, and allow students to use computers for writing), (b) four activities several times a month (i.e., read her own writing to her students, include multiple instructional goals in her writing lessons, let her students use writing portfolios and let her students use reading to support their writing), (c) one writing activity weekly (i.e., provide mini-lessons on writing skills), (d) six writing activities several times a week (i.e., overtly model writing strategies, assign writing homework, let students work in writing centers, monitor the writing process, ask students to write at home with parental help, encourage students to use writing to support reading, and students use writing in other content areas), (e) five writing activities daily (i.e., model the enjoyment of writing, reteach writing skills, use writing prompts, ask parents to listen to something their children wrote in school and communicate with parents about their child's writing process), and (f) 16 writing activities several times a week (i.e., conference with students, students plan before writing, students revise their written products, students help their classmates with their writing, allow students to complete their writing at their own pace, teach sentence construction skills, teach student organizational strategies, teach students strategies for planning, teach students strategies for revising, teach students handwriting skills, teach student spelling skills, teach students grammar, teach students punctuation, teach students capitalization, students use graphic organizers, encourage students to monitor their own writing progress and students use rubrics to evaluate their writing). She indicated she never engaged her students in only three activities (i.e., students publish their writing, students conference with their peers and students are allowed to write by dictating their compositions to someone else). In addition, she stated that she taught her students writing mechanics and simple sentences, and worked on strategies that enhanced these skills

daily. She also reported that she used graphic organizers for planning to write. She described her approach to writing instruction as traditional combined with process.

For Mr. Hicks, out of the 41 writing activities he indicated that he engaged in (a) 11 activities several times a year (i.e., student conference with their peers, students select their own writing topics, students publish their writing, students help their classmates with their writing, teach students strategies for revising, teach student handwriting skills, teach students spelling skills, assign writing homework, have multiple instructional goals in writing lessons, students use writing portfolios and allow students to write by dictating their compositions to someone else), (b) nine activities once a month (i.e., students share their writing with their peers, teach students strategies for planning, provide mini-lessons in writing, model enjoyment or love for writing, reteach writing skills, students work in writing centers, use writing prompts, allow students to use computers during writing periods, and students use writing in other content areas), (c) seven activities several times a month (i.e., students revise their written products, read his own writing to students, teach students sentence construction skills, teach students text organization, overtly model writing strategies, monitor student writing process, students monitor their own writing process, students use writing rubrics, students use writing to support reading, and students use reading to support writing), (d) four activities weekly (i.e., students engage in planning before writing, teach students grammar, teach students punctuation, and teach students capitalization), (e) one activity several times a week (i.e., conference with students about their writing), (f) zero writing activities daily, and (g) zero activities several times a week. He indicated he never engaged his students in five of the activities, including (i.e., allowing students to complete writing assignments at the own pace,

encourage students to use unvented spelling, ask students to write at home with parental help, ask parents to listen to something their child wrote at school, communicate with parents about their child's writing progress). In addition, Mr. Hicks stated that he was mainly involved in teaching writing basics such as grammar, and that he tried to integrate writing within Positive Action program and reading instruction. He described his approach to writing instruction as traditional.

In addition to the survey, each teacher was observed during the ELA block. Each observation lasted 30-40 min. In observing Mrs. Boykin's instruction, none of the activities that are considered part of teaching the writing process were observed. She was only observed encouraging students to use invented spelling, and teaching spelling and handwriting. During the observation, students were only observed working on independent writing as part of an assignment while the teacher walked around to assist the students who needed help. None of the writing activities observed were synonymous with those found within the SRSD framework. For Mr. Hicks, the observed activities were more consistent with his responses on the survey. The writing activity mainly involved students responding to questions posted on the SMART Board (i.e., What did you do yesterday? How was your behavior yesterday? What will you do in the summer? What is your favorite color?). He was observed conferencing with students during this activity. Conferencing involved Mr. Hicks reviewing what students had written and providing corrective feedback. None of the activities observed were similar to those used in SRSD.

Social Validity

   Teacher and student participants completed social validity questionnaires (Appendices T-W) before and after the intervention to give their perception regarding SRSD with social skills prompts. Tables 5 and 6 provide a summary of social validity data for the teachers and students, respectively. Overall, teachers and students were optimistic about the effectiveness of the SRSD with social skills prompts as indicated in the pre-intervention responses. In the pre-intervention social validity data, both teachers rated the intervention positively with each item rated between 4 and 6 (slightly agree to strongly agree) indicating that they were optimistic with the potential of the intervention helping the students. On the other hand, student data indicated that most participants perceived themselves as good at writing. All three participants either strongly disagreed or disagreed with the notion that they were not good at writing. However, they all stated that they needed help in improving their writing skills. On items that addressed behavior, all participants acknowledged to some extent that they engaged in inappropriate behaviors at school. Except for one participant (Rashad), all indicated that writing about other students' behavior could help them improve their own behaviors.

   Post-intervention social validity data indicated that both teachers thought the SRSD intervention was effective, particularly with improving the students' writing skills and to some extent, their behaviors. Both also indicated that they would be willing to use the intervention in their classrooms on a regular basis and that they could see the intervention being useful for other teachers. Specifically, Mrs. Boykin thought using social skills prompts to teach writing will be very helpful for her planning of lessons since she would be "killing two birds with one stone." Mr. Hicks said he could integrate

the social skills instruction with writing instruction within the Positive Action program

that he was using with his students. In summary, Mrs. Boykin rated the 15 social validity

items with a mean rating of 5.0 for pre-intervention and 5.9 for post-intervention,

suggesting that her overall rating changed from "agree" to "strongly agree." Mr. Hicks

rated the items with a mean rating of 5.4 for pre-intervention and 5.5 for post-

intervention, suggesting that his overall rating had minimal changes.

All student participants continued to view themselves as competent writers. Post-

intervention social validity ratings for Cory and Kasim indicated that they found the

intervention very beneficial to both their writing skills and to some extend their

behaviors; Cory indicated that he no longer needed much help with writing suggesting

that he felt competent enough after receiving SRSD instruction. He also indicated that

writing about other students' behaviors helped him with his own behavior. He indicated

that he liked working on the prompts and using transition words and vocabulary words.

Similarly, Kasim indicated that he needed less help with writing post-intervention. In

addition, he stated that his favorite part of the intervention was "learning how to write

longer sentences, the POW-TREE, vocabulary words, and transition words." Rashad's

rating of the intervention post-intervention was slightly lower than the rating of pre-

intervention on some items. Specifically, Rashad indicated the intervention did not help

him improve his writing or behavior. Similar to pre-intervention social validity

questionnaire result, Rashad indicated that writing was still not one of his favorite

subjects. In addition, he indicated that learning how to write would be helpful to him pre-

intervention, whereas he reported that it was not helpful post-intervention. Ironically, he

indicated that the skills he learned during the intervention helped him improve his writing

and that he thought other students could benefit from learning the strategy. In summary, Rashad rated the seven pre-intervention social validity items with a mean rating of 3.4 and rating the 12 post-intervention items with a mean rating of 2.6, suggesting that his overall rating changed from "slightly disagree" to "disagree." Cory rated the social validity items with a mean rating of 4.1 pre-intervention and 4.6 for post-intervention, suggesting that his overall rating slightly changed from "slightly agree" to be close to "agree." Finally, Kasim rated the social validity items with a mean rating of 4.3 pre-intervention and 4.0 for post-intervention, suggesting that his overall rating remained similarly at the "slightly agree" degree.

Item	Mrs. Boykin		Mr. Hicks	
	Pre	Post	Pre	Post
1. This would be (was) an acceptable intervention for the child's needs.	5	6	5	6
2. Most teachers would find this intervention appropriate for children with similar needs	5	5	5	5
3. This intervention should prove (proved) effective in supporting the child's needs	5	6	5	5
4. I would suggest the use of this intervention to other teachers.	5	6	5	5
5. The child's needs are (were) severe enough to warrant use of this intervention.	5	6	5	6
6. Most teachers would find this intervention suitable for the needs of this child.	5	6	4	4
7. I would be willing to use this intervention in the classroom setting.	5	6	5	6
8. This intervention would (did) *not* result in negative side effects for the child.	5	6	6	6
9. This intervention would be appropriate for a variety of children.	5	5	6	6
10. This intervention is (was) consistent with those I have used in classroom settings.	5	6	6	4
11. The intervention is (was) a fair way to handle the child's needs.	5	6	6	6
12. This intervention is (was) reasonable for the needs of the child.	5	6	6	6
13. I like the procedures used in this intervention.	5	6	5	5
14. This intervention would be(was) a good way to handle this child's needs	5	6	6	6
15. Overall, this intervention would be (was) beneficial for the child.	5	6	6	6
Mean rating	5.0	5.9	5.4	5.5

Table 5. Pre- and post-intervention social validity data for teachers. *Note*. 1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree; 4 = Slightly agree; 5 = Agree; 6 = Strongly agree.

Item	Rashad		Cory		Kasim	
	Pre	Post	Pre	Post	Pre	Post
1. I am not that great in writing.	1	1	1	1	2	1
2. Writing is not one of my favorite subjects.	5	6	1	1	4	2
3. I need help with improving my writing skills.	4	3	5	1	4	2
4. Learning how to write effectively will be helpful to me.	5	1	6	6	6	5
5. I have some inappropriate social behaviors.	2	1	5	3	4	2
6. I need help with improving some of my social behaviors in the classroom.	4	2	5	5	5	4
7. Writing about other students' behaviors will help (helped) me with my own behavior.	3	1	6	6	5	4
8. The skills I learned from the intervention helped me improve my writing.	-	6	-	6	-	6
9. The skills I learned from the intervention helped me improve my own behavior.	-	2	-	6	-	5
10. I think this strategy can help other students improve their writing.	-	4	-	6	-	6
11. I think this strategy can help other students improve their behaviors.	-	3	-	6	-	5
12. I will like to continue using the strategy that in the future	-	1	-	6	-	6
Mean rating	3.4	2.6	4.1	4.6	4.3	4.0

Table 6. Pre- and post-intervention social validity data for student participants. *Note.* 1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree; 4 = Slightly agree; 5 = Agree; 6 = Strongly agree.

CHAPTER 5: DISCUSSION

The purpose of this study was to determine the effects of the Self-Regulated Strategy Development (SRSD) with social skills prompts on the writing skills and problem behaviors of students with EBD served in self-contained (separate) classrooms. Using a multiple probe across participants design (Horner & Baer, 1978), this study aimed to evaluate the extent to which opinion writing instruction using social skills prompts affected opinion writing skills as well as general problem behavior of three elementary students with EBD in self-contained settings. Even though this investigation mirrored that by Mason and colleagues (2009) as far as adding counterarguments in the opinion responses, there was a slight modification to this piece; instead of counteractions, participants were required to provide alternative behaviors/actions to those stated in their opinion. As a generalization measure, the study sought to explore the effects (if any) of video prompts on the participants' writing skills and problem behaviors. Overall, results of this study demonstrate a functional relation between SRSD instruction with social skills prompts and the genre elements and quantity of written products. Although post-intervention and maintenance data for problem behavior show clear reduction of problem behavior across participants, these results are somewhat limited due to inconsistencies in terms of the number of data collection sessions as well as absence of high levels of problem behavior during baseline for some participants. In addition, social validity data for both teachers and students suggested an overall positive view of the intervention in improving writing skills of the students. This chapter includes a discussion of findings

based on research questions, limitations associated with the study, directions for future research, and implications for practice.

Research Question 1: What are the effects of SRSD on the opinion genre elements of the written products of students with EBD in self-contained classrooms? Findings from this study demonstrate a functional relation between the implementation of SRSD with social skills prompts and the opinion genre elements of written prompts of the target students. During baseline, all three participants were able to state their opinion regarding the scenario provided in the prompt in one sentence which earned them at least two points out of 25. For Rashad and Cory, stating their opinion was the extent of their responses. However, Cory wrote longer sentences often using conjunctions such as "and" or "so." For Kasim, although his baseline responses were in one sentence, in some of his responses, he would state his opinion and provide a reason for his opinion. He also used conjunctions in his responses and this made his sentences longer. The maximum points earned for a baseline prompt across participants was six. After learning the SRSD procedures and gaining knowledge on transition words and social skills vocabulary, all participants immediately increased the number of opinion essay elements in each of their responses. For each response, each participant included a statement of their opinion and at least a reason for that opinion. In addition, each participant was able to provide at least one alternative behavior or action that was the opposite of the behavior/action stated to support his opinion, and include a conclusive statement. Including these parts (i.e., opinion, reasons, alternative behavior/action, and conclusion) together with the use of social skills vocabulary and transition words in their responses enabled them to improve their scores on the genre elements rubric with no less than 13 points (out of 25) in their

post-intervention and maintenance essays. All participants consistently used transition words at or above the required number (as per the genre elements rubric). The use of vocabulary words was inconsistent across participants. Rashad and Cory did not consistently use the social skills vocabulary in their responses; however, Kasim was very keen to use vocabulary words in almost every response he wrote. These results are in line with those from Harris et al. (2012); their randomized controlled pre-post experimental investigation found that students who were in the opinion writing group produced arguments with more transition words, better opinion elements, and greater quality writing than SRSD-story-instructed group produced. Anecdotally, all three participants stated that liked learning the transition words and phrases and using them in their essays. This was also supported by the results; on the genre elements rubric, five points were allocated for the use of transition words and phrases, and all participants consistently met this point limit during post-intervention and maintenance. In addition, Rashad stated that he never knew that such words existed and that they made his writing more interesting. Cory stated that he had heard his mother using some of the words in her conversations and had no idea what they meant. Even though Kasim did not verbally state whether he liked the transition phrases or not, he was very keen on using all the transition words and phrase correctly in his writing. Graham (2013) reiterated the importance of explicitly teaching students the writing process; teaching students the use of transition words and genre-specific vocabulary is an important aspect of teaching students the writing process. As evidenced in this study and previous SRSD studies for opinion writing, when students are explicitly taught the specific strategies and skills, they are likely to use them. Moreover, even when the participants' score slightly dropped during the maintenance

condition, one area that they consistently scored high was the use of transition words.

Notably, participants in this study achieved substantially higher scores in comparison to

participants in similar studies. For instance, Lane et al. (2011) measured essay elements,

holistic quality, student engagement and social behavior; results specific to story

elements showed significant improvements with an average of 2.39 increase in essay

elements (25% increase). In Ennis and Jolivette's investigation (2014), participants

increased their essay elements an average of 9.17 (out of 20 possible points). On the other

hand, Adkins and Gavins (2012) reported an average increase of three essay elements

(out of seven possible points) post SRSD intervention. Compared to the current study, the

scores for genre elements for previous studies were generally lower. The difference in

performance levels may be attributed to several factors. First, the scoring for writing

outcomes for the current study was based on genre specific elements (i.e. opinion

writing); the main difference between this study and similar studies is that this study

expanded the genre elements rubric to include transition words and social skills

vocabulary whereas similar studies assessed genre elements separate from other

components of the writing outcomes. There are no known studies with similar

populations that have included vocabulary words as part of the rubric. For the studies that

included transition words, these were scored separately (e.g., Cuenca-Carlino et al., 2012;

Mason & Shriner, 2008; Mastopieri et al., 2009, 2014). Therefore, the total genre element

scores were as low as seven (as compared to 25 for the current study). In addition,

scoring for the use of transition words and social skills vocabulary words constitutes 36%

of the total possible points (i.e., 9/25) in the current study. As a result, using multiple

transition words and social skills vocabulary words allowed students to score higher on the genre elements rubric.

Although all three participants made substantial improvements on the opinion genre elements of their written products, only one of the participants (i.e., Kasim) achieved the maximum points awarded on the genre elements rubric (i.e., 25 points) for one of his responses (i.e., based on a video prompt during post-intervention). However, Cory and Kasim met or surpassed mastery (i.e., 20 out 25 points) on most of their post-intervention essays; specifically, out of six post-intervention assessments both had five that were at or above mastery. For Rashad, only two of his post-intervention responses were at mastery (i.e., 20); he scored 19 on one essay and17 on three essays. For maintenance, both Cory and Rashad score below mastery level (Cory-19, 16, 16; Rashad-15, 16, 14). SRSD instruction involves stages that are recursive (Harris et al., 2008). What this means is that at any given point during the instruction, a teacher can revisit any of the steps and reteach any concepts with which students seem to struggle. For example, upon analyzing his scores for both the post-intervention and maintenance, it was evident that Rashad did not include social skills vocabulary as often as the other two participants. Additionally, he seemed to struggle with reaffirming the reasons for his opinion and why the alternative was either a bad or good idea. This affected his overall scores on his written products. Rashad is a perfect example of students who would benefit from SRSD booster lessons. In addition, both Rashad and Cory had overall declining scores during maintenance assessment. These declines were not unexpected; as with any other skill, for students to continue demonstrating fluency and competency in their writing, they need to continue being exposed to the strategy with opportunities to practice and receive

feedback (Graham, 2013). Similar concerns were noted by Cuenca-Carlino and Mustian (2013) whose study examined the effects of SRSD in tandem with self-advocacy instruction on the writing and self-determination skills of middle school students with EBD. One of their recommendations was that there is a need to measure the sustained effects of SRSD beyond post-intervention and maintenance. Based on results from this study and similar studies, it can be assumed that without booster SRSD lessons, it is very unlikely that students with EBD will maintain post-intervention performance in opinion writing. One way of promoting fluency and maintenance of learned skills beyond intervention could be through video self-modeling (VSM- Dowrick, 1999). VSM has been explored in the past to examine its effectiveness in promoting maintenance of acquired specific academic skills (see Hitchcock et al., 2003; Prater et al., 2012). However, the use of VSM within SRSD is a recent phenomenon. An initial study by Delano (2007) used a multiple baseline across responses design to examine the effects of SRSD and VSM on the writing performance of three students with Asperger's Syndrome. All students demonstrated gains in both essay elements and number of words written with only two interventions sessions followed by VSM for the rest of the intervention. More recently, Miller and Little (2018) examine the effects of SRSD with VSM on the written expression of three third-grade students with specific learning disabilities. Results showed that during the maintenance phase of the intervention, students who received a VSM booster session retained their total number of opinion essay elements at mastery level. Future research using social skills prompts should explore VSM to promote maintenance effects.

Although students acquired valuable and useful skills for opinion writing, the process of acquisition was not uniform. It was clear that some participants needed more scaffolds and support. This is evidenced by a decrease in total number of essay elements during the maintenance condition, especially for Rashad and Cory. In addition, Rashad was observed reverting to pre-SRSD tendency, talking negatively about his writing abilities and stating how frustrating it was to "write that much." However, it is important to note that he was always willing to engage in the writing post-intervention even when he voiced that it was so frustrating. This may suggest that Rashad was genuinely invested in learning the SRSD procedures but required extended supports and scaffolds to help him gain full confidence in his writing and reduce bouts of frustration. However, no supports were to be provided during assessments, which may have contributed to his frustrations. Rashad's reactions and behaviors provide further support for previous notion regarding students' writing attitudes and how the attitudes may affect students' self-efficacy in writing. For example, in an investigation of student's beliefs in writing in relation to writing outcomes, Zumbrunn, Brunning, Kauffman, and Hayes (2010) observed a significant positive relation between students' writing attitudes and writing self-efficacy. Additionally, students with a generally positive attitude toward writing have been found to possess higher writing efficacy beliefs than their peers with more negative attitudes toward writing (Zumbrunn et al., 2010). Results from this study offer further evidence to support this notion. Rashad had a negative attitude toward writing from the beginning; during prebaseline and baseline assessments where writing tasks were less taxing, he displayed resistance toward writing. This is one of the reasons that he was chosen to enter the intervention first. Over the course of the intervention, his attitude

toward writing became more positive. But in the post-intervention and maintenance conditions, where all supports were suspended, he started retreating towards his pre-intervention notions about his abilities to write, and this affected his writing outcomes. On the contrary, both Cory and Kasim had a more positive view of writing and the writing process. Their positive attitude was maintained through the intervention and during the maintenance condition (for Cory). Although the writing tasks were demanding during the intervention, both maintained a more positive attitude towards the process and this was reflected in writing outcomes and the post-intervention social validity results for Cory and Kasim. Specifically, Kasim was very invested in the process and asked a lot of questions. He was also very keen to include as many opinion elements as possible in his written responses after learning the strategies. This required a lot of self-talk on his part but he was willing to do that. On some occasions due the tight schedule and testing, he was tired and less enthusiastic about the lessons which caused the experimenter to stop the sessions. When this happened, Kasim assumed that the experimenter was "giving up" on him. He voiced this by stating that he and his mom had signed "the paper" because they knew that this was good for him and so it was not fair for the experimenter to give up on him. The experimenter had to reassure him that she was not "giving up" on him but rather just taking a break from the lesson because the session was not productive at that particular time.

Research Question 2: What are the effects of SRSD on the quantity of written products (i.e., total words written [TWW], total number of sentences [TNS]) of students with EBD in self-contained classrooms? In addition to increasing the opinion elements included in their responses post-intervention, all participants

substantially increased the total number of words and sentences included in their responses. During baseline, Rashad wrote the shortest responses (average 7 words per response), followed by Cory (average 16 words per response), and then Kasim (average 18 words per response). During post-intervention, Rashad wrote an average of 87 words, Cory wrote an average of 122 words, and Kasim wrote an average of 124 words. The substantial increase in the TWW and TNS was not surprising; once the participants gained knowledge of the elements that constitute a good opinion essay, they started to include these elements in their responses and this resulted in longer essays. These results are consistent with previous studies that used SRSD with students with EBD (e.g., Adkins & Gavins, 2012; Mason et al., 2010), where participants increased the length of their written responses in terms of total words written.

Although learning the essential elements of SRSD coupled with acquisition of transition words and social skills vocabulary yielded longer essays, the process presented another challenge. During the intervention phase, the use of graphic organizers seemed a little tasking and participants were resistant to using graphic organizers and then writing the essay; they felt that it was too much writing and it seemed to them that they were doing the same thing twice. Once the graphic organizer was removed (in lesson 4), participants were more willing to engage in writing tasks. At many instances, they either decided to complete their essays without generating graphic organizers, or by writing notes/reminders on their essay response paper before starting to write. Even during post-intervention assessments, it was evident that all participants were not used to writing long essays and all complained of their hands getting tired during the writing. However, self-regulation strategies that had been taught to them came in handy in helping all of them to

persevere and complete the essays despite their hands "being tired." All participants were aware that they could take breaks during the writing. Both Rashad and Kasim took advantage of this. Cory, on the other hand, preferred to write from the beginning to the end uninterrupted. For all three participants, as they progressed through post-intervention and maintenance assessments (Rashad and Cory), they complained less about the amount of writing and asked for breaks less. This supports Graham's (2013) assertions that when students are given multiple opportunities to write, they become better writers and their self-efficacy in writing improves.

Research Question 3: What are the effects of SRSD with behavioral/social skills prompts on the percentage of intervals of problem behavior of participants?
The results from this study show evidence of overall moderate reduction of problem behavior across participants after the participants received SRSD instruction with social skills prompts; however, due to limited and inconsistent data across participants and conditions, these results should be interpreted with caution. Rashad presented the highest level of problem behaviors during baseline, with an average of 71% of intervals of problem behaviors and the level was increasing. Immediately following the SRSD intervention, Rashad's problem behaviors reduced substantially to a mean level of 28%. This pattern continued during the maintenance condition whereby his problem behavior continued a downward trend (average 16%). For Cory, at baseline, his problem behaviors were in the moderate to low range (average 40%) with a decreasing trend. After receiving the intervention, Cory's problem behaviors reduced to an average of 9% and continued to remain below 1% during the maintenance condition. Kasim's problem behaviors showed an overall increasing trend, from a very low level to a moderate level, during baseline. In

most observation sessions, Kasim displayed very minimal problem behaviors (average 12.5%). He, however, presented the most problematic behaviors when compared to the other two participants outside the observation sessions. For example, during baseline, data collection for Kasim had to be put on pause on several occasions due to either him being suspended out of school, or receiving in-school suspension. After intervention, observational data showed a low level of problem behaviors (average 5.6%). However, Kasim continued to display problematic behavior outside of observation sessions during post-intervention; he had to spend time with the BST almost every day during post-intervention assessment due to his engagement in problem behaviors in the classroom. Therefore, despite the data indicating the absence of problem behaviors, these data are not a true representation of what Kasim's problem behaviors in school. There is a possibility that the Hawthorne effect (Cook, 1967) was in play during behavioral data collection for Kasim (and the other two participants to some extent). Over the course of the study, the experimenter established positive relationships with all the participants; these relationships may have altered the participants' behaviors during in-class behavior data collection sessions. Even though the high acceptable level of interrater agreement results (mean = 98.1%, range = 97.6% to 98.8%) support the interval validity of the study, the problem behavior data should be interpreted with caution.

Assessing the effects of SRSD on student behaviors has often posed a challenge and frequently been cited as a limitation in many studies that have involved students with or at risk of EBD. Ennis, Jolivette, Patton-Terry et al. (2015), for instance, investigated the effects of SRSD on student engagement and also examined variables that influenced student engagement, with student behaviors being one of those many variables. However,

the direct effects of SRSD instruction on student specific behaviors were not measured in this investigation. In another study by Lane et al. (2011), narrative writing was compared to persuasive writing in a randomized control trial with student engagement and student behaviors being some of the outcome measures. Results from this investigation revealed no significant differences in participants' behaviors pre- and post-intervention. Ennis and Jolivette (2014) and Ennis, Harris et al. (2014) reiterate the need to explore the effects of SRSD on students' social behaviors. Although the results from this investigation are inconclusive regarding the behavioral outcomes for this group of students, it offers a foundation for further investigation. One recommendation when it comes to literacy for students in earlier grades and specifically pertaining to writing instruction is that writing tasks should be made relevant to the learners (Flowers & Flowers, 2009; Graham, 2013). Within the SRSD framework, the benefits of writing and how it relates to the students is typically addressed in the discussion stage of instruction (Ennis & Jolivette, 2014). In this study, the use of social skills prompts was relevant to the target students in terms of context and the prompts addressed student social behaviors. During the discussion stage, the experimenter discussed with participants the benefits learning to voice their opinions through writing. The prompts offered an opportunity for participants to think and process situations that were likely to occur in their classrooms. All participants could relate to the behaviors or actions in the prompts; they would state that the student in the written prompt or video acted just like "Jamari" in their class, or they had engaged in that kind of behavior. For example, when Cory watched a video prompt where a student ripped her spelling paper in frustration, he stated that it was really a bad idea and that the student should ask him. He went on to state that he had done that before and the teacher reported

him to his mother; when he got home he was punished for that behavior. In another instance, Rashad watched a video of a student arguing with his teacher and pushing another student while getting in line. His comment was that the teacher in the video was too nice, because "Mr. Hicks does not play that. You will get a referral real fast." For Kasim, when he read the anchor essays, he wanted to know who wrote them. Although the experimenter had written all of the anchor essays, to keep the participants motivated and give them something to aspire to, she told all participants that the anchor essays were written by three students with whom she had worked previously using the same strategy. Kasim was particularly drawn to one of the essays and wanted to know more about the student who wrote it. The experimenter told him his name was "Jeremyah" and was in fifth grade in a class just like his. With this information, Kasim always strived for his writing to be just like that of "Jeremiah;" his perception of Jeremiah was that he was "really smart for writing such a long and good essay." He wanted to know how Jeremiah behaved in class, and if he got in trouble a lot in school as much as himself. He also inquired if the experimenter would also use his writing in the future to teach other students.

Research Question 4: How do the genre elements' and quantity of written products of participants differ based on the type of prompts (i.e., written prompts versus video prompts)? Based on the results from this study, there were no substantial differences in the genre elements and quantity of written responses across participants based on the type of prompts. Although participants showed an inclination toward video prompts, this did not translate into inclusion of more essays elements. Moreover, TWW and TNS were generally the same for both types of prompts. Anecdotally, however, all

three participants seemed to remember all details in the video prompts well as opposed to written prompts. They would often refer to the previous video prompts when working on a different prompt; they would talk about the student behaviors and also refer to the students by name in the videos.

Research Question 5: To what degree do the participants prefer one type of prompts (written vs. video) over the other when given choices? On this question, the results from the investigation are not sufficient to draw conclusive statements. Only one participant, Rashad, was exposed to the choice condition due to time constraints. When offered a choice between a written prompt and a video prompt, Rashad picked a video prompt. However, during baseline and post-intervention, all three participants had an inclination toward video prompts. Specifically, Cory consistently asked for video prompts every time he was to select a written prompt. After the experimenter explained to him that he would only get two video prompts before the intervention (one video after the intervention and one video during the intervention), he asked to start with the video prompts first. Kasim also showed an inclination towards the video prompts; he asked at one point why the experimenter was not using video prompts as much as the other prompts. Rashad, on the other hand, did not indicate a preference one way or the other during baseline and post-intervention. However, when presented with choice, he picked video over written prompts. The idea of using visual prompts such as video is not entirely a new notion. As reported by Boutwell (1962) with the rise of television use in American households, there were proposals to "use students' favorite television shows rather than poetry, drama, or fiction as prompts for writing" (p. 150-152). Although this idea might have been unfathomable back then, it is more practical today, especially in the era where

visual media is available and easily accessible to all students. The use of video has the potential to keep students motivated students and promote engagement (Berk, 2009). In recent years, educators have begun to tap into the use of video prompts and many find that they are well-served in doing so, in terms of keeping their students more engaged and motivated to write (e.g., Smith, 2013; Spencer, 2016). Even though data for the choice condition are very limited and inconclusive, the results are promising and provide a basis for future exploration of the full impact of video prompts on students' writing outcomes.

Research Question 6: What are the participants' perceptions regarding the intervention and their skill performance (i.e., writing skills and social behavior) on the pre- and post-intervention social validity questionnaires? Overall results from the student social validity data showed that participants viewed themselves as competent writers. However, on the item concerning writing being one of their favorite subjects, only Cory and Kasim indicated that it was. Rashad disagreed that writing was one of his favorite subjects during baseline and then strongly disagreed on the post-intervention questionnaire. In other items on the questionnaire, post-intervention data showed that both Kasim and Cory viewed the intervention positively, indicating that it had helped them improve their writing and that it would be helpful to other students. Both also viewed themselves as no longer having problem behaviors. They indicated that they would like to continue using the strategy in the future. Specifically, Cory asked if the experimenter could leave a copy of the graphic organizer and transition words with his teacher so that he could use them in class. Kasim asked if the experimenter could come back next year and continue teaching him the strategy. The responses of these two participants are similar to those in previous studies (e.g., Little et al., 2010) where the

participants found the SRSD intervention beneficial to them and indicated that it would also be beneficial to other students. On the other hand, Rashad's responses were contradictory and it was not easy to gain a clear understanding of his perspective on the intervention. For example, although Rashad indicated that the skills he learned were helpful to him, and that other students could benefit from the intervention, he reported that writing was still not one of his favorite subjects, and that learning how to write effectively was not helpful to him. He also indicated that it did not help him improve his behaviors. Anecdotally, Rashad stated that using transition words was one of his favorite parts of the intervention. One explanation as to why Rashad might have rated the intervention poorly is the fact that after post-intervention assessments, it was obvious that he was having a hard time remembering some of the parts of the TREE. Specifically, it was evident that he struggled with wrapping up his maintenance essays and constantly forgot to use social skills vocabulary. He knew that he was struggling and at one point asked for assistance in recalling what went on the last part of the essay. The experimenter told him she could not help him with any part of the essay since it was his time to show what he had learned. This upset him and he was visibly frustrated. Moreover, during this period of time, both Cory and Kasim were either in post-intervention or intervention phase and the experimenter was spending more time with them than Rashad. For some reason this did not register well with Rashad. Although the experimenter informed him that the reason she was not getting him as much as the other two participants was because he had mastered the skills needed for writing, whereas the other participants had not, and he did not take it well. He interpreted it as the experimenter not wanting to work with him anymore. It is also important to note that Rashad was the only participant to go through

all of the four experimental conditions. As a result, he wrote more essays than the other two participants, and it is possible that this may have contributed to the persistent negative perspective about writing. Nevertheless, it was clear that Rashad would have benefitted from SRSD booster lessons to remediate parts of the strategy that still posed a challenge for him. This has been recommended as part of SRSD instruction, considering that instruction is presented in six recursive stages that can be revisited at any time during instruction (Harris, Graham, Mason, & Friedlander, 2008). It is, therefore, critical that educators, who work with students on a daily basis are trained in the effective implementation of the strategy so that they can provide booster lessons for students like Rashad to promote fluency and long-term use of the strategy.

Research Question 7: What are teachers' perceptions regarding the intervention and participants' skill performance (i.e., writing skills and social behavior) on the pre- and post-intervention social validity questionnaires? The pre- and post-intervention social validity data show a positive perspective of the intervention for both teachers**.** On both questionnaires, the teachers' responses ranged from slightly agree to strongly agree (i.e., 4-6) with no disagree responses. For pre-intervention, Mrs. Boykin rated all the questions at five indicating that she agreed that the intervention would be appropriate and beneficial to her students. On the post-intervention social validity questionnaire, Mrs. Boykin rated 13 of the 15 items at a 6 (strongly agree) and two of them at a 5 (agree). The two items that she rated 5 were "most teachers would find the intervention appropriate for their students" and "the intervention would be appropriate for a variety of students." However, Mrs. Boykin indicated that she would use the intervention with her students and actually asked if she could get a set of all the

materials used in the intervention. For Mr. Hicks, on the pre-intervention questionnaire, he rated seven items as strong agree (i.e., 6), seven items as agree (i.e., 5) and one item as slightly agree (i.e., 4). On the post-intervention questionnaire, he rated nine items as strong agree (i.e., 6), four items as agree (i.e., 5), and two items as slightly agree (i.e., 4). The two items he rated as four were "most teachers would find this intervention suitable for the needs of this child" which he had also rated as a four in the pre-intervention questionnaire, and "this intervention is consistent with those I have used in classroom settings." However, just like Mr. Boykin, Mr. Hicks indicated that he would definitely use the intervention and would incorporate it within the behavior intervention program that he was using with his students. He requested that the experimenter share all the intervention materials with him. The positive perceptions of the SRSD intervention in this study are similar to those in previous studies with similar populations (e.g., Little et al., 2010). However, this acceptance is more significant especially for these teachers for two reasons. First, it is important to note that based on classroom observations and the teachers' self-report, both teachers were not actively involved in explicit writing instructions. Second, by the nature of the classroom demographics and based on observations, these teachers were dealt with serious behavioral issues on a daily basis and clearly time spent on instruction was limited. Therefore, engaging in writing instruction was not on the top of the priority list of things to accomplish on a daily basis, particularly when their students were not assessed in writing. The fact that they showed an interested in the SRSD intervention with social skills prompts and stated how they could incorporate it their daily instruction is a positive indication of teacher buy-in. This is

important because as indicated by Ennis et al. (2014), teacher buy-in is one of the major

lingering issues for SRSD with students with EBD in self-contained/separate classrooms.

Limitations

There are several limitations in the study. First, the experimenter was largely

involved in the study; she served as the interventionist and administered and scored all

assessments. In addition, the experimenter was the primary data collector for participants'

problem behaviors. A possible observer drift may have existed. However, clearly defined

dependent variables and data collection procedure, as well as interrater agreement data

collection were in place to help minimize possible observer drift.

Second, in this study, participants' writing outcomes were measured using the

genre elements rubric. Although data derived from this form of measurement are useful,

it is limiting in terms of providing an in-depth analysis of quality of students' writing.

Assessment of student writing goes beyond their skills in genre elements writing; it

includes other aspects of writing such as spelling handwriting, sentence construction,

conventions and vocabulary (Graham, 2013). Moreover, many SRSD studies employ

holistic scoring in addition to genre elements scores (e.g Harris, Lane et al., 2012; Lane et

al., 2011; Mason et al., 2011; Mason & Shriner, 2008; Mastopieri et al., 2009; 2014).

Completing holistic quality scoring alongside genre elements scores for this study would

have provided a more accurate depiction of participants' improvements following SRSD

instruction.

Third, the conditions for post-intervention assessments were very inconsistent.

Specifically, the rooms in which the participants did their post-intervention assessments

were changed due to other activities within the school that took precedence over the

intervention. In addition, the times in which the participants were available to complete their assessments were inconsistent; on some days, assessment would be in the morning and in other cases it would be in the afternoon. For some participants, they would begin the assessment in the morning and then would have to stop and complete them in the afternoon. These inconsistencies may have contributed to the low scores. For example, Cory was more focused and productive in the morning. When he completed his assessments in the morning, he generally wrote longer essays and included more essay elements. However, afternoon assessments, which were mostly during the maintenance condition resulted in shorter essays with fewer essay elements. This was also the case with Rashad.

Fourth, most of the post-intervention and maintenance assessments were completed during the end of year school assessments. Since the participants were in testing grades, they were required to participate in the assessments. Having to participate in two assessments within the same day may have affected their overall performance during the maintenance condition, and might have contributed to the overall lowered performances. A related limitation of this study concerns time constraints. There was a total of four conditions (i.e., baseline, post-intervention, maintenance, and choice) in this study. However, due to the school year coming to an end, not all participants were exposed to all conditions. Specifically, for writing outcomes, only Rashad was exposed to all the conditions. Cory was exposed to three conditions (i.e., baseline, post-intervention and maintenance), and Kasim was only exposed to two conditions (i.e., baseline and post-intervention). In addition, due to scheduling conflicts and testing that was going on during post-intervention, data collection on the participants' problem behavior was

limited and inconsistent across participants. For instance, Rashad had a total of nine

observations across conditions (baseline = 3; post-intervention = 3; maintenance = 3).

Cory had a total of 12 observations across conditions (baseline = 5; post-intervention = 4;

maintenance = 3), whereas Kasim had a total of six observations (baseline = 4; post-

intervention = 2).

A final limitation concerns the problem behavior data collection. The baseline

data collection took place before participants were familiar with the experimenter. During

the course of the intervention, all three participants developed a relationship with the

experimenter. Therefore, there is a likelihood that some of the behavioral improvements

noted post-intervention might be due to the Hawthorne Effect (i.e., participants altering

behavior because of being aware that they are being observed). This was collaborated by

the responses of both teachers on their post-intervention social validity questionnaire;

items that asked if the intervention was appropriate for addressing student behavior were

not rated as highly as the rest of the items. Additionally, one participant (Rashad) also

indicated that the intervention did not help him improve his behavior. Using a different

data collection instrument would have possibly yielded a more accurate depiction of

participants' problem behavior pre- and post-intervention. For example, tracking student

behavior throughout the school day before and after the intervention would provide a

complete picture of students' improvements (or lack of) after SRSD instruction using

social skills prompts. A related limitation for the problem behavior data collection is

whether the data capture actual students' behavior. As discussed previously, observations

outside the actual data sessions and teacher reports indicated that Kasim was involved in

severe problem behavior and on a frequent basis than depicted in the results; some of his behaviors resulted in write-ups, referrals, and even suspension on several occasions.

Suggestions for Future Research

This study provides a platform for a future research examining the use of SRSD with social skills prompts. Specifically, there is a need to investigate the full effects of the social skills prompts on student's problem behavior. As stated earlier, intervention effects on the behavioral data, though promising, were limited due to lack of consistent data points. Future research should collect more behavior data within the same scheduling as data for writing outcomes. Additionally, the data collection instrument used for the problem behavior did not lend the opportunity to provide a complete picture of student behavior before and after intervention. Future research should explore data collection instruments that capture student behavior across the entire school day, as opposed to 20-min observational sessions. Such data would potentially provide a more accurate depiction of student behavior.

A second area of future research involves the use of analytic and/or holistic scoring for SRSD with social skills prompts for students with EBD. The use of analytic or holistic rubrics alongside SRSD instruction with social skills prompts would provide scores comparable to past studies conducted with similar groups of students.

Another area of future research regarding SRSD with social skills prompts is exploring teacher-implementation of the strategy. Even though the teachers gave positive reviews of the intervention as well as requested that the experimenter provide them with all the materials used, so they could use the strategy with their students, evidence shows that when any intervention is not implemented with fidelity, the chances of it succeeding

are slim. For teachers to implement SRSD with fidelity, they should be provided with coaching. For instance, in their investigation of teacher and student outcomes following practice-based professional development (PBPD) for SRSD. McKeown, Brindle, et al. (2016) found that without coaching, teachers did not differentiate writing instruction. On the other hand, when teachers were provided with coaching coupled with follow-up support in Harris, Lane, et al. (2012) they were able to implement SRSD with fidelity. Therefore, training and supporting special educations teachers who work with students with EBD in self-contained contained classrooms would be necessary. In doing so, this will provide further verification of the intervention acceptability as well as help bridge the research-to-practice gap. Most importantly, it will contribute toward equipping more teachers with practical strategies and interventions that are likely to address writing and behavior deficits simultaneously.

A final suggestion for research has to do with the use of video prompts for writing. As stated earlier, the use of video prompts is a growing phenomenon. However, there is no existing research that has explored the extent to which video prompts influence students writing outcomes. To promote student motivation and engagement in writing, this is an area that offers potential for future investigation within SRSD.

Contributions to the Field of Special Education

The current study contributes to the field of special education in several ways. First, this is the first SRSD study that has employed social skills prompts in teaching opinion writing. As stated earlier, if unchecked, student behavior often has negative effects on overall school outcomes for students with EBD. Special education teachers working with students with EBD often struggle to balance between addressing behavioral

issues and providing effective academic instruction; behavior issues often take presence at the expense of academic instruction. Finding effective strategies to address behavior and academic needs is critical. This study offers one way by which this can be accomplished. Evidently, the effectiveness of SRSD on writing outcomes has been established for students with EBD. Still, what has largely been missing is how this effectiveness can be extended to address students' social behaviors, increase student engagement, and promote teacher buy-in (Ennis et al., 2014). In regard to teacher buy-in, special education teachers are already burdened with so much responsibilities; between meeting the needs of students with disabilities and adhering to the demands of their LEA, these teachers already have a lot on their plates. So, what they need are practical strategies that are evidence-based and that do not add to their burden. Teaching students important social skills to address problem behavior within the SRSD framework has the potential to accomplish this. Based on the social validity data from the two teachers, SRSD instruction for opinion writing using social skills prompts offers promise for acceptability among educators working with students with EBD.

The second contribution is the systematic evaluation of students' behaviors within SRSD instruction. In this study, the POW-TREE for opinion writing with counterarguments (Mason et al, 2009) was modified to incorporate social skills scenarios so that participants opinion writing would focus on social skills. In addition, the prompts used for the study were entirely based on typical social situations within a school setting. In turn, participants' problem behaviors were observed to determine if writing about hypothetical behaviors and action had an impact on students' own behaviors. To date, there are no known studies that have systematically measured students' behavioral

outcomes, alongside instruction. Although the results for participants' behavior do not lend themselves for drawing solid conclusions regarding SRSD's impact on behavior, they are still important and present a baseline for further exploration of the effects of SRSD with social skills instruction on students' behaviors.

The final contribution is in regard to the use of video prompts for writing. In the age of the internet and social media, educators find themselves competing for their students' attention. Capturing and holding the students' attention in the class requires finding creative ways to make content engaging. According to Berk (2009), the use of video clips has many benefits that include: (a) capturing students' attention, (b) focusing students' concentration, (c) generating interest in class, (d) drawing on students' imagination (e) improving attitudes toward content and learning, (f) increasing memory of content, (g) increasing understanding, (h) fostering creativity, and (i) stimulating the flow of ideas. To date, there are no known studies that have incorporated video prompts in assessing writing outcomes within SRSD instruction.

Implications for Practice

The findings of this study have several implications for practice. First, as has been stated, teachers working with students with EBD are often faced with the challenges of meeting both academic and behavioral needs of the students they serve. SRSD instruction using social skills prompts has the potential to provide a solution for part of the dilemma by helping teachers provide writing instruction and at the same time addressing problem behavior. Both teachers stated anecdotally that they could see where this specific intervention could be practical and useful in the daily instruction. Using the SRSD framework to teach opinion writing with social skills prompts offers a great opportunity

for schools/teachers to incorporate evidence-based writing practices within existing behavior management programs. Many behavior interventions programs that are adopted by many schools often consist of a reflective component; students are required to reflect on their behaviors either verbally or in writing. This is the case for the BTEM, which was adopted by the LEA in which this investigation was based. Similarly, Positive Action, which was used by Mr. Hicks, is a program that incorporates opinion and reflective writing. For these, and other similar programs, the use of social skills prompts within the realm of SRSD instruction has the potential to not only address the writing instruction, but also encourage teacher buy-in for the strategy.

Second, practitioners should be cognizant of the potential consequences of using writing as a punitive tool. In many behavior management programs, writing is often used for reflection particularly when students have been involved in noncompliant behaviors. For example, the BTEM, which was the behavior management program for the district where the study took place has the reflection component whereby students are required to reflect on their behaviors in writing before being allowed to go back to the classroom. In such instances, students will potentially associate writing with punishment and this might cultivate negative perceptions about writing. For example, during the maintenance condition, Rashad was asked to write five paragraphs to summarize a book for getting in trouble during breakfast. The book was unrelated to the behavior he displayed (i.e., not following directions). When he was pulled to come and complete a maintenance assessment later, he was not willing to write. He alluded to the experimenter that he had been engaged in some "useless" writing, his hand was really tired, and his "brain was not working right" at that particular moment. The assessment session had to be rescheduled

for a later day. For students to develop positive attitudes toward writing, it is important that teachers provide positive writing experiences. This can be accomplished by rewarding students' efforts in writing and avoiding the use of writing as a punitive tool.

Third, teaching students with EBD opinion writing using social skills prompts provides an opportunity for them to express their feelings and thoughts regarding actions and/or behaviors with which they are familiar or in which they engage. For teachers and other personnel working with these students, this approach has the potential to offer an insight on the students' actual thinking processes regarding their classroom behavior. For example, form Kasim's responses, it was clear that he understood the school rules well and had a good grasp of inappropriate behavior and consequences. Yet, throughout the intervention, he still got into trouble more times than any other participants. Evidently, a lack of understanding of rules and consequences is not the reason why he was engaging in problem behavior. Educators could use this knowledge to investigate the cause and/or function of Kasim's problem behavior. On the other hand, judging from Rashad's responses, he did not have a clear understanding of rules and consequences. For most of his responses, Rashad gave "getting in trouble" as the reason why the behavior/action depicted in the prompt was wrong or inappropriate. He then would give examples of getting in trouble (e.g., getting referral and being suspended). Based on Rashad's responses, he would likely benefit from explicit instruction of socially acceptable behavior/actions with examples and nonexamples, alongside reasons beyond getting in trouble.

Finally, the lack of systematic writing instruction was evident for both teachers. It was evident through classroom observations that writing was not as prioritized as math

and reading. Very little time was devoted to writing instruction. This is unfortunate, and yet not surprising; as supported by several investigations (see Cutler & Graham, 2008; Graham, Harris, et al., 2008; Graham, Morphy, et al., 2008, Troia et al., 2015). There is a clear need to encourage writing instruction particularly for teachers working with students with EBD. Using social skills prompts within the SRSD framework is one way through which teachers can engage in meaningful writing instruction.

Summary

The purpose of this study was to investigate the effects of the Self-Regulated Strategy Development in tandem with social skills prompts on students' opinion writing skills as well as their problem behavior. Video prompts were also included to explore their effects on participants' writing skills and problem behaviors. Visual analysis of data revealed substantial gains in the opinion genre elements of the written products. Overall, after receiving training in the use of the SRSD strategy for opinion writing, all participants included more opinion components in their responses. They were also able to provide alternative behaviors/action to the ones presented in the prompts and summarize their arguments at the end.

Working with students with EBD is challenging given the behavioral difficulties that they present, which have often been pointed to as a major contributor to their poor academic outcomes. These behaviors often tend to increase when these students are with presented tasks that they view as difficult. Working with the participants in this study was no different. Clearly teaching the students the SRSD strategy required patience and flexibility. In the initial stages, all participants viewed the tasks as difficult. Their initial instincts were to revert to noncompliant behaviors as a defense mechanism. However, the self-regulatory elements of SRSD played a crucial role in helping alter the participants' impulsive reactions to the perceived taxing nature of the writing process. In the end, all were able to work through the writing process by utilizing goal setting, self-instruction, self-monitoring, and positive self-talk.

Overall, this study contributes to existing literature on SRSD with students with EBD by exploring practical ways to address student behavior while teaching them the

required writing skills. It also addressed some of the lingering issues such as making writing tasks relevant (Ennis, 2015) and promoting teacher buy-in (Ennis et al., 2014). Even though the effects of SRSD instruction with social skills prompts on students' problem behavior was inconclusive, the results are important and offer a platform for future investigations as well as implications for practice.

REFERENCES

Achenbach, T. M. (1991). *Manual for the child behavior checklist/4-18 and 1991 profile*. Burlington: University of Vermont, Department of Psychiatry.

Adkins, M. H., & Gavins, M. V. (2012). Self-regulated strategy development and generalization instruction: Effects on story writing and personal narratives among students with severe emotional and behavioral disorders. *Exceptionality*, *20*, 235-249.

Algozzine, B., Putnam, R., & Horner, R. (2010). What we know about relationship between achievement and behavior. *Preventing problem behaviors*, *2*, 223-226.

Algozzine, B., Wang, C., & Violette, A. S. (2011). Reexamining the relationship between academic achievement and social behavior. *Journal of Positive Behavior Interventions*, *13*, 3-16.

Alonzo, J., Tindal, G., Ulmer, K., & Glasgow, A. (2006). *easyCBM® online progress monitoring assessment system*. http://easycbm.com. Eugene, OR: University of Oregon, Behavioral Research and Teaching.

Allred, C. G. (1984). *The development and evaluation of Positive* Action: A systematic elementary school self-concept enhancement curriculum, 1977–1983 (Unpublished doctoral dissertation). Brigham Young University, Provo, UT.

Anderson, J. A., Kutash, K., & Duchnowski, A. J. (2001). A comparison of the academic progress of students with EBD and students with LD. *Journal of Emotional and Behavioral Disorders*, *9*, 106-115.

Andrews, R., Torgerson, C., Beverton, S., Freeman, A., Locke, T., Low, G., . . . & Zhu, D. (2006). The effects of grammar teaching on writing development. *British Educational Research Journal*, *32*, 39-55. doi:10.1080/01411920500401997

Applebee, A. N., & Langer, J. A. (2006). The state of writing instruction in America's schools: What existing data tell us. *Albany, NY: Center on English Learning and Achievement*.

Au, K. H., Carroll, J. H., & Scheu, J. A. (2001). *Balanced literacy instruction: A teacher's resource book*. Christopher-Gordon Publishers, Inc., 1502 Providence Highway, Suite 12, Norwood, MA 02062.

Baker, S. K., Chard, D. J., Ketterlin-Geller, L. R., Apichatabutra, C., & Doabler, C. (2009). Teaching writing to at-risk students: The quality of evidence for self-regulated strategy development. *Exceptional Children*, *75*, 303-318.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.

Bangert-Drowns, R. L., Hurley, M. M., & Wilkinson, B. (2004). The effects of school-based writing-to-learn interventions on academic achievement: A meta-analysis. *Review of educational research*, *74*, 29-58.

Beers, S., & Howell, L. (2005). *Using Writing to Learn Across the Content Areas: An ASCD Action Tool*. ASCD. Retrieved from: http://www.ascd.org/ASCD/pdf/books/beersAT2005b_sample_pages.pdf

Belson, S. I. (2002). *Technology for exceptional learners: Choosing instructional tools to meet students' needs*. Wadsworth Publishing Company. Retrieved from: http://sped.wikidot.com/emotional-and-behavoioral-disorders

Benner, G. J., Nelson, J. R., Ralston, N. C., & Mooney, P. (2010). A meta-analysis of the effects of reading instruction on the reading skills of students with or at risk of behavioral disorders. *Behavioral Disorders*, *35*, 86-102.

Benner, G. J., Kutash, K., Nelson, J. R., & Fisher, M. B. (2013). Closing the achievement gap of youth with emotional and behavioral disorders through multi-tiered systems of support. *Education and Treatment of Children*, *36*, 15-29.

Berk, R. A. (2009). Multimedia teaching with video clips: TV, movies, YouTube, and mtvU in the college classroom. *International Journal of Technology in Teaching & Learning*, *5*, 1-21.

Beyer, H. A. (1989). Education for All Handicapped Children Act: 1975-1989. A Judicial History. *Exceptional Parent*, *19*, 52-58.

Blanch, N., Forsythe, L. C., Van Allen, J. H., & Roberts, S. K. (2017). Reigniting writers: Using the literacy block with elementary students to support authentic writing experiences. *Childhood Education*, *93*, 48-57.

Borenstein, M., & Rothstein, H. (2005). *Comprehensive meta analysis, version 2* [computer soft- ware]. Englewood, NJ: Biostat.

Bradley, R., Doolittle, J., & Bartolotta, R. (2008). Building on the data and adding to the discussion: The experiences and outcomes of students with emotional disturbance. *Journal of Behavioral Education*, *17*, 4-23.

Bradley, R. (2001). The history of federal support and children with emotional disturbance. In L. M. Bullock & R. Gable (Eds.), *Addressing the social, academic, and behavioral needs of students with challenging behavior in inclusive settings* (pp. 9-13). Arlington, VA: Council for Exceptional Children.

Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes: Results from a randomized controlled effectiveness trial in elementary schools. *Journal of Positive Behavior Interventions*, *12*, 133-148.

Bradley, R., Henderson, K., & Monfore, D. A. M. (2004). A national perspective on children with emotional disorders. *Behavioral Disorders*, *29*, 211-223.

Buchanan, R., Neese, R. N., & Clark, M. (2016). Stakeholders' voices: Defining needs of students with emotional and behavioral disorders transitioning between school settings. *Behavioral Disorders*, *41*, 135-147.

Burke, M. D., Boon, R. T., Hatton, H., & Bowman-Perrott, L. (2015). Reading interventions for middle and secondary students with emotional and behavioral disorders: A quantitative review of single-case studies. *Behavior Modification*, *39*, 43-68.

Caldarella, P., Williams, L., Hansen, B. D., & Wills, H. (2015). Managing student behavior with class-wide function-related intervention teams: An observational study in early elementary classrooms. *Early Childhood Education Journal*, *43*, 357-365.

Calkins, L. M. (2006). *A guide to the writing workshop, grades 3-5*. Portsmouth, NH: FirstHand/Heinemann.

Calkins, L. M. (2003). *Units of study for primary writing: A yearlong curriculum*. Portsmouth, NH: FirstHand.

Cicchetti, D., & Toth, S. L. (1995). A developmental psychopathology perspective on child abuse and neglect. *Journal of American Academy of Child Adolescent Psychiatry*, *34*, 541-565.

College Board. (2017). *Class of 2016 SAT results*. Retrieved from: https://reports.collegeboard.org/sat-suite-program-results/class-of-2016-results

Common Core State Standards Initiative. (2010, June). *English language arts standards common core state standards initiative*. Retrieved from http://www.corestandards.org/ELA-Literacy/

Courtright, C., & Smith, L. (2014). *Examining the achievement gap and school-to-prison pipeline: tier 2 behavior interventions for African American and Hispanic students in secondary schools*. Dissertation, Sacramento State Scholarworks. Retrieved from: http://csusdspace.calstate.edu/bitstream/handle/10211.3/122009/Smith%20Courtright%20EDS%20Project%20PDF%20Copy%20Final.pdf?sequence=7

Cramer, A. M., & Mason, L. H. (2014). The effects of strategy instruction for writing and revising persuasive quick writes for middle school students with emotional and behavioral disorders. *Behavioral Disorders*, *40*, 37-51.

Cuenca-Sanchez, Y., Mastropieri, M. A., Scruggs, T. E., & Kidd, J. K. (2012). Teaching students with emotional and behavioral disorders to self-advocate through persuasive writing. *Exceptionality*, *20*, 71-93.

Cuenca-Carlino, Y., Freeman-Green, S., Stephenson, G. W., & Hauth, C. (2016). Self-regulated strategy development instruction for teaching multi-step equations to middle school students struggling in math. *The Journal of Special Education*, *50*, 75-85.

Cuenca-Carlino, Y., & Mustian, A. L. (2013). Self-regulated strategy development: Connecting persuasive writing to self-advocacy for students with emotional and behavioral disorders. *Behavioral Disorders*, *39*, 3-15.

Cunningham, J. (2012). Student achievement. In *Washington DC, US: National Conference of State Legislatures*. Retrieved from: http://www.ncsl.org/documents/educ/CharterSchoolStudentAchievement.pdf

Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology*, *100*, 907-919.

Delano, M. E. (2007). Improving written language performance of adolescents with Asperger syndrome. *Journal of Applied Behavior Analysis*, *40*, 345–351.

Dismuke, S., & Martin, S. (2016). What about writing: A national study of writing instruction in teacher preparation programs. *Literacy Research and Instruction*, *55*, 309-330. doi:10.1080/19388071.2016.1198442

D'On Jones, C., Reutzel, D. R., & Fargo, J. D. (2010). Comparing two methods of writing instruction: Effects on kindergarten students' reading skills. *The Journal of Educational Research*, *103*, 327-341.

Dowrick, P. W. (1999). A review of self-modeling and related information. *Applied and Preventive Psychology*, *8*, 23-39.

Drummond, T. (1994). *The Student Risk Screening Scale (SRSS)*. Grants Pass, OR: Josephine County Mental Health Program.

Elbow, P., & Belanoff, P. (2003). *Being a writer: A community of writers revisited*. New York, NY: McGraw-Hill.

Emotional Disturbance. (n.d.). Retrieved July 10, 2017, from http://www.projectidealonline.org/v/emotional-disturbance

Ennis, R. P. (2016). Using self-regulated strategy development to help high school students with EBD summarize informational text in social studies. *Education & Treatment of Children*, *39*, 545-568.

Ennis, R. P. (2015). Simultaneously addressing academic and behavioral needs of students with and at-risk for E/BD using self-regulated strategy development. *Beyond Behavior*, *24*(1), 3-9.

Ennis, R. P., Harris, K. R., Lane, K. L., & Mason, L. H. (2014). Lessons learned from implementing self-regulated strategy development with students with emotional and behavioral disorders in alternative educational settings. *Behavioral Disorders*, *40*, 68-77.

Ennis, R. P., & Katsiyannis, A. (2017). Avoiding unwarranted segregation of students with behavioral needs: Lessons learned. *Intervention in School and Clinic*, *53*, 212-215. doi:1053451217712954.

Ennis, R. P., & Jolivette, K. (2014). Existing research and future directions for self-regulated strategy development with students with and at risk for emotional and behavioral disorders. *The Journal of Special Education*, *48*, 32-45.

Ennis, R. P., Jolivette, K., Patton-Terry, N. P., Fredrick, L. D., & Alberto, P. A. (2015). Classwide teacher implementation of self-regulated strategy development for writing with students with E/BD in a residential facility. *Journal of Behavioral Education*, *24*, 88-111.

Esco, E. E. H. (2015). *Teachers' perceptions of teaching middle school students social skills using the boys town well-managed schools model* (Doctoral dissertation, Baker University).

Evmenova, A. S., Regan, K., Boykin, A., Good, K., Hughes, M., MacVittie, N., ... Chirinos, D. (2016). Emphasizing planning for essay writing with a computer-based graphic organizer. *Exceptional Children*, *82*, 170-191.

Evmenova, A. S., & Regan, K. (2012). *Project WeGotIT! Writing efficiently with graphic organizers: Teachers Integrating Technology*. Technology and Media Services for Individuals with Disabilities Stepping-Up Technology Implementation Grant, Office of Special Education, Washington, DC.

Fessler, M. A., Rosenberg, M. S., & Rosenberg, L. A. (1991). Concomitant learning disabilities and learning problems among students with behavioral/emotional disorders. *Behavioral Disorders*, *16*, 97-106.

Finkel, A. S., & Williams, R. L. (2002). A comparison of textual and echoic prompts on the acquisition of intraverbal behavior in a six-year-old boy with autism. *Analysis of Verbal Behavior*, *18*, 61-70.

Flay, B. R., Allred, C. G., & Ordway, N. (2001). Effects of the Positive Action program on achievement and discipline: Two matched-control comparisons. *Prevention Science*, *2*, 71-89.

Frey, A. J., Small, J. W., Lee, J., Walker, H. M., Seeley, J. R., Feil, E. G., & Golly, A. (2015). Expanding the range of the First Step to Success intervention: Tertiary-level support for children, teachers, and families. *Early Childhood Research Quarterly*, *30*, 1-11.

Fuchs, D., Fuchs, L. S., & Stecker, P. M. (2010). The "blurring" of special education in a new continuum of general education placements and services. *Exceptional Children*, *76*, 301-323.

Gage, N. A., Wilson, J., & MacSuga-Gage, A. S. (2014). Writing performance of students with emotional and/or behavioral disabilities. *Behavioral Disorders*, *40*, 3-14.

Garwood, J. D., Varghese, C., & Vernon-Feagans, L. (2017). Internalizing behaviors and hyperactivity/inattention: Consequences for young struggling readers, and especially boys. *Journal of Early Intervention*, *39*, 218-235. doi:1053815117706524

Gast, D. L., Lloyd, B. P., & Ledford, J. R. (2014). Multiple baseline and multiple probe designs. In D. L. Gast & J. R. Ledford (Eds.), *Single case research methodology: Applications in special education and behavioral sciences, 2ⁿᵈ ed.* (pp. 251-296). New York, NY: Routledge.

Gibson, L., & Obiakor, F. E (2014), chapter 5: Improving the outcomes for students with emotional/behavioral disorders in STEM. In Green, S.L. *S.T.E.M: Strategies for teaching learners with special needs education*, Nova Science Publishers (pp. 67-79). Retrieved from https://s3.amazonaws.com/academia.edu.documents/41370315/11.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1532493868&Signature=hENI%2F6vXh%2FxU%2FIVgjW80mVmCOHo%3D&response-content-disposition=inline%3B%20filename%3DS.T.E.M_Education_Strategies_for_Teachin.pdf#page=81

Gillespie, A., & Graham, S. (2014). A meta-analysis of writing interventions for students with learning disabilities. *Exceptional Children*, *80*, 454-473.

Gillespie, A., Graham, S., Kiuhara, S., & Hebert, M. (2014). High school teachers use of writing to support students' learning: A national survey. *Reading and Writing*, *27*, 1043-1072.

Good, R. H., Kaminski, R. A., Smith, S., Laimon, D., & Dill, S. (2003). *Dynamic indicators of basic early literacy skills*. Longmont, CO: Sopris West Educational Services.

Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, *38*, 581-586. doi:10.1111/j.1469–7610.1997.tb01545.x

Graham, S. (2013). *It all starts here: Fixing our national writing crisis from the foundation*. Sapperstein Associates, Columbus, Ohio. Retrieved from: https://www.zaner-bloser.com/products/pdfs/C3316_It_All_Starts_Here.pdf

Graham, S. (2008). Effective writing instruction for all students. *Renaissance Learning*. Retrieved from http://doc.renlearn.com/KMNet/R004250923GJCF33.pdf

Graham, S., Bollinger, A., Olson, C. B., D'Aoust, C., MacArthur, C., McCutchen, D., & Olinghouse, N. (2012). *Teaching elementary school students to be effective writers: A practice guide*. NCEE 2012-4058. Washington, DC: What Works Clearinghouse.

Graham, S., Capizzi, A., Harris, K. R., Hebert, M., & Morphy, P. (2014). Teaching writing to middle school students: A national survey. *Reading and Writing*, *27*, 1015-1042.

Graham, S., Gillespie, A., & McKeown, D. (2013). Writing: Importance, development, and instruction. *Reading and writing*, *26*, 1-15.

Graham, S., & Harris, K. R. (2013). Common core state standards, writing, and students with LD: Recommendations. *Learning Disabilities Research & Practice*, *28*, 28-37.

Graham, S., & Harris, K. R. (1999). *CASL handwriting program*. University of Maryland.

Graham, S., Harris, K. R., Fink-Chorzempa, B., & MacArthur, C. (2003). Primary grade teachers' instructional adaptations for struggling writers: A national survey. *Journal of Educational Psychology*, *95*, 279-292.

Graham, S., Harris, K. R., & Hebert, M. A. (2011). It is more than just the message: Presentation effects in scoring writing. *Focus on Exceptional Children*, *44*, 1-12.

Graham, S., & Hebert, M. (2011). Writing to read: A meta-analysis of the impact of writing and writing instruction on reading. *Harvard Educational Review*, *81*, 710-744.

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology*, *104*, 879-896. doi:10.1037/a0029185

Graham, S., Morphy, P., Harris, K. R., Fink-Chorzempa, B., Saddler, B., Moran, S., & Mason, L. (2008). Teaching spelling in the primary grades: A national survey of instructional practices and adaptations. *American Educational Research Journal*, *45*, 796-825.

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, *99*, 445-476.

Graves, D. H. (1975). The child, the writing process, and the role of the professional. In W. Petty (Ed.), *The writing processes of students*. Buffalo, NY: State University of New York.

Graves, D. H., & Murray, D. M. (1980). Revision: In the writer's workshop and in the classroom. *The Journal of Education*, *162*, 38-56.

Gresham, F. M. (2002). Social skills assessment and instruction for students with emotional and behavioral disorders. *Interventions for Children with or At Risk for Emotional and Behavioral Disorders*, 242-258.

Gresham, F. M., & Elliott, S. N. (1990). *Social skills rating system*. Circle Pines, MN: American Guidance Service.

Guidance Group (2011). *Don't get mad: The anger alternative game*. Retrieved from: http://www.socialskillscentral.com/free/Dont_Get_Mad.pdf

Gunter, P. L., Jack, S. L., Depaepe, P., Reed, T. M., & Harrison, J. (1994). Effects of challenging behaviors of students with EBD on teacher instructional behavior. *Preventing School Failure*, *38*, 35-39.

Hallenbeck, B. A., & Kauffman, J. M. (1995). How does observational learning affect the behavior of students with emotional or behavioral disorders? A review of research. *The Journal of Special Education*, *29*, 45-71.

Hammil, D., & Larsen, S. (1996). *Test of Written Language–3*. Austin, TX: Pro-ED.

Harris, K. R., Graham, S., & Adkins, M. (2015). Practice-based professional development and self-regulated strategy development for Tier 2, at-risk writers in second grade. *Contemporary Educational Psychology*, *40*, 5-16.

Harris, K. R., & Graham, S. (2016). Self-regulated strategy development in writing: Policy implications of an evidence-based practice. *Policy Insights from the Behavioral and Brain Sciences*, *3*, 77-84.

Harris, K. R., Graham, S., & Mason, L. H. (2003). Self-Regulated Strategy Development in the Classroom: Part of a Balanced Approach to Writing Instruction for Students with Disabilities. *Focus on Exceptional Children*, *35*, 1-16.

Harris, K. R., Graham, S., Mason, L. H., & Friedlander, B. (2008). *Powerful writing strategies for all students*. Baltimore, MD: Brookes.

Harris, K. R., Lane, K. L., Driscoll, S. A., Graham, S., Wilson, K., Sandmel, K., ... & Schatschneider, C. (2012). Tier 1, teacher-implemented self-regulated strategy development for students with and without behavioral challenges: A randomized controlled trial. *The Elementary School Journal*, *113*, 160-191.

Haussamen, B. (2003). *Grammar alive! A guide for teachers*. Urbana, IL: National Council of Teachers of English.

Hauth, C., Mastropieri, M., Scruggs, T., & Regan, K. (2013). Can students with emotional and/or behavioral disabilities improve on planning and writing in the content areas of civics and mathematics? *Behavioral Disorders*, *38*, 154-170.

Hebert, M., Gillespie, A., & Graham, S. (2013). Comparing effects of different writing activities on reading comprehension: a meta-analysis. *Reading and Writing: an interdisciplinary journal*, 111-138.

Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. New York, NY: Academic Press.

Henderson, K., Klein, S., Gonzalez, P., & Bradley, R. (2005). Teachers of children with emotional disturbance: A national look at preparation, teaching conditions, and practices. *Behavioral Disorders*, *31*, 6-17.

Heward, W. L. (2012). *Exceptional children: An introduction to special education*. Pearson College Div.

Heward, W. L. (1994). Three "low-tech" strategies for increasing the frequency of active student response during group instruction. In *Behavior analysis in education: Focus on measurably superior instruction* (pp. 283-320). Pacific Grove, CA: Brooks/Cole.

Heward, W. L., & Wood, C. (2015). *Improving educational outcomes in America: Can a low-tech, generic teaching practice make a difference?* Oakland, CA: Wing Institute for Evidence Based Practice. Available at http://www.winginstitute.org/uploadedFiles/News_And_Events/Summits/2013WingSummitWH.pdf

Hitchcock, C., Dowrick, P. W., & Prater, M. A. (2003). Video self modeling intervention in school-based settings: A review. *Remedial and Special Education*, *24*, 36-45.

Horner, R., Swaminathan, H., Sugai, G., & Smolkowski, K. (2012). Considerations for the systematic analysis and use of single-case research. *Education & Treatment of Children*, *35*, 269-290.

Individuals with Disabilities Education Improvement Act of 2004, P.L. 108-446, 20 U.S.C. $ 1400 et seq.

Institute of Education Sciences. (2014). *What Works Clearinghouse study review standards*. Retrieved from http://ies.ed.gov/ncee/wwc/pdf/reference_resources/ wwc_procedures_v3_0_standards_handbook.pdf

Jacobson, L. T., & Reid, R. (2012). Improving the writing performance of high school students with attention deficit/hyperactivity disorder and writing difficulties. *Exceptionality*, *20*, 218-234.

Johns, B. (2000). Reaching them through teaching them: Curriculum and instruction for students with E/BD. *Beyond Behavior*, *10*(1), 3-6.

Jolivette, K., Stichter, J. P., Nelson, C. M., Scott, T. M., & Liaupsin, C. J. (2000). *Improving post-school outcomes for students with emotional and behavioral disorders*. ERIC/OSEP Digest E597.

Kamps, D., Kravits, T., Stolze, J., & Swaggart, B. (1999). Prevention strategies for at-risk students and students with EBD in urban elementary schools. *Journal of Emotional and Behavioral Disorders*, *7*, 178-188.

Kauffman, J. M., Mock, D. R., & Simpson, R. L. (2007). Problems related to underservice of students with emotional or behavioral disorders. *Behavioral Disorders*, *33*, 43-57.

Kauffman, J. M. (2014). Past, present, and future in EBD and special education. In *Special education past, present, and future: Perspectives from the field* (pp. 63-87). Bingley, United Kingdom: Emerald Group Publishing Limited.

Kissel, B. (2017). *When writers drive the workshop: Honoring young voices and bold choices*. Portland, ME: Stenhouse Publishers.

Klein, A. (July, 2017). The Every Student Succeeds Act: An ESSA Overview. Retrieved from: https://www.edweek.org/ew/issues/every-student-succeeds-act/

Kloo, A., & Zigmond, N. (2008). Coteaching revisited: Redrawing the blueprint. *Preventing School Failure*, *5*, 12-20.

Landrum, T. J., Tankersley, M., & Kauffman, J. M. (2003). What is special about special education for students with emotional or behavioral disorders? *The Journal of Special Education*, *37*, 148-156.

Lane, K. L., Barton-Arwood, S. M., Nelson, J. R., & Wehby, J. (2008). Academic performance of students with emotional and behavioral disorders served in a self-contained setting. *Journal of Behavioral Education*, *17*, 43-62.

Lane, K. L., & Carter, E. W. (2006). Supporting transition-age youth with and at risk for emotional and behavioral disorders at the secondary level: A need for further inquiry. *Journal of Emotional and Behavioral Disorders*, *14*, 66-70.

Lane, K. L., Harris, K., Graham, S., Driscoll, S., Sandmel, K., Morphy, P., ... Schatschneider, C. (2011). Self-regulated strategy development at tier 2 for second-grade students with writing and behavioral difficulties: A randomized controlled trial. *Journal of Research on Educational Effectiveness*, *4*, 322-353.

Lane, K. L. (2007). Identifying and supporting students at risk for emotional and behavioral disorders within multi-level models: Data driven approaches to conducting secondary interventions with an academic emphasis. *Education and Treatment of Children*, *30*, 135-164.

Lane, K. L., Oakes, W. P., & Menzies, H. M. (2014). *Comprehensive, integrated, three-tiered models of prevention: Why does my school and district need an integrated approach to meet students' academic, behavioral, and social needs?* Retrieved from: http://ci3t.org/tier_library/Social_Validity_Adapted-IRP15_Adult.pdf

Lane, K. L., Wehby, J. H., Little, M. A., & Cooley, C. (2005). Academic, social, and behavioral profiles of students with emotional and behavioral disorders educated in self-contained classrooms and self-contained schools: Part I—are they more alike than different? *Behavior Disorders*, *30*, 349-361.

Lee, Y. Y., Sugai, G., & Horner, R. H. (1999). Using an instructional intervention to reduce problem and off-task behaviors. *Journal of Positive Behavior Interventions, 1*, 195-204.

Lewis, T. J., Jones, S. E., Horner, R. H., & Sugai, G. (2010). School-wide positive behavior support and students with emotional/behavioral disorders: Implications for prevention, identification and intervention. *Exceptionality*, *18*, 82-93.

Lichtenstein, S., & Zantal-Wiener, K. (1988). Special Education Dropouts. ERIC Digest# 451.

Little, M. A., Lane, K. L., Harris, K. R., Graham, S., Story, M., & Sandmel, K. (2010). Self-regulated strategies development for persuasive writing in tandem with schoolwide positive behavioral support: Effects for second-grade students with behavioral and writing difficulties. *Behavioral Disorders*, *35*, 157-179.

Losen, D. J., & Gillespie, J. (2012). Opportunities Suspended: The Disparate Impact of Disciplinary Exclusion from School. *Civil Rights Project/Proyecto Derechos Civiles*. Retrieved from: https://eric.ed.gov/?id=ED534178

Lynch, E. (February, 2018). *Components of balanced literacy and strategies for the classroom*. Retrieved from: https://www.sadlier.com/school/ela-blog/overview-of-balanced-literacy-components-strategies

Mason, L. H., Kubina Jr, R. M., & Hoover, T. (2013). Effects of quick writing instruction for high school students with emotional disturbances. *Journal of Emotional and Behavioral Disorders*, *21*, 163-175.

Mason, L. H., Kubina Jr, R. M., Valasa, L. L., & Cramer, A. M. (2010). Evaluating effective writing instruction for adolescent students in an emotional and behavior support setting. *Behavioral Disorders*, *35*, 140-156.

Mason, L. H., Snyder, K. H., Sukhram, D. P., & Kedem, Y. (2006). TWA+ PLANS strategies for expository reading and writing: Effects for nine fourth-grade students. *Exceptional Children*, *73*, 69-89.

Mason, L. H., & Shriner, J. G. (2008). Self-regulated strategy development instruction for writing an opinion essay: Effects for six students with emotional/behavior disorders. *Reading and Writing*, *21*, 71-93.

Mastropieri, M. A., Scruggs, T. E., Cerar, N. I., Allen-Bronaugh, D., Thompson, C., Guckert, M., ... & Cuenca-Sanchez, Y. (2014). Fluent persuasive writing with counterarguments for students with emotional disturbance. *The Journal of Special Education*, *48*, 17-31.

Mastropieri, M. A., Scruggs, T. E., Cuenca-Sanchez, Y., Irby, N., Mills, S., Mason, L., & Kubina, R. (2010). Persuading students with emotional disabilities to write: A design study. In *Literacy and Learning* (pp. 237-268). Bingley, United Kingdom: Emerald Group Publishing Limited.

Mastropieri, M. A., Scruggs, T. E., Mills, S., Cerar, N. I., Cuenca-Sanchez, Y., Allen-Bronaugh, D., ... & Regan, K. (2009). Persuading students with emotional disabilities to write fluently. *Behavioral Disorders*, *35*, 19-40.

Mastropieri, M. A., & Scruggs, T. E. (2014). Intensive instruction to improve writing for students with emotional and behavioral disorders. *Behavioral Disorders*, *40*, 78-83.

McCarrier, A., Pinnell, G. S., & Fountas, I. C. (2000). *Interactive Writing: How Language & Literacy Come Together, K-2*. Heinemann, 361 Hanover Street, Portsmouth, NH 03801-3912.

McClelland, M. M., Morrison, F. J., & Holmes, D. L. (2000). Children at risk for early academic problems: The role of learning-related social skills. *Early Childhood Research Quarterly*, *15*, 307-329.

McIntyre, T. (2016). *Classroom management professional development videos*. Retrieved from: https://www.youtube.com/watch?v=cJxEU8djlmg&list=PLiBZatNRYeQWV4TO UzHTzXYRstt6TSNz0

McLaughlin, T. F. (1991). Use of a personalized system of instruction with and without a same-day retake contingency on spelling performance of behaviorally disordered children. *Behavioral Disorders*, *6*, 127-132.

Miller, B., & McCardle, P. (2011). Reflections on the need for continued research on writing. *Reading and Writing*, *24*, 121-132.

Miller, K. M., & Little, M. E. (2018). Examining the effects of SRSD in combination with video self-modeling on writing by third grade students with learning disabilities. *Exceptionality*, *26*, 81-105. doi:10.1080/09362835.2017.1283622

Mo, Y., Kopke, R. A., Hawkins, L. K., Troia, G. A., & Olinghouse, N. G. (2014). The neglected "R" in a time of Common Core. *The Reading Teacher*, *67*, 445-453.

Mooney, P., Epstein, M. H., Reid, & Nelson, J. R. (2003). Status of and trends in academic intervention in research for students with emotional disturbance. *Remedial and Special Education*, *24*, 273-287.

Morrison, W. F. (2001). Emotional/behavioral disabilities and gifted and talented behaviors: Paradoxical or semantic differences in characteristics? *Psychology in the Schools*, *38*, 425-431.

Murray, C., Goldstein, D. E., Nourse, S., & Edgar, E. (2000). The postsecondary school attendance and completion rates of high school graduates with learning disabilities. *Learning Disabilities Research & Practice*, *15*, 119-127.

Murray, D. M. (1980). Writing as process: How writing finds its own meaning. In T. R. Donovan & B. W. McClelland (Eds.), *Eight approaches to teaching composition* (pp. 3-20). Urbana, IL: National Council of Teachers of English.

National Assessment of Educational Progress. (2017). *Reading and writing teacher questionnaire*. Retrieved from National Center for Educational statistics website: https://nces.ed.gov/nationsreportcard/subject/about/pdf/bgq/teacher/2017_sq_tea cher_rw_g8.pdf

National Center for Education statistics. (2016). *Percentage distribution of students 6 to 21 years old served under Individuals with Disabilities Education Act (IDEA), Part B, by educational environment and type of disability*. Retrieved from: https://nces.ed.gov/programs/digest/d15/tables/dt15_204.60.asp?current=yes

National Commission on Writing in Americas Schools and Colleges. (2003*).* The *neglected "R": The need for a writing revolution: Report of The College Board, The National Commission on Writing in America's Schools and Colleges*. Retrieved from http://www.nwp.org/cs/public/print/resource/2523

National Writing Project & Nagin. C. (2003). *Because writing matters: Improving student writing in our schools*. San Francisco, CA: Jossey-Bass.

Nelson, J. R., Babyak, A., Gonzalez, J., E., & Benner, G. H. (2003). An investigation of the characteristics of K-12 students with comorbid emotional disturbance and significant language deficits served in public schools. *Behavioral Disorders*, *29*, 25-33.

Niesyn, M. E. (2009). Strategies for success: Evidence-based instructional practices for students with emotional and behavioral disorders. *Preventing School Failure: Alternative Education for Children and Youth*, *53*, 227-234.

No Child Left Behind Act. (2001). Pub. L. No. 107-110, § 115. *Stat*, *1425*, 107-110.

Olinghouse, N., & Wilson, J. (2013). The relationship between vocabulary and writing quality in three genres. *Reading & Writing: An Interdisciplinary Journal*, *26*, 45-66. doi:10.1007/s11145-012-9392-5

Owens, L. L. (1994). Handwriting without tears. *Educational Research*, *78*, 174-177.

Parker, R. I., Vannest, K. J., & Brown, L. (2009). The improvement rate difference for single case research. *Exceptional Children*, *75*, 135-150.

Parker, R. I., Vannest, K. J., Davis, J. L., & Sauber, S. B. (2011). Combining nonoverlap and trend for single-case research: Tau-U. *Behavior Therapy*, *42*, 284-299.

Perry, B. L., & Morris, E. W. (2014). Suspending progress: Collateral consequences of exclusionary punishment in public schools. *American Sociological Review*, *79*, 1067-1087.

Prater, M. A., Carter, N., Hitchcock, C., & Dowrick, P. (2012). Video self-modeling to improve academic performance: A literature review. *Psychology in the Schools*, *49*, 71-81.

Reid, R., Gonzalez, J. E., Nordness, P. D., Trout, A., & Epstein, M. H. (2004). A meta-analysis of the academic status of students with emotional/behavioral disturbance. *The Journal of Special Education*, *38*, 130-143.

Rhode, G., Jenson, W. R., & Reavis, H. K. (1997). *The tough kid book*. Longmont, CO: Sopris West.

Roberts, G. J., Solis, M., Ciullo, S., McKenna, J. W., & Vaughn, S. (2015). Reading interventions with behavioral and social skill outcomes: A synthesis of research. *Behavior modification*, *39*, 8-42.

Rogers, L. A., & Graham, S. (2008). A meta-analysis of single subject design writing intervention research. *Journal of Educational Psychology*, *100*, 879-906.

Rosenberg, M. S., Adams, D. C., & Gurevitch, J. (2000). *MetaWin* (Version 2.1) [Computer software]. New York, NY: Sinauer Associates.

Rosenthal, R. (1994). Parametric measures of effect size. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 231-244). New York, NY: Russell Sage Foundation.

Roth, K., & Dabrowski, J. (2014). Extending interactive writing into grades 2–5. *The Reading Teacher*, *68*, 33-44.

Roth, K., & Guinee, K. (2011). Ten minutes a day: The impact of interactive writing instruction on first graders' independent writing. *Journal of Early Childhood Literacy*, *11*, 331-361.

Savage, A., McConnell, D., Emerson, E., & Llewellyn, G. (2014). Disability-based inequity in youth subjective well-being: Current findings and future directions. *Disability & Society*, *29*, 877-892.

Sawchuk, S. (2012). Many teachers not ready for the common core. *Education Digest: Essential Readings Condensed for Quick Review*, *78*, 16-22.

Scanlon, D., & Mellard, D. F. (2002). Academic and participation profiles of school-age dropouts with and without disabilities. *Exceptional Children*, *68*, 239-258.

Schloss, F. J., Harriman, N. E., & Pfeiffer, K. (1985). Application of a sequential prompt reduction technique to the independent composition performance of behaviorally disordered youth. *Behavioral Disorders*, *11*, 17-23.

Scott, T. M., Nelson, C. M., & Liaupsin, C. J. (2001). Effective instruction: The forgotten component in preventing school violence. *Education & Treatment of Children, 24*, 309-322.

Scott, T. M., Nelson, C. M., Liaupsin, C. J., Jolivette, K., Christie, C. A., & Riney, M. (2002). Addressing the needs of at-risk and adjudicated youth through positive behavior support: Effective prevention practices. *Education & Treatment of Children, 25*, 532-551.

Semel, E., Wiig, E. H., & Secord, W. A. (1995). *Clinical evaluation of language fundamentals* (3rd ed.). San Antonio, TX: Harcourt, Brace, Jovanovich.

Shadish, W. R., Hedges, L. V., & Pustejovsky, J. E. (2014). Analysis and meta-analysis of single-case designs with a standardized mean difference statistic: A primer and applications. *Journal of School Psychology, 52*, 123-147.

Shanahan, T. (2015). Common core state standards: A new role for writing. *The Elementary School Journal, 115*, 464-479. doi.10.1086/681130

Shinn, M. R. (1989). Identifying and defining academic problems: CBM screening and eligibility procedures. In M. R. Shinn (Ed.), *The Guilford school practitioner series. Curriculum-based measurement: Assessing special children* (pp. 90-129). New York, NY: Guilford Press.

Sinclair, M. F., Christenson, S. L., & Thurlow, M. L. (2005). Promoting school completion of urban secondary youth with emotional or behavioral disabilities. *Exceptional Children, 71*, 465-482.

Siperstein, G. N., Wiley, A. L., & Forness, S. R. (2011). School context and the academic and behavioral progress of students with emotional disturbance. *Behavioral Disorders*, 172-184.

Spandel, V. (2000). *Creating writers through six-trait writing assessment and instruction* (3rd ed.). Boston, MA: Allyn & Bacon.

Spencer, D. T. (2013). Self-contained classroom. *Encyclopedia of Autism Spectrum Disorders*, 2721-2722. doi:10.1007/978-1-4419-1698-384

Sreckovic, M. A., Common, E. A., Knowles, M. M., & Lane, K. L. (2014). A review of self-regulated strategy development for writing for students with EBD. *Behavioral Disorders, 39*, 56-77.

Stowitschek, C. E., Lewis, B. L., Shores, R. E., & Ezzell, D. L. (1980). Procedures for analyzing student performance data to generate hypotheses for the purpose of educational decision making. *Behavioral Disorders, 5*, 136-150.

Sundeen, T. H. (2015). Writing instruction for adolescents in the shadow of the common core state standards. *Journal of Adolescent & Adult Literacy*, *59*, 197-206.

Swanson, H. L., Harris, K. R., & Graham, S. (Eds.). (2014). *Handbook of learning disabilities*. New York, NY: Guilford Publications.

Taft, R. J., & Mason, L. H. (2011). Examining effects of writing interventions: Highlighting results for students with primary disabilities other than learning disabilities. *Remedial and Special Education*, *32*, 359-370.

Templeton, T. N., Neel, R. S., & Blood, E. (2008). Meta-analysis of math interventions for students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, *16*, 226-239.

Time4Writing. (N.D). *Writing Standards overview*. Retrieved from: https://www.time4writing.com/writing-resources/writing-standards/

Troia, G. (2014). *Evidence-based practices for writing instruction* (Document No. IC-5). Retrieved from University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center website: http://ceedar.education.ufl.edu/tools/innovation-configuration/

Troia, G. A., & Graham, S. (2003). Effective writing instruction across the grades: What every educational consultant should know. *Journal of Educational and Psychological Consultation*, *14*, 75-89. doi:10.1207/S1532768XJEPC1401_04

Troia, G. A., & Olinghouse, N. G. (2013). The Common Core State Standards and evidence-based educational practices: The case of writing. *School Psychology Review*, *42*, 343-358

Troia, G. A., Olinghouse, N. G., Mo, Y., Hawkins, L., Kopke, R. A., Chen, A., ... & Stewart, K. A. (2015). Academic standards for writing: To what degree do standards signpost evidence-based instructional practices and interventions? *The Elementary School Journal*, *116*, 291-321.

U.S. Department of Education. (2010). *Thirty-five years of progress in educating children with disabilities through IDEA*. Retrieved from http://www2.ed.gov/about/offices/list/osers/idea35/history/idea-35-history.pdf

U.S. Department of Education, National Center for Education Statistics. (2016) *Digest of Education Statistics, 2015* (NCES 2016-014), Chapter 2. Retrieved from: https://nces.ed.gov/fastfacts/display.asp?id=64

Vannest, K. J., Harrison, J. R., Temple-Harvey, K., Ramsey, L., & Parker, R. I. (2011). Improvement rate differences of academic interventions for students with emotional and behavioral disorders. *Remedial and Special Education*, *32*, 521-534.

Villarreal, V. (2015). State-level variability of educational outcomes of students with emotional disturbance. *Exceptionality*, *23*, 1-13.

Wagner, M., Friend, M., Bursuck, W. D., Kutash, K., Duchnowski, A. J., Sumi, C., & Epstein, M. H. (2006). Educating students with emotional disturbances: A national perspective on school programs and services. *Journal of Emotional Behavioral Disorders*, *14*, 12-30.

Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kaufman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, *4*, 194-209.

Walker, H. M., & McConnell, S. (1995). *The Walker-McConnell scale of social competence and school adjustment—elementary version*. Technical manual. San Diego, CA: Singular.

Walker, H. M., & Severson, H. (1992). *Systematic screening for behavior disorders: User's guide and technical manual*. Longmont, CO: Sopris West.

Wall, H. (2008). Interactive writing beyond the primary grades. *The Reading Teacher*, *62*, 149-152.

Wehby, J. H., Lane, K. L., & Falk, K. B. (2003). Academic instruction for students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, *11*, 194-197.

Werunga, N. R. & Lo, Y.-y. (2017). *Examining the effects of SRSD persuasive writing and self-monitoring on writing and off-task behaviors of African American students with EBD*. Manuscript in preparation.

Wiley, A. L., Siperstein, G. N., Bountress, K. E., Forness, S. R., & Brigham, F. J. (2008). School context and the academic achievement of students with emotional disturbance. *Behavioral Disorders*, *33*, 198-210.

Witt, J. C., & Elliott, S. N. (1985). Acceptability of classroom intervention strategies. In T. R. Kratochwill (Ed.), *Advances in school psychology* (Vol. 4., pp. 251-288). Mahwah, NJ: Erlbaum.

Woodcock, R. W., McGrew, K. S., & Mather, N. (2001). *Woodcock-Johnson tests of achievement*. Itasca, IL: Riverside Publishing.

Wright, J. (2003). *Classroom behavior report card resource book*. Retrieved from http://www.jimwrightonline.com/pdfdocs/tbrc/tbrcmanual.pdf

Wright, J. (2010). *Curriculum-based measurement and special educators: Assessing student foundation academic skills* (PowerPoint slides). Retrieved from: http://www.jimwrightonline.com/mixed_files/sweetwater_County_WY/wright_S weetwater_Co_1_Workshop_handout_1.pdf

Young, W. N. (2015). *Supporting elementary teachers in effective writing instruction through professional development* (Unpublished doctoral dissertation), Walden University.

Zigmond, N. (2006). Twenty-four months after high school paths taken by youth diagnosed with severe emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, *14*, 99-107.

Zigmond, N., & Kloo, A. (2011). General and special education are (and should be) different. *Handbook of Special Education*, 160-172.

Zigmond, N., Kloo, A., & Volonino, V. (2009). What, where, and how? Special education in the climate of full inclusion. *Exceptionality*, *17*, 189-204.

Appendix A

The University of North Carolina at Charlotte
9201 University City Boulevard
Charlotte, NC 28223-0001

Parental Informed Consent
Effects of Self-Regulated Strategy Development on the Writing Skills and
Inappropriate Social Behaviors of Students with Emotional and Behavioral
Disorders

Project Title and Purpose:
This letter is to ask your permission for your child to participate in a project called, "Effects of Self-Regulated Strategy Development on the Writing Skills and Inappropriate Social Behaviors of Students with Emotional and Behavioral Disorders." This is a project designed to see if a writing instruction called, Self-Regulated Strategy Development (SRSD), using behavior/social skills prompts can improve writing skills and targeted social behaviors of students identified as emotional or behavioral disorders (EBD).

Researchers:
This study is being conducted by Ms. Robai N.Werunga, Department of Special Education and Child Development, as part of the requirements for a doctoral degree. The responsible faculty member is Dr. Ya-yu Lo, Professor, Department of Special Education and Child Development, UNC Charlotte.

Description of Participation:
We ask that you read this letter and ask any questions you may have before agreeing to allow your child to be in this study. Your child has been nominated by a teacher to participate based on meeting participant pre-qualifications (grade level and special education services). Not all individuals for whom parental permission is granted will be selected as participants in the study. Once parental consent is granted, the research team will review your child's individualized education program (IEP) and school assessment records to further assess his or her qualifications to participate in the study.

If your child is not selected to participate in the study, the research team will destroy (shred) all collected data immediately after the selection process has concluded. If selected for the study, your child will participate in SRSD writing instruction for 30 minutes per day, four days a week outside his or classroom during the writing portion of the English Language arts block. Your child will receive a total of five lessons in SRSD persuasive writing using social skills prompts. The SRSD instruction will be provided by Ms. Werunga. Your child will not miss instruction, since he/she will be receiving writing instruction through the intervention during the designated writing period. Your child will be assessed before, during, and after the intervention to determine if the intervention is effective through data

collection of writing assessment and social behavior in the classroom. Additionally, your child will complete a brief rating scale at the beginning of the study and a questionnaire at the end of the study to provide his/her perception of own behavior, and the intervention effects. The rating scale and the questionnaire will each take about 10 minutes to complete. Most of the intervention sessions will be videotaped to make sure the intervention procedures are followed appropriately.

All data collected from this study (including the videotaped sessions) will only be shared with the research team (listed above), your child's special education teacher, and the school administrators. You and your child's participation will be kept confidential at all times.

Length of Participation:
Your child's participation in this project will begin in December 2017 and end around April 2018. If you decide to provide consent for you and your child to participate, your child will be one of five student participants in this study.

Risks and Benefits of Participation:
There is no known risk associated with this study. There may be risks which are currently unforeseeable. The benefits of participation in this study include improved writing skills and motivation as well as possible increased awareness of his/her actions.

Volunteer Statement:
You and your child are volunteers. The decision to participate in this study is completely up to you and your child. If you decide to grant permission for you and your child to participate in the study, you may stop at any time. Your child will not be treated any differently if you and your child decide not to participate, or if your child stops once he or she has started. The study will not affect any existing services and education your child is currently receiving.

Confidentiality:
The data collected by the researchers will be kept confidential. The following steps will be taken to ensure this confidentiality:
- The master list and consent/assent forms, with participants' identifying information, will be kept separately from data recording forms and reports.
- Data will be stored under lock-and-key in the investigator's office, whereas consent and assent forms will be stored under lock-and-key in responsible faculty's office.
- All data, including graphs, stored in portable disks and other computer equipment will be password protected.
- All data, including identifiable data, will be destroyed or shredded 5 years after the conclusion of the study.
- Pseudo names will be used when disseminating information about the study to the public.
- Video recording may be edited and used for future professional development, but will exclude direct footage of your child's face, or blur your child's face to ensure identity.

UNC Charlotte wants to make sure that you are treated in a fair and respectful manner. Contact the University's Office of Research Compliance (704-687-1871 and uncc-irb@uncc.edu) if you have any questions about how you are treated as a study participant. If

you have any questions about the project, please contact **Ms. Robai Werunga at 910-489-9922**, or **Dr. Ya-yu Lo at 704-687-8716**.

<u>Participant Consent</u>

I have read the information in this consent form. I have had the chance to ask questions about this study, and those questions have been answered to my satisfaction. I am at least 18 years of age, and I agree to participate in this research project.

Permission Form

Please initials to indicate your consent for the statements below.

• I consent to my child's participation in the study "Effects of Self-Regulated Strategy Development on the Writing Skills and Inappropriate Social Behaviors of Students with Emotional and Behavioral Disorders."

_____ Yes   _____No

• I consent to the use of videotape of my child during the intervention sessions.

_____Yes   _____No

• I consent to the release of my child's IEP to the researcher.

_____Yes   _____No

_____
Child's Name (Print)

_____
Parent's Name (Print)

_____   _____
Parent's Signature   Date

_____   _____
Investigator Signature   Date

Appendix B

UNC CHARLOTTE

The University of North Carolina at Charlotte
9201 University City Boulevard
Charlotte, NC 28223-0001

Student Assent
Effects of Self-Regulated Strategy Development on the Writing Skills and Inappropriate Social Behaviors of Students with Emotional and Behavioral Disorders

Dear _____ (Student):

My name is Ms. Werunga. I am a teacher and a student at The University of North Carolina at Charlotte.

I want to teach you how to tell me your opinions in writing using a strategy called "Self-Regulated Strategy Development." The goal is to help improve your writing skills and teach you to be aware of some of your behaviors.

You and I will work together to learn some tricks on making your writing convincing and interesting. I will also give you many chances to practice your new skills.

You and I will meet approximately 30 minutes every day from Monday to Friday. The project will take 3 to 5 weeks I will videotape our time together so that I can share with other teachers who may want to teach their students the same skills. I will make sure that your face is hidden in those videos. I will also come to your class every day to see how you are doing in class. I will ask you to answer some questions at the beginning and at the end of our time working together to see how you feel about what I am teaching you. If at any time you want us to stop working together, you can let me know, and I will be angry with you.

At the end of our time together, you will be able to see how much your writing skills have improved.

Would like to work with me on this project?

Yes:_____

No: _____

Would you be willing for me to video tape our sessions?
Yes: _____

No: _____

_____   _____
Student Signature   Date
_____   _____
Investigator Signature   Date

Appendix C

The University of North Carolina at Charlotte
9201 University City Boulevard
Charlotte, NC 28223-0001

Teacher Informed Consent
Effects of Self-Regulated Strategy Development on the Writing Skills and Inappropriate Social Behaviors of Students with Emotional and Behavioral Disorders

Project Title and Purpose:
This letter is to ask your permission to participate in a project called, "Effects of Self-Regulated Strategy Development on the Writing Skills and Inappropriate Social Behaviors of Students with Emotional and Behavioral Disorders." This is a project designed to see if instruction in Self-Regulated Strategy Development (SRSD) using behavior/social skills prompts can improve writing skills and targeted problem behaviors of students identified as emotional or behavioral disorders (EBD).

Researchers:
This study is being conducted by Ms. Robai N. Werunga, Department of Special Education and Child Development, as part of the requirements for a doctoral degree. The responsible faculty member is Dr. Ya-yu Lo, Professor, Department of Special Education and Child Development, UNC Charlotte.

Description of Participation:
Before the beginning of the study, the research team will seek your help in sending parental consent home and making follow-up calls to parents who do not return the forms within one week. You will receive a script for the phone call. Additionally, because your student(s) will participate in the intervention, you will be asked to complete a 10-minute survey at the beginning and at the end of the study to indicate your opinions of the intervention and its effectiveness based on your observation and assessment of your student(s) during the course of the intervention. The research team may also ask you to verbally reinforce some of the skills that will be taught during the intervention. Additionally, we will need your help to conduct a few assessment probes (i.e., generalization prompts) in the classroom as part of the data collection for the study. The research team will review your students' individualized education programs (IEPs) and other school records to assess their eligibility to participate in the study. In order to familiarize you with the study, we will need about 30 minutes of your time before the beginning of the study to provide you with an overview of what the SRSD intervention entails. This will be for your knowledge only and we do require that you DO NOT use any aspects of the intervention for your instruction during the intervention.

Length of Participation:
Ms. Werunga will be implementing the intervention. Your participation in this project will include completing two questionnaires (one at the beginning of the study and the other at the end of the study) and administering a couple of generalization prompts to participants as part of the entire classroom writing assessment, as well as verbally reinforce specific skills taught during the intervention and post-intervention. The questionnaires will take 10 minutes each to complete. The administration of generalization prompts will take about 30 minutes each.

Risks and Benefits of Participation:
There is no known risk associated with this study. There may be risks which are currently unforeseeable. The benefits of participation in this study include students' improved writing skills and motivation as well as possible increased awareness of students' own actions.

Volunteer Statement:
You are a volunteer. The decision to participate in this study is completely up to you. If you decide to be in the study, you may stop at any time. You will not be treated any differently if you decide not to participate or if you stop once you have started.

Confidentiality:
The data collected by the researchers will be kept confidential. The following steps will be taken to ensure this confidentiality:

- The master list and consent/assent forms, with participants' identifying information, will be kept separately from data recording forms and reports.
- Data will be stored under lock-and-key in the investigator's office, whereas consent and assent forms will be stored under lock-and-key in responsible faculty's office.
- All data, including graphs, stored in portable disks and other computer equipment will be password protected.
- All data, including identifiable data, will be destroyed or shredded 5 years after the conclusion of the study.
- Pseudo names will be used when disseminating information about the study to the public.
- Video recording may be edited and used for future professional development, but will exclude footage of the faces of students in your classroom

UNC Charlotte wants to make sure that you are treated in a fair and respectful manner. Contact the University's Office of Research Compliance (704-687-1871 and uncc-irb@uncc.edu) if you have any questions about how you are treated as a study participant. If you have any questions about the project, please contact **Ms. Robai Werunga at 910-489-9922**, or **Dr. Ya-yu Lo at 704-687-8716**.

<u>Participant Consent</u>

I have read the information in this consent form. I have had the chance to ask questions about this study, and those questions have been answered to my satisfaction.
 I am at least 18 years of age, and I agree to participate in this research project.
I also consent to the video taping of my students.

_____

Participant's Name (Print)

_____   _____

Participant's Signature   Date

_____   _____

Investigator Signature   Date

Appendix D

Genre Elements Rubric

Student: _____Date _____   Amount of time took for student to complete _____

Type of prompt: Baseline   Post-intervention   Maintenance   Gen/video (circle one)

Genre Elements Rubric		
Section		Score
1. Topic sentence/ statement	• Included and clearly states a position regarding a behavior/action depicted in the prompt	2
	• Included but does not depict a specific behavior/action in depicted the prompt	1
	• Not included	0
2. Reasons	• Includes at least 2 reasons and an explanation of each of the reasons	4
	• Incudes 2 reasons and 1 explanation	3
	• Includes 1 reason and 2 explanations	3
	• Includes 1 reason and 1 explanation	2
	• Includes 2 reasons and no explanations	2
	• Includes 1 reason and no explanation	1
	• Includes no reasons and no explanations	0
3. Consequence	• Includes at least 2 consequences that are associated with the behavior chosen with explanation of each consequence	4
	• Includes 2 consequences and 1 explanation	3
	• Includes 1 consequence with 2 explanations	3
	• Includes 1 consequence with 1 explanation	2
	• Includes 2 consequence and no explanation	2
	• Includes 1 consequence and no explanations	1
	• Includes no consequences and no explanations	0
4. Alternative behavior/ action	• Includes at least 2 alternative behaviors/actions to the selected behavior behavior/action with explanation of each	4
	• Includes 2 alternative behavior/actions and 1 explanation	3
	• Includes 1 alternative behavior/action and 2 explanations	3
	• Includes 1 alternative behavior/action and 1 explanation	2

	• Includes 2 alternative behaviors/actions and no explanation	2
	• Includes 1 alternative behavior/action and no explanation	1
	• Includes no alternative behavior/action and no explanation	0
5. Conclusion/ ending	• Concluding statement reiterates why the selected behavior/action is appropriate and why alternative behavior(s)/action(s) are more inappropriate	2
	• Conclusion only reiterates why the selected behavior is appropriate	1
	• Conclusion only reiterates why the alternative behavior is more appropriate	1
	• Conclusion/ending not included	0
6. Number of transition words included		5
		4
		3
		2
		1
		0
7. Number of social skills vocabulary used		4
		3
		2
		1
		0
TOTAL points		
		/25

Total Words Written: _____

Total Number of Sentences: _____

Appendix E

Scripted Instructions

I am going to read you a few sentences about a situation in a classroom. After I finish reading, I would like you to write an essay about that situation. You will have as much time as you wish to write about that person and his or her behavior. **I WILL NOT** give you any suggestions about who to write about or what behavior or action to write about. **I will only help you with spelling of words** if you ask. You can use any materials you like to help you write your essay. When you are finished, let me know.

Appendix F

Data Collection Form (10-s partial Interval Recording)

Student Code _____   Date _____   Observer _____

Class subject _____   Teacher _____   Data _____ (P or IOA)

Begin time _____   End time _____   Behavior/skill Observed_____

Directions: Mark a "✓" if the student exhibited the targeted behavior during each 10-s interval

Interval	Behavior	Interval	Behavior	Interval	Behavior	Interval	Behavior
1		21		41		61	
2		22		42		62	
3		23		43		63	
4		24		44		64	
5		25		45		65	
6		26		46		66	
7		27		47		67	
8		28		48		68	
9		29		49		69	
10		30		50		70	
11		31		51		71	
12		32		52		72	
13		33		53		73	
14		34		54		74	
15		35		55		75	
16		36		56		76	
17		37		57		77	
18		38		58		78	
19		39		59		79	
20		40		60		80	

Total number of intervals marked with a "✓" = _____ (out of 80)
Percentage of intervals = _____

Appendix G

Sample prompt

It is time for recess, and Mrs. Britt asks everyone to line up quietly. David comes from behind the line and **cuts the line**, while **pushing another student**. Mrs. Britt asks David to go to the back of the line, but David **shakes his head** and **starts arguing with Mrs. Britt**. What would you tell David?

Appendix H

Content Validity of Written Prompts

Prompt #_____ **Lexile score:** _____

Item	Yes	No
The prompt includes at least a social situation that could elicit a negative reaction from a student		
Behaviors/actions portrayed would typically occur in a school environment		
Behaviors/actions portrayed would typically occur in with elementary age students		
Total yeses		

Prompt #_____ **Lexile score:** _____

Item	Yes	No
The prompt includes at least a social situation that could elicit a negative reaction from a student		
Behaviors/actions portrayed would typically occur in a school environment		
Behaviors/actions portrayed would typically occur in with elementary age students		
Total yeses		

Prompt #_____ **Lexile score:** _____

Item	Yes	No
The prompt includes at least a social situation that could elicit a negative reaction from a student		
Behaviors/actions portrayed would typically occur in a school environment		
Behaviors/actions portrayed would typically occur in with elementary age students		
Total yeses		

Prompt #_____ **Lexile score:** _____

Item	Yes	No
The prompt includes at least a social situation that could elicit a negative reaction from a student		
Behaviors/actions portrayed would typically occur in a school environment		
Behaviors/actions portrayed would typically occur in with elementary age students		
Total yeses		

Appendix I

Observation Instrument of Classroom Writing Practices

Graham, S., Harris, K. R., Fink-Chorzempa, B., & MacArthur, C. (2003). Primary grade
teachers' instructional adaptations for struggling writers: A national
survey. *Journal of Educational Psychology*, *95*, 279-292.

(Copyrighted material)

Appendix J

Teacher Survey of Classroom Writing Practices

Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology*, *100*, 907-919.

(Copyrighted Material)

Appendix K

POW-TREE-e Mnemonic

P Pick my Idea **O** Organize my Notes **W** Write and Say More
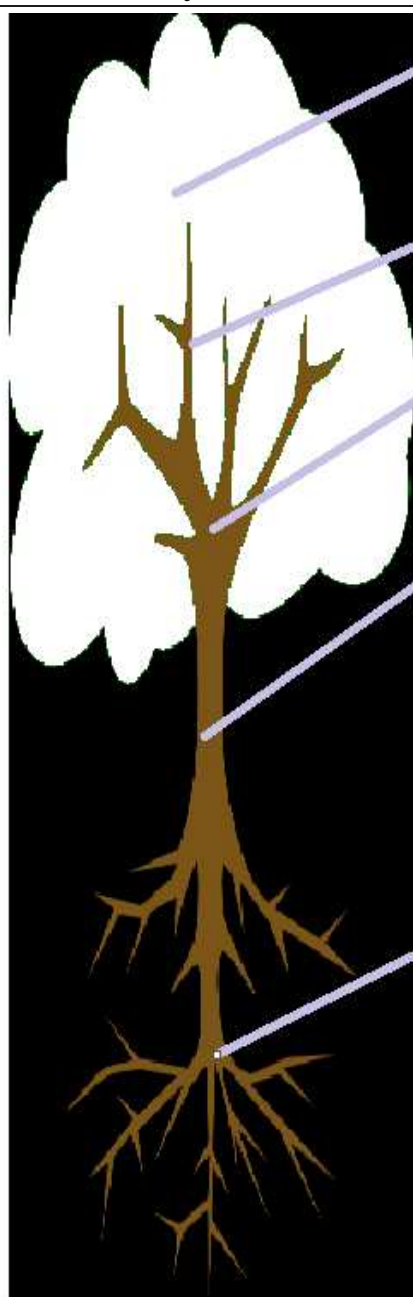
T **Topic:**
State your behavior/action

R **Reasons- (2 or more):**
Why is the behavior/action inappropriate?

E **Explain your Reasons**

E **Explain: Alternate Behavior/Action:**
- how could she/he have handled this differently? (2 or more ways)
-why is this a better choice?

e **ending:**
Reaffirm why the original behavior/action was inappropropriate and why the alternative behavior/action is more appropriate.

Appendix L (original)

POW-TREE-e Graphic Organizer

Name_____
Date_____

Topic: State your opinion

Transition word	Behavior/Action

Reasons? /Explain

Transition word	Reason 1	Explanation 1
Transition word	Reason 2	Explanation 2

Alternative behavior or action? /Explain

Transition word	Behavior/action 1	Explanation 1
Transition word	Behavior/action 2	Explanation 2

ending- restate/reaffirm your opinion

Transition word	Why was first behavior not appropriate?
Transition word	Why is your choice behavior a better approach?

Examine my work: Have I stated my opinion? _____Have I given at least 2 reasons? _____Have I explained my reasons? _____ Do I have at least 2 alternative actions/behaviors? _____ Did I reaffirm opinion? ____ Did I reaffirm my suggestions? _____

Adapted (and modified) from Mastopieri, 2015_workshop

Appendix L (Modified)

POW-TREE-e Graphic Organizer

Name_____   Date_____

Topic: State your opinion

Transition word	Behavior/Action

Reasons (why is your opinion a good idea)-Explain

Transition word	Reason 1	Explanation 1
Transition word	Reason 2	Explanation 2

Alternative behavior/Action

Transition word	

Explain (why is this a bad idea?)

Transition word	Behavior/action 1	Explanation 1
Transition word	Behavior/action 2	Explanation 2

ending- restate/reaffirm your opinion

Transition word	Why was your opinion a better choice?
Transition word	Why is the alternative a bad idea?

Examine my work: Opinion _____ Reason (2) _____explained Reasons (2) _____Alternative actions/behaviors _____ explained alternatives _____ reaffirm opinion _____ Did I reaffirm my suggestions

Adapted (and modified) from Mastopieri, 2015_workshop

Appendix M (original)

Transition Words and Phrases

Beginning your essay

In my opinion   1 think   1 feel   1 believe

Providing reasons

First   To start   To begin   Second   Next   Another reason

Finally   Lastly   Most importantly

Explaining your reasons

For example,   For instance,   In particular   Specifically

Additionally   In other words   In fact,   Another example

Provide alternate actions

A better way   Alternatively   Conversely   However   Instead of

On the contrary   A different way   On the other hand   In contrast

Still   The way 1 see it   A good way   The best way

Ending your essay

In conclusion,   All in all,   As you can see, To sum it up,   To summarize   to sum it up,

Because of these reasons,   That is why,   Thus,   Therefore,

Appendix M (modified)

Transition words and phrases

Stating your opinion	I believe I feel I think In my opinion The way I see it		
Giving your reasons	First To begin To start	Second Next Another reason	Lastly Finally Also One last reason Most importantly
Giving examples of your reasons	For example For instance	Additionally Another example	
Stating an alternative action	On the contrary Alternatively Conversely On the other hand In contrast		
Giving reasons against the alternative action	However But Yet Nevertheless Still		
Ending your essay	In conclusion All in all As you can see To summarize To sum it up For these reasons That is why		

other words

because/ because of/ due to/so/instead/besides/since/so that/unless/moreover

Appendix N

Anchor Essays

Sample Anchor Essay 1

In my opinion, David should not have cut in line and he should have listened to his teacher. I think David is being disrespectful and defiant. First, he is showing disrespect to other students by cutting in the line. This is because when you are not the first in line it is not nice to just cut in. Second, I think he is being disrespectful and defiant towards the teacher. I feel like when you talk back to the teacher, you are being disrespectful. Also, when the teacher tells him to go to the back of the line and he shakes his head, which is being defiant.

I believe David should handle the situation in a different way. If I were David, I would ask the student in the front of the line to let me in the line instead of pushing him. This is because when you ask nicely, he or she may let you into the line. Alternatively, he could ask the teacher if he could be a line leader. I think the teacher would let him be the line leader. Most importantly, he should just listen to the teacher and go to the back of the line. This is because arguing with the teacher may get him in more trouble like being send to the principal's office. If that happens, he will miss recess.

In conclusion, I think that David's disrespectful and defiant behavior is not appropriate. As you can see, asking for permission from the student, or asking the teacher to be the line leader would be the best choice. Finally, just listening to the teacher and going to the back of line will most likely keep David out of trouble.

Sample Anchor Essay 2

I think David was being inappropriate and disrespectful. First of all cutting the line is rude .Second, shaking his head is showing that he is defiant and does not want to listen. I feel like the best way to handle the situation is he should have asked the teacher if he could be the line leader. Another way he could have handled the situation is he could have asked the other student if he could be in front of him instead of pushing him. Or maybe he could just say "sorry" to the other student and just go to the back of the line. Asking the teacher for permission, and saying sorry is more appropriate than pushing another student and arguing with the teacher because it keeps David out of more trouble. But arguing with the teacher might get him sent to the office or even get him suspended.

Sample Anchor Essay 3

In my opinion, I think David should not cut in line and push because cutting the line and pushing the student is being disrespectful. I also think arguing with the teacher is defiant and shaking the head is rude. So, David could avoid this by asking nicely to be the line leader. He could also just say sorry to the student and listen to the teacher. If I were him, I would just either staying in the back of the line and not talk back to the teacher. Talking back and shaking his head would get him into a lot of trouble. He could get suspended.

Appendix O

Student Graphing Paper

POW-TREE GRAPHNG CHART

NAME: _____

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Appendix P

Self-Statements
(Harris, Graham, Mason, Friedlander, 2008)
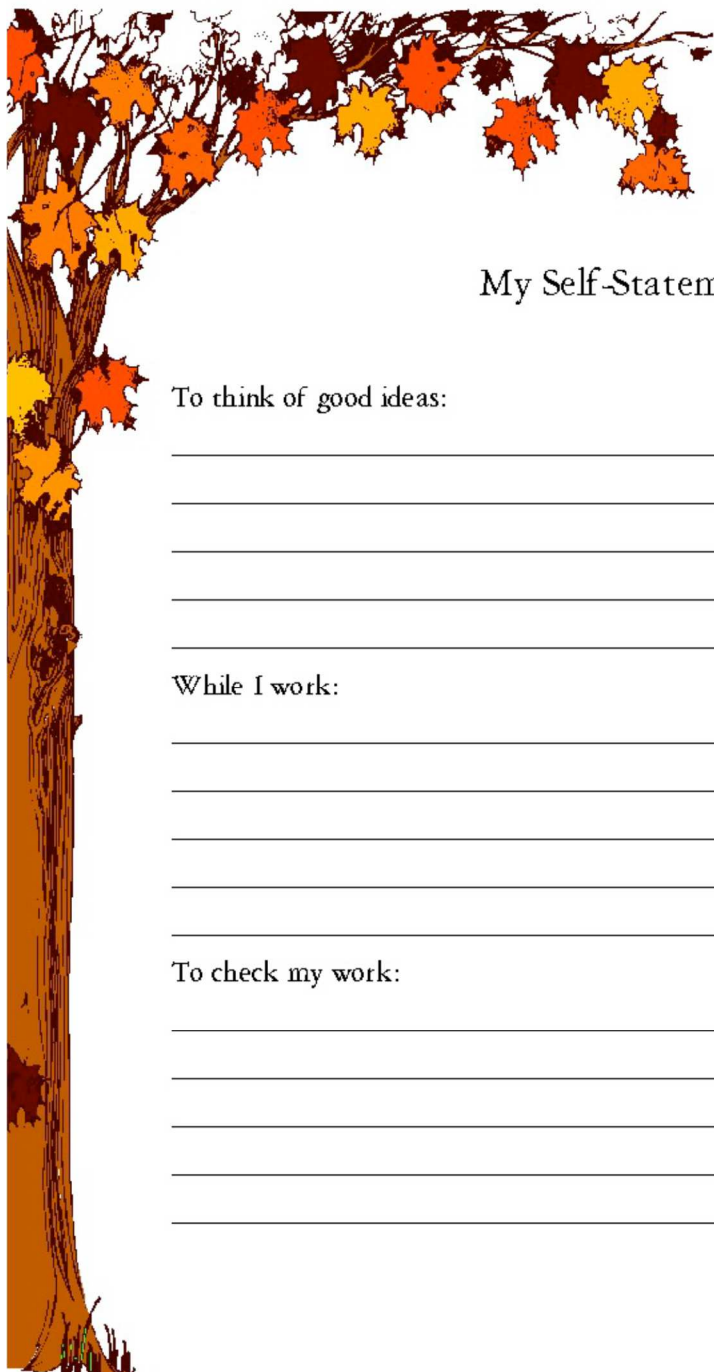
My Self-Statements

To think of good ideas:

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While I work:

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To check my work:

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Appendix Q (original)

Target Social Skills /Behavior Vocabulary with Examples

Disruptive/Off-task	Disrespectful
▪ Annoy and distract others ▪ Pester ▪ Make frequent and unnecessary comments and questions ▪ Get out of seat frequently ▪ Do not respect others space or property ▪ Stay out of line, play around, horse play ▪ Talk to others frequently when teacher is talking ▪ Yell out or make noises	▪ engages in confrontation ▪ Do not follow directions when asked ▪ Talks back to adults ▪ ignores others ▪ Does not say excuse me or sorry ▪ Calls others stupid or dumb ▪ Feel he/she is always right ▪ Tell others to be quiet and hush them ▪ Destruct others' property ▪ Take and use others' things without asking
Defiant	**Frustrated**
▪ argues with others all the time ▪ always wants to be right ▪ Do the opposite of what is told ▪ Act out when told to do something ▪ Show verbal protest ▪ Refuse to do as told ▪ Argue with adults ▪ Refuse to follow classroom routines ▪ Do not admit a mistake	▪ Huff, puff, grumble, or yell ▪ Refuse help ▪ Stomp, pound fists on desk, throw pencil or paper ▪ Blame ▪ Get upset or cry easily ▪ Appear irritated or fidgety ▪ Refuse to transition or move on ▪ Re-start assignments repeatedly ▪ Lash out verbally and physically

Adapted from pbisworld.com

Appendix Q (modified)

Target Social Skills /Behavior Vocabulary

Vocabulary	Meaning	Opposite
Responsible	doing what one is supposed to do and striving to do one's best	irresponsible
Respectful	treating others as you want to be treated	disrespectful rude
Obedient	Complying or willing to comply with orders and requests	Defiant Disobedient
Courtesy	being polite, using good manners and showing consideration to others.	Rude/ Mean
Sympathetic	Having or showing concern/acting with kindness/showing you care	Mean/Cruel/merciless
Profanity	Cursing /offensive language	Clean language
Friction	Disagreement between people	harmony peace
Appropriate	Suitable or correct words or actions under the circumstances	Inappropriate/Improper Unfitting
Considerate	thinking about how the other person feels	inconsiderate impolite/rude hateful/mean
Etiquette	good manners good behavior	impolite rudeness bad manners

Appendix R

Prompt Response Paper

Name: _____ Date: _____

Prompt #_____

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Appendix S

Scripts for Lesson Plans

Lesson 1: Develop background knowledge/Discuss it

Purpose: To introduce opinion writing to student, and discuss what the genre entails

Number of Sessions: Approximately 2-4 (varies from participant to participant)

Length of Sessions: 30-45 mins

Procedural Steps

1. Provide student with the POW-TREE-*e* mnemonic chart

2. Explain the purpose of persuasive writing to the student
3. Give student a list transitions words to be used when writing a persuasive essay.
4. Provide student with social skills vocabulary list and discuss the words on the list and how/when they can be used.
5. Provide the student with self-statements chart and help him to create his preferred list of self-statements.
6. Use a model/anchor to identify different essay elements with the student.
7. Take turns with the student to read the model paper together.
8. Guide student in identifying and counting the number of parts included in the model paper.
9. Give the student a baseline prompt and asked him to count the number parts included.
10. Guide student to chart the number of parts on a graph.
11. Guide student to count and graph the total number of words in his/her baseline essay.

12. Guided student in setting goal(s) for the next lesson.

Lesson 2: Model it

Purpose: To provide participants with a visual demonstration of how to use SRSD steps to complete an opinion essay

Number of Sessions: Approximately 2-4 (varies from participant to participant)

Length of Sessions: 30-45 mins

Procedural Steps

1. Review the POW-TREE-e Mnemonic strategy

2. Discuss types of self-affirmations and when they can be used in writing (before, during and after the writing)
3. Give student a copy of the persuasive prompt, transition words, social skills vocabulary, and self-affirmations
4. Read the prompt out loud and ask participant to follow along.
5. Model planning with the graphic organizer using the POW-TREE-*e* strategy and self-instructions, and writing a complete essay using notes from the graphic organizer.
6. Solicit student's input while planning and composing.
7. Work with student to plan and rewrite one of his/her baseline responses.
8. Engage student in a discussion about using various components of the SRSD strategy alongside supporting materials as you plan and compose.
9. Provide regular positive feedback to the participant when re-writing the baseline writing prompt, using the POW-TREE-*e* mnemonic strategy.
10. Prompt and guide the student in graphing the number of response parts in the revised response.
11. Provide verbal positive feedback for improvements on revised response
12. Work together with student to set a goal for the following lesson (e.g.,… will include _ essay components, use transition words)

Lesson 3: Memorize it

Purpose: To ensure that the participant had memorized and mastered the mnemonic aid for the opinion writing genre as well as all other essential components (e.g., transition words, social skills vocabulary, self-instruction) needed to successfully complete an essay

Number of Sessions: Approximately 3-5 (varies from participant to participant)

Length of Sessions: 30-45 mins

Procedural Steps

1. Review the POW-TREE-*e* memorization strategy
2. Provide a blank graphic organizer, transition word list, the self-instruction sheet, and a response paper to student
3. Provide student with an opportunity to select a prompt from the remaining baseline prompts.
4. Read the prompts to the student prior to selecting.
5. Work collaboratively with student throughout the planning process to encourage the student to use all parts of the strategy.
6. Remind/encourage student to use self-affirmations when writing
7. Guide the student to chart and graph his/her response results
8. Review goal set for lesson with the student and compare performance to previous (baseline) response

9. Provided positive feedback on written response and verbally praise the student for improvement
10. Check for mastery/memorization of SRSD steps by reviewing POW-TREE-*e*, transition words, and social skills vocabulary
11. Inform the student that the supports will gradually be removed in future lessons to help him/her to master the strategy
12. Guide student in setting goal(s) for the next lesson.

Lesson 4: Support it.

Purpose: To encourage independence in applying the SRSD steps by to weaning off scaffolds and other support materials (i.e., the graphic organizer, self-instruction sheet, transition words list, and social skills vocabulary).

Number of Sessions: Approximately 3-5 (varies from participant to participant)

Length of Sessions: 30-45 mins

Procedural Steps

1. Review the POW-TREE-e memorization strategy
2. Provide only an essay response paper to student
3. Let the student select one prompt from the remaining baseline prompts
4. Read the prompt to the student prior to selecting.
5. Explain to student that he will not have scaffolds and other support materials
6. Encourage student to create his own scaffolds and graphic organizers
7. Remind student to write down and, use transition word, social skills vocabulary words, and self-affirmations when planning and writing
8. Guide the student to chart and graph his/her response results
9. Guide student to review goal set for lesson and compare performance to previous response
10. Help the student as needed throughout the lesson.
11. Provide specific feedback on written response and verbally praise the student for improvement
12. Guide student in setting a goal for the next session.

Lesson 5: Independent practice/Mastery.

Purpose: To ensure fluency in the use of SRSD procedures to compose complete opinion essays

Number of Sessions: Approximately 3-5 (varies from participant to participant)

Length of Sessions: 30-45 mins

Procedural Steps

1. Review the POW-TREE-*e* memorization strategy
2. Provide student with essay response paper and extra paper for planning and writing.
3. DO NOT provide student with any scaffolds or supports
4. Provide student with three prompts to selected from (not from baseline).
5. Provide assistance as needed throughout the lesson
6. Remind/encourage student to write down and use strategies learnt.
7. Remind/encourage student to include all parts of the persuasive elements
8. Remind student to chart and graph his/her response results at the end of the essay
9. Guide student to review goal set for lesson and compare performance to previous response
10. Provide positive feedback and specific praise to student on improvements made on written response.
11. Revisit previous lessons/SRSD stages as needed to reiterate missed steps by the student during the independent practice.
12. Discuss with student the POW-TREE-*e* strategy process and set a goal based on the outcomes.

Appendix T

Social Validity Questionnaires – Teacher Form (Pre-intervention)
(Lane, Oakes, & Menzies, 2014)

Adapted Version of the Intervention Rating Profile-15

Date: _____

The purpose of this questionnaire is to obtain information that will aid in the selection of future classroom interventions. These interventions will be used by teachers of children with identified needs. Please circle the number which best describes your agreement or disagreement with each statement.

	Strongly disagree	*Disagree*	*Slightly disagree*	*Slightly agree*	*Agree*	*Strongly agree*
1. This would be an acceptable intervention for the child's needs.	1	2	3	4	5	6
2. Most teachers would find this intervention appropriate for children with similar needs.	1	2	3	4	5	6
3. This intervention should prove effective in supporting the child's needs.	1	2	3	4	5	6
4. I would suggest the use of this intervention to other teachers.	1	2	3	4	5	6
5. The child's needs are severe enough to warrant use of this intervention.	1	2	3	4	5	6
6. Most teachers would find this intervention suitable for the needs of this child.	1	2	3	4	5	6
7. I would be willing to use this intervention in the classroom setting.	1	2	3	4	5	6
8. This intervention would *not* result in negative side effects for the child.	1	2	3	4	5	6
9. This intervention would be appropriate for a variety of children.	1	2	3	4	5	6
10. This intervention is consistent with those I have used in classroom settings.	1	2	3	4	5	6
11. The intervention is a fair way to handle the child's needs.	1	2	3	4	5	6
12. This intervention is reasonable for the needs of the child.	1	2	3	4	5	6
13. I like the procedures used in this intervention.	1	2	3	4	5	6
14. This intervention would be a good way to handle this child's needs.	1	2	3	4	5	6
15. Overall, this intervention would be beneficial for the child.	1	2	3	4	5	6

Total (sum all points circled; higher scores indicate higher acceptability; range = 15-90):
Comments:

Appendix U

Social Validity Questionnaires – Teacher Form (Post-intervention)
(Lane, Oakes, & Menzies, 2014)

Adapted Version of the Intervention Rating Profile-15

Date: _____

The purpose of this questionnaire is to obtain information that will aid in the selection of future classroom interventions. These interventions will be used by teachers of children with identified needs. Please circle the number which best describes your agreement or disagreement with each statement.

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
1. This was an acceptable intervention for the child's needs.	1	2	3	4	5	6
2. Most teachers would find this intervention appropriate for children with similar needs.	1	2	3	4	5	6
3. This intervention proved effective in supporting the child's needs	1	2	3	4	5	6
4. I would suggest the use of this intervention to other teachers.	1	2	3	4	5	6
5. The child's needs were severe enough to warrant use of this intervention.	1	2	3	4	5	6
6. Most teachers would find this intervention suitable for the needs of this child.	1	2	3	4	5	6
7. I would be willing to use this intervention in the classroom setting.	1	2	3	4	5	6
8. This intervention did *not* result in negative side effects for the child.	1	2	3	4	5	6
9. This intervention would be appropriate for a variety of children.	1	2	3	4	5	6
10. This intervention was consistent with those I have used in classroom settings.	1	2	3	4	5	6
11. The intervention was a fair way to handle the child's needs.	1	2	3	4	5	6
12. This intervention was reasonable for the needs of the child.	1	2	3	4	5	6
13. I liked the procedures used in this intervention.	1	2	3	4	5	6
14. This intervention was a good way to handle this child's needs.	1	2	3	4	5	6
15. Overall, this intervention was beneficial for the child.	1	2	3	4	5	6

Total (sum all points circled; higher scores indicate higher acceptability; range = 15-90):
Comments:

Appendix V

Social Validity Questionnaire – Student Form (Pre-intervention)

Date: _____

Item	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
1. I am not that great in writing.	1	2	3	4	5	6
2. Writing is not one of my favorite subjects.	1	2	3	4	5	6
3. I need help with improving my writing skills.	1	2	3	4	5	6
4. Learning how to write effectively will be helpful to me.	1	2	3	4	5	6
5. I have some inappropriate social behaviors.	1	2	3	4	5	6
6. I need help with improving some of my social behaviors in the classroom.	1	2	3	4	5	6
7. Writing about other students' behaviors will help me with my own behavior.	1	2	3	4	5	6
Other thoughts or comments I have about my writing, behavior, or strategy:						

Appendix W

Social Validity Questionnaire – Student Form (Post-intervention)

Date: _____

Item	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
1. I am not that great in writing.	1	2	3	4	5	6
2. Writing is not one of my favorite subjects.	1	2	3	4	5	6
3. I need help with improving my writing skills.	1	2	3	4	5	6
4. Learning how to write effectively will be helpful to me.	1	2	3	4	5	6
5. I have some inappropriate social behaviors.	1	2	3	4	5	6
6. I need help with improving some of my social behaviors in the classroom.	1	2	3	4	5	6
7. Writing about other students' behavior helped me with my own behavior.	1	2	3	4	5	6
8. The skills I learned from the intervention helped me improve my writing.	1	2	3	4	5	6
9. The skills I learned from the intervention helped me improve my own behavior.	1	2	3	4	5	6
10. I think this strategy can help other students improve their writing.	1	2	3	4	5	6
11. I think this strategy can help other students improve their behaviors.	1	2	3	4	5	6
12. I will like to continue using the strategy that in the future.	1	2	3	4	5	6

Other thoughts or comments I have about my writing, behavior, and the strategy:

Appendix X

Procedural Fidelity Checklist Forms

SRSD Lesson # 1

Student Code: _____   Date of Lesson: _____   Observer: _____

Procedural Steps	Yes	No	Additional notes
1. Experimenter provided student with the POW-TREE-e mnemonic chart			
2. Experimenter explained the purpose of persuasive writing to the student			
3. Experimenter gave student a list transitions words to be used when writing a persuasive essay.			
4. Experimenter provided the participant with social skills vocabulary list and discussed the words on the list and how/when they can be used.			
5. Experimenter provided the student with self-statements chart and helped participant to create his preferred list of self-statements.			
6. Experimenter used a model/anchor to identify different essay elements with the participant.			
7. Experimenter and student took turns to read the model paper together.			
8. Experimenter guided student in identifying and counting the number of parts included in the model paper.			
9. Experimenter gave the student a baseline prompt and asked him to count the number parts included.			
10. Experimenter guided student to chart the number of parts on a graph.			
11. Experimenter guided the student to count and graph the total number of words in his/her baseline essay.			
12. Experimenter guided the student in setting goal(s) for the next lesson.			
Total number of "Yes"	____/12	%_____	

SRSD Lesson #2

Student Code: _____   Date of Lesson: _____   Observer:_____

Procedural Steps	Yes	No	Additional notes
1. Experimenter reviewed the POW-TREE strategy			
2. Experimenter discussed types of self-affirmations and when they can be used in writing (before, during and after the writing)			
3. Experimenter gave student a copy of the persuasive prompt, transition words, social skills vocabulary, and self-affirmations			
4. Experimenter read the prompt out loud and asked participant to follow along.			
5. Experimenter modeled planning with the graphic organizer using the POW-TREE strategy and self-instructions, and writing a complete essay using notes from the graphic organizer.			
6. Experimenter solicited participant's input while planning and composing.			
7. Experimenter and the participant worked together to plan and rewrite one of the participant's baseline responses.			
8. Experimenter engaged the participant in a discussion about using various components of the SRSD strategy alongside supporting materials.			
9. Experimenter provided regular positive feedback to the participant when re-writing the baseline writing prompt, using the POW-TREE strategy.			
10. Experimenter prompted and guided the participant in graphing the number of response parts in the revised response.			
11. Experimenter provided verbal positive feedback for improvements on revised response			
12. Experimenter and participant worked together to set a goal for the following lesson (e.g. will include _ essay components, use _transition words)			
Total number of "Yes"			
	_____/12	%_____	

SRSD Lesson #3

Student Code: _____   Date of Lesson: _____   Observer:_____

Procedural Steps	Yes	No	Additional notes
1. Experimenter reviewed the POW-TREE memorization strategy			
2. Experimenter provided a blank graphic			
3. organizer, transition word list, the self-instruction sheet, and a notebook to student			
4. Experimenter provided the student with an opportunity to select a prompt from the remaining baseline prompts.			
5. Experimenter read the prompts to the student prior to selecting.			
6. Experimenter worked collaboratively with student throughout the planning process to encourage the student to use all parts of the strategy.			
7. Experimenter reminded/encouraged student to use self-affirmations when writing			
8. The experimenter guided the student to chart and graph his/her response results			
9. Experimenter and student to reviewed goal set for lesson and compared performance to previous (baseline) response			
10. Experimenter provided positive feedback on written response and verbally praised the student for improvement			
11. Experimenter checked for mastery/memorization of SRSD steps by reviewing POW-TREE-e, transition words, and social skills vocabulary			
12. Experimenter, informed the student that the supports will gradually be removed in future lessons to help him/her to master the strategy			
13. Experimenter guided student in setting goal(s) for the next lesson.			
Total number of "Yes"	_____/12		%_____

SRSD Lesson #4

Student Code: _____   Date of Lesson: _____   Observer:_____

Procedural Steps	Yes	No	Additional notes
1. Experimenter reviewed the POW-TREE memorization strategy			
2. Experimenter provided only a notebook to student			
3. Experimenter let the student select one prompt form the remaining baseline prompts			
4. Experimenter read the prompts to the student prior to selecting.			
5. Experimenter explained to student that he will not have scaffolds and other support materials			
6. Experimenter and encouraged student to create his own scaffolds and graphic organizers			
7. Experimenter reminded student to write down and, use transition word, social skills vocabulary words, and self-affirmations when planning and writing			
8. The experimenter guided the student to chart and graph his/her response results			
9. Experimenter guided student to review goal set for lesson and compare performance to previous response			
10. Experimenter provided assistance to the student as needed throughout the lesson.			
11. Experimenter provided specific feedback on written response and verbally praised the student for improvement			
12. Experimenter guided student in setting a goal for the next session.			
Total number of "Yes"	_____/12	%_____	

SRSD Lesson #5

Student Code: _____   Date of Lesson: _____   Observer:_____

Procedural Steps	Yes	No	Additional notes
1. Experimenter reviewed the POW-TREE memorization strategy			
2. Experimenter provided participant with notebook and extra paper for planning and writing.			
3. Experimenter did not provide student with any scaffolds or supports			
4. Experimenter provided student with a two prompts t selected from (not from baseline).			
5. Experimenter provided assistance as needed throughout the lesson			
6. Experimenter reminded/encouraged student to write down and use strategies learnt.			
7. Experimenter reminded/encouraged student to include all parts of the persuasive elements			
8. The experimenter reminded student to chart and graph his/her response results at the end of the essay			
9. Experimenter guided student to review goal set for lesson and compare performance to previous response			
10. Experimenter provided positive feedback and specific praise student on improvements made on written response.			
11. Experimenter revisited previous lessons/SRSD stages as needed to reiterate missed steps by the student during the independent practice.			
12. Experimenter and student discussed the POW-TREE strategy process and set a goal based on the outcomes.			
Total number of "Yes"	_____/12		%_____

Appendix Y

Follow-up Letter

The University of North Carolina at Charlotte
9201 University City Boulevard
Charlotte, NC 28223-0001

Dear Mr/Mrs:_____ (Parent)

I am sending this email as a follow-up to the consent letter I send home with your son/daughter_____ (Name of student). The letter was seeking your permission for your child to participate in a project called, "Effects of Self-Regulated Strategy Development on the Writing Skills and Inappropriate Social Behaviors of Students with Emotional and Behavioral Disorders." This is a project designed to see if a writing instruction called, Self-Regulated Strategy Development (SRSD), using behavior/social skills prompts can improve writing skills and targeted social behaviors of students identified as emotional or behavioral disorders (EBD). I would like to confirm if you received and/or if you would like to get another copy for you to respond. Your response will be highly appreciated.
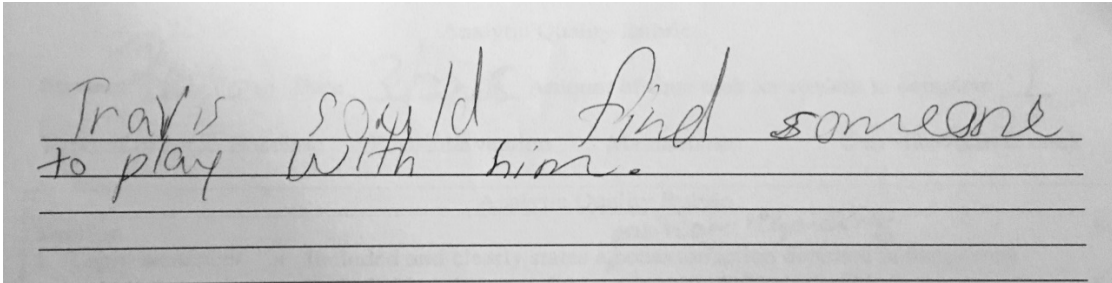
Sincerely,
Robai N. Werunga

Appendix Z

Participants' Writing Samples

Rashad

Baseline prompt: During math class, Andrew told Travis he didn't want to play with him anymore. Travis felt like kicking Andrew. What would you tell Travis to do?
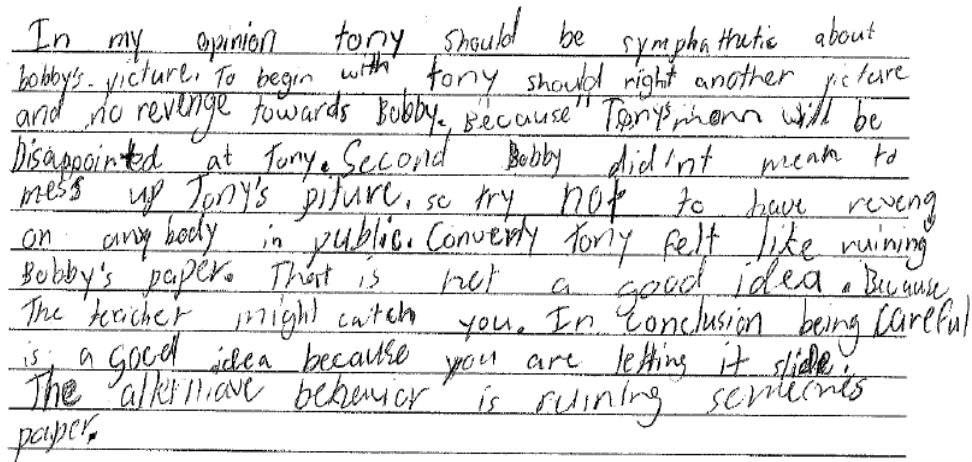
Written Response:

Typed Response: Travis should find someone to play with him.

Post-intervention prompt: Tony was carefully drawing a picture for his mother when Bobby accidentally bumped into him and ruined it. Tony felt like ruining one of Bobby's pictures. What do you think Tony should do?

Written Response

Typed Response:

In my opinion Tony should be sympathetic about Bobby's picture. To begin with, Tony should write another picture and not revenge towards Tony. Second, Bobby didn't mean to mess up Tony's picture. So, try not to have revenge on anybody in public. Conversely,

Tony felt like ruining Bobby's paper. That is not a good idea because the teacher might catch you. In conclusion being careful is a good idea because you are letting it slide. The alternative behavior is ruining someone's paper.

Cory

Baseline Prompt: Joe accidentally tripped Chris in the school hallway. Chris felt like punching Joe for this mistake. What would you tell Chris to do?

Written Response:

> I Would tell chris to move to a different spot in the hallway.
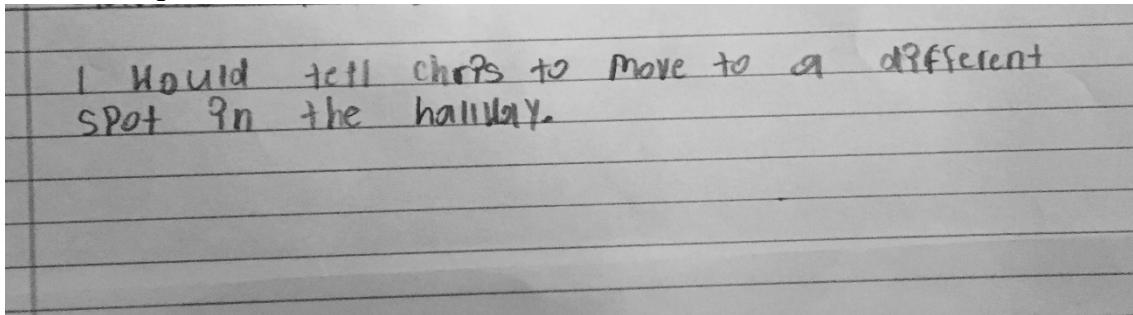
Typed Response: I would tell Chris to move to a different spot in the hallway.

Post-intervention Prompt: Jeff saw Ryan trip his best friend in class. Jeff felt like tackling Ryan. What would you tell Jeff to do?
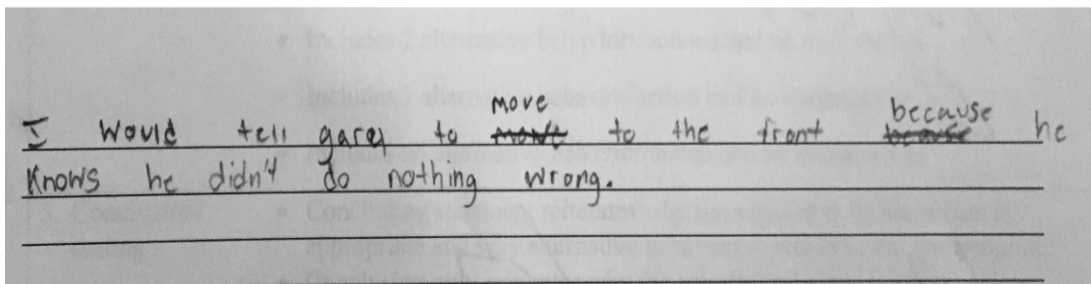
Prompt # 37

In my opinion, Jeff should tell a Adult and let the teacher handle it. First first Jeff should tell an adult so he don't get in trouble to. Second he should let the teacher handle it so he don't get into a fight. on the other hand instead of Jeff tackling ryan Jeff should move away. Nevertheless tackling somebody I can get Jeff suspended because he is hitting. Still when you let the teacher handle it you are not going to be in trouble. That is why Jeff should not tackle any body, or else he is going to be in trouble. to sum it up When Jeff tackled Ryan Jeff could have been sent to the office.

Typed Response:

In my opinion, Jeff should tell an adult and let the teacher handle it. First, Jeff, should tell an adult so he doesn't get in trouble too. Second, he should let the teacher handle it so he doesn't get into a fight. On the other hand, instead of Jeff tackling Ryan, Jeff should move away. Nevertheless, tackling somebody can get Jeff suspended because he is hitting. Still, when you let the teacher handle it, you are not going to be in trouble. That is why Jeff should not tackle anybody or else he is going to be in trouble. To sum it up, if Jeff tackled Ryan, he could have been sent to the office.

Kasim

Baseline Prompt: The teacher told Gary to move to the front seat in the class even though Gary wasn't doing anything wrong. Gary felt like refusing to move his seat. What would you tell Gary to do?

Written response:

Typed Response: I would tell Gary to move to the front because he knows he didn't do nothing wrong.

Post-intervention (Video) Prompt- Tony does not like it when the teacher praises another student's work; he rips the other student's paper.

Prompt #____ Video / Tony

In My opinion Tony should use etiquette because calling someone else picture dumb is inappropriate. To begin ripping somebody else picture is not respectful because it make them feel bad. Another reason getting out your seat without permission is bad because you could get a refferal. Finally Tom should be respectful and not hateful.

On the other hand instead of saying it's ugly and you hate it you should say I like it or it 100% nice because it would make them feel good. Still you should always respect people stuff because it is called respect.

To sum it up the consequences for what tony did is a suspension a call home or in school suspension. because that's disrespectful. That is why you should not be mean.

Typed Response:

In my opinion, Tony should use etiquette because calling someone else's picture "dumb" is inappropriate. To begin, ripping somebody else's picture is not respectful because it makes them feel bad. Another reason is getting out of your seat without permission is bad because you could get a referral. Finally, Tony should be respectful and not hateful. On the other hand, instead of saying 'it's ugly and I hate it" you should say "I like it" or "it looks nice" because it would make them feel good. Still, you should always people's stuff because it is called respect. To sum it up, the consequences for what Tony did are a suspension, a call home or in-school suspension, because that was disrespectful. That is why you should not be mean.