MIDDLE SCHOOL STUDENTS WITH EMOTIONAL DISORDERS:
DETERMINED TO MEET THEIR NEEDS THROUGH PERSUASIVE WRITING

by

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A Dissertation
Submitted to the
Graduate Faculty
of
George Mason University
in Partial Fulfillment of
the Requirements for the Degree
of
Doctor of Philosophy
Education

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Date: December 2, 2010

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Fall Semester 2010
George Mason University
Fairfax, VA
Middle School Students with Emotional Disorders:
Determined to Meet Their Needs Through Persuasive Writing

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Doctor of Philosophy at George Mason University

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DEDICATION

This is dedicated to my beloved parents, Annie and Hector. It seems like yesterday you walked me to my first day of preschool, when I was only two years of age. It is still so very fresh in my mind, my excitement when you left me and watched me walk into my first day of class. Now, thirty some years later, this little Mexican-Puerto Rican girl is Doctor Cuenca-Sanchez. You have been present in every step of my education, giving me encouragement and celebrating my successes. Everything I am and have accomplished in my life would not have been possible without you by my side. Thank you for always believing in me and for the endless love, emotional, and financial support you have given me through my entire life. Even when distance has forced us to be apart and it is hard not to have you close to me, know that you are in my mind everyday and I am very grateful for all you have done for me. I could not have asked for better parents and I feel honored to be your daughter. I promise I will continue to work hard to make you proud and know that I love you immensely.

Gracias mami y papi, este trabajo es en honor a ustedes. Los amo.
“Keep your dreams alive. Understand to achieve anything requires faith and belief in yourself, vision, hard work, determination, and dedication. Remember all things are possible for those who believe.”  

Gail Devers

This quote was my motto during the years in the doctoral program and my dream of becoming Dr. Cuenca-Sanchez has certainly come true. Many people crossed my path and were an enormous support during this process. I want to express my deepest and sincere gratitude to those who walked with me during this doctoral journey and helped me to succeed. First and foremost, I want to express my gratitude to my Chairperson, Dr. Margo Mastropieri, for always pointing me in the right direction and making sure I did not lose track. Margo—thank you so much for all the years you allowed me to work with you and for all you have taught me. I will always cherish our work together on different research projects, the days at the office when we shared laughs, and the words of encouragement you always gave me. You constantly forced me to step out of my comfort zone and to stretch my mind in ways I did not know I could. I have become a stronger person because of this and it has been a great honor working with you.

I also want to express my gratitude to my other committee members, Dr. Thomas Scruggs and Dr. Julie Kidd. Tom—it has been a great honor working with you. You were always willing to help and listen to me when I had an idea or was not sure about the path to take in my studies or career. I truly enjoyed your classes and learned so much from your feedback and our conversations. Thank you so much for giving me the opportunity to work with you and I promise to do everything possible to not let you down. Julie—from the moment I met you in class I knew I was going to learn a lot from you. Thank you for your support during my years in the doctoral program and during the dissertation phase. Your feedback, conversations, and encouragement were invaluable to me. To the three of you, it has been a true honor working with you.

The generous financial support I received made it possible to fund my doctoral studies and my dissertation research. Margo and Tom, thank you for selecting me as one of the recipients for funding through your Doctoral Leadership Grant in Special Education. I also want to thank the Graduate School of Education for awarding me fellowships, and for the dissertation scholarship awarded me for being one of the Holmes scholars from the Holmes Partnership Program. Finally, I also want to thank the Kellar Institute for awarding me a Kellar Institute Fellowship.
Conducting my dissertation research would not have been possible if I did not have the support from the school district and the building principals. Jill and Latif, thank you so much for granting me access to work at your school and for the opportunity to work with such an amazing group of teachers and students. You were always willing to help and assist in any way possible. Your school sets a very high standard. I would also like to give my warmest thanks to the cooperating teachers who volunteered to participate in the study: Gary, Chelsea, Mike, Betsy, Sarah, and Pat. These teachers are some of the most competent, dedicated, and professional educators with whom I have had the honor to work. Thank you so much for your flexibility, hard work, teamwork, organization, and willingness to learn. In addition, I would like to convey my gratitude to the instructional assistants who helped immensely with the research: Joan, Jackie, Bonnie, April, Mark, and Kelly. Thank you so much for all your help and positive attitudes.

I am also grateful to several good friends who assisted me at important stages during my study: Dani, Sara, Nancy, Stephanie, Catherine, Mary, and Theresa. Thank you for scoring assessment instruments, conducting observations, rescuing me from more than one technology crisis along the way, for helping with editing, and for providing emotional support and words of encouragement along the way. It has been a pleasure working with you and I value our friendships very much.

Finally, thank you to my friends who played an enormous role during this journey. Very special thanks to two of my dearest friends who have become part of my family: Yahaira and Luis. Thank you from the bottom of my heart for all your support during this process. You made sure I found a balance between studies and fun, constantly encouraged me to not give up, listened to me when I was not even sure what I wanted to say, shared my worries, frustrations, and successes. Be certain that you will always be part of my family, no matter where life takes us. I love you. Other friends provided a lot of emotional support during my studies, as well: Diego, Mona, Diana, and Rachel thank you for your friendship, words of encouragement, for listening, and for walking with me during this amazing journey. I love you!

This research was supported in part by a grant from the Office of Special Education Programs, U.S. department of education Grant No. H325D070008. This paper does not necessarily reflect the position or policies of that funding agency, and no official endorsement should thereby be inferred.
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ABSTRACT

MIDDLE SCHOOL STUDENTS WITH EMOTIONAL DISORDERS: DETERMINED TO MEET THEIR NEEDS THROUGH PERSUASIVE WRITING

Yojanna Cuenca-Sanchez, Ph.D.

George Mason University, 2010

Dissertation Director: Dr. Margo A. Mastropieri

This study examined the effectiveness of the Self-Regulated Strategy Development (SRSD) model of writing instruction on the writing performance and acquisition of self-determination skills for middle school-age students with emotional and behavioral disorders (EBD). SRSD instruction was modified by incorporating instruction on self-determination skills during the lessons. A group experimental design was conducted in which 21 seventh-grade students with severe EBD were randomly assigned to either experimental or control groups. The intervention was conducted during 30-minute sessions, four times per week, for 33 days. Six special education teachers participated in the study. Experimental teachers were trained on SRSD procedures and implemented the intervention with a high degree of fidelity. Using the SRSD model, experimental groups were taught to plan and write persuasive essays and incorporate self-advocacy into their writing. Students in the control condition received writing instruction with the established school writing curriculum, Write Traits (Spandel, 2002).
Dependent measures included students’ written essays that were evaluated according to length, number of words, paragraphs, sentences, transition words, and overall quality. The fluency test of the *Woodcock-Johnson III Tests of Achievement* was used as a standardized measure. In addition, students were administered (a) a self-efficacy writing measure; (b) a criterion-based test, to assess their knowledge about self-determination and self-advocacy; and (c) a strategy awareness prompt to evaluate their knowledge about the components of a persuasive essay. Furthermore, students and teachers were interviewed to assess their perspectives about the intervention. Students were evaluated at pretest and posttest in all measures. Maintenance and generalization to a content area were also assessed on the persuasive essay measure. Postintervention findings revealed experimental students significantly outperformed control students in all the persuasive essay-writing components assessed, in their ability to recall the parts of a persuasive essay, in the self-efficacy measure; as well as in their self-determination knowledge and perceptions about self-determination behaviors. At maintenance, experimental students outperformed control students, obtaining statistically significant differences in all writing measures (except number of words). At generalization, experimental students significantly outperformed control students in quality of overall essays and number of essay parts. Students and teachers interviews revealed an overall satisfaction with SRSD procedures and the results. Findings are discussed with respect to future research and practice.
1. Introduction

Students with emotional and behavioral disorders (EBD) exhibit social, behavioral, and academic difficulties. They have difficulty getting along with peers and teachers, exhibiting appropriate behaviors, and difficulty with learning that affects their successful progress in school (Henley, Ramsey, & Algozzine, 2009). Students with EBD typically have major academic deficits that affect their learning and tend to function at least one year behind their peers (Kauffman, 2005). Furthermore, across all disability categories, students with EBD have the poorest academic performance, transition outcomes, and the highest drop out rates (Ackerman, 2006; Bradley, Henderson, & Monfore, 2004).

Given that students’ behavior greatly affects the academic performance of this population, research conducted with students with EBD has most often centered on addressing behavioral and social issues, rather than on specific academic interventions. Further, across content areas, limited attention has been given to writing (Lane et al., 2008; Regan, Scruggs, & Mastropieri, 2009). Writing is a difficult task to master and many students with disabilities experience difficulty with expressive writing. Frequently this includes developing content; organizing their thoughts in a coherent way; establishing goals for writing; and managing the mechanics of writing (Graham & Harris, 2003). Thus, it has been suggested that research on interventions for students with EBD
should explore improving outcomes associated with expressive writing skills (Lane, 2004).

In order to improve the academic outcomes of students with EBD, instruction should also focus on teaching students to take ownership of their learning and develop self-determined behaviors that will help them participate and progress in the general education curriculum (Wehmeyer, Field, Doren, Jones, & Mason, 2004). In fact, self-determination has been identified as an important outcome of education. Research shows that when students are self-determined they have a better chance for success as they transition to the adult world (Algozzine, Browder, Karvonen, Test, & Wood, 2001). Hence, research on writing strategies that enhance the writing performance of students with EBD and that concurrently address self-determination skills is imperative.

**Statement of the Problem**

Students with emotional and behavioral disorders (EBD) often experience difficulties with their behavior and performance in many academic areas. According to the Individuals with Disabilities Education Act (IDEA), students are eligible for services under the emotional disturbance category if they exhibit one or more of five characteristics that markedly impede their performance in school. These include an inability to learn, inappropriate behavior or feelings, unsatisfactory relationships with teacher and peers, unhappiness and depression, and physical symptoms or fears.

This student population faces many challenges in school settings and comorbidity with other disabilities is common. The overwhelming majority of students with EBD are male; tend to be at least a year behind, academically; and are more likely to be educated
in more restrictive settings (Bradley et al., 2004; Bradley, Doolittle, & Bartolotta, 2008; Henley et al., 2009; Wagner, Kutash, Duchnowski, Esptein, & Carl Sumi, 2005).

When looking specifically at academic trends for this population, students with EBD exhibit serious academic deficits across all content areas and settings. Expressive writing is one area in which students exhibit the greatest difficulty (Anderson, Kutash, & Duchnowski, 2001; Lane, Wehby, Little, & Cooley, 2005a, 2005b; Nelson, Benner, Lane, & Smith, 2004).

Many of the challenges students with EBD experience have been associated with the behaviors they exhibit and with language difficulties. For example, research has documented that students with EBD who exhibit externalizing types of behaviors (e.g., conduct disorders) tend to have more pronounced academic deficits than do those who exhibit internalizing types of behaviors (Benner, Allor, & Mooney, 2008; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Nelson et al., 2004). Moreover, externalizing behaviors appear to be related to language functioning (Benner et al., 2008). Indeed, language deficits and EBD frequently co-occur (Nelson, Benner, & Rogers-Adkinson, 2003). Further, students with EBD tend to experience more expressive language deficits than receptive deficits (Nelson, Benner, & Cheney, 2005). Thus, taking into consideration that expressive language is associated with written expression, it is important to research academic interventions that target and support the development of expressive writing skills.

Despite the various needs of students with EBD, with regard to academic achievement, little research exists on academic interventions for these students;
especially interventions geared towards writing achievement (Lane, 2004; Mooney, Epstein, Reid, & Nelson, 2003; Regan et al., 2009). Given this reality, it is no surprise that little information exists about the specific difficulties in writing that students with EBD have. However, previous reviews of the literature on the academic characteristics and progress of students with various disabilities have noted that the writing performance of students with EBD is similar to the writing performance of students with LD (Anderson et al., 2001; Trout, Nordness, Pierce, & Epstein, 2003). Thus, what we know about written expression difficulties for students with learning disabilities (LD) can also be used to recognize similar difficulties in students with EBD. Overall, previous research has identified three major problem areas: (a) difficulties with the mechanics of writing; (b) an inability to develop content; and (c) a lack of knowledge about the writing process (Baker, Gersten, & Graham, 2003; Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Gersten & Baker, 2001).

In the past 20 years, reviews on writing intervention research have identified interventions that show promise in increasing the writing skills of students with a variety of disabilities, across grades. Among these reviews, it has been found that explicit teaching of writing processes; strategies to plan, revise, and edit writings; strategies for setting goals for writing; technology supports; and feedback are effective for enhancing the writing skills of students with disabilities (Gersten & Baker, 2001; Graham & Perin 2007a; Mason & Graham, 2008; Rogers & Graham, 2008). Of the interventions studied, one model that shows promise is the Self-Regulated Strategy Development (SRSD). This writing intervention is an empirically validated intervention that explicitly teaches
students the writing process, and at the same time, encourages the development of self-regulatory skills (Santangelo, Harris, & Graham, 2008). SRSD involves six basic stages of instruction that include: (a) developing and activating background knowledge; (b) discussing the strategy, including benefits and expectations; (c) cognitive modeling of the strategy; (d) memorization of the strategy; (e) collaborative support of the strategy, and (f) independent practice. During instruction, four basic strategies for self-regulation are emphasized: goal setting; self-instruction; self-monitoring; and self-reinforcement (Harris, Graham, & Mason, 2003).

SRSD instruction has proven to be effective in teaching students to write well across genres, including persuasive writing. However, the majority of these studies have investigated the effectiveness of this strategy with students who have learning disabilities (De La Paz & Graham, 1997; De La Paz, 2005; Graham & Harris, 1989; Graham, Harris, & Mason, 2005; Sexton, Harris, & Graham, 1998). Recently, the effectiveness of this intervention has begun to be investigated with students with EBD. To date, eight studies have investigated the SRSD model with students with EBD (Adkins, 2005; Lane et al., 2008; Lane et al, 2010; Little et al., 2010; Mason, Kubina, Valasa, & Mong Cramer, 2010; Mason & Shriner, 2008; Mastropieri et al., 2009, 2010). Thus, there is a clear need for more research on SRSD writing instruction for students with EBD.

Another area in which research suggests students with EBD lack skill, is the area of self-determination. Self-determination has been defined as a combination of skills, knowledge, and beliefs that allow a person to have control over his/her life (Algozzine et al., 2001). It involves the setting and attaining of goals; recognition of one’s strengths
and limitations; self-advocacy; decision and choice making; problem solving; and self-regulation (Algozzine et al., 2001; Field, Sarver, & Shaw, 2003). Self-determination is recognized as a vital skill for students with disabilities to achieve success in the adult world. Yet many students with EBD lack these skills (Ackerman, 2006; Carter, Lane, Pierson, & Glaeser, 2006). In fact, too little research has examined the success of interventions, or the knowledge and perspectives on self-determination, that students with EBD have (Algozzine et al., 2001; Ackerman, 2006; Carter et al., 2006; Test et al., 2004).

In addition, the literature has suggested that one effective way of teaching self-determination skills to students with disabilities is by incorporating elements of self-determined behavior within the general education curriculum. However, few studies have explored the incorporation of self-determination within a content area (Fowler, 2007; Konrad & Test, 2007; Martin et al., 2003; Mithaug & Mithaug, 2003a). Considering the identified gaps in the research, there is an urgent need to investigate writing interventions for students with EBD that incorporate instruction in self-determined behaviors.

**Purpose**

The purpose of the current study is to replicate and extend previous studies on SRSD instruction for persuasive writing with middle school students who have a diagnosis of EBD, and to incorporate self-determination skills as a component. Specifically, this study seeks to determine the effectiveness of SRSD instruction on the writing performance and acquisition of self-determination skills for middle school-age students with EBD. SRSD instruction was modified by incorporating instruction on self-
determined behaviors, such as choice making, goal setting, problem solving strategies, self-advocacy, and self-efficacy during the lessons.

**Research Questions**

1. Does SRSD instruction for persuasive writing increase the quality, length, components, and organization of written persuasive essays?
2. Are students able to maintain gains in writing and generalize knowledge to other content areas?
3. Does SRSD instruction increase knowledge of the components of a good persuasive essay?
4. To what extent does SRSD instruction, taught concurrently with self-determination components, influence students’ self-determination knowledge and their perceived self-efficacy in writing?
5. How do students with EBD perceive the usefulness of learning persuasive writing and self-determination skills?
6. How do experimental teachers and instructional assistants, who are trained and provide SRSD instruction, perceive the usefulness of the POW+TREE strategy with embedded self-determination components?
7. How do control teachers and instructional assistants perceive the usefulness of the district writing curriculum used?
**Definition of Terms**

*Emotional disturbance* means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:

(A) An inability to learn that cannot be explained by intellectual, sensory, or health factors.

(B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.

(C) Inappropriate types of behavior or feelings under normal circumstances.

(D) A general pervasive mood of unhappiness or depression.

(E) A tendency to develop physical symptoms or fears associated with personal or school problems.

(ii) Emotional disturbance includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance under paragraph (c) (4) (i) of this section. (34 C.F.R. § 300.8 (c) (4) (i), 2006)

*Expressive language* refers to the ability of communicating thoughts through spoken, basic written language (spelling, word choice, mechanics), or expressive written language (sequence, sentence structure, and overall organization of thoughts) (Benner, Nelson, & Epstein, 2002; Hallahan, Lloyd, Kauffman, Weiss, & Martinez, 2005).

*Externalizing behaviors* is a term used to describe acting out behavior such as fighting, aggression, deceitfulness (Furlong, Morrison, & Jimerson, 2004; Kauffman, 2005).
*Fluency deficits* represent difficulties in automatically and rapidly processing information and demonstrating the skills needed to complete simple reading, math, or writing tasks efficiently (Benner et al., 2008).

*Internalizing behaviors* is a term used to describe behavior related to anxiety, social withdrawal, depression (Gresham & Kern, 2004; Kauffman, 2005).

*Meta-analysis* is a research method that combines the results of several studies addressing a discreet area of research (Creswell, 2005). By merging the results across studies, researchers are able to gain better understanding of the effectiveness of a specific intervention. For studies that are experimental or quasi-experimental (has a comparison group) effect sizes are calculated. An effect size (ES) indicates the magnitude of the effectiveness of a treatment. An ES of .20 is considered small, an ES of .50 is considered medium, and an ES above .80 is considered large. For single subject designs, the percentage of non-overlapping data (PND) is calculated (Scruggs, Mastropieri, & Casto, 1987). A PND above 90% suggests that the intervention is very effective. A PND between 70-90% suggests the intervention is effective. A PND between 50-70% means the intervention has low effectiveness, and a PND below 50% suggests the intervention is ineffective (Scruggs et al., 1987).

*Meta-synthesis* refers to a qualitative research technique in which topics and insights obtained from individual qualitative research are integrated into a major synthesis by creating broad themes and findings with the purpose of better understanding an entire body of qualitative research on a determined topic (Scruggs, Mastropieri, & McDuffie, 2007).
Mild disabilities is often used to describe students within the special education categories of learning disabilities, mild intellectual disabilities, or emotional disturbance due to some shared qualities or characteristics. For example, children who have a mild disability are (a) the largest subgroup of children receiving special education services, (b) often identified during early childhood, and (c) have some psychological, educational, and social characteristics in common. Further, the causes of mild disabilities are often difficult to identify; and these students tend to have a poor self-concept, experience low academic achievement, have limited verbal or writing skills, and tend to exhibit some behavior problems (Henley et al., 2009).

Middle school can encompass a range of grades from 5/6 to 8/9. For purposes of this study, middle school students are defined as students in 7th grade.

POW+TREE is a mnemonic developed for use with the Self-Regulated Strategy Development (SRSD) model of instruction that helps students remember the elements of the persuasive writing genre (Harris, Graham, Mason, & Friedlander, 2008). POW represents process steps: Pick my idea; Organize my notes; Write and say more. TREE stands for Topic Sentence, Reasons, Explanations, and Ending.

Pragmatic deficits refer to difficulties understanding the language use rules in social contexts (e.g., speaker-listener relationship, eye contact, taking turns in a conversation) (Benner et al., 2002; Hallahan et al., 2005).

Processing speed refers to the rate with which a student is able to process information (e.g., fluent word recognition), automatically and rapidly, without the need to think it
through, so that attention can be placed on more complex tasks such as, reading comprehension (Benner et al., 2008).

_Receptive language_ refers to the ability to understand what is being said. It involves the act of understanding sounds, clustering the sounds together into words and sentences and comprehending what is being said (Hallahan et al., 2005).

_Self-advocacy_ is defined as the skills needed to speak for one’s self. It involves four categories that include (a) knowledge of self—the ability to recognize strengths, preferences, goals, interests, learning styles, supports and accommodations, responsibilities, and characteristics of one’s disability; (b) knowledge of rights—an understanding of personal rights, community rights, human service rights, consumer rights, educational rights, steps to remedy violations, steps to advocate for change, and knowledge of resources; (c) communication—the ability to be assertive, negotiate, persuade, listen, articulate, and compromise; and (d) leadership—knowledge of group’s rights, advocating for others or for causes, political action, knowledge of resources, recognizing roles of team members, and organizational participation (Test, Fowler, Brewer, & Eddy, 2005).

_Self-determination_ encompasses a combination of skills, knowledge, and beliefs that allow a person to have control over his/her life. It involves setting and attaining goals, recognizing one’s strengths and limitations, self-advocacy, decision and choice making, problem solving, and self-regulation (Algozzine et al., 2001; Field et al., 2003).
Self-Regulated Strategy Development is an empirically validated model for supporting students during the writing process (planning, organizing, monitoring, evaluating, and revising) by helping them develop and integrate self-regulation skills (Harris et al., 2003). Self-regulation includes self-generated thoughts, feelings, and actions that are planned and adapted towards the attainment of a personal goal (Zimmerman, 2000).

Written expression refers to the ability of a person to organize thoughts and language in writing and convey meaning. It involves the process of planning, writing, and revising (Tindal & Crawford, 2002).
2. Literature Review

This chapter presents an overview of the literature on students with emotional and behavioral disorders (EBD) relative to academic achievement, writing instruction, and self-determination skills. The first section describes the academic achievement, behavioral issues, and language skills of students with EBD as well as academic interventions conducted with this student population. The second section describes the writing difficulties students with mild disabilities experience. Next, findings from major reviews of writing instruction for students with mild disabilities are described. Following, an overview of prominent writing interventions is presented. The fifth section describes the Self-Regulated Strategy Development (SRSD) intervention model in detail. Finally, the last section provides an overview of the literature on self-determination/self-advocacy and how it relates to students with EBD. A summary and synthesis concludes this chapter.

Literature Search Procedures

The studies included in this review were selected by conducting a comprehensive search of the available literature. An attempt was made to locate all relevant research on students with EBD and school age children with mild disabilities (e.g., learning disabilities and emotional/behavioral disorders) with regard to their behavioral and academic characteristics, writing development, writing interventions conducted with this
student population, and self-determination skills. Literature that assessed the
effectiveness and use of SRSD instruction was specifically reviewed. Studies on SRSD
instruction with school-age children with learning disabilities, or emotional disturbance,
and students identified at-risk were included.

First, computer-assisted searches of the following databases were conducted:
ERIC, Web of Science, Social Citation Index, Dissertations Abstract, and PsycInfo.
Keywords used in the search included: emotional disorders, emotional disabilities and
characteristics, writing and special education, writing and emotional disturbance, writing
and mild disabilities, writing and learning disabilities, writing interventions and special
education, Self-Regulated Strategy Development and writing, self-determination, self-
determination and students with emotional disorders, self-determination interventions and
special education, self-advocacy and special education, behavioral disorders and self-
determination, goal setting, choice making, and problem solving.

Second, ancestry searches were conducted using reference sections of relevant
articles and meta-analyses. Third, relevant renowned journals were accessed, in
particular: Learning Disabilities Research & Practice, Journal of Learning Disabilities,
Journal of Special Education, Exceptional Children, and Behavioral Disorders.

Students with Emotional/Behavioral Disturbance

According to the implementing regulations for our nation’s special education law,
the Individuals with Disabilities Education Act (IDEA), emotional disturbance is defined
as follows.
...a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:

(A) An inability to learn that cannot be explained by intellectual, sensory, or health factors.

(B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.

(C) Inappropriate types of behavior or feelings under normal circumstances.

(D) A general pervasive mood of unhappiness or depression.

(E) A tendency to develop physical symptoms or fears associated with personal or school problems.

(ii) Emotional disturbance includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance under paragraph (c) (4) (i) of this section. (34 C.F.R. § 300.8 (c) (4), 2006, p. 46756)

Although emotional disturbance (ED) is the term used in federal regulation, students with these characteristics are often labeled as behaviorally disordered or as having emotional and/or behavioral disorders (Kauffman, 2005). For purposes of this review the term emotional and behavioral disorder (EBD) is used to refer to these students.
The most recent national data published indicates that of the 6,046,031 students with disabilities, ages 6 through 21 years, receiving special education services in 2003-2004, a total of 484,479 were classified under the emotional disturbance category (U.S. Department of Education, 2007). Many factors influence the social and academic progress for these students. Three longitudinal studies supported by the Office of Special Education Programs, Special Education Elementary Longitudinal study (SEELS); National Longitudinal Transition Study-2 (NLTS2); and SLIIDEA- the Study of State and Local Implementation and Impact of IDEA) provide a comprehensive perspective on students with EBD across grade levels (Bradley et al., 2004, 2008; Wagner et al., 2005).

Approximately 8% of special education students are identified with EBD as their primary disability. An overwhelming number of students with EBD are male. Eighty-percent of elementary and middle school children with EBD and 76% of secondary school youth with EBD are male. Across racial and ethnic backgrounds, 57% of elementary and middle school children are White, 27% are African American, and 12% are Hispanic. Socioeconomic status is also a factor associated with students with EBD. Thirty-three percent of elementary and middle school children with EBD are living in poverty compared with 16% of students in the general education population (Wagner et al., 2005).

Comorbidity is also common among this population of students. Many students with EBD are diagnosed with additional disabilities, such as Learning Disabilities (LD), Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), or Obsessive Compulsive Disorder (OCD), among
other psychiatric disorders (Henley et al., 2009; Kauffman, 2005). In addition, students with EBD are more likely to be educated in more restrictive settings compared to students with other disabilities (Bradley et al., 2004, 2008; Wagner et al., 2005). Students with EBD face many challenges. Therefore, it is imperative that the behavioral/academic characteristics, performance, and needs of this group of students are fully identified and understood.

**Academic achievement and students with EBD.** Students with EBD consistently have the worst outcomes across academic, behavioral, and social skills in comparison to students identified in other disability categories (Bradley et al., 2004, 2008). Current research on students with EBD has been conducted in an effort to better understand the characteristics and the academic performance of this student population.

Trout et al. (2003) conducted an extensive review of the academic research trends and functioning level of children with EBD from the years 1961 to 2000. Sixty-five peer-reviewed journal articles were included in this review. For inclusion in the review, the sample had to include children with EBD, between 5 and 21 years of age, and at least one dependent variable in a specific academic content area must have been included.

The analysis resulted in 70 data sets divided across four decades and provided information about historical trends in the research. Also, two categories were described (a) student characteristics (age, gender, intelligence quotient, race, socioeconomic status, placement setting, academic content areas); and (b) academic status. Of the reports describing the academic status of students with EBD, which encompass 16 data sets, none reported student performance at or above grade level. Furthermore, students with
EBD were found to be performing below grade level in the areas of reading, mathematics, and written expression.

Similar results were obtained in a recent meta-analysis of the academic status of students with EBD conducted by Reid, Gonzalez, Nordness, Trout, and Epstein (2004). Twenty-five articles, spanning the years 1961 to 2000, were included consisting of (a) students with EBD or co-occurrence of EBD and another disability; (b) an assessment of at least one academic content area; and (c) a sample of children and youth between 5 and 21 years of age.

Results indicated that 75% of students with EBD, included in the sample, had an overall achievement level that was below the mean of students without disabilities. An overall effect size ($ES = -.69$) was obtained. This suggests a moderate to large difference in academic functioning and an overall mean achievement level at the 25th percentile. According to Reid et al. (2004), with regard to academic functioning, students with EBD performed significantly lower in all subject areas, especially in mathematics and spelling. The performance of students with EBD remained stable across age. This finding is in accord with previous studies that have shown students with EBD do not improve over time (Anderson et al., 2001). Nevertheless, there is some evidence that the academic achievement of students with EBD, in some content areas, might worsen as they age. In a cross-sectional study of 155 students with EBD, grades K-12, in a public school setting, Nelson et al. (2004) found significant differences between children and adolescents, in mathematics performance, whereas reading and writing achievement of these students remained stable over time.
The setting in which students with EBD are educated has also been examined by researchers. Reid et al. (2004) found that students with EBD exhibited academic delays regardless of the instructional setting whether general education class, resource room, self-contained class, or special school settings. However, there is some evidence that suggests the performance of students with EBD varies depending on the setting in which they are educated. For example, Lane et al. (2005a) examined and compared the behavioral, social, and academic characteristics of students with EBD educated in more restrictive environments (e.g., self-contained schools) versus the characteristics of students with EBD in less restrictive settings (self-contained classrooms in general education schools). Their sample included 72 students with high-incidence disabilities (ED, LD, ADHD). To assess progress, behavioral rating scales, standardized, and curriculum-based measures were used. Results showed that students who were educated in self-contained classrooms had higher academic skills in reading comprehension, reading fluency, oral language, written language, and mathematics when compared to students educated in self-contained schools. However, there were no differences in the students’ social skills in either setting. Interestingly, students with EBD in self-contained classrooms exhibited significantly higher levels of internalizing behaviors than students in self-contained schools. On the other hand, students in self-contained schools exhibited more externalizing behaviors when compared to their peers in self-contained classrooms; however, the statistical difference between both groups was not significantly higher.

In a subsequent study, Lane et al. (2005b) examined how students with EBD progressed and benefited over time, either in a self-contained school or in a self-
contained classroom, from the beginning to the end of the school year. Results showed that students in both settings made limited academic improvement. Across settings, no significant differences were found. Whereas students educated in the self-contained school experienced modest progress in reading comprehension and oral language skills, they showed significant decreases in writing scores as compared to students educated in self-contained classrooms. The latter group showed no changes on writing measures.

To further investigate the academic, social, and behavioral performance of students with EBD, Lane, Barton-Arwood, et al. (2008) conducted a study with 42 elementary and secondary age students in a school that specialized in serving students with severe emotional and behavioral disorders. Standardized and curriculum-based measures were used to assess students’ academic performance. Findings revealed that both elementary and secondary students performed below the 25th percentile in reading, mathematics, and written expression. Also, as students became more fluent in reading, their reading comprehension skills did not improve.

The academic achievement and lack of academic progress for students with EBD, in all content areas and across all settings, is more than alarming (Anderson et al., 2001; Lane et al., 2005a, 2005b; Lane, Barton-Arwood, et al., 2008; Nelson et al., 2004). Thus, it is imperative to take a closer look at the specific types of behaviors and other issues related to academic achievement for this student population.

**Behavioral issues influencing academic achievement.** Students with EBD exhibit internalizing and/or externalizing behavior problems that affect their academic achievement and progress in school (Abikoff et al., 2002; Lane, Barton-Arwood, et al.,
2008; Nelson et al., 2004). Internalizing behavior problems are manifest when a student turns inward in social or emotional conflict (Henley et al., 2009). There are several types of internalizing disorders: (a) anxiety-related disorders (separation anxiety disorder, selective mutism, obsessive-compulsive disorder, posttraumatic stress disorder); (b) mood disorders (depressive disorder, chronically depressed mood); and (c) suicidal ideation or planning (Gresham & Kern, 2004). Externalizing types of behaviors are more disruptive and overt. Some examples include behaviors that manifest in aggression, destruction, deceitfulness, hyperactivity, and violation of rules (Furlong, et al., 2004). In fact, these types of behaviors, because they are so apparent and most disruptive in the classroom, are frequently seen as indicators of a serious behavioral disorder, prompting referrals for special education assessments (Henley et al., 2009; Gresham & Kern, 2004).

Several studies have examined the relationship between academic achievement and types of problem behaviors. Nelson et al. (2004), in their cross-sectional study of 155 students with EBD in grades K-12, examined the contributions of externalizing and internalizing problem behaviors in predicting reading, writing, and mathematics achievement. Their findings revealed that students with EBD who exhibit externalizing behaviors, such as aggression and attention problems, are more likely to experience academic deficits in reading, written language, and mathematics in comparison to students who exhibit internalizing type of behaviors, such as, anxiety, depression, and social/behavioral problems. This finding is in accordance with other studies that have also examined the relationship between types of problem behaviors and academic deficits. For example, Abikoff et al. (2002) examined gender and comorbidity, including
anxiety disorders and disruptive behavioral disorders, among a sample of 403 boys and 99 girls who were between the ages of 7 and 10 years and had ADHD. They found a strong correlation between deficits in academic achievement and the presence of externalizing types of behaviors, in relation to other psychiatric disorders, either in isolation or combined.

Lane, Barton-Arwood, et al. (2008) also investigated the degree to which externalizing and internalizing behaviors, problem behavior patterns, and school adjustment predict academic performance in reading, writing, math, of elementary and secondary age students with EBD who are placed in a self-contained school. Results suggest that the scores of both elementary and secondary students were significantly below the 25th percentile for reading, math, and written expression. Students with higher levels of school adjustment and internalizing behaviors had higher broad reading scores. However, only school adjustment was a predictor of broad written expression skills. Students with higher levels of school adjustment performed better in writing. In this study, school adjustment was a stronger predictor of performance than was the presence of externalizing behaviors.

Processing deficits (e.g., visual processing, working memory, long-term memory, and executive functioning) of students with EBD have also been investigated in relation to their contribution to externalizing behavior and attention problems. Benner et al. (2008) conducted a cross-sectional study of 133 students with EBD, in grades K-12, to assess the prevalence of processing deficits, and examined how fluency deficits in reading, mathematics, writing, academic skills, and language contribute to the
externalizing, internalizing, and attention problems of this population. Results showed that more than half of the sample evidenced processing deficits. Students with fluency deficits in reading, math, and writing evidenced more externalizing and attention problems than did students who evidenced academic skills or language deficits. Difficulties with the academic processing speed predicted externalizing behaviors and attention problems, but not internalizing problems.

In general, research has shown that students with EBD who (a) exhibit externalizing types of behaviors, (b) have lower levels of school adjustment, and (c) experience academic processing speed deficits tend to have more pronounced academic deficits than do those who exhibit internalizing types of behaviors. Moreover, research has suggested that the externalizing problem behaviors of students with EBD appear to be related to language functioning (Benner et al., 2008). Hence, it is important to also examine the co-occurrence of language deficits in students with EBD, and how it impacts the academic achievement and progress of these students.

**Language skills and students with EBD.** The ability to communicate and use language effectively is also an issue for students with EBD. Previous research indicates that language deficits and EBD frequently co-occur (Nelson et al., 2003). Benner, Nelson and Epstein (2002) conducted a review of 26 quantitative studies, spanning from 1993 to 1996, which focused on (a) the prevalence and types of language deficits (e.g., receptive, expressive, and pragmatic) in children with EBD; and (b) the prevalence of EBD in children diagnosed with language deficits. Included in this review were 2,358 children with EBD and 438 without EBD between the ages of 4 to 19 years. Researchers
reported that an average of 71% of children with EBD experienced significant language deficits. When looking at language deficits by type, it was found that the majority of students experienced pragmatic deficits, followed by expressive deficits, and lastly receptive deficits. Further, it was found that approximately 57% of children with language deficits also experienced EBD.

Nelson et al. (2003) further investigated the characteristics of students with comorbid EBD and language deficits in a cross-sectional study that included a sample of 152 students, in grades K-12, in an urban school district in the Midwest. Findings revealed that 45% of the sample selected had a language deficit. Thirty-two percent of children and 54% of adolescents experienced difficulties with receptive and expressive language. It was found that across age groups, students who exhibited EBD and language deficits were more likely to have severe expressive language deficits than receptive language ones. In addition, these students exhibited mild to moderate achievement deficits in reading, mathematics, and written language. Moreover, it was found that the intensity of language delays, especially expressive language delays appear to increase with age (Nelson et al., 2003).

Similar findings were obtained in another cross-sectional study conducted by Nelson et al. (2005). In this study, researchers examined deficits in language skills across age and gender for a random sample of 166 students with EBD, in public school settings, across grades K-12. They also examined the specific types of problem behaviors that were related to deficits in language skills. Findings revealed that both boys and girls experienced similar expressive and receptive language deficits across grade levels.
However, in this study, the language deficits of students with EBD appeared to remain stable over time. Moreover, students with EBD experienced more expressive language deficits than receptive language deficits.

With regard to the contribution of the type of problem behavior (externalizing or internalizing) to the language skills of students with EBD, researchers found that students who exhibited externalizing types of behaviors were more likely to experience language deficits, especially expressive deficits, in comparison to students who exhibited internalizing behaviors (Nelson et al., 2005).

Findings from these studies have serious implications for the education of students with EBD, especially as it relates to the development of expressive language. Expressive language is closely related to writing. In fact, “writing could be well thought of as one of the most important expressive skills for students with behavior disorders or emotional disturbance” (Tindal & Crawford, 2002, p. 104). Recognition that language deficits influence academic achievement and behavior of students with EBD is imperative; as is research on academic interventions that target the development of expressive language skills.

**Academic interventions for students with EBD.** Research has shown that students with EBD face many academic challenges and experience a lack of academic progress in reading, mathematics, and writing (Lane et al., 2005a, 2005b; Nelson et al., 2003, 2004; Reid et al., 2004). Yet, little research has been conducted to identify evidence-based practices that can help this student population succeed in school,
particularly with regard to writing (Lane, 2004; Landrum, Tankersley, & Kauffman, 2003; Mooney et al., 2003; Regan et al., 2009).

Mooney et al. (2003) conducted a descriptive review to examine academic intervention research trends for students with EBD, for the years 1975-2002. Fifty-five peer-reviewed experimental studies were included. Findings revealed a tremendous need for more academic intervention research focused on students with EBD. Mooney and colleagues found that the majority of the studies reviewed lacked important demographic information about participants (e.g., race and SES) and the research was conducted primarily with male adolescent students (12 years of age and over). Single subject design was the methodology most frequently used and a great deal of the academic intervention research was conducted in special education settings. Research focused primarily on reading and math, whereas some content areas (writing, language skills, and science) were barely investigated.

These findings were also corroborated in a review of academic interventions for students with EBD conducted by Lane (2004). This review of the literature, spanning from 1990 to 2003, identified studies involving academic interventions with school-age children in the areas of reading, written expression, and mathematics for students with, or at risk for, EBD. Twenty-five articles were included in the review; only one study in writing met the inclusion criteria, and it focused on spelling (McLaughlin, 1992). Furthermore, Lane states that, “academic interventions targeting written expression of students with or at risk for EBD represent, by far, the least developed instructional area”
Thus, there is a tremendous need for more research on academic interventions, especially in writing instruction for students with EBD.

In a recent descriptive review of intervention research in literacy for students with EBD that covered the years 2003-2008, Regan et al. (2009) identified 21 articles that focused on literacy instruction for students with EBD. Studies were divided into the following three categories (a) peer-mediated literacy interventions; (b) reading; and (c) writing interventions. Regan and colleagues state that writing interventions continue to be one of the areas in which limited research exists. Nevertheless, these researchers were able to identify four empirical studies in written expression that have been conducted with students with EBD in the past five years, and hold strong promise. One of these interventions focused on the use of dialogue journals to improve the writing quality and fluency of elementary students with EBD (Regan, Mastropieri, & Scruggs, 2005). The other three studies used the Self-Regulated Strategy Development (SRSD) model to improve the expressive writing skills of elementary and middle school students with, or at risk, for EBD (Lane et al., 2008; Mason & Shriner, 2008; Mastropieri et al., 2010).

Although research on academic interventions for students with EBD is scarce, researchers have suggested how to provide effective instruction and areas for future research. For example, Landrum et al. (2003) recommends providing academic instruction to students with EBD that (a) increases their attention to task during instruction; (b) teaches strategies to help them remember information and apply knowledge; and (c) self-regulate their own behavior by teaching them how to observe, record, and evaluate their performance. Moreover, it has been recommended that future
research take into consideration how the interactions between students and teachers; classroom-settings; instructional strategies; and student characteristics influence the effectiveness of an intervention, while ensuring that the research upholds adequate scientific rigor (Conroy, Stichter, Daunic, & Haydon, 2008; Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008).

In summary, more research on academic interventions for students with EBD is needed in all content areas, but special attention should be given to writing. Research on written expression needs to be conducted in order to improve the academic and social skills of students with EBD (Regan et al., 2009). Additionally, research on writing for students with EBD should explore outcomes associated with skill development in written expression and behavior; as it has been suggested that writing might serve as a vehicle for students’ self-expression, in place of other inappropriate/behavioral communication (Lane, 2004). In order to better understand the writing skills and needs of students with EBD, an examination of the writing performance of students with mild disabilities follows. Students with mild disabilities include students who have learning disabilities (LD), attention deficit disorder (ADD), attention deficit/hyperactivity disorder (ADHD), and/or EBD.

**Writing Characteristics of Students with Mild Disabilities**

Writing is a very powerful vehicle that allows the writer to reflect on and make meaning from individual thoughts. The practice of writing improves a writer’s ability to make sense of thoughts, form concepts and ideas, and discover connections between themes and personal experiences (Langer & Applebee, 1987). Writing is the medium
used to think about language, and it is through writing that people are able to express
thoughts, share ideas, and feelings. It is through writing that people make thoughts real
(Olson, 2008).

Writing effectively is a critical competency that all students need to master; it is
one of the abilities the National Assessment of Educational Progress (NAEP) assesses
periodically at national, state, and local levels (Salahu-Din, Persky, & Miller, 2008).
Unfortunately, reports from NAEP have shown that many students in fourth, eighth, and
twelfth grades are performing below grade level (Persky, Daane, & Jin, 2003).

Research on the writing difficulties of students with learning disabilities (LD) is
abundant (Baker et al., 2003; Gersten & Baker, 2001; Graham, Harris, MacArthur,
Schwartz, 1991; Mason & Graham, 2008). However, this is not the case for students who
have EBD. Reviews of research conducted with students with EBD show that primary
research has focused on addressing behavioral and social issues, rather than specific
academic interventions. Furthermore, across content areas, limited attention has been
given to literacy, and, more specifically, to writing (Lane, 2004; Landrum et al., 2003;
Mooney et al., 2003).

Reviews of the literature on the academic progress of students with EBD and LD
have shown that the writing performance of students with EBD is more similar to the
writing performance of students with LD, than it is for students with intellectual
disabilities (ID) (Anderson et al., 2001; Trout et al., 2003). For example, Trout et al.
(2003), in an extensive review, which included 65 peer-reviewed journals on the
academic research trends and functioning levels of children with EBD, recognized that
students with LD and EBD performed similarly. Academic comparisons were made between students with EBD and other groups in 84 cases. Students with EBD were compared to students without disabilities, \((N = 23)\); students with LD, \((N = 34)\); students with ID, \((N = 11)\); and students with ADHD, \((N = 16)\). Findings revealed that students with EBD performed at a lower level than did their peers without disabilities. However, students with EBD performed at a similar level to their peers with LD (in math and written expression) and similarly to students with ADHD, in all three academic content areas (math, reading, and written expression). When compared to students with ID, students with EBD generally outperformed students with ID, in math and written expression. Thus, the research knowledge base for students with LD, as it relates to written expression and the writing process, can inform the type of writing interventions that might be effective for students who have EBD.

It has been found that many of the characteristics of students with mild disabilities overlap (Henley et al., 2009). Findings from a study conducted by Mayes, Calhoun, and Crowell (2000) also support this claim. Mayes and colleagues investigated learning problems for children with ADHD and attention problems for children with LD, using data for 119 children, between the ages of 8 to 16 years. Results revealed that the presence of one or more types of LD was more common in the 86 children diagnosed with ADHD than in the children without ADHD. A learning disability was present in 70% of the children with ADHD. For the 86 children with ADHD, 26.7% had a learning disability in reading; 31.4% had a learning disability in math; and 30.2% had a disability in spelling. Furthermore, a learning disability in written expression was found to be two
times more common (65.1%). Thus, learning and attention problems coexist and are interrelated (Mayes et al., 2000).

Common descriptors found in the literature related to students with learning disabilities in writing include difficulties with (a) the mechanics of writing; (b) inability to develop content, and (c) an overall lack of knowledge about the writing process (Baker et al., 2003; Englert et al., 1991; Gersten & Baker, 2001; Graham, 1999; Gregg & Mather, 2002; Hooper, Swartz, Wakely, de Kruif, & Montgomery, 2002; Wong, 2000).

Mechanics of writing. Students with mild disabilities often experience difficulties with spelling, punctuation, and poor handwriting that interfere with the content of writing (Gregg & Mather, 2002). According to Graham (1999) students who experience difficulties with the mechanics of writing also have difficulty with higher order thinking skills such as, planning and content generation. If academic efforts primarily target spelling and handwriting, the overall quality and content of writing development is hindered. Furthermore, teacher perception about the quality of student writing is negatively influenced by poor handwriting and spelling mistakes. When students experience difficulties with handwriting and spelling, the quality, quantity, and fluency of their writing is affected because they erroneously think “good writing” encompasses only the production of text that is free of spelling, punctuation, and capitalization errors (Wong, 2000). In addition, lack of knowledge about phonological, orthographic, and morphological principles, and how to apply these principles, affect a student’s spelling skills, as well as the ability to recall and apply punctuation rules. This lack of knowledge/application further affects the student’s ability to construct meaning.
(Gregg & Mather, 2002). Thus, difficulties with the mechanics of writing impacts the generation of content in student writing.

**Content in writing.** Limited production of written content is also affected by a student’s lack of vocabulary. Gregg and Mather (2002) noted that students who have LD often have expressive rather than receptive problems when writing. They experience a problem called *word finding*. That is, students often know what they want to express, but they can’t recall the words to express what they want to say. Students with word-finding problems tend to repeatedly use the same words and phrases and they may also experience difficulties with syntax (e.g., word omissions, word-order errors, incorrect-subject-verb agreement, and incorrect use of pronouns). According to Wong (2000), when students with LD can’t find the vocabulary they want to use to express themselves they tend to use words they can spell, which in many instances, limits their writing articulation and communicative intent.

Aside from difficulties with the mechanics of writing and content generation, students with LD also experience problems with the organization of text structures. They have difficulties organizing their thoughts in a coherent way, planning and monitoring their writing, and establishing goals for writing (Graham et al., 2005).

**Knowledge of the writing process.** Expert or good writers are commonly described as goal-driven, aware of their audience, able to generate more ideas, and apply transitional connections to make their writing more coherent. In addition, they tend to focus more on creating meaning rather than on the details of form, and they closely monitor, plan, and revise their writing to increase clarity (Englert et al., 1991; Gersten &
Baker, 2001; Graham, 1999; Gregg & Mather, 2002; Hooper et al., 2002; Wong, 2000). Overall, good writers are aware of the writing process. However, this is not the case with poor writers. Students with mild disabilities often experience difficulties with expressive types of writing. For instance, they have difficulty categorizing and organizing ideas and with the overall structure of expository writing. In addition, they lack knowledge about the elements and organization of a paragraph, and they fail to apply self-regulatory skills such as planning, monitoring, evaluating, and revising. Moreover, they tend to be unaware of their audience when writing (Englert et al., 1991; Graham, 1999, Hooper et al., 2002; Wong, 2000). As a consequence, students with mild disabilities often experience anxiety, negative attributions, and low motivation that influence writing performance (Gregg & Mather, 2002).

Students with mild disabilities often experience many difficulties in writing. In the past, research on writing and student with disabilities focused more on the mechanical aspects of writing, which caused students to “lose ownership in the process and purposes of writing” (Gregg & Mather, 2002, p. 7). In the early 1990’s, a change occurred in the focus of research. Instead of targeting the mechanics of writing, more research focused on expressive instructional strategies to improve content and organization. Further, the overall writing process has been well investigated allowing students with learning disabilities to demonstrate their academic strengths (Baker et al., 2003; Gersten & Baker, 2001). Thus, in order to better understand expressive instructional writing strategies that have been studied and have shown promise, a description of the major findings from reviews on writing interventions is provided next.
Findings from Major Reviews of Writing Interventions

A total of 12 meta-analyses on writing interventions for students with mild disabilities have been conducted from 1986 to 2009 (Baker, Chard, Ketterlin-Geller, Apichatabutra, & Doabler, 2009; Bangert-Drowns, 1993; Bangert-Drowns, Hurley, & Wilkinson, 2004; De La Paz, 2007; Gersten & Baker, 2001; Graham, 2006; Graham & Harris, 2003; Graham & Perin, 2007a, 2007b; Hillocks, 1986; Mason & Graham, 2008; Rogers & Graham, 2008). Seven of the 12 were conducted during the past five years (Baker et al., 2009; De La Paz, 2007; Graham, 2006; Mason & Graham, 2008; Graham & Perin, 2007a, 2007b; Rogers & Graham, 2008). Some focused on a specific writing approach such as, word processing in writing instruction (Bangert-Drowns, 1993) or strategy instruction (De La Paz, 2007; Graham, 2006); whereas others focused on a specific intervention such as, the Self-Regulated Strategy Development (SRSD) model (Baker et al., 2009; Graham & Harris, 2003).

Moreover, other meta-analyses have been broader in their reviews. Some examined overall writing interventions for students with LD (Gersten & Baker, 2001; Mason & Graham, 2008) or overall writing interventions that included students assessed to be poor, average, or good writers, and students with LD (Graham & Perin 2007a, 2007b; Rogers & Graham, 2008). Three of these meta-analyses focused specifically on adolescents (Graham & Perin 2007a, 2007b; Mason & Graham, 2008). Eight different first authors produced these works. However, Steve Graham is the primary author or co-author of 6 of the 12 meta-analyses (Graham, 2006; Graham & Harris, 2003; Graham & Perin 2007a, 2007b; Mason & Graham, 2008; Rogers & Graham, 2008).
For purposes of this review, findings from seven of the most relevant and recent meta-analyses are discussed. Five focused on overall writing instruction (Gersten & Baker, 2001; Graham & Perin, 2007a, 2007b; Mason & Graham, 2008; Rogers & Graham, 2008). Two of these studies focused only on students with LD (Gersten & Baker, 2001; Mason & Graham, 2008) whereas the others included students within the general education population, with a variety of writing abilities. Then, two meta-analyses that focused solely on strategy instruction are discussed (De La Paz, 2007; Graham, 2006).

**Meta-analyses on overall writing instruction.** Gersten and Baker (2001), in their meta-analysis of writing interventions for students with LD, included 13 experimental and quasi-experimental studies that focused on teaching students to write better expository or narrative text. Seven of the 13 studies targeted specific instruction on the structure of narrative and expository text and 10 of the 13 studies emphasized instruction about the writing process. Some studies included writing strategies such as *Cognitive Strategy Writing Instruction (CSWI)*, SRSD, and revising strategies, among others. Studies that only focused on the mechanics of writing were excluded. The quality of students’ writing and students’ attitudes and perceptions about themselves as writers were the dependent measures.

According to the authors, results from the analysis demonstrated that interventions that focused on teaching students about text structure and the writing process yielded moderate to large effect sizes relative to the quality of students’ writing, as well as, their perceived writing self-efficacy and knowledge about the writing process.
Findings indicated that any effective instructional writing program should include the following three components: (a) explicit teaching of the critical steps in the writing process, (b) explicit teaching of the structure and characteristics of a writing genre, and (c) guided feedback from either teachers or peers.

Graham and Perin (2007a) also examined experimental and quasi-experimental research on adolescent writing instruction that focused on identifying effective instructional practices for improving the quality of students’ writing. The meta-analysis included studies of research with students in grades 4 to 12 in regular education school settings. Studies conducted in special schools were not included. Only 23% of the studies focused on struggling writers.

A total of 123 studies were included in this review and classified into 14 different treatments within the following five major writing approaches: (a) process approach to writing instruction; (b) explicit teaching of skills—grammar, sentence combining, strategy instruction, summarization, and text structure; (c) scaffold of students writing—prewriting, inquiry, peer assistance, study of models, product goals, and feedback; (d) word processing; and (e) extra writing. Weighted effect sizes (ES) were calculated only for holistic writing quality measures.

The process approach to writing instruction included studies in which teachers received formal training on the process of writing, as well as studies in which teachers did not receive training. Findings revealed that studies in which teachers received professional development on the process of writing obtained a moderate ES of .32 for the
quality of students’ writing. Studies in which teachers did not receive training yielded a smaller effect.

Five treatments were identified within the explicit teaching approach. Two of these were related to grammar instruction (e.g., the study of parts of speech, sentences, and sentence combining). Explicitly teaching students grammar yielded an ES of -0.32, whereas teaching students how to construct sentences yielded an ES of .50. Explicitly teaching students strategies to plan, revise, and edit their writing was another approach investigated. It was found that studies that employed strategy instruction yielded one of the highest effect sizes across all other interventions. Twenty effect sizes were calculated for this treatment and the average weighted effect size was .82. Moreover, when examining only SRSD instruction studies, an average weighted effect size of 1.14 was obtained. This was the largest average weighted effect size across all interventions. The other two treatments, within the explicit teaching approach, included summarization instruction, which obtained an ES of .82, and text structure instruction. The latter yielded a range of ES from 0.75 to -1.27 leading the authors to be unable to draw any reliable conclusions.

Within the scaffolding writing category, five studies were identified and included in this review. It was found that studies that included prewriting and inquiry activities obtained an ES of .32. Studies that examined collaboration among peers to plan, write, and revise compositions obtained an ES of .75. The study of models (examining examples of writings to imitate patterns) yielded an ES of .25. Studies that emphasized goals for writing yielded an ES of .70. Moreover, studies that examined the role of
feedback on the quality of students’ writing yielded a broad range of ES for which the authors concluded it was not feasible to draw meaningful conclusions. Finally, studies that examined the use of word processing yielded an ES of .55.

The authors make the following recommendations to improve the writing quality of adolescents.

1. Explicitly teach strategies for planning, revising, and editing compositions.
2. Teach reading summarization strategies because it helps students present information in writing.
3. Allow peer collaboration for planning, drafting, editing, and revising compositions.
4. Set clear goals for writing.
5. Allow the use of word processing as a tool for writing.
6. Teach sentence combining strategies.
7. Provide professional development for teachers on the process of writing.
8. Provide inquiry activities prior to writing.
9. Teach prewriting skills, such as the use of graphic organizers to help students organize their ideas prior to writing.
10. Provide good models of different types of genres.

Graham and Perin (2007b) conducted another meta-analysis that combined the results of the Graham and Perin (2007a) study described above with a meta-analysis of single subject research and a meta-synthesis of qualitative research. Authors provided a summary of the findings of their previous meta-analysis on experimental and quasi-
experimental studies and added 38 single subject writing studies. These studies covered six different writing interventions (strategy instruction, word processing, self-monitoring, direct instruction, grammar, and behavioral reinforcement). However, it is important to note that half of these single subject studies focused on strategy instruction and the calculated percentage of non-overlapping data points (PND) were taken from a previous meta-analysis conducted by Graham (2006). Graham and Perin (2007b) only calculated PND for the rest of the single subject studies. In addition, five qualitative research studies were included.

Findings revealed that strategy instruction yielded the largest PND of all the interventions (PND = 91%). Studies on self-monitoring and direct instruction yielded an average PND of 67% and 62%, respectively. Finally, studies that provided grammar instruction and some sort of behavioral reinforcement for improving student writing yielded an average PND of 61% and 56%, respectively. With regard to the meta-synthesis, the authors summarized 10 common themes that emerged from their analysis of the five qualitative studies. They presented the themes as a description of effective practices for teaching writing and included the following:

1. Provide writing opportunities across the curriculum and writing instruction.
2. Engage students in a variety of writing genres.
3. Provide instruction on the writing process.
4. Engage students in writing activities that keep them on-task.
5. Teach to the whole class, as well as small group or individual instruction.
6. Model the writing process and provide guided assistance.
7. Encourage students to self-regulate their writing process.
8. Teach with enthusiasm and in a positive environment.
9. Set high expectations.
10. Make adaptations to writing instruction, as needed.

Rogers and Graham (2008) expanded previous meta-analysis on writing interventions for adolescents, but their focus was on single subject studies. In this meta-analysis, studies included students in grades 1 to 12; the majority of the studies were conducted with students who struggled with writing. In contrast to Graham and Perin (2007a, 2007b) meta-analyses, this meta-analysis included studies conducted in special schools.

A total of 88 studies were included and classified into different treatments resulting in the following 10 categories: (a) goal setting for productivity, (b) prewriting activities, (c) reinforcement, (d) self-monitoring, (e) sentence construction, (f) strategy instruction for editing, (g) strategy instruction for paragraph construction, (h) strategy instruction for planning and drafting, (i) grammar instruction, and (j) word processing. To assess treatment effectiveness, the authors calculated PND for interventions that included four or more similar outcome measures. In addition, they provided the median and the mean PND for all treatments.

A total of 25 studies on strategy instruction for planning and drafting essays were included and all used the SRSD model of instruction. Findings revealed that teaching students strategies that will help them plan and draft either narrative or expository texts are effective in improving the elements, productivity, and quality (PND of 100%, 95%
and 99% respectively) of writing of students struggling in second to eighth grades and for typical writers in fourth to eighth grades. Second, in contrast to previous findings, in this study grammar instruction appeared to be effective (median PND of 84% with a mean PND of 83%) for struggling writers in second, fifth, and sixth grade. Moreover, instruction on how to form complex sentences was also found to be effective with struggling and typical writers in sixth twelfth grades (median PND 83%; mean PND of 86%).

Setting clear goals to enhance the writing productivity of struggling writers in elementary, middle, and high school was found to be effective. Results showed a median PND of 91% and a mean PND of 79 % for this intervention. Next, strategy instruction for editing compositions was found to be effective with struggling and typical writers in fourth, eight, and twelfth grades (median PND = 100%; mean PND = 84%). Likewise, teaching struggling and typical writers in middle school strategy instruction for constructing paragraphs yielded a median PND of 100% and mean PND of 97%.

In addition, similar to other studies, the use of word processing was found to be beneficial for struggling students in elementary grades (median PND of 75%; mean PND of 70%). Also, providing typical and struggling writers with some sort of reinforcement for writing productivity was also found to be an effective intervention (median PND = 100%; mean PND = 96%). Finally, low PND for prewriting activities and self-monitoring were found; thus, researchers caution the interpretation of the results in light of some methodological concerns with the studies.
Another study that surfaced from the previous meta-analyses described above was conducted by Mason and Graham (2008). In this study, the authors only included studies that were conducted with students with learning disabilities taken from the Graham and Perin (2007a) study and added single-subject studies that were also taken from other meta-analyses previously published (Graham, 2006; Graham & Harris, 2003; Graham & Perin 2007a, 2007b; Rogers & Graham, 2008). In addition, the authors added other studies found, but were not explicit as to which studies. Finally, Mason and Graham (2008) tempered the results of the studies with the quality of research indicators Graham and Perin (2007a) and Rogers and Graham (2008) reported in their respective studies. Mason and Graham (2008) presented the results of the 40 studies included, according to the following approaches to writing instruction: (a) **Strategic Instruction Model**, (b) **Cognitive Strategy Instruction in Writing**, (c) **Interactive Dialogues**, (d) **Computers and Writing Instruction**, (e) **Goal Setting**, and (f) **Self-Regulated Strategy Development**.

The Strategic Instruction Model (SIM) focuses on instruction about the structure of paragraphs and sentences, editing, and proofreading. Two studies investigated paragraph writing and obtained a 100% PND whereas other studies investigating sentence writing in middle and high school obtained a mean PND of 89%. Studies that focused on editing and proofreading obtained an average PND of 80%. However, the authors cautioned about the interpretation of the results in light of the low research quality of at least three studies.

Cognitive Strategy Instruction in Writing (CSIW) involves teaching students about expository text structure through collaborations between the teacher and students.
and among peers, active dialogue, modeling, text analysis, and guided and independent practice. For this writing approach, the authors presented ES for three studies with students’ students writing quality as the dependent measure assessed. The ES for these studies ranged from .52 to 1.22.

Two studies that focused on Interactive Dialogues were examined. The purpose of these studies was to teach students to interactively dialogue with the teacher while planning, writing, and revising opinion or report essays. The authors reported an ES of 3.50 and 1.52 for students writing quality. However, one of the studies just met 3 out of the 10 quality indicators, thus readers were cautioned about interpreting the results in light of the study’s low research quality.

Another two studies that investigated the effects of word processing in combination with strategy instruction for improving revision skills and narrative or informative writing were included in this review. The average ES of both studies on the quality of students writing was .84. In this case, the authors stated that at least one study was classified as high-quality research.

Setting goals for either writing better persuasive essays or for making meaningful revisions to writings were examined in three studies included in this review. The average ES among all studies was .76. Furthermore, all studies were classified as high-quality research.

Finally, 20 studies on the Self-Regulated Strategy Development (SRSD) model were included. Eighteen focused on writing instruction and two combined writing and reading. Of the 18 studies on writing, six were experimental, focused on teaching
planning skills with essay quality as the outcome assessed. The authors reported an ES of 1.26 for three of these studies and an ES of 1.35 for the rest of the experimental studies. As far as the 12 single subject studies, studies focused on planning and revising and the outcome measure assessed were essay elements. Results indicated an average of 95% PND for essay elements among all studies. Moreover, two of these studies evaluated quality of students’ writing resulting in a 100% PND. Lastly, the two studies that investigated writing in conjunction with reading also obtained strong results. One was a single subject design and the other a group design. The single subject study yielded a 92% PND for inclusion of ideas in informative essays whereas an ES of .72 was obtained in the experimental study for the same measure. In addition, in this latter study an ES of 1.13 was obtained for essay length.

**Synthesis.** Undeniably, in recent years there has been a proliferation of meta-analyses that have contributed to the body of knowledge about writing interventions that are effective for students with and without disabilities. Several points are worth noting from these studies.

1. Of the studies included in this section, all but two (De La Paz, 2007; Gersten & Baker, 2001), were authored or co-authored by one researcher, Steve Graham.

2. In two studies (Graham & Perin 2007b; Mason & Graham, 2008) the researchers incorporated a large number of results from other meta-analyses, thus a great deal of overlap and duplicate reporting exists among these reviews.

3. Search procedures were explicitly stated in all but one study (Mason & Graham, 2008).
4. Furthermore, two of these studies were not explicit as to the specific studies that were included in the analysis (Graham & Perin, 2007b; Mason & Graham, 2008).

In spite of the issues as stated above, some commonalities in the results were identified. First, strategy instruction is the writing intervention that yielded the highest ES and PND across all studies. For example, Gersten and Baker (2001) found that the explicit teaching of writing processes, structure, and characteristics of writing genres largely impacted students’ writing quality, self-efficacy, and knowledge about the writing process. Likewise, Graham and Perin (2007a) found that teaching students’ strategies to plan, revise, and edit their writings yielded an effect size of .82. Within this approach, the SRSD model in particular was found to be most promising (ES of 1.14).

When looking only at single subject studies similar results were obtained (Graham & Perin, 2007b). Strategy instruction yielded the largest PND (91%) of all interventions. And again, in Rogers and Graham’s (2008) meta-analysis of single subject studies, the same results were reported. Strategy instruction in planning and drafting either narrative or expository texts was the most effective strategy in improving the elements, (PND = 100%); productivity, (PND = 95%); and quality (PND = 99%) of writing of struggling writers in elementary and middle school, as well as for typical writers. Furthermore, when looking at particular components within strategy instruction, Rogers and Graham (2008) found that strategy instruction, for editing and constructing paragraphs, also yielded strong results.

Setting goals for writing and the use of technology supports (e.g., word processing) were also found to be effective across studies (Graham & Perin, 2007a; Mason &
Graham 2008; Rogers & Graham, 2008). Furthermore, providing feedback (Gersten & Baker, 2001; Mason & Graham, 2008) and reinforcement for writing productivity (Graham & Perin 2007a; Rogers & Graham, 2008) also enhanced students’ writing production and quality, as well.

The studies described above were broad in their reviews. They investigated overall writing interventions in all grades and across a variety of settings and students. However, other reviews have focused on investigating the effectiveness of a specific writing approach, namely strategy instruction. Following is a description of these meta-analyses.

Meta-analyses of strategy instruction. De La Paz (2007) and Graham (2006) focused on investigating the effectiveness of strategy instruction. Strategy instruction, in both studies, was defined as the teaching of writing processes such as planning, revising, and editing. Graham’s (2006) meta-analysis focused on experimental, quasi-experimental, and single subject studies that employed strategy instruction. The purpose was to investigate the impact that this intervention had on the overall writing performance of students when writing either narrative or expository texts. De La Paz’s (2007) meta-analysis focused on studies that applied cognitive strategy instruction; the purpose was to determine which components were most important.

Graham (2006) meta-analysis included 39 studies, 20 were experimental or quasi-experimental, and 19 employed single subject designs. Studies included students in grades 2-12. Samples included students with disabilities, as well as students considered to be poor, average, or good writers. The strategies taught in these studies focused on
either one of the writing processes (planning, revising, or editing) or a combination of all three. Studies were categorized and analyzed by student type, grade, genre, writing process, type of instructor, and type of instruction (SRSD or other). Furthermore, effect sizes and PND were calculated for the following writing measures: basic genre elements, quality, revisions, and mechanics.

The results showed that the overall effectiveness of strategy instruction in the 20 experimental and quasi-experimental studies was large. An effect size of 1.15 was reported when all the effect sizes were combined. Similarly, effect sizes above .82 were obtained by type of student (LD, poor, average, and good writers), which indicates that the intervention was effective across students.

In addition, after receiving strategy instruction, students appeared to be more knowledgeable about basic genre elements. Effect sizes for basic genre elements were moderate to high ranging from .60 for good writers to 2.09 for students with LD. The same was true for length of students’ essays. Students with LD obtained the highest effect sizes for length (ES of .97), followed by average writers (ES of .78), and poor writers (ES of .54). Strategy instruction did not have an impact on the length of good writers’ essays (ES of -.002).

The impact of strategy instruction on revision was only assessed for students who had LD and average writers. An ES of 1.11 was obtained for students with LD and an ES of .80 for average writers. Regarding the influence of strategy instruction in the mechanics in writing, results varied across type of students. Namely, for students with
LD and for good writers, moderate ES were obtained (.47 and .52, respectively) whereas for poor and average writers no significant ES were obtained.

Similar findings were obtained with the 19 single subject studies reviewed. Strategy instruction yielded an overall PND of 89%, which suggests it is a very effective intervention. Likewise, a high PND was obtained for maintenance (93%), generalization to different settings (90%), and generalization to other genres (84%). Single subject studies most frequently reported graphed data on the basic genre elements, whereas they did not graph or report data on length, quality, and revisions. Therefore, only the PND for the basic elements measure was calculated. Overall, the results indicated that strategy instruction was effective for improving students’ knowledge and application of basic genre elements in their writings, at posttest, maintenance, and generalization phases. In addition, results of this meta-analysis overall demonstrated that strategy instruction was effective across student types, grades, and across writing genres. In experimental studies, the type of instructor did not have an effect on the treatment, but in single subject designs, larger PND were obtained when the teacher delivered instruction.

De La Paz (2007) review included 12 studies on strategy instruction that included students ranging from first grade through college. The author discussed findings of the effectiveness of the following components of strategy instruction: (a) effects of self-regulation, (b) motivation, (c) effects of peer support, and (d) other instructional components. In this study, however, no ES or PND were calculated.

From four studies that included self-regulatory procedures, the author concluded that it seemed this component has a moderate effect on students’ writing, as well as a
positive effect for transferring and generalization. In fact, she states that “self-regulation is indeed a vital component of instruction, especially when students are expected to generalize their learning” (De La Paz, 2007, p. 265). In terms of the influence of motivation on writing, the three studies reviewed revealed inconsistent findings, with only one study having positive effects on students’ writing self-efficacy. Finally, peer support overall was found to be effective across studies, and beneficial for students in transferring and generalizing to other tasks.

The results from these two meta-analyses on strategy instruction confirm previous results of meta-analyses on overall writing interventions (Rogers & Graham, 2008). Strategy instruction is an effective strategy for improving the writing skills of students with and without disabilities, across grades and writing genres, immediately after instruction, during maintenance, and at generalization phases. To facilitate better understating about writing approaches that previous research reviews have identified as effective, an overview of prominent interventions is given next.

**Prominent Writing Interventions**

Previous reviews of research on writing instruction have identified writing interventions or approaches that have been proven effective in enhancing the writing skills of students with and without disabilities. These writing interventions include (a) goal setting, (b) technology supports, (c) Cognitive Strategy Instruction in Writing, (d) feedback and dialogue, and (e) Self-Regulated Strategy Development. In the following section an overview of these interventions is provided. Some empirical studies are highlighted under each intervention to shed more light about the specific writing
however, emphasis is given to the SRSD model of instruction since it is the writing intervention being used in the current study.

**Goal setting.** Teaching students goal setting skills, either to enhance writing productivity or to improve revision skills, has been identified as an effective writing intervention (Graham & Perin, 2007a). Various empirical studies have investigated the role of goal setting in the writing process (Ferretti, MacArthur, & Dowdy, 2000; Graham, MacArthur, & Schwartz, 1995; Graham, MacArthur, Schwartz, & Page-Voth, 1992; Page-Voth & Graham, 1999).

In the earliest study, Graham et al. (1992) taught four fifth-grade students with LD a strategy for setting goals for product development and completion; development and organization of notes; planning and writing; and evaluation of goal attainment. Students were taught to use the strategy to write persuasive essays. Generalization to story writing and maintenance over time was also investigated.

Instruction consisted of the following. First, prior to introducing the strategy, students were trained in the use of computers and typing, and were introduced to the components of good persuasive essays and stories. Then, students’ performance levels at baseline were evaluated. Following, the teacher introduced the three-step strategy: (a) PLANS (Pick goals, List ways to meet goals, And, make Notes, Sequence notes); (b) write and say more; and (c) test goals. Next, the teacher modeled the strategy. Finally, controlled and independent practice was provided. In addition, during the last session teachers discussed how the strategy could be used in other assignments, and throughout
the course of the intervention students were encouraged to generalize their learning to other settings.

Findings revealed that strategy instruction involving product and goal setting had positive effects on students’ essay writing performance and knowledge about the writing process. They improved in each of the areas in which they practiced setting goals (basic components, length, and persuasiveness) immediately after intervention ended and during maintenance. Nevertheless, findings from generalization to story writing were not significant.

The other three studies related to goal setting were all experimental and conducted with students in fourth through eighth grades (Ferretti et al., 2000; Graham et al., 1995; Page-Voth & Graham, 1999). The Graham et al. (1995) study examined the effects of students’ revision on text quality and length. Sixty-seven fifth and sixth graders with LD were randomly assigned to one of three conditions: (a) general revising goal, (b) goal-to-add information, (c) goal-to-add information, plus procedural facilitation.

In the general-revising-goal condition students were taught to improve their papers by thinking about adding new information or changing what they wrote, writing notes on their first draft, and rewriting their stories. In the goal-to-add condition students were encouraged to add at least three details, write notes in a draft, and rewrite the paper. In the last condition, students were asked to add at least three specific details to their papers, and were also taught how to use a separate planning sheet for brainstorming at least five details with as much information as possible that they could add to their stories. Then, they were taught to select three details that could improve their papers. This group
also wrote notes in their drafts and rewrote their papers with the revisions. Findings revealed that students in the goal-to-add information groups, significantly outperformed students in the general revising goal group. These students added more details and their overall writing quality was better. However, there were no significant differences between the goal-to-add group and the goal-to-add plus procedural facilitation groups. That is, using planning sheets did not significantly enhance students’ revising behavior or quality of writing. The length of students’ writing did not improve in any of the groups.

Page-Voth and Graham (1999) conducted a study with 30 seventh and eighth grade adolescents with LD to examine the effects of goal setting, detailing the number and type of elements that had to be included in the essays (goal to add more reasons, goal to increase the refutation of counter arguments, and a goal to increase both reasons and counter arguments). Three conditions were assessed: (a) goal setting, (b) goal setting plus strategy instruction, and (c) no-goal-setting. Prior to the provision of the intervention, students in the experimental groups received instruction in the four basic parts of a good persuasive essay (belief, reasons, counter arguments, and ending).

Students in the goal setting condition were encouraged to develop a writing goal and plan for writing when assigned an essay topic. During the writing sessions, they were reminded to make efforts in achieving their writing goals and, at the end of the writing period, the teacher and the student would conference about goal success. The same procedure was followed with the goal-setting-plus-strategy instruction group; however, in addition, the group received strategy instruction on how to write an opinion essay that included six steps: (1) read the topic and identify your opinion, (2) brainstorm
and write ideas to meet your goals, (3) write the essay and include all your ideas, (4) read the essay to make sure you included all the ideas, (5) revise the essay to include all ideas, add new ones or make ideas better, and (6) check to see if your goal was met, if not go back to step five. Findings revealed that essays written with prior goals established were longer, included more reasons, and their overall quality was better in comparison to students who did not receive goal setting instruction. In addition, students were more likely to refute counter arguments if assigned a goal specifically for this element. Finally students’ self-efficacy was not influenced by goal setting or strategy use.

Ferretti et al. (2000) investigated the effects of two goal conditions for writing persuasive essays with 124 fourth- and sixth-grade students with and without LD. In the general goal condition, students were asked to write a persuasive letter in order to convince the reader of their position. In the elaborated goal condition, students were taught explicit goals based on the elements of a good persuasive essay (a belief statement, two or three reasons for their position, explanations for each reason, two or three counter arguments, and explanations why the counter arguments were wrong). Results showed that sixth-grade students in the elaborated goal condition wrote more persuasive essays that included more elements in comparison to sixth grade students in the general goal condition. In contrast, fourth-grade students’ essays were equally persuasive in both conditions. Nevertheless, regardless of grade, age, goal condition, or disability, the majority of the students wrote persuasive essays that included at least a belief statement and a reason.
Overall, research has suggested goal setting is an effective writing intervention. Based on the results of these studies, teaching students’ specific goals for either revising text to add more elements or goals for including specific elements of a genre are more effective than teaching students general-goal setting strategies.

Technology supports. The use of technology supports (e.g., word processing) has been found to be beneficial for improving both the quality and length of students’ writing (Graham & Perin, 2007a; Mason & Graham, 2008; Rogers & Graham, 2008). Furthermore, a meta-analysis conducted by Bangert-Drowns (1993) on the use of word processing in writing instruction found technology supports to be beneficial. This meta-analysis reviewed 32 studies that compared two groups of students receiving the same writing instruction; with the difference that one group used word processing for writing assignments and one did not. Writing performance was measured, posttreatment, on quality of writing, number of words, attitude toward writing, adherence to writing conventions, and frequency of revision. Results suggested that groups that used word processing improved the quality and length of their writing, especially students who initially had weaker writing skills. The author suggested that the use of word processing might be more effective if used in combination with metacognitive prompts.

In two more recent studies, the use of web-based programs to support and scaffold the writing performance of students with disabilities was investigated (Englert, Wu, & Zhao, 2005; Englert, Zhao, Dunsmore, Collings, & Wolbers, 2007). In the Englert et al. (2005) study, 12 fourth and fifth-grade students with LD participated. All students wrote three personal newspapers in three different ways over the course of three weeks. Three
conditions were assessed: (a) traditional condition that used paper and pencil, (b) a group that used the Technology-Enhanced Learning Environment on the Web (TELE-Web) to write personal news stories without cognitive supports, and (c) the TELE-Web with scaffolded and mediated instruction. In this last condition, the TELE-Web program with supports provided cues about details students needed to add. For instance, immediately after the student wrote a topic, a box appeared below the topic that prompted students to add details about the topic. Of all the three conditions, results revealed that the scaffolding condition significantly improved the writing organizational quality and structure of students’ stories, but not the overall production.

Englert et al. (2007) also used the TELE-Web program, but to teach students to plan and organize expository papers. Thirty-five students with LD between 9- and 10-years-old participated in the study. Twenty were in the experimental condition, whereas the rest were in the control. The TELE-Web program provided scaffolded instruction on the organization and structure of ideas, while students in the control group used traditional paper-and-pencil print formats. As in the previous study, results suggested that students in the experimental condition produced essays that were longer, of better quality, and more coherent.

Cognitive strategy instruction in writing. Since the early 1990s, the effectiveness of Cognitive Strategy Instruction in Writing (CSIW) has been investigated with children and adolescents with learning disabilities (Englert et al., 1991, 2005; Hallenbeck, 2002). This strategy is characterized by (a) an emphasis on dialogue related to writing, (b) scaffolded instruction, and (c) writing as a collaborative activity. Active
dialogue between teachers and students is emphasized through the writing process in order to help students understand expository text structure and internalize the writing cognitive development. The inner dialogue skilled writers’ use for directing and monitoring their own writing is also modeled by teachers (Englert et al., 1991). In addition, students are provided scaffolded instruction by activating their background knowledge via questioning and coaching throughout the editing process. Supporting students during lesson and writing sessions, procedural think-sheets for student facilitation, and peer collaboration are also components of this intervention (Englert et al., 1991).

An influential experimental study of CSWI was conducted by Englert et al. (1991). In this study, fourth- and fifth-graders were taught text structure strategies for writing explanation and comparison/contrast expository essays. One hundred eighty-three students, including 55 with LD (23 in CSWI and 22 in control) were part of the study. Students received instruction for five months and consisted of four phases (text analysis, modeling, guided practice, and independent practice) that supported acquisition and generalization of text structure and strategies. The control group received regular writing instruction. The writing process was taught by using the mnemonic POWER (Plan, Organize, Write, Edit, and Revise). Think-sheets with self-questions and self-instructional statements for each of the basic writing process were used to facilitate dialogue during peer conferencing and in group activities. The teacher modeled the inner dialogue. Eventually, students assumed more responsibility in the writing process by producing a collaborative paper and later individual papers.
Students’ performance was evaluated through the use of four measures: (a) test of meta-cognitive knowledge about the writing process, (b) two measures of abilities in composing the instructed text structures, (c) a near-transfer measure to assess students abilities to compose an expository text on a student selected topic, and (d) a far-transfer task to assess reading and comprehension of expository text.

Findings revealed this strategy had positive effects in three areas of writing: overall writing quality for expository texts, generalization to untrained text structures, and sensitivity to the writer’s audience. Furthermore, students in the CSWI condition produced more organized compositions in comparison to students in the control group. In addition, students with LD demonstrated self-regulatory learning as they were able to generalize their learning to other writing situations and to far-transfer tasks.

Hallenbeck (2002) also investigated the effectiveness of CSWI with four adolescent students with LD. The purpose of this study was to help students learn how to write expository texts, and at the same time, it encouraged them to take responsibility for their own writing. Instruction included teacher modeling, scaffolded instruction, collaboration throughout the writing process, and think-sheets.

Quality of essay, structure, depth, breadth, key words, organization, length, and reader sensitivity were the dependent measures assessed. Students pre- and post-test essays were compared and results revealed that all but one student improved their expository writing performance in all measures.

The role of feedback and interactive dialogues. Previous reviews of writing interventions have pointed out the importance of providing students with feedback in a
dialogic manner to improve students’ writing productivity and overall writing quality (Gersten & Baker, 2001; Mason & Graham, 2008). The CSWI strategy described above incorporates dialogue as part of the intervention (Englert et al., 1991). However, other empirical studies have focused on investigating specifically the role of feedback and dialogue in students’ essay writing.

For example, Wong and colleagues, (1994, 1996) in two different studies, examined the effects of interactive dialogues within a strategy instruction structure with eighth- and ninth-grade students with and without LD (Wong et al., 1994; Wong, Butler, Ficzere, & Kuperis, 1996). In the earliest study (Wong et al., 1994) two groups of students received instruction in essay revision skills. One group received the complete intervention that included the following four phases: (a) keyboard skills training, (b) planning in writing, (c) writing and revising, and (d) dyadic student-student interactive dialogues for revising. During the writing and revising phase, interactive dialogues between the researchers and the student took place. Dialoguing involved reading aloud the essay, asking for clarification regarding the communicative intent, and elaboration. Once students were successful in producing four essays following the three phases, the fourth phase was introduced. In this last phase, students were taught to work in pairs and apply the interactive dialogue approach they used with the teachers during phase three. During this phase, students exchanged roles as the writer and as the reviewer. Students in the comparison group received intervention only until phase three, conducting interactive dialogues with the teacher.
Wong and colleagues (1994) compared the performance of the two groups at pre- and post-test. Results revealed that both groups improved equally in the quality of their essays. No significant differences were found between the two groups.

Wong et al. (1996) later study also investigated the effects of interactive dialogue for planning, writing, and revising opinion essays. Instruction consisted of the following: (a) explicit teaching and modeling of the planning strategy for writing an opinion essay, (b) peer collaboration to plan their first opinion essay with the use of planning sheets, (c) individual writing on the computer with student-teacher conference, (d) collaborative content revision between peers via interactive dialogues, and (e) individual error-monitoring strategy. Students in the control group did not receive training. The results revealed instruction had a significant effect in improving the quality and coherence of students’ opinion essays after instruction and during maintenance.

Another study worth noting was conducted by Regan et al. (2005). It explored the use of dialogue journals for promoting expressive writing skills of five sixth-grade students with emotional and behavioral disorders. The purpose of this study was twofold. It integrated an intervention (dialogue journals) to enhance students’ expressive writing skills while at the same time address social-emotional needs. Each student engaged in a writing dialogue with the teacher about topics related to students’ specific target behaviors. The teacher’s writing served as a model for students, but no instruction on the mechanics of writing was provided. The effectiveness of dialogue journals on writing quality, length, and students’ attention to task while writing were the dependent measures assessed. In addition, students’ perceptions regarding the value of the dialogues were
also investigated. Findings revealed that four of the five students improved in the quality and length of their writing and all students increased in time on task. Overall, students perceived dialogue journals to be mildly satisfactory.

The interventions described above have been shown to be effective in improving the writing skills of school-age children with mild disabilities. Teaching students to set goals; use technology supports; provide and receive feedback; and utilize strategy instruction with embedded dialogues about the writing process are beneficial. However, one strategy that research has consistently shown to be very effective in improving the writing skills of students with a variety of disabilities and across grades is Self-Regulated Strategy Development (SRSD). Moreover, in previous meta-analyses this strategy has yielded the highest effect sizes across writing interventions (Graham, 2006; Graham & Perin, 2007a; Mason & Graham, 2008). Thus, a thorough review of the SRSD model is provided next.

**Self-regulated strategy development.** The literature has suggested that students with mild disabilities benefit from strategy writing instruction that teaches them not only about the writing process, but also to self-regulate their own writing behavior. Reviews of writing intervention research have consistently demonstrated that Self-Regulated Strategy Development (SRSD) is one of the most effective writing interventions for students with disabilities (Graham, 2006).

SRSD instruction, pioneered by researchers Steve Graham and Karen Harris, more than 20 years ago is an instructional approach that combines explicit instruction in self-regulation procedures and strategy instruction. It has been used widely in various
academic areas, such as reading and math, but primary focus has been given to writing (Graham & Harris, 2003).

A meta-analysis conducted by Graham & Harris (2003) that focused only on SRSD instruction further supported previous findings. In this meta-analysis, 18 writing studies of SRSD instruction, from the years 1985 to 2002, were included. Of these studies, 13 included students with learning disabilities (LD) who were between fourth and eighth grades, in their samples. The rest of the studies included students who were poor, average, or good writers, or included a sample of students with various disabilities (LD, ADD).

The results support the effectiveness of SRSD in improving writing skills, across various writing genres, for elementary and middle-school students with learning disabilities, and students who were poor or good writers. Effect sizes were calculated for different writing components (writing quality, elements, story grammar, and length) and findings revealed that SRSD had strong effects on all the components. Large effect sizes of 1.14 and above were found for improving the quality, length, and structure of students writing. In addition, self-regulation components (goal setting, self-monitoring, self-recording, self-statements, and teacher modeling) had a strong impact on the writing performance of students with LD (Graham & Harris, 2003).

Baker et al. (2009) examined the quality of the research and evidence base for SRSD instruction by using criteria for group research (Gersten et al., 2005) and criteria for single subject research (Horner et al., 2005). Findings revealed that both the five
experimental and quasi-experimental studies reviewed, as well as the 16 single-subject
research studies met proposed standards for an evidence-based practice.

A plethora of research on SRSD instruction has been conducted for the purpose of
helping students with disabilities acquire the necessary skills to become effective writers,
in a variety of genres and across grades. SRSD helps students monitor, evaluate, and
revise their writing, and at the same time, it promotes self-regulation skills, increases
content knowledge, and improves motivation (Graham & Harris, 2003; Santangelo et al.,
2008). The use of this strategy has demonstrated that students with mild disabilities are
able to better understand the writing process. Also, the quality of their writing and self-
efficacy has improved (Graham & Harris, 2003).

Different mnemonics have been developed to use with SRSD instruction in order
to help students remember the elements of the writing genre to be taught or the steps
needed to revise their writings (Harris et al., 2008). For example, the mnemonic
“POW+TREE” has been used with the persuasive writing genre. POW represents process
steps: Pick my idea; Organize my notes; Write and say more. TREE stands for Topic
Sentence; Reasons; Explanations; and Ending. A similar mnemonic for story writing has
been used “POW + WWW, What = 2, H = 2.” With this mnemonic, the meaning of
“POW” is constant. “WWW” stands for Who is the main character? When does the
story take place, and Where does the story take place? “What = 2” asks, What does the
main character do? and What happens then? Finally, “H = 2” asks, How does the story
end? and How does the main character feel?
SRSD involves six basic stages of instruction and includes (a) develop background knowledge; (b) discuss the strategy, including benefits and expectations; (c) cognitive modeling of the strategy; (d) memorization of the strategy; (e) collaborative support of the strategy, and (f) independent practice.

During instruction, four basic self-regulation skills are emphasized: (a) goal setting, (b) self-instruction, (c) self-monitoring, and (d) self-reinforcement. In addition, SRSD focuses on students’ mastering the strategy, emphasizing the individual needs of students (Santangelo et al., 2008). Each of these stages is described next.

**Stage 1: Develop background knowledge.** During this stage, teachers develop and activate students’ background knowledge by discussing how to write successfully and the skills needed to write a specific type of genre. For instance, if persuasive essay is the genre to be taught, the teacher and the students discuss what it means to persuade someone and to write persuasively. Then, a chart with a mnemonic for writing persuasive essays (POW+TREE) is introduced and discussed.

**Stage 2: Discuss it.** Here the teacher and students discuss the significance and benefits of the writing strategy (POW+TREE) and the self-regulation procedures. In addition, teachers also discuss how and when to use the strategy. It is in this stage that goal setting is formally introduced. Students may sign individual learning contracts to make a commitment for learning the strategy. Additionally, students may examine their writing performance on the targeted writing genre and graph their current performance to set the stage for goal setting and self-monitoring.
Stage 3: Model it. During this stage the teacher models writing and self-regulation strategies by talking out loud throughout the writing process, and thereby sharing her “inner dialogue.” The teacher makes reference to the mnemonic being used, (in this example, POW+TREE) and verbalizes all the steps that need to be followed in order to write a good persuasive essay. In addition, the graphic organizer is introduced to facilitate student note-taking while planning and organizing the essay. The teacher models the entire writing process starting from picking a topic, brainstorming points of view on the graphic organizer, and transferring the notes into an essay format.

The teacher also models two self-regulatory techniques: self-statements and self-reinforcement. The purpose of these techniques is to help students remain motivated and focused during the writing process. Types of statements that are modeled include (a) what to say to think of good ideas, (b) what to say to monitor writing while composing the essay, and (c) what to say to revise work. Then, students are encouraged to generate their own self-statements on a self-statement sheet. Finally, after the teacher finishes modeling the essay, the teacher and students graph essay parts to verify that all the components are included.

Stage 4: Memorize it. During the fourth stage, the emphasis is on the memorization of the strategy and the mnemonics used. Once the basic steps are memorized, students are allowed to paraphrase, as long as the meaning remains the same. In addition, students might be asked to memorize some self-statements that will aid them later on while writing their compositions.
**Stage 5: Support it.** In the fifth stage, the teacher scaffolds students’ strategy use while they practice writing. Students apply the SRSD (POW+TREE) writing strategy and other self-regulatory procedures while the teacher provides continuous feedback on how to plan and organize their compositions. Prompts such as the mnemonic chart, graphic organizer, and self-statements sheets are gradually removed as students begin to master the components of the essay writing process. This is the stage that takes the longest for students because the goal is for students to reach criterion level of independence with minimal support.

**Stage 6: Independent performance.** During the final stage, all supports are faded. Students write independently because they have internalized the strategy steps. Students continue with goal-setting and self-monitoring procedures. Plans for generalization and maintenance continue to be implemented (Harris et al., 2008).

Given the fact that SRSD instruction is considered one of the most effective writing strategies (Graham, 2006; Graham & Harris, 2003) and is the strategy being used in the current study, a detailed overview of empirical studies on SRSD instruction is provided next.

**Overview of Empirical Studies on SRSD Instruction**

A total of 26 articles on SRSD instruction, from 1989 to the present, were located. Studies have varied in their research design, target populations (LD, EBD, ADHD), and grade levels. In addition, various writing genres (e.g., persuasive writing, story writing) were taught across the studies. A description of the overall characteristics of the studies
is provided, followed by a detailed description of all the studies organized by grade level and disability.

**Overall characteristics of the studies.** As stated, a variety of research methodologies were used in these studies. However, the vast majority employed single subject designs. Nineteen studies used single subject research designs (Adkins, 2005; Chalk, Hagan-Burke, & Burke, 2005; De La Paz, 1999, 2001; De La Paz & Graham, 1997; Graham & Harris, 1989; Graham et al., 1992; Jacobson & Reid, 2010; Lane et al., 2008; Lane et al., (2010); Lienemann, Graham, Leader-Janssen, & Reid, 2006; Little et al., 2010; Mason et al., 2010; Mason & Shriner, 2008; Mastropieri et al., 2009; Reid & Lienemann, 2006; Saddler, 2006; Troia, Graham, & Harris, 1999; Sexton et al., 1998).

Six studies were conducted using a group design (De La Paz, 2005; De La Paz, & Graham, 2002; Garcia-Sanchez, & Fildago-Redondo, 2006; Graham et al., 2005; Harris, Graham, & Mason, 2006; Wong, Hoskyn, Jai, Ellis, & Watson, 2008). One study employed a design experiment (Mastropieri et al., 2010) and one employed a pre-, post, no random assignment design (Monroe & Troia, 2006).

Eight studies were conducted in second to fifth grades. Of these, four were conducted with students with LD (Harris et al., 2006; Graham et al., 2005, Lienemann et al., 2006; Saddler, 2006). The other five were conducted with students with EBD (Adkins, 2005; Mason & Shriner, 2008), including students at-risk of EBD (Lane et al., 2008; Lane et al., 2010; Little et al., 2010). One study was conducted with students with ADHD (Reid & Lienemann, 2006).
Seven studies were conducted in fifth and sixth grades, all with students with LD (De La Paz & Graham, 1997; Garcia-Sanchez & Fildago-Redondo, 2006; Graham & Harris, 1989; Graham et al., 1992; Troia et al., 1999; Sexton et al., 1998; Wong et al., 2008). Seven studies were conducted in sixth through eighth grades across a variety of students, with and without disabilities. For example, two studies focused on students with LD (Monroe & Troia, 2006; De La Paz, 1999); two included students with a variety of writing abilities (De La Paz, 2001, 2005); and one study was conducted with average writers (De La Paz & Graham, 2002). In addition, three studies were conducted with students who had a diagnosis of severe EBD (Mason et al., 2010; Mastropieri et al., 2009, 2010) and one study included students with ADHD and language impairments (De La Paz, 2001).

Finally, two studies have been conducted at the high school level. One study was conducted with students with LD (Chalk et al., 2005): the other with students with ADHD (Jacobson & Reid, 2010).

**SRSD Instruction and Students with LD**

Over the course of the past 20 years, many studies have been conducted on SRSD instruction for students with LD, as well as general education students deemed to be poor, average, or good writers, across a variety of settings and grades. Instruction has varied by the type of writing genre that has been taught, the type of mnemonic that has been used to teach the specific genre, and the person providing the intervention.

**SRSD instruction in lower elementary grades.** Graham et al. (2005) conducted an experimental study that focused on teaching students to write stories using
POW+WWW and persuasive essays using POW+TREE. The following three conditions were assessed: SRSD instruction only, SRSD plus peer support, and the control condition.

For the two SRSD conditions, the six stages of SRSD instruction were completed. The intervention began with the POW+WWW strategy, and once it was mastered, the POW+TREE strategy was introduced. The only difference between the SRSD only group and the SRSD with peer support group was the introduction of peer support at the beginning of instruction. In this condition (a) students set a goal to apply the strategy in other classes, (b) helped each other, and (c) discussed their challenges and successes. They also had a chart to record when they applied the strategy and when they helped their partner. These processes were recorded once a week.

Students in the comparison condition participated in regular writing instruction, (i.e. Writer’s Workshop model). With this model, students engage in a routine to plan their writing, write first drafts, revise, edit, and publish their project. Students also consult with peers about their writing projects, share their work and have mini-lessons on various topics.

Seventy-three third grade students participated in the study and were randomly assigned to one of the three conditions. Twenty of these students had a disability: 12 with learning disabilities, four with speech and language impairments, two with attention deficit hyperactivity disorder, and two with emotional disabilities. Six graduate students provided the SRSD intervention to pairs of students 3 times a week, 20 minutes per session. Testing and instruction was conducted over five months.
All students were pre- and post-tested on four writing skills (story, persuasive, personal narrative, and informative writing). Students wrote a paper in response to two prompt choices, according to each of the genres. For example, for story writing, students wrote about a drawing that involved either people or animals engaged in an activity. For persuasive writing, they were asked their opinions related to school and home issues. In narrative writing students were asked to write about themselves; and for informative writing, they had to describe either a person, a place, or how to do something.

The purpose was to assess if, after receiving instruction in two genres (story and persuasive), students able to generalize the strategy and apply it to the genres in which they did not receive instruction (narrative and informative writing). All writing assessments were scored with a holistic rubric on the following measures: (a) planning time, (b) number of words, and (c) quality of writing. Story and persuasive writings were also assessed on the basic elements students were taught to include in their writings (persuasive writing had to include a topic, reasons, examples, and an ending sentence). In addition, students completed open-ended questionnaires that assessed knowledge about the characteristics of good and poor writers, and knowledge about the elements of the persuasive and story genres. Further, they completed a self-efficacy questionnaire, before and after the intervention, to assess efficacy for planning and writing a paper.

Findings revealed that students in both SRSD conditions outperformed students in the comparison group on all measures. First, students in the SRSD groups spent more time planning both their stories and persuasive essays, in comparison to the control group. However, no significant differences were found between the two SRSD
conditions. Only students in the SRSD plus peer support group were able to generalize the use of the strategy. They spent more time planning their essays in the other uninstructed genres. The same pattern was observed in students’ length of writing. Both SRSD groups wrote longer stories and persuasive essays in comparison to the control group and they were able to generalize to informative essays.

With regard to the basic elements that characterize the writing genres, students who received SRSD instruction included more genre elements in their stories and persuasive essays in comparison to the control group. Only SRSD plus peer support students generalized to narrative writing. Overall, both SRSD groups wrote better quality papers in comparison to the control group and both SRSD groups were able to generalize their knowledge to the informative genre. After instruction, SRSD groups demonstrated more knowledge about the writing process and the attributes and elements of the different writing genres. Finally, related to self-efficacy measures, no significant differences were found in either group. However, it was noted that at pretest, students’ self-efficacy scores were already high.

The study described above, was replicated and extended by Harris et al. (2006) with a group of second graders in an urban school district in Washington, D.C. The same three conditions were assessed: SRSD instruction only, SRSD plus peer support, and the control condition in which students received instruction via the Writer’s Workshop model. Intervention was conducted in the same way as in the previous study (Graham et al., 2005).
Sixty-six second grade students participated in the study and were randomly assigned to one of the three conditions. In this study, 13 students had a disability: three with learning disabilities, seven with speech and language impairments, and one with emotional disturbance. Six graduate students provided the SRSD intervention to pairs of students 3 times a week, 20 minutes per session. Testing and instruction was conducted over six-months.

The dependent measures, as well as the procedures, were the same as in the Graham et al. (2005) study. All students were assessed prior to and following intervention across four writing genres: story, persuasive, personal narrative, and informative writing. Writings were scored by length, quality, and elements. Time spent writing, as well as students’ knowledge of writing, was assessed using the same open-ended questionnaire used in the previous study (Graham et al., 2005). However, in this study, investigators added a new measure. They assessed effort and students’ intrinsic motivation, before and after the intervention, by requesting classroom teachers to rate students’ intrinsic motivation with a point scale based on their observations. In addition, students in the SRSD conditions were interviewed in relation to their perceptions about the usefulness and effectiveness of the writing strategies.

The results of this study also favored students in the SRSD conditions. Students in the SRSD conditions spent more time planning their writings, after instruction and during maintenance, in comparison to the control group. There were no differences in planning time for story or persuasive essays and no differences between the two SRSD groups were detected for this measure. SRSD groups were able to generalize planning
time skills to informative essays (uninstructed genre). However, none of the three groups was able to generalize to narrative writing, the other uninstructed genre.

With regard to length of stories, SRSD plus peer support students wrote longer stories than the other groups; yet, when writing persuasive essays, both SRSD groups outperformed their counterparts in length. Nevertheless, students in the SRSD groups were not able to generalize to narrative or informative papers.

Both SRSD groups included more elements in their stories after instruction and during maintenance. The same results were observed with the persuasive writing genre. Both groups of students included more persuasive basic elements in comparison to the control group. The SRSD plus peer support group was able to generalize when writing a persuasive essay in their regular classroom, and included more basic elements of the persuasive writing genre in their essays. The same was observed with narrative stories. In this case, both SRSD groups included more story elements in narrative papers, outperforming students in the comparison group.

A similar pattern was observed when the quality of students’ writing was assessed at posttest. SRSD plus peer support students wrote better stories in comparison to the other two groups. However, during maintenance, both SRSD groups wrote better quality stories than their counterparts. When examining the quality of persuasive essays, the essays of both SRSD groups were better than the essays of students in the control condition. Likewise, both SRSD groups generalized their skills when writing a persuasive essay in their regular classrooms. In addition, SRSD plus peer support students wrote better informative essays. However, when analyzing the generalization of
story writing elements into narrative writing, none of the students obtained statistically significant measures.

In addition, SRSD groups demonstrated more knowledge about prewriting processes in comparison to the control group. Also, both SRSD groups demonstrated more knowledge about the elements of both persuasive and story genres. No differences were found between the two SRSD groups.

Teachers’ perceptions related to students’ intrinsic motivation and effort did not change from pre- to post-test. In other words, SRSD instruction did not influence teachers’ perceptions related to these measures. Finally, student responses to the interview about SRSD instruction indicated that overall, students found SRSD to be useful because it helped them write better, think of more ideas, and organize their ideas before writing.

The other two studies conducted in these grades were multiple-baseline-across-subjects designs, both were conducted with second grade students, and focused on teaching students to write stories using the POW+WWW mnemonic. Saddler (2006) taught six students with LD how to plan and write stories. Performance was assessed at baseline, intervention, post intervention, and during maintenance. The researcher was the instructor and pairs of students received 10 to 11 instructional sessions, 3 times per week, for 30 minutes each session. Students’ essays were assessed by elements, length, and quality. Findings revealed that students incorporated more elements in their stories at posttest, but only one included all seven elements consistently. Furthermore, all students’ essays increased in length and overall quality. Moreover, planning time, after instruction
and during maintenance increased, as well as did the number of elements and overall
quality. However, the length of students’ writing decreased at maintenance.

Lienemman et al. (2006) conducted a study with six students with LD or
identified as at-risk for writing failure. Instruction was also given on story writing with
POW+WWW. Students’ performance was evaluated during baseline, after instruction, at
maintenance, and on a generalization measure for reading comprehension through story-
retell probes. Researchers provided the intervention to groups of three students. Six to
eight sessions were provided and each lasted 30 to 45 minutes. Number of elements,
number of words, quality, and students’ ability to retell a story were the dependent
measures used. Results were promising. All students increased in essay length and
elements, and five of the six students improved in essay quality. These gains were
maintained over time. In addition, four of the six students were able to transfer to the
recall of narrative reading material.

**SRSD instruction in upper elementary grades.** Graham and Harris (1989)
conducted a multiple baseline design to teach students how to write argumentative essays
using TREE and assessed if students were able to generalize the strategy to story writing.
Instruction followed the SRSD stages using a composition strategy for writing good
essays.

1. Think who will read this and why am I writing this?

2. Plan what to say according to TREE.

3. Write and say more.
Once students mastered the use of TREE, the teacher discussed how this strategy could be adapted and applied to other areas.

Participants were three sixth-grade students with LD. A graduate student provided instruction, over five to eight sessions, lasting 40 minutes each. Students’ performance was assessed during baseline and after instruction. Essays were evaluated based on elements, coherence, length, prewriting time, story grammar elements, and quality ratings. In addition, students’ self-efficacy was assessed, as well as, their use of the strategy.

The results showed growth in students' writing. Students’ persuasive essays contained more elements and were longer on average. In addition, their self-efficacy increased. Students felt more confident about their writing abilities. Also, they were able to maintain and generalize the learned strategies to other settings and teachers. Some evidence of generalization to story writing was observed.

Sexton et al. (1998) replicated and extended the Graham and Harris (1989) study on the effectiveness of POW+TREE by adding an attribution element to instruction. Students were encouraged to link their successes in writing to their effort and to the writing strategy learned. This was done through the use of self-statements. The study was conducted using a single subject design and instructional procedures were similar to the previous study. Instruction followed the SRSD instructional components.

Participants were six fifth and sixth grade students with LD. The primary researcher provided the intervention to three pairs of students. Instruction was provided over 8 to 10 sessions, each lasting approximately 40 to 50 minutes each. The dependent
measures included amount of time spent planning, length, elements, quality, evidence of strategy use, and attributions. For the attribution measure, a scale with six items that contained five possible causes of success or failure, (i.e. effort, strategy use, ability, task difficulty, and luck), was used to assess students' perceptions in relation to writing assignments.

It was found that students spent more time planning their writing: Their essays contained all the elements of a persuasive essay, were longer, and of a better quality. In addition, they showed an increase in their self-confidence as writers. Similar results were obtained on students’ attributions. Students attributed their successes to both effort and strategy use, or to only strategy use. In contrast to the Graham and Harris (1989) study, students were not as successful in maintaining their gains after instruction.

De La Paz and Graham (1997) conducted a single subject design study that extended previous studies on SRSD instruction by focusing more on teaching students to examine their points of view, from different perspectives, and be more reflective about their positions. Also, students were taught to develop more elaborate essays by adding counter arguments.

The sequence of instruction was similar to previous SRSD studies; however, a different mnemonic was used. During the initial session, students were taught the strategy STOP (Suspend judgment, Take a side, Organize ideas, Plan more as you write). Then, a mnemonic similar to POW+TREE was used to help students understand the elements of a persuasive essay. The mnemonic DARE was taught (Develop your topic sentence, Add supporting ideas, Reject possible arguments for the other side, End
with a conclusion). The teacher modeled aloud the use of the strategy, followed by collaborative practice and independent practice. Participants were three students with LD in fifth grade. Instruction was provided individually; the number of sessions ranged from four to eight, and lasted 45 to 55 minutes each.

Students’ performance was evaluated by assessing students planning when writing essays, writing time, strategy use, length, elements, coherence, and quality. Findings revealed that students learned how to use the strategy. Their essays were longer, included both reasons and counter reasons, and were coherent. In general, the overall quality of their writing improved. Two of the students were able to maintain their performance after instruction ended.

Troia et al. (1999) employed a multiple baseline design to teach three fifth graders with LD to write stories using SRSD instruction and generalization to persuasive writing. However, in this study goal setting, brainstorming, and sequencing of ideas while writing stories and completing homework were emphasized. The way instruction was provided also varied. For instance, prior to collecting baseline data, students received pre-instruction on (a) the attributes of a good story by using the mnemonic SPACE (Setting, Problem, Actions, Consequence, Emotions) and (b) the attributes of a good persuasive essay by using the mnemonic DARE (Develop a topic sentence, Add supporting details, Reject argument, End with a conclusion). Then, after baseline was collected strategy instruction was provided.

During the first two lessons, teachers modeled how to use the three target strategies (goal setting, brainstorming, and organizing ideas) in a variety of assignments.
For example, the teacher modeled how to apply the three strategies to prepare a speech, to plan and write a story, and to read a chapter and write a story. Then, in lesson three the mnemonic STOP & LIST was introduced to help students remember to set goals, brainstorm, and organize their ideas. The mnemonic STOP& LIST stands for (Stop Think Of Purpose & List Ideas Sequence Them). Students were encouraged to memorize the strategy and to use it to write better stories and to complete other tasks. During subsequent lessons students apply the strategies collaboratively. Additionally, teachers gave students homework and asked them to identify an opportunity to apply STOP& LIST at home or school. Students had to provide evidence (outline or planning sheet) that the assignment was completed. Finally, students planned and wrote stories independently.

The researchers provided individualized instruction. Seven lessons were provided over a period of three weeks, with each session lasting 60 to 90 minutes. The dependent measures were planning time and evidence of planning; strategy use evidence; writing time; length; elements of stories; elements of persuasive essays; quality of stories and essays; and a social validation interview. Findings revealed that at post instruction students planning behavior changed. They spent more time planning and applied the three target strategies. However, planning behavior during maintenance decreased in comparison to post instruction, but was higher than at baseline. Additionally, students’ stories included more elements and were longer, but students overall writing quality was not significantly improved. When looking at generalization to persuasive writing, some gains were observed. Students included more elements on average compared to baseline,
but some data points for two students overlapped between baseline and post instruction. The length of students’ persuasive essays also improved after instruction; however this was not the case for their quality of writing. All participants found the strategies to be beneficial.

Garcia-Sanchez and Fidalgo-Redondo (2006) conducted a group design study to evaluate the effectiveness of two writing interventions: namely, the social cognitive model of sequential acquisition (SCM intervention) and SRSD for writing. In addition, this study was conducted in Spain and instruction was provided in Spanish. According to the authors, the SCM intervention and the SRSD have many components in common. Both use scaffolded instruction, modeling, and feedback. However, the sequence of instruction varies and in the SCM approach extensive modeling is provided. In addition, the SCM approach has never been used with students with special needs. Both approaches were used to teach students to write comparative-contrast essays.

One hundred and twenty-one Spanish students with LD and low achievers in 11 different schools participated in the study. Participants were in fifth and sixth grades. Students were randomly assigned to SRSD instruction, SCM, or the control group. Forty-eight students were in the SRSD group, 41 in the SCM, and 32 in the control. All groups completed two compare-contrast essays at pre- and post-test. SRSD instruction was provided following the six stages of instruction and the mnemonic POD+OAIUE was used. The mnemonic POD stands for Pick ideas, Organize ideas, Develop your text. The vowels OAIUE represent Object, Audience, Ideas, Unite ideas, draft Essay. In
addition, the mnemonic **RED** (Read text, Evaluate text, Do necessary changes) was taught to teach students to revise their essay.

Instruction with the SCM model followed four sequential levels: observation, emulation, self-control, and self-regulation. Prior to the observation level, teachers and students held four sessions that focused on the writing process (purpose of writing, types of text, writing products, importance of writing, self-regulation procedures, planning). Group discussions, brainstorming, direct and explicit instruction, and examples were the strategies used. Then, during the observation level, teachers modeled the self-regulation of writing planning process by thinking aloud while doing the task. Following, pairs of students imitated teachers’ model performance and students took turns being the observer and the performer. At the third level, student worked individually and followed the previous model, using graphic organizers and self-regulatory statements. During the final stage, students worked individually without any supportive materials. Students in the control group followed the standard curriculum in which students did not receive any type of strategy instruction, and instruction focused more on the mechanics of writing.

Instruction was provided by four educational psychologists and given three times a week for a total of 25 sessions lasting 50 minutes each. Students’ performance was assessed with a scale for productivity: number of words, number of sentences, number of verbs; coherence; structure, including introduction, main body, conclusion; and quality. In addition, self-efficacy was also assessed with a self-reporting scale. Results showed that both experimental groups obtained larger effect sizes in structure, coherence, and quality. Furthermore, both groups spent more time planning and revising texts, but the
SRSD group spent more time on planning. Finally, only the SCM group increased in self-efficacy measures.

Wong et al. (2008) conducted an experimental study to teach sixth grade students the persuasive writing genre. In this study two conditions were assessed. One condition employed SRSD instruction with the CHAIR strategy and the comparison condition used the CHAIR writing procedure without the self-regulated components embedded in cognitive strategy instruction. The CHAIR writing procedure was taken from a resource book developed by Jackson and Pillow (1992). According to Wong et al. (2008), the CHAIR writing procedure asks students to draw a chair with four legs. On the seat of the chair students are asked to write their opinions regarding a story the teacher reads aloud. Then, on each of the legs students are taught to write supporting reasons. The basic analogy taught was that “an opinion without supporting information is like a chair without legs” (as cited in Wong et al., 2008, p.761).

Fifty-seven students participated in the study. Students had LD or EBD; some were low achievers; others were English language learners (ELL). Students were randomly assigned to one of the two conditions. Twenty-eight students were in the SRSD group and 29 in the comparison condition. Instruction for the SRSD group followed the six stages of SRSD instruction. The use of the visual chair was explained and supporting materials included a planning sheet, self-instruction sheet, list of connection words commonly used for opinion essays, goal sheet for revision, and a self-rating effort form. Students in the comparison condition discussed the CHAIR writing approach and observed teacher modeling of the CHAIR writing procedure. The essential
components of persuasive essays were explicitly taught and a list of transition words was also provided. However, none of the self-regulatory procedures were taught. For the two groups, training time was held constant: Both groups received training two times a week for seven weeks, at 1 hour and 20 minutes per session.

Students’ essays were scored for clarity, cogency, and organization by using a scoring rubric. Results revealed that students in the SRSD group wrote more clearly organized essays, and in less time than did students in the comparison condition. In addition, both children and teachers had positive comments about the SRSD training.

**SRSD instruction in middle school grades.** De La Paz (2005) conducted an experimental study to provide two simultaneous interventions: a historical reasoning strategy and a writing intervention, as part of a social studies and language arts unit. The purpose was to teach students not only to write argumentative essays, but also to encourage historical understanding.

As part of the social studies class, students received 12 days of instruction on an historical reasoning strategy in which they were taught about sources of information. They were taught how to evaluate written documents in terms of the author’s intent and biases, and to assess if the author’s reasons were credible. In addition, students were taught how to look for inconsistencies across sources of information and to make notes about what seemed believable from each source they evaluated. At the same time, during the language arts class, students received instruction for 10 days on how to plan and compose argumentative essays using the mnemonics STOP and DARE. Social studies and language arts teachers collaborated to be consistent about the material they were
discussing. Thus, while students were learning about an historical event in their social studies class, they were writing about the same event in their language arts class.

One hundred thirty-three eighth grade students participated in the study. Twelve had learning disabilities and the rest were considered either average or talented writers. Sixty students were in the experimental condition and the rest in the control. However, all students with disabilities were in the experimental condition. Students in the control group were randomly assigned to read one of the historical units and write an essay about it. Five seventh and eighth grade teachers provided the intervention and taught both experimental and control groups.

Students writing performance was evaluated according to essay length, persuasive quality, number of arguments, and historical accuracy. The results indicated that overall, students in the experimental condition, who mastered the writing strategy, wrote persuasive essays that were more accurate regardless of their initial level of writing. Students essay were longer in comparison to students in the control group; however, essays of student with disabilities were shorter in comparison to average and talented writers. The same pattern was observed in the quality of their essays and on their historical accuracy. Students in the experimental condition outperformed those in the control; however, essays of students with disabilities were rated the lowest in persuasiveness and historical accuracy in comparison to the essays of talented and average writers.

De La Paz (1999) conducted a multiple baseline design study with seventh and eighth graders to teach expository writing using the mnemonics PLAN & WRITE.
**PLAN** stands for: **Pay** attention to the prompt, **List** main ideas, **Add** supporting ideas, **Number** your ideas. The mnemonic **WRITE** stands for: **Write** from your plan to develop your thesis statement, **Remember** your goals, **Include** transition words, **Try** to use different kinds of sentences, **Exciting**, interesting $100,000 words.

Twenty-two students with LD, low, average, and high writing abilities participated in the study. Three regular education teachers provided the intervention for 12-16 full class periods over 4-weeks of instruction. Instruction followed the basic stages of SRSD instruction, but some modifications were made to accommodate the teaching styles of regular education teachers. For example, more emphasis on goal reminders and goal setting were provided during instruction. In addition, a small group collaborative practice lesson was added to the SRSD instruction sequence after whole-group collaborative practice and before independent practice.

Performance was assessed during baseline, post instruction, and at maintenance four weeks after instruction. The dependent measures used included written plans that were evaluated with a 6-point scale for maturity of development, length of essays, essay elements, and overall quality. In addition, whole class discussions with students were conducted to collect information regarding students’ perceptions of the effectiveness of the intervention. Post instruction, all students planned their writings in advance. In addition, all students improved in length and quality, especially students with LD. Students with low and average writing abilities doubled their length and high achievers improved by 215%. All students wrote less nonfunctional text and the quality ratings doubled for low writers, and more than doubled for the rest of the students. Evidence of
strategy use was observed during posttest. Students with LD and average writers maintained gains with the exception of length and missing one element. High achievers also maintained gains. Furthermore, low achievers increased gains at maintenance. In general, all students had positive comments about the strategy taught.

In 2002, De La Paz and Graham conducted a similar study but with a different research design. A group of 58 students in seventh and eighth grades who were considered to be average writers participated in the study. Thirty students were in the experimental group and 28 were in the control. The purpose of the study was to teach expository writing by using the six stages of SRSD instruction with the mnemonics PLAN & WRITE. Ten regular education teachers were trained on SRSD instruction and randomly assigned to the experimental and control conditions. Instruction was provided four days per week, for a total of six weeks.

Prior to instruction both groups of students received instruction on the characteristics of expository essays, were taught the basic five paragraph essay form, and terminology for understanding writing prompts. Then, both groups were pretested and given 35 minutes to plan and compose an essay. Following pretesting, both groups composed five essays and were given 35 minutes for composing each. Also, teachers reviewed the different types of sentences and retaught the basic five paragraph essay form. After this stage, instruction for the experimental and control groups differ. Students in the experimental condition received SRSD instruction with the mnemonics PLAN and WRITE. Students in the control group were taught how to use webbing or Power Writing to organize their ideas prior to writing, and received instruction on
vocabulary, spelling, and grammar. Additionally, teachers provided feedback on the quality of students writing, assigned books for students to read for homework/skills reinforcement, and administered test and quizzes to them.

Results revealed that after instruction, the experimental group wrote essays that contained more words, used more mature vocabulary, and were of a better quality. ES ranged from .81 to 1.71. In addition, the experimental group was able to maintain gains one month after instruction and 97% of these students planned their essays in comparison to 77% of students in the control group.

Monroe and Troia (2006) conducted a pre- post, no random assignment study to teach sixth and eighth grade students with LD the persuasive writing genre and to assess if students would transfer the learned skills into narrative writing. There were three groups of students. The treatment group had three students and the control group was composed of three special education students and six general education students who served as the social validity control group.

Instruction was provided in three phases. During phase one, both treatment students and the three special education students in the control group received instruction on the components of a persuasive essay using the mnemonic DARE and the mnemonic SPACE for narrative writing. Then, during phases two and three, only students in the treatment condition received instruction. The social validity control group did not receive instruction and produced one opinion essay during the final phase.

During phases two and three, two additional strategies for revising and editing were introduced. For revising, students were taught the mnemonic CDO (Compare,
Diagnose, and Operate). With this strategy students learned to identify if their sentences and paragraphs made sense. For instance, to Compare, students asked themselves: “Does my sentence match what I really want to say?” To Diagnose, students were provided with diagnostic cards (“this sentence is too short” or “this sentence needs more detail.”) and to Operate the student made the changes and evaluated if the change was effective. The same procedure was followed for revising paragraphs. Then, students were taught another strategy for editing their papers during one session. The strategy used was SEARCH (Set goals, Examine paper to see if it makes sense, Ask if you said what you meant, Reveal picky errors, Copy over neatly, and Have a last look of errors). In addition, students were also provided with a list of transition words and phrases. Finally, students were provided with scorecards to evaluate their own writing and the writing of their peers.

Instruction was provided by researchers during 14 sessions, for 45 minutes each, two times per week. Students’ writing was evaluated by its content, organization, sentence fluency, word choice, and conventions. In addition, persuasive essays were also assessed by the number of persuasive elements contained. Findings revealed that post treatment essay quality scores in all measures increased. The largest gains were observed in organization and content, followed by sentence fluency, word choice, and conventions. When looking at students combined scores, students in the treatment condition performed better than students in the special education control group. Additionally, two of the three students in the treatment condition approximated the average score of students in the general education control group. When looking at the number of persuasive elements
included in students essays after instruction, all participants made gains. However, the special education control group declined. Finally, students were not able to transfer strategy use to narrative writing. In fact, a drop in their combined trait scores was observed.

**SRSD instruction in high school grades.** Chalk et al. (2005) conducted a repeated measures design study with no control group to teach students how to plan and organize persuasive essays. Participants were 15 students with LD in tenth-grade. Lessons followed the basic stages of SRSD instruction and the mnemonic DARE was used to teach students the components of good persuasive essays.

Researchers provided instruction in five sessions of 20 to 25 minutes duration, during 50-minute instructional periods. Students’ performance was assessed after instruction, at maintenance, which occurred two weeks after posttesting, and generalization to history. Length of students writing and quality of their essays were the dependent measures assessed. Results revealed modest improvements in quality and quantity of students writing. Maintenance and generalization findings suggested students performance somewhat decreased, from posttest, but was still higher than at baseline.

**SRSD Instruction and Students with ADHD**

Three studies have investigated the effectiveness of SRSD instruction for students who have language impairments and/or ADHD: one in elementary school, one in middle school, and one in high school.

**SRSD instruction in elementary grades.** Reid and Lienemann (2006) conducted a single subject design study to teach three third and fourth-grade students
with ADHD story writing using POW+WWW. Instruction followed the basic stages of SRSD instruction. However, researchers used black and white picture story prompts. The researcher was the instructor and provided the intervention individually, in 30-minute sessions, until mastery was achieved.

The dependent measures used were the number of story parts, number of words, and overall story quality. Performance was assessed at baseline, after treatment, and at maintenance between three and six weeks after the end of the treatment. Maintenance data was only collected for two students. The results of this study were also positive. Even though there was variability at baseline, after instruction all three students improved their performance and wrote stories that contained the required seven parts. In addition, the two students assessed at maintenance were able to maintain their gains. The same results were obtained with regard to number of words written. All students increased in this measure after instruction. Finally, students’ quality of writing also improved after intervention.

**SRSD instruction in middle school grades.** Only one study with students with ADHD has been conducted at the middle school level (De La Paz, 2001). In this study, a multiple baseline design was used to teach three students with language impairments and ADHD how to plan and write expository essays using SRSD instruction and the mnemonics PLAN and WRITE (De La Paz, 2001). Instruction followed the basic six stages of SRSD instruction and students used a brainstorming sheet, a cue card for writing five paragraph essays, and an essay sheet.
General education language arts teachers provided the intervention that lasted between 11 to 16 sessions. Essays were assessed by length, elements included, and overall quality. In addition, all written plans were analyzed using a 6-point scale to evaluate completeness and accuracy. Results revealed that after instruction all students planned their essays, improved essay writing by adding more elements, wrote longer essays with more paragraphs, and the overall quality of writing improved. Two of three students were able to maintain gains four weeks after instruction.

**SRSD instruction in high school grades.** Recently a multiple baseline design study conducted by Jacobson and Reid (2010) evaluated the effectiveness of SRSD instruction for high school students with ADHD. Researchers worked with three high school students in eleventh and twelfth grades to teach them how to plan, organize, and write persuasive essays. Instruction followed the basic stages of SRSD instruction and the mnemonics **STOP** (Suspend judgment, Take a side, Organize my idea, Plan more as you write) and **DARE** (Develop your topic sentence, Add supporting ideas, Reject possible arguments for the other side, End with a conclusion) were used.

The first author provided the intervention individually three times per week, in 30-minute sessions until students reached mastery. Students mastered the strategy in six lessons. The dependent measures used were the amount of time students spent planning their essays, number of essay parts, length of their writings, number of transition words, and overall quality. Findings were promising. After instruction, all students wrote longer essays, with more transition words and elements. Moreover, large increases in holistic writing quality were observed after instruction. It was reported that students’ quality
scores increased by 165% to 300% in comparison to baseline performance. In addition, after instruction, students spent more time planning their essays in comparison to baseline phase, during which they spent little or no time planning. Maintenance was assessed three weeks after instruction ended and students were able to maintain gains.

**SRSD Instruction and Students with EBD**

It wasn't until more recent years that the effectiveness of SRSD instruction for students with EBD began to be investigated. There is plethora of research on SRSD instruction for students with LD, but not for students with EBD. Only eight studies have been conducted for students with EBD. Five of these studies were conducted with second and fifth-graders and three with middle school students. Up to the present time, SRSD instruction has not been investigated for high school students who have EBD.

**SRSD instruction in elementary grades.** Mason and Shriner (2008) conducted a multiple baseline design research for six second to fifth grade students with EBD using SRSD for the persuasive writing strategy POW+TREE. The intervention was provided following the six stages of SRSD instruction and included four procedures for self-regulation. Two advanced doctoral level students provided one-on-one intervention during 30-minute sessions. Students received 11 to 13 instructional sessions until they reached mastery.

The primary measure used to assess performance was the number of essay parts, with five parts being the minimum criterion. A point was given for a topic sentence, one point for each written reason, and one point for an ending sentence. In addition, the number of words written and number of transition words were also counted. Finally,
students were interviewed regarding their opinions about the POW+TREE instruction to assess social validity.

The results demonstrated that the intervention helped students improve their performance in writing a persuasive essay. After the intervention, students’ essays were more complete, of higher quality, and students increased the number of words used. However, students’ performance slightly decreased post instruction during generalization and maintenance phases. Nevertheless, all students reported that POW+TREE aided them in becoming better writers.

Adkins (2005) conducted a single subject study with three second and third grade students with EBD. In this study, the researcher taught students story writing using POW+WWW and included explicit instruction on generalization to personal narratives. Instruction included the basic stages of SRSD instruction, and added a generalization training component. As part of the training, students had to report their transfer attempts on a weekly basis and keep a record on a transfer sheet. Students met with the researcher three to four times a week, for 30-minute sessions.

The dependent measures assessed were story and narrative writing quality, length, and number of elements. In addition, students’ self-efficacy was assessed and students were interviewed about their perceived effectiveness of the intervention. Results showed that after instruction, students were able to increase story writing elements, number of words, and improved the overall quality of their stories. Similar results were observed in narrative writing. Students increased the number of elements and words used. However, the number of words written for narrative writing was less in comparison to the number
of words they wrote in their stories. Instruction in generalization did not have an impact on the overall quality of students’ narrative writing. Furthermore, a moderate increase on self-efficacy in planning was evident. Finally, all but one student maintained significant gains in the elements of a story.

Another study in which students were taught story writing using POW+WWW was conducted by Lane et al. (2008). In this study, six at-risk second grade students with EBD were taught how to plan and write a story in a school that had an established Schoolwide Positive Behavioral Support (SWPBS) model. Participants were placed in the secondary level of the SWPBS model. They had been nonresponsive to the primary schoolwide prevention supports, and thus were placed at the next level, where students received small-group interventions that targeted specific skills or performance deficits. Three graduate assistants provided intervention in one-on-one sessions, three to four times a week, for 30-minute sessions. Students received 10 to 15 sessions over a period of three to six weeks.

Some modifications were made to SRSD instruction to accommodate students' needs. For example, students were provided with more time to learn the strategy and were taught to mastery during the first two stages of SRSD instruction. Typically on the SRSD sequence, students are provided with opportunities to self-evaluate their writing during the second stage (Discuss It); however, self-evaluation was moved to stage five (Support It). According to the authors, pilot work showed that students with EBD perceived self-evaluation of their pretest story to be a negative experience. In addition, higher verbal praise and more opportunities to respond were also provided. Furthermore,
as part of the SWPBS school model, students received additional positive reinforcement. The school had a ticket system in which students could earn points for good behavior. During the intervention, teachers discussed behavioral expectations at the beginning of the sessions and students were able to win a ticket at the end of the lesson if he/she met expectations.

Various outcome measures were used. For examining the essays, the number of words written, overall quality, and story parts were assessed prior to the intervention, post intervention, and during maintenance. In addition, planning was also examined by exploring notes students produced prior to writing their stories. Moreover, social validity was assessed at baseline and post intervention by asking teachers and students to complete rating profiles related to their perceptions of the treatment acceptability. Teachers completed an Intervention Rating Profile (IRP) that contained 15 items on a six point Likert-type scale, whereas students completed the children’s version, Children’s Intervention Rating Profile (CIRP) also based on a six point Likert-type scale.

Results were favorable. All students obtained 100% PND scores on story elements, post instruction. Also, students increased the number of words written and improved the overall quality of their writings. Lastly, students and teachers rated the intervention favorably at baseline and at post intervention.

In a subsequent study, Lane et al. (2010) expanded the previous study to examine the effectiveness of POW+WWW instruction with thirteen second-grade students at-risk for writing difficulties and behavioral problems who attended a school that had an established SWPBS model. In this study, two multiple-probe designs were conducted:
one for seven students who had externalizing behaviors and the other for six students at-risk for internalizing behaviors. Results were also positive; both groups of students increased the number of words written, story elements included in their stories, and improved the overall quality of their writings.

Little et al. (2010) also investigated the effectiveness of SRSD instruction with second-grade students identified at risk for writing and behavior problems in a school that also had an established SWPBS model. However, in this study, students received instruction in another writing genre, persuasive writing. Further, the effects of SRSD instruction for students with externalizing and internalizing behaviors were also compared and examined.

Two separate multiple baseline designs, across participants, with multiple probes during baseline were conducted in this study. The first study examined the effects of SRSD instruction for seven students who exhibited externalizing behaviors. The second examined the effects of SRSD instruction with students who had internalizing behaviors. Students were placed in four inclusive elementary schools.

Instruction was provided by eight trained researchers, three to four times a week for 30-minute sessions. Students completed the intervention in 7 to 15 lessons. The mnemonic POW+TREE was used and instruction followed the six SRSD stages. Students’ outcomes were evaluated by the length of their writing, quality, and the basic elements of persuasive writing. To assess social validity, teachers completed the Intervention Rating Profile [IRP-15] (Witt & Elliot, 1985) to assess their perceptions and acceptability about the intervention and procedures; and students completed the
Children’s Intervention Rating Profile [CIRP] (Witt & Elliot, 1985) to measure students’ perceptions about the intervention. Students were also interviewed. Results were also positive. Both groups of students improved in persuasive writing. Their essays were longer, contained more persuasive essay elements, and their writing quality improved. There were no significant differences between both group of students in relation to their behavior patterns and their responsiveness to SRSD instruction. Both teachers and students rated the intervention as positive.

**SRSD instruction in middle school grades.** Mastropieri et al. (2010) conducted a design experiment to investigate the effectiveness of SRSD instruction for persuasive writing using POW+TREE with 10 eighth-grade students with severe EBD placed in a public day school. One student was expelled during the course of the study and another student moved to his base school before the study ended. For this participant, posttest data is available, but not maintenance data. Furthermore, there was great variability in behaviors and academic performance among students. Students writing performance ranged from second to eleventh grade.

The school in which the study was conducted is the most restrictive environment placement in the public school system. In addition, the school had an established Positive Behavioral Interventions and Supports (PBIS) model. Students had individual vouchers in which they could earn points for following the rules and meeting individual behavioral expectations. At the end of the week, students were able to exchange their points for prizes and at the end of the quarter students were recognized for their good behavior. A great deal of support was available at the school level. For instance, each grade level had
a social worker and psychologist. Counselors, a mediation specialist, and three crisis resource professionals were also part of the school staff. The school also had a Crisis Response Center (CRC) that managed the most aggressive or severe behaviors.

Intervention was provided following the six stages of SRSD instruction and four procedures for self-regulation. Modifications to instruction were made throughout the study to respond to the behavioral and academic needs of all participants. For instance, at the beginning of the study the teacher led instruction, but after a month of instruction the three university researchers took charge of teaching. The intervention was given to the whole group in these first two stages. Later on, due to students’ progress, writing abilities, and behavioral needs, the group was divided into two smaller groups. Modifications to instructional materials were also made along the course of the study. For example, researchers added explanations to the graphic organizer because they felt students were capable of writing more elaborate essays. In addition, examples of good and bad essays were also provided to students. Providing flexibility for task completion, consistent breaks, edible reinforcements, and continual verbal praise were other modifications made.

The intervention was provided four days a week, during 29-minute sessions for a total of 50 sessions. The study lasted approximately five months. The data sources included student essays scoring on number of words, number of essay parts, number of paragraphs, number of transition words, and overall quality; Woodcock-Johnson III (W-J III) test; the Oral Written Language (OWLs) test; behavioral observations for on-task
behavior while writing; self-efficacy measure; and an interview about students’ and teachers’ perspectives related to the POW+TREE strategy.

The results showed that by the end of instruction all students mastered the persuasive writing genre as evidenced by their posttest essays. Students increased in the number of words written \((ES = 1.61)\), number of essay parts \((ES = 1.84)\), number of paragraphs \((ES = 2.99)\), and number of transition words used \((ES = 2.71)\). Holistically, students’ essays were of a better quality \((ES = 1.46)\). An overall \(ES\) of 1.74 was obtained. There was also an increase in the W-J III fluency measure; however, no changes were observed in the OWLs measure. Furthermore, students were able to discuss and apply the strategy and some students were able to generalize strategy use to other settings. In addition, maintenance was assessed four months after instruction. Students were able to maintain gains although there were some minor decreases in performance. Nevertheless effect sizes in all essay measures were above .80. Teachers and students reported satisfaction with the strategy and saw benefits of the POW+TREE strategy.

Mastropieri et al. (2009) extended the previous study with a different sample of students and a different research design. Fifteen students with severe EBD in eighth grade participated in the study. Over the course of the study, two students were expelled and another student was dropped from the study due to excessive absences and in-school suspension. The final sample resulted in 12 students, 11 boys and one girl. In addition, the study was conducted at the same public day school as in the previous study. However, during this study the school had implemented the use of “WOW” tickets as
part of their PBIS model. Students were awarded “WOW” tickets if their behavior was above and beyond expectations during the school day.

A multiple baseline design across groups was employed. Students were grouped into four smaller groups based on writing ability level. Then, randomization tests were employed to assign treatment starting dates for each of the groups. All students in each group completed a minimum of five essay prompts during baseline and five essay prompts after instruction.

The intervention was provided four days a week, with 30-minute sessions for a total of 55 days. Instruction was provided by four university researchers with previous experience in SRSD. Instruction was the same as in the previous study. Students were taught how to plan, organize, and write a persuasive essay using POW+TREE, following the six stages of SRSD instruction and four self-regulation procedures. However, in this study a fluency component was added to the intervention. After students completed SRSD instruction and finished posttesting, the fluency phase was implemented. In this phase, students were taught how to apply the skills previously learned to plan, organize, and write essays in 10 minutes. After the fluency lessons ended, students were once again required to write five different essay prompts within 10 minutes on different days. Finally, maintenance and generalization probes were conducted after a delay interval of 11.5 to 15 weeks after postinstruction.

Modifications to instruction were also provided. For example, flexibility with instructional and behavioral needs, edible rewards, and continual verbal praise were part
of daily instruction. In addition, teachers also consistently used “WOW” tickets to recognize students’ academic efforts and behavior.

The data sources included student essay scoring for (a) number of words, number of essay parts, number of paragraphs, number of transition words, and overall quality; (b) W-J III fluency test; (c) behavioral observations for on-task behavior while writing; (d) self-efficacy measure; and (e) an interview about students’ perspectives related to the POW+TREE strategy. Findings revealed that all PNDs were 100% in essay scoring after instruction. All students improved their essays in length, number of essay elements, number of paragraphs, number of transition words, and overall quality of their essays. ES ranging from 1.46 to 2.83 were obtained. Moreover, significant gains were observed in the fluency phase of this study. In this phase students were able to maintain gains and in some areas, such as essay elements, transition words, and overall quality they performed slightly better than when they finished the first stage of this study and were posttested. ES ranging from 1.97 to 4.00 were obtained for the fluency phase. Maintenance gains were higher than at baseline but somewhat lower than at fluency. Generalization findings revealed significant gains, over baseline for number of words, transition words, essay parts, and quality; but students performance was lower when compared to postinstruction and postfluency instruction. As with the previous study, students reported satisfaction with the strategy and saw benefits of POW+TREE strategy. Overall, students reported the strategy helped them think more, get organized, and write better.
Mason et al. (2010) conducted a study in which they evaluated the effectiveness of SRSD instruction for persuasive writing, focusing only on quick writing. According to the authors, quick writes are 10-minute writing responses to a prompt on a related topic. Participants were five middle school students in both, seventh and eighth grades, who were educated in an alternative placement school for students with severe emotional and behavioral disorders.

A multiple probe, multiple baseline design was conducted to assess the effectiveness of the intervention. An advanced special education graduate student provided the intervention to students individually. It consisted of five 30-minute lessons and three 10-minute lessons for approximately 2 to 3 weeks. The lessons followed all SRSD instructional stages and the four self-regulatory procedures.

Students’ performance was evaluated on the quality of written responses as it relates to number of words, number of persuasive elements included, and overall quality of the essays, using a 7-point holistic measure that was adapted from previous SRSD studies. In addition, the W-J III fluency subtest was also administered. To assess treatment acceptability, students were asked to respond in writing to a prompt that read: “Should students your age be taught how to write using POW+TREE?"

Results revealed that overall students improved the quality of their persuasive quick write responses. However, it was found that students wrote fewer words at posttest, but the quality of their responses was higher than at baseline and during instruction. It was also found that students improved writing fluency according to the results of the Woodcock-Johnson III fluency test. Students were able to maintain gains.
All students agreed that POW+TREE should be taught to middle school students because it helps students organize, ideas, put more thought into what they are writing, write more, and write neatly.

**Summary and Conclusions**

Over the past two decades the effectiveness of the SRSD model has been evident. SRSD for writing is an empirically validated strategy that explicitly teaches students the writing process, and at the same time encourages the development of self-regulatory skills (Santangelo et al., 2008). Results from this literature review have revealed numerous findings worthy of consideration for conducting future research with the SRSD model. A summary of four major findings and recommendations for future research is discussed next.

First, SRSD for writing has been investigated in numerous grades with students as young as second grade (Lane et al., 2008) and as old as twelfth grade (Jacobson & Reid, 2010). However, the bulk of the research has been in the elementary grades. More research on SRSD instruction is needed in middle and high school grades.

Second, a plethora of research exists on SRSD instruction with students who have LD. However, the effectiveness of SRSD has only recently begun to be investigated with students who have EBD. Only eight studies have been conducted with students with EBD (Adkins, 2005; Lane et al., 2008; Lane et al., 2010; Little, et al., 2010; Mason, et al., 2010; Mason & Shriner, 2008; Mastropieri et al., 2009, 2010). The setting in which the studies have been conducted and students’ emotional severity levels has varied. For example, five studies have been conducted in elementary grades, but only two studies
have included students who have EBD (Adkins, 2005; Mason & Shriner, 2008). The
other elementary grade studies were conducted with students considered to be at-risk of
EBD (Lane et al., 2008; Lane et al., 2010; Little et al., 2010). Moreover, studies
conducted in middle school were done with students with severe EBD (Mason et al.,
2010; Mastropieri et al., 2009, 2010).

Although findings of these studies have been promising, results need to be
considered in light of the severity of students emotional disorders. Previous research has
shown that students with EBD exhibit limited academic improvement regardless of the
setting (Lane, et al., 2005b), but students who are educated in restrictive settings have
more intense academic, social, and behavioral needs (Lane et al., 2005a). Thus, when
conducting future research with students with EBD, the context of severity and placement
level should be taken into account, as it may be necessary to provide students placed in
more restrictive settings with more intensive, longer, and recursive instruction, as well as
make modifications/accommodations for their specific behavioral needs (Mastropieri et
al., 2009, 2010). In addition, there is a clear and urgent need for more research on
writing expression and students with EBD in order to improve their academic and social
skills (Regan et al., 2009). Even more so since, “academic interventions targeting written
expression of students with or at risk for EBD represent, by far, the least developed
instructional area” (Lane, 2004 p. 475).

Third, the majority of the SRSD studies have been conducted with small samples
and the intervention has been provided primary by the researchers. Studies in which
teachers have provided the intervention have all been conducted by De La Paz (1999,
2001, 2005) and De La Paz and Graham (2002) with students with LD, ADHD; and those without disabilities. Thus, it is necessary to conduct research with teachers providing the intervention to assess if it yields positive outcomes and to investigate how SRSD can be taught within the academic content.

Lastly, the SRSD model has been used to teach numerous writing genres including story writing, narrative, expository, and persuasive writing (Harris et al., 2008). Numerous mnemonics have been developed within the framework of SRSD instruction to teach each type of writing (POW+TREE, DARE, CHAIR, STOP): more for the persuasive writing genre. Regardless of the mnemonic used, all have shown promising results. Mastering all writing genres is important; however the genre of opinion (persuasive) essay is one of the most difficult ones to master as the structure is more complex than in narratives (Englert, 1990). In fact, reports from the National Assessment of Educational Progress (NAEP) have shown that students across eighth and twelfth grades perform poorly in persuasive writing (Persky et al., 2003; Salahu-Din et al., 2008). Findings of the 2002 NAEP showed that 43% of fourth graders and 34% of eighth graders were able to establish a clear position in their essays, but were unable to provide clear support for their arguments. Furthermore, 60% of the persuasive essays of students in twelfth grade were ranked below basic: The essays contained a clear position, but lacked support (Wong et al., 2008).

In the studies reviewed, the persuasive writing genre was taught outside the context of curricular content, with the exception of one study (De La Paz, 2005). Moreover, the studies have not attempted to relate how writing might serve as a tool for
encouraging students to develop other skills in other areas of their lives. For instance, persuasive writing might be related to the concept of critical thinking. Critical thinking involves thinking actively and forming a judgment based on evidence and reasoning. It involves making decisions and having the ability to discern what to believe or what to do in a reflective way (Kovalik & Kovalik, 2007). Thus, learning how to write persuasively involves an understanding of how to clearly present an argument and defend it (Little, 2002; Nippold, Ward-Lonergan & Fanning, 2005). Therefore, by teaching students how to develop arguments, think critically, and articulate their positions in a logical way they are more empowered and prepared for work and society because “the literate, educated person is expected to be able to articulate a position on important matters so as to persuade colleagues, fellow citizens, governments, and bureaucrats” (Crowhurst, 1990, p. 349).

Hence, persuasive writing can be related to self-determination and self-advocacy skills; two abilities that have been identified as important in preparing students with disabilities for future demands they will encounter in adulthood (Test, Fowler, Brewer, & Wood, 2005). When students learn how to think critically, develop arguments, and support their points of view, they are concurrently learning self-determination and self-advocacy skills (Test, Fowler, Brewer, & Wood, 2005).

**Self-Determination**

Self determination is a concept founded in the idea that every person has the right to exert control and make decisions related to his/her life. It involves setting and attaining goals, recognizing one’s strengths and limitations, independent living, believing
in oneself, self-advocacy, decision and choice making, and having the freedom to make choices about one’s own life (Field et al., 2003). Developing self-determination skills has been recognized as important for preparing students with disabilities to be successful in the adult world. Further, the U.S. Department of Education has identified self-determination to be important for the educational advancement of children and adolescents with disabilities (Algozzine et al., 2001).

The purpose of this section is to review and summarize current literature on self-determination for school-age children with disabilities, specifically students with emotional and behavioral disorders. First, an overview of the self-determination literature is provided. Second, an overview of teachers’ views and understanding on self-determination is described. Finally, a review of empirical studies on self-determination and students with EBD is discussed.

**Literature Reviews**

Over the years, various literature reviews and meta-analyses on self-determination have been conducted to summarize research on self-determination across disability categories and to identify self-determination interventions that have been empirically validated. Two comprehensive literature reviews on self-determination were found (Algozzine et al., 2001; Malian & Nevin, 2002). Other reviews have studied, in more depth, specific self-determination components such as participation in IEP meetings (Test et al., 2004) and self advocacy (Test, Fowler, Brewer, & Eddy, 2005; Test, Fowler, Brewer, & Wood, 2005)
Algozzine et al. (2001) conducted a meta-analysis of 22 studies of interventions that promoted self-determination for students with disabilities that were published over a 20 year period from 1972 to 2000. Participants’ ages ranged between 3 to 67 years. The purpose was to investigate (a) specific interventions that had been studied to promote self-determination, (b) groups of students who were taught strategies to promote self-determination, and (c) outcomes of the interventions.

Findings revealed the majority of the studies included students with learning disabilities and intellectual disability; few included students with other disabilities, such as emotional disabilities, among others. Program interventions varied across studies but included combinations of choice making and decision making, problem solving, goal setting, self-advocacy, and self-awareness, among others. Teaching choice making to students with intellectual disabilities and self-advocacy to students with learning disabilities were the most common themes in the literature. Methods of instruction also varied from large-group instruction, individual meetings, and one-on-one behavioral interventions. Furthermore, over 60 curricula on self-determination were found, but only 12 studies evaluated these materials. A median effect size of 1.38 for group interventions and median percentage of non-overlapping data (PND) of 95% for single-subject studies were obtained. Algozzine et al. (2001) concluded that promoting self-determination for school-age children should involve teaching the skills and also providing opportunities to apply those skills. Self-determination skills can be taught and learned; nevertheless Algozzine et al. concluded that “we have minimal information on how to individualize this instruction for students with sensory impairments, autism, or emotional disturbance”
(p. 269). It was suggested to replicate procedures with other disability categories, or to find other procedures more suitable for these disability groups.

Malian and Nevin (2002) conducted a review of published literature on self-determination and self-advocacy between the years 1992 and 1999. Their search resulted in four self-determination models and 11 research-based articles with only six reporting the effectiveness of self-determination instruction. Additionally, a wide range of methodologies were used in the studies reviewed, including multiple baseline designs, factor analysis, statistical analysis of self-reports, and qualitative research. Among the models or programs evaluated were (a) Choice Maker Self-Determination Transition curriculum, (b) Classroom Competency-Building Modules, (c) I PLAN, (d) Learning Life Management in the Classroom, (e) Learning with Purpose, (f) Life Centered Career Education, (f) Steps to Self-Determination, and (g) Whose Future Is it Anyway? The majority of these models included multiple components of self-determination, such as, goal setting, self-advocacy, choice-making, self-awareness, problem solving, and self-evaluation. Malian and Nevin (2002) stated that many of the curriculums evaluated were effective in teaching self-determination skills. In addition, modeling, choice making, attribution retraining, and behavioral strategies were the most commonly used instructional strategies. The authors concluded that self-determination skills should be taught via systematic instruction. They stated that self-determination skills should be part of the school curriculum beginning in early elementary grades and incorporated across all curricular areas. In addition, students with a wide variety of disabilities can acquire and apply self-determination skills.
One way to promote self-determination skills is to involve students with disabilities in the development of their Individualized Education Programs (IEP). Meaningful student involvement, in which students are taught to describe their disability/education related needs, set goals, monitor their own progress, self-advocate, communicate preferences and interests, and determine accommodations have been shown to be effective in promoting the development of self-determination and self-advocacy skills (Test et al., 2004). Yet, too frequently, schools do not involve students in the IEP process, even though it is a requirement of the special education law (Test et al., 2004; Williams & O’Leary, 2001).

Test et al. (2004) conducted a literature review of 16 studies on interventions to promote student involvement in IEP meetings. A total of 309 students, from ages 14 to 21 years and with various disabilities, were included in the studies. The majority of the students were considered to have learning disabilities or intellectual disability. In fact, across all studies, only six students were identified as having emotional disturbance or emotional disorders, and only one study focused solely on students with emotional disorders (Snyder & Shapiro, 1997).

Nine of the studies used published curriculums to deliver instruction in classroom settings, usually in small groups. The average time for the interventions was 13.2 hours. The rest of the studies used a person-centered approach and instruction was provided in the community or at home. The results showed that overall students’ increased their participation in their IEP meetings, or increased scores on self-determination tests. Findings also suggested that direct instruction before the meetings, as well as the use of
(a) direct questioning, (b) role playing by the facilitator, and (c) simple language during the meeting may be essential in enhancing students’ participation and performance.

Another skill that is commonly associated with self-determination is self-advocacy. In fact, Algozzine et al. (2001) meta-analysis showed that self advocacy and choice making were the most common self-determination components addressed across studies reviewed. Test, Fowler, Brewer, and Eddy (2005) developed a conceptual framework on self-advocacy based on a review of the literature, spanning the years 1972 to 2003, and input from stakeholders. Based on their findings, they identified the following four components of self-advocacy: (a) knowledge of self, (b) knowledge of rights, (c) communication, and (d) leadership. The authors’ define each of these components as follows. Knowledge of Self includes the ability to recognize strengths, preferences, goals, interests, learning styles, supports and accommodations, responsibilities, and characteristics of one’s disability. Knowledge of Rights includes an understanding of personal rights, community rights, human service rights, consumer rights, educational rights, steps to remedy violations, steps to advocate for change, and knowledge of resources. Communication includes the ability to be assertive, negotiate, persuade, listen, articulate, and compromise. Finally, Leadership, includes knowledge of group’s rights, advocating for others or for causes, political action, knowledge of resources, recognizing roles of team members, and organizational participation.

Researchers concluded that developing self-advocacy skills should begin at younger ages and self-advocacy skills should be taught in isolation or by incorporating self-advocacy skills into existing opportunities. Research has shown that when students receive training
on self-advocacy skills they are more likely to ask for accommodations and be successful in the adult world. However, teachers, unfortunately often lack information on self-advocacy instructional strategies or don’t know how to teach these skills (Test, Fowler, Brewer, & Eddy, 2005).

Test, Fowler, Brewer, and Wood (2005) conducted a literature review of 25 studies of interventions to promote self-advocacy for individuals with disabilities. Studies employed experimental or single subject designs, and three were qualitative. The majority of participants were students identified under the learning disabilities category, followed by students with mild to moderate intellectual disabilities. The ages of the participants ranged from 12 to 69 years, although the majority of the studies included high school students ranging in age from 13 to 21. Studies used published curricula or interventions that the researchers developed. However, the majority of the interventions primarily focused on only two of the four self-advocacy components, (knowledge of self and communication). Few studies focused on knowledge of rights, and leadership was measured as part of students’ participation in IEP meetings.

Findings revealed that students with various disabilities and ages can learn self-advocacy skills. Regardless of the type of instruction used (curricula or researcher-developed interventions) students enhanced their self-advocacy skills as evidenced by direct observation of performance, scores on standardized measures, and/or feedback from students, parents, and teachers. The authors’ recommended the use of the IEP process as a mechanism for teaching the four self-advocacy components and stated that multiple strategies such as role playing; whole-group, small-group, and one-to-one
instruction; prompting; videos; and curricular packages can be used to teach self-advocacy skills.

**Teachers’ Views, Understanding, and Practices in Student Self-Determination**

Teachers’ lack of access to information on self-determination and lack of training in teaching self-determination skills are factors that have been identified as obstacles to promoting students’ self-determination skills (Test, Fowler, Brewer, & Eddy, 2005). Wehmeyer, Agran, and Hughes (2000) conducted a national survey on self-determination and the use of student-directed learning strategies to promote self-determination skills with teachers serving adolescents with disabilities. According to these researchers, there are many instructional activities that can promote self-regulation of learning and ultimately self-determination skills. For example, they stated student-directed learning strategies that include (a) self-management of behavior, (b) self-monitoring, (c) self-recording, (d) self-instructional procedures, (e) self-evaluation, and (f) self-reinforcement, ultimately, promote self-determination. Therefore, the purpose of this survey was to investigate how teachers promote their students’ self-determination and how they teach students self-directed learning.

Of the 9,762 surveys sent, 1,219 were completed. Respondents included teachers whose students had an identified disability, were between the ages of 14 to 21 years, and came from all 50 states and two U.S. territories. Participants were asked to rate their students on seven instructional domains related to self-determination: (a) choice making, (b) decision making, (c) problem solving, (d) goal setting and attainment, (e) self-advocacy, (f) self-management and self-regulation skills, (g) self-awareness and self-
knowledge. Then, teachers were asked to identify if they were currently teaching any of the following self-management strategies: self-monitoring, self-evaluation, self-reinforcement, self-instruction, goal setting or contracting, self-scheduling, or antecedent cue regulation.

Findings revealed that all respondents were familiar with the concept of self-determination. Further, decision and choice making, and problem solving received the highest rankings. Thirty-one percent indicated students did not have self-determination goals in their IEP’s; 47% indicted that some students had some self-determination related goals; and 22% indicated that all students had self-determination related goals. When asked about teaching self-directed learning strategies, self-reinforcement, followed by self-evaluation, and goal setting were the most frequently identified strategies. Interestingly, the reasons teachers identified for not providing instruction on self-determination or self-management strategies was that they did not believe their students would benefit from instruction, or they did not have sufficient training or information to do so effectively. Wehmeyer, Agran, and colleagues (2000) concluded that teachers need to learn strategies to teach students to self-regulate and self-manage their behavior in order to promote self-determination skills. In addition, they concluded that with teachers’ lack of training on promoting self-determination skills, there is a need to develop more specific methods, materials, and instructional strategies for teachers.

This latter finding is in accordance with the results of a literature review conducted by Thoma, Williams, and Davis (2005) on the literature available to teachers that can be useful for understanding and teaching self-determination skills. The authors’
reviewed 24 journals between 1995 and 2002 to identify professional journals most likely to provide useful information on self-determination and the related instructional needs of students. Their findings revealed a small number of articles published in practitioner-oriented journals or providing practical information on educational practices that help students acquire and develop self-determination skills. Thoma and colleagues concluded that there is a need for more research-to-practice publications and teacher preparation programs should provide training on self-determination.

A survey of parents of high school students with disabilities and general and special education teachers was conducted to determine their beliefs about self-determination (Grigal, Neubert, Moon, & Graham, 2003). A total of 482 participants were included: 234 parents and 248 teachers. Parents were interviewed regarding their child’s participation in IEP meetings, instruction in self-determination, opportunities to make choices, and express interests. Teachers were surveyed regarding their familiarity with self-determination and students’ opportunity to learn and apply self-determination skills.

Results revealed that almost all parents surveyed agreed that students should be taught self-determination skills and participate and be involved in the IEP process. In addition, the majority of parents stated that their children’s schools encouraged and supported the development of self-determination skills; however, only 78% of the parents indicated that self-determination skills were in fact taught to their own child with a disability.
Findings on teachers’ perceptions and knowledge of self-determination were consistent with the results of the Wehmeyer, Palmer, Agran, Mithaug, and Martin (2000) study. Teachers agreed, only slightly, that they were familiar with the concept of self-determination and how to teach it. Moreover, teachers, to some extent, agreed that students with disabilities were provided opportunities to learn and practice self-determination skills. This finding, however, varied depending on the type of teacher (general education versus special education). For example, general education teachers were less likely to indicate their schools provided students with opportunities for learning and practicing self-determination skills compared to special education teachers.

Thoma, Nathanson, Baker, and Tamera (2002) conducted a survey with 500 special education teachers and university professors to determine their knowledge about self-determination and their sources of information. However, of the 500 participants selected, only 43 participated. Findings revealed that 75% of the teachers surveyed were familiar with self-determination. Yet, 67% indicated they’d received inadequate training on self-determination. The authors concluded that although teachers considered self-determination skills to be a very important skill, many questioned the effectiveness of the methods they were using to teach the skills.

Mason, Field, and Sawilowsky (2004) conducted an online web survey to assess the instructional practices and attitudes educators had in relation to self-determination and student involvement in the IEP process. A total of 523 teachers, administrators, and related services professionals participated in the survey. Findings revealed that even though respondents valued both self-determination and students’ involvement in their
IEP’s, only 8% were satisfied with the approach they were using to teach self-determination skills. As expected, it was reported that secondary students participated more in the IEP process in comparison to elementary students. Only 34% were satisfied with the level of student involvement in the IEP process. Furthermore, 50% of the respondents indicated they could benefit from more training in teaching self-determination/self-advocacy skills. In addition, results indicated that training on self-determination was unsystematic and informal and that district wide leadership was uncommon.

Overall the results of these surveys have shown that lack of information and training on how to teach self-determination skills has been problematic. However, as Wehmeyer, Palmer, et al. (2000) stated, self-determination skills should not only be taught as an independent skill. Student-directed learning strategies can promote self-determination skills and ultimately yield access to the general education curriculum. In fact, self-determination skills should be incorporated within the curriculum to address the Individuals with Disabilities Education Act (IDEA) mandates regarding transition services and involvement with and progress in the general education curriculum for students with disabilities. Instruction in self-determination actually helps students with disabilities participate and progress in the general education curriculum (Wehmeyer et al., 2004).

Wehmeyer et al. (2004) synthesized literature on self-determination, in light of the nationwide call for standards-based reform, and provided a clear guideline on how self-determination skills can be aligned with local and state content and student
achievement standards. For example, they stated that elements of self-determined behavior such as (a) goal setting, (b) problem solving, (c) self-regulation, and (d) choice/decision making are also components found in achievement standards. Thus, by teaching students these self-determination components, they are concurrently accessing the general education curriculum. The authors’ stated that curriculum augmentations, such as, instruction in skills or strategies that help students succeed in the general education curriculum (e.g., strategies for learning, self-regulation, self-directed learning, goal setting, and problem solving) promote self-determination and can serve to improve transition outcomes and support access to the general education curriculum for students with disabilities.

**Students’ Knowledge and Perspective on Self-Determination**

Literature has suggested over the years that students with EBD experience low academic achievement and a lack of academic progress in all content areas and across all settings. Unfortunately, it has also been documented that students with EBD also perform poorly on transition outcomes in comparison to other students with disabilities and that the dropout rates for these students are the highest of any special education category (Ackerman, 2006). In fact, many students with EBD lack self-determination skills, thus learning self-determination skills may improve the outcomes for this student population (Ackerman, 2006; Carter et al., 2006).

Few studies have examined the self-determination of students with EBD. In fact, reviews by Algozzine et al. (2001) and Test et al. (2004) indicate that very few students with EBD participate in studies to examine the effectiveness of self-determination
interventions. In addition, little research exists that has examined students’ knowledge and perspective on self-determination. Only two such studies were located (Houchins, 2002; Carter et al., 2006).

Houchins (2002) investigated the self-determination knowledge of students with and without disabilities in a juvenile justice setting. Using a pre- and posttest experimental control group design, findings revealed no significant relationship between students’ self-determination knowledge and self-determination instruction. The authors stated these results might be related to restrictive educational settings and a need for more positive role models. Students' self-determination knowledge was also examined in relationship to gender, reading and math level, and disability. Results revealed a significant relationship among all variables. For example, students who were male, had an identified disability, and experienced low academic progress in math and/or reading exhibited lower self-determination knowledge levels.

Carter et al. (2006) conducted a study to examine the self-determination of adolescents with EBD and LD, as well as teachers, parents, and students’ views on self-determination. Eighty-five high school students from four different schools participated in the study. Thirty-nine had EBD and 46 had LD. Students’ ages ranged from 14 to 19 years and they were from diverse backgrounds. Thirty-one students were in ninth grade, 26 were in tenth grade, 16 were in eleventh grade, and 12 were in twelfth grade. The AIR Self-Determination Scale was used to assess students’ capacity for self-determination and opportunities to engage in self-determined behavior. According to the authors, the scale has five scales within two major sections, Capacity and Opportunity.
The Capacity to self-determine scale assesses students’ ability, perceptions, and knowledge about self-determination. The Opportunity section examines the opportunities students have to engage in self-determined behavior in school and at home. The format of the scale varies depending on the respondent (students, parents, or teachers).

The AIR Self-Determination Scale was completed by the student, the primary special education teacher, and one of their parents. Results revealed that teachers rated the ability of students with EBD to engage in self-determined behavior significantly lower in comparison to parents and students. Furthermore, educators rated the ability of students with EBD to engage in self-determined behavior significantly lower than the ability of students with LD. The same pattern was observed when educators were asked about the self-determination knowledge of students with EBD. They rated students with EBD to have significantly less knowledge about self-determination than students with LD. In addition, teachers rated adolescents with EBD as having significantly more opportunities to engage in self-determined behavior at school than did students or parents. Interestingly, students’ perceptions were different. Results revealed students with EBD rated opportunities to self-determine at school lower than did their parents. The same was true for students with LD. They perceived their opportunities to be engaged in self-determined behaviors at school to be lower than did parents. Both students and parents, rated the opportunities for students with EBD to engage in self-determined behavior at school to be significantly lower than the opportunities for students with LD. Finally, adolescents with EBD were perceived, overall, to have significantly
fewer opportunities to engage in self-determined behaviors at home than were adolescents with LD.

Carter et al. (2006) concluded that more research is urgently needed to examine the impact of lack of self-determination skills on student outcomes. Moreover, they recommended that students with EBD should benefit from explicit instruction in self-determination components, such as goal setting, choice making, problem-solving, and self-evaluation. Finally, they noted more intervention research on self-determination skills for students with EBD is greatly needed.

**Research-based Interventions on Self-Determination for Students with EBD**

Previous reviews of research have indicated a lack of research-based interventions on self-determination, especially for students with EBD (Algozzine et al., 2001). A summary of these studies that have examined the impact of teaching self-determination skills to students with EBD is provided next.

Sixteen empirical intervention studies were found (Arndt, Konrad, & Test, 2006; Benitez, Lattimore, & Wehmeyer, 2005; Colombus & Mithaug, 2003; Fowler, 2007; Glago, Mastropieri & Scruggs, 2009; Hoffman & Field, 1995; Konrad & Test, 2007; Lancaster, Schumaker, & Deshler, 2002; Martin et al., 2003; Mithaug & Mithaug, 2003a, 2003b; Powers et al., 2001; Snyder, 2002; Snyder, & Shapiro, 1997; Test & Neale, 2004; Wehmeyer, Palmer, et al., 2000). However, of all these studies, only five focused solely on students with emotional disorders (Benitez et al., 2005; Fowler, 2007; Martin et al., 2003; Snyder, 2002; Snyder, & Shapiro, 1997). The other studies included at least one student with EBD in their samples.
All 16 studies were clustered into two broad categories: (a) Published Curriculums, and (b) Strategy Instruction. Within the published curriculum category, five studies were included representing three curriculums aimed at developing self-determination skills. Within the strategy instruction category, 11 studies were included representing a variety of strategies aimed at developing self-determination skills in a variety of areas, such as self-advocacy, problem solving, self-regulation, and others. In the following section a detailed description of each study is provided within the two broad categories.

**Published Curriculums**

Five studies investigated a published curriculum as a dependent variable. For example, three studies (Arndt et al., 2006; Snyder, 2002; Snyder, & Shapiro, 1997) used *The Self-Directed IEP* curriculum (Martin, Marshall, Maxson, & Jerman, 1996). One study used the *TAKE CHARGE for the Future* curriculum (Powers et al., 2001) which is intended to increase students’ participation in transition planning meetings. Finally, one study explored the impact of the *Steps to Self-Determination Model* in enhancing the overall self-determination skills of students (Hoffman & Field, 1995).

**Steps to self-determination.** Hoffman and Field (1995) describe a curriculum on self-determination that was created and field-tested in two high schools with 77 students between 15 and 25 years of age and with a variety of disabilities. Ten students were classified as having serious emotional disturbance. The curriculum developed—the Self-Determination Model—was based on a previous model developed by the researchers (Field & Hoffman, 1994). According to the authors, the curriculum has five self-
determination components that include (a) knowledge of self, (b) plan, (d) act, and (e) experience outcomes and learn. In addition, the following 10 cornerstones are emphasized throughout the implementation of the curriculum (a) teachers are co-learners, (b) model of skills, (c) cooperative learning, (d) experiential learning, (e) acceptance and value of each individual, (f) family or friend participation and support, (g) small group learning, (h) team teaching, (i) humor, and (j) the use of teachable moments.

The curriculum was designed to be implemented in one 55-minute orientation session, one 6-hour workshop session, and 16 sessions of approximately 55 minutes each. Various measures were used to assess different domains of self-determination prior to the implementation of the curriculum and after instruction. The Self-Determination Observation Checklist (SDOC) was used to assess if students exhibited 38 self-determined behaviors in the classroom during timed intervals. In addition, the Self-Determination Knowledge Scale (SDKS), a 30-item structured response test was used to assess students’ knowledge of information and skills of self-determination taught in the curriculum.

The curriculum was field tested with a treatment group and a control group. Findings revealed an effect size of 1.02 for the SDKS measure. Furthermore, the SDOC measure revealed that students who received training with the curriculum exhibited significant increases in behaviors that correlate with self-determination skills in comparison to students in the control group.

The self-directed IEP curriculum. Three studies (Arndt et al., 2006; Snyder, 2002; Snyder, & Shapiro, 1997) used the Self-Directed IEP curriculum (Martín et al.,
The Self-Directed IEP curriculum encourages students’ participation in IEP meetings. The curriculum consists of four basic IEP participation skills: (a) state purpose and introduce IEP team members, (b) review past goals and performance and ask for feedback, (c) discuss future goals, and (d) review the IEP meeting process.

Arndt et al. (2006) examined the effectiveness of this curriculum with five high school students with disabilities, between 14 to 18 years of age. Only one student had EBD. The study followed the curriculum and consists of 10 lessons, each lasting 45 minutes. It also included supplemental videos that show a student applying the strategy. Instruction was divided into three units. In Unit One, students were taught how to begin a meeting and introduce all members, review past goals and performance, and ask for feedback. In Unit Two, students learned how to state future goals, ask questions, and address differences in opinion. Finally, in Unit Three, students learned how to ask for support to achieve their goals, summarize current goals, and how to close a meeting.

Student outcomes were evaluated by their level of participation in mock IEP meetings as shown by the percentage of skills observed. Furthermore, to assess generalization students were observed applying what they had learned to their real IEP meetings. Results showed that students were able to increase their participation in mock IEP meetings and to generalize the skills learned in their real IEP meetings.

Snyder and Shapiro (1997) also evaluated the effectiveness of the Self-Directed IEP curriculum (Martin et al., 1996) with three tenth graders, all 15 years of age, and diagnosed with emotional and behavioral disorders. Students received a total of 11 individual lessons, lasting 40 minutes each. Lessons covered four basic IEP participation
skills: (a) state purpose and introduce IEP team members, (b) review past goals and performance and ask for feedback, (c) discuss future goals, and (d) review the IEP meeting process.

The authors created the Self-Directed IEP Behavior Rating Scale (SD-IEPBRS) to evaluate if students showed the behaviors taught during mock IEP meetings. In addition, the Self-Perception Profile for Adolescents (SPPA) was used to assess students’ self-perception (Harter, 1988). The Children’s Intervention Rating Profile (CIRP) was used for evaluating treatment acceptability (Witt & Elliot, 1985). Findings revealed all students acquired the four IEP meeting participation skills at the end of instruction. The results on the SPPA were mixed. Only one student increased his overall sense of self-worth. Finally, all students rated the intervention as an acceptable intervention.

Snyder (2000) replicated the Snyder & Shapiro (1997) study with five students with intellectual disabilities who had severe emotional and/or behavioral problems. All students were between 14 to 20 years of age and were educated in a restrictive setting. Instruction was provided individually and in small groups. Students received 11 sessions, two times a week for six weeks. The dependent measures used were the SD-IEBRS and the CIRP to evaluate students’ behavior and acquisition of skills during simulated IEP meetings. In addition, for generalization purposes, students were also evaluated under actual IEP meeting conditions. Results showed that overall all students improved in their ability to manage IEP meetings in mock IEP meetings and under actual IEP conditions. All students rated the intervention as acceptable.
TAKE CHARGE for the future. Powers et al. (2001) examined the effectiveness of the TAKE CHARGE for the Future curriculum (Powers et al., 1998) with 43 students between the ages of 14 and 17 years of age, and with a variety of disabilities, two with EBD. The purpose of this curriculum is to increase students’ participation in transition planning, transition awareness, and level of participation in transition planning meetings. The intervention included the following elements (a) 50-minute, bi-weekly coaching sessions; (b) monthly community-based workshops for students, parents, or mentors; (c) community activities; (d) home visits and phone support; and (e) in-service education for transition staff. In addition, the strategies covered in the curriculum include ones related to achievement, such as, having dreams, setting goals, organizing/planning meetings, problem-solving strategies, monitoring performance.

Each achievement strategy is paired with self-regulatory strategies and strategies to build partnerships with other people that might help them achieve their goals. The intervention group received four months of instruction. Students’ gains were evaluated with various measures that assessed the overall level of students’ involvement in transition planning, student and parent transition awareness, empowerment, and student participation in transition planning meetings according to observations. Results revealed all students showed significant increases in all the skills measured in comparison to students in the control group.
Strategy Instruction

Eleven studies were classified under the strategy instruction category. Two studies investigated the Self-Advocacy Strategy (Lancaster et al., 2002; Test et al., 2004), which was developed and tested by Van Reusen, Bos, Schumaker, & Deshler (1994). Its purpose is to prepare students to participate in IEP or education-related meetings.

Six studies focused on teaching students how to self-regulate and problem-solve to set and achieve self-selected goals. These studies employed different approaches to teach these skills. For example, three studies used the Self-Determined Learning Model of Instruction, SDLM (Benitez et al., 2005; Fowler, 2007; Wehmeyer, Palmer, et al., 2000). Three studies used self-management strategies either by the use of self-determination contracts (Martin et al., 2003) or the use of self-regulation cue cards (Mithaug & Mithaug, 2003a, 2003b), and one study taught a five phase problem solving strategy (Columbus & Mithaug, 2003).

Another study on problem solving instruction was conducted, but this study focused on teaching students how to solve school- or home-related problems (Glago et al. 2009). However, these later studies (Columbus & Mithaug, 2003; Glago, et al., 2009) employed a five-step or five-phase problem solving strategy and for purposes of this review were clustered together. Finally, one study examined the combination of a writing strategy with self-determination skills (Konrad & Test, 2007).

The self-advocacy strategy. Lancaster et al. (2002) conducted a study to assess the effectiveness of an Interactive Hypermedia Program (IHP) to teach the self-advocacy strategy. The purpose of the strategy is to help students be active participants in any type
of conference situation. First, students learn the mnemonic SHARE in which each letter stands for a behavior the student has to demonstrate during a meeting. **SHARE** stands for: **S**it up straight, **H**ave a pleasant tone of voice, **A**ctivate your thinking, **R**elax, **E**ngage in eye communication. Then, students were introduced to the mnemonic **I PLAN**, which stands for: **I**nventory your strengths, needs, goals, and choice, **P**rovide your inventory, **L**isten and respond, **A**sk questions, **N**ame your goals. Teachers modeled the skills and students participated in different activities to practice the strategy including simulated conferences. Participants were 22 high school students: 14 with LD, 5 with EBD and 4 with other health impairments (OHI).

Three conditions were assessed. One group received instruction via the IHP program called the Self-Advocacy CD-ROM (SACD). The other condition received live instruction in the same strategy, and a control group did not receive instruction. Students that received instruction with the SACD participated in six nonlinear sessions in which the strategy described above was presented via computer and included Introduction, **SHARE**, Inventory, **PLAN**, Model Conferences, and Review. The program also integrated listings in which students could choose areas of needs and strengths, a dictionary, and a note-taking screen. The instructor’s role was to make sure students were using the program appropriately and to role-play with the students after they completed SACD instruction.

Students in the live instruction group received instruction on the same content, but in one-on-one instructional sessions and materials were printed handouts. They also had access to blank inventory worksheets, a personal inventory sheet, and the same notes and
dictionary of terms. The instructor asked questions, role-played, and provided feedback. In addition, during the role-playing activities, students had to answer 10 IEP-related questions. The instructor provided feedback on the completeness of the answers and on the SHARE behaviors. Both groups received five or six 30- to 45-minute sessions. In addition, all participants participated in their IEP meetings after instruction.

Dependent measures included an oral test with 10 IEP-related questions that students answered. During role-plays and the actual IEP conference students were evaluated on the SHARE checklist to record their behaviors and on the PLAN checklist to record if students used the steps of the strategy. In addition, student-created IEP goals and objectives were scored. To measure social validity, students completed a questionnaire about the purpose of the IEP conference and their participation. Additionally, adults also completed a questionnaire to evaluate student participation in the IEP conference. Finally, a Knowledge Test was administered that consisted of 15 questions for students to define self-advocacy, describe situations where they should use the strategy, and name the SHARE behaviors and the PLAN steps.

Results showed all students in the experimental groups improved their knowledge about self-advocacy and benefited from the intervention. Students in the experimental groups outperformed students in the control group. These students were better able to share important information related to the IEP, such as, strengths, needs, present and future goals. Students in the three conditions were satisfied with their participation in the IEP conference. However, adults who assessed students’ performance in the IEP
meetings were significantly more satisfied with the performance of students who had received instruction.

Test and Neale (2004) conducted a single subject multiple probe design across participants to investigate the effectiveness of the self-advocacy strategy with four middle school students with disabilities. One of the participants had emotional and behavioral disorders. The intervention was provided with the I PLAN acronym described above for 10 lessons ranging from 20 to 45 minutes each.

During baseline, students were given probes with 10 questions related to the IEP and were given the same probe at four specific times during instruction. Responses to questions were scored using a four-point scale. After completion of the intervention, students participated in actual IEP meetings in which the 10 probe questions were asked and the meeting was videotaped for further analysis. In addition, The Arc’s Self-Determination Scale: Adolescent Version (Wehmeyer & Kelchner, 1995) was administered prior to and after the intervention. To assess social validity, students completed a modified version of the Student Intervention Rating Profile (SIRP) to determine students’ perceptions about the helpfulness and usefulness of the self-advocacy strategy in preparing them for participation in their IEP’s (Snyder & Shapiro, 1997).

Results suggested a significant increase in responses to the 10 probe questions from baseline to intervention. Students demonstrated more knowledge about the IEP. Furthermore, students were able to generalize their learning in the IEP meetings. However, no significant changes on self-determination scores were observed. Finally, all
students reported satisfaction with the intervention in preparing them for their IEP meetings.

**Self-determined learning model of instruction.** Three studies were designed to measure the impact of the Self-Determined Learning Model of Instruction (SDLMI) on goal setting and attainment. One of these studies focused on academic goals for writing (Fowler, 2007); one focused on educational goals that included social skills, behavioral issues, or academic goals (Wehmeyer, Palmer, et al., 2000); and the last one used the Self-Determined Career Development Model (SDCDM) which is based on the SDLMI model, but focuses on career and employment goals (Benitez et al., 2005).

According to Wehmeyer, Palmer, et al. (2000), the SDLMI employs a combination of self-regulatory skills and problem solving strategies to help students’ self-select goals by teaching decision making, independent performance, self-evaluation, and adjustment skills. The model is implemented in three phases: (a) set a goal, (b) take action, and (c) adjust goal or plan. In each phase students are presented with four questions that help them problem solve. For example, during the first phase (set a goal) students are asked questions aimed at exploring what they know, want to know and what needs to be done in order to learn. During phase two students are asked questions aimed at planning to attain their goal, and during the last phase students are asked questions to help them evaluate what they have learned. In addition, each question is linked to teacher objectives. For example, during phase one, teacher objectives include helping students identify strengths, needs, interests, beliefs, and values. Also, teaching objectives help students identify priorities, state goals, and criteria for achieving the goals. During the
taking action phase teacher objectives are related to teaching self-regulatory procedures, student-directed learning strategies, and scheduling and self-monitoring progress. Finally, during the last phase, teacher objectives relate to teaching students to self-evaluate their progress and make adjustments, if necessary.

Further, the model described above was field tested to examine if students were able to achieve educationally valuable goals and if it was effective in promoting students’ self-determination. Twenty-one teachers from two states were recruited and asked to recommend students who might benefit from the intervention. Forty students with a variety of disabilities participated in the project. Thirteen had intellectual disability, 17 had learning disabilities, and 10 had emotional or behavioral disorders. Teachers received training on the model and on self-determination and student-directed learning. Each student identified their goals and among all students 43 goals were identified. Ten goals focused on acquiring and modifying social skills or knowledge, 13 focused on behavioral issues, and 20 focused on academic goals.

Self-determination was examined with three measures that were completed prior to and after the intervention: (a) the Arc’s Self-Determination Scale, which measures students’ autonomy, self-regulation, empowerment, and self-realization; (b) the Adult Version of the Nowicki-Strickland Internal-External Scale which measures the degree to which students’ perceptions of control over their lives has changed as a result of instruction; and (c) a six-item questionnaire to examine student goal orientation and was adapted from the American Institutes for Research Self-Determination scale.
Results revealed that on average students receiving instruction attained goals at the level expected by the teachers. Overall 80% of students made at least some progress in attaining their goals and 55% achieved their goals or exceeded them. After the intervention students’ self-determination increased and their perceptions of self-control improved. In general, students evidenced learning in problem-solving skills, goal attainment, self-regulation, and self-evaluation. Furthermore, students reported satisfaction with the intervention and the outcomes obtained (Wehmeyer, Palmer, et al., 2000).

Fowler (2007) conducted a single subject multiple-probe across behaviors design to investigate the effectiveness of the SDLMI model for improving the writing or spelling skills of four elementary students with emotional and behavioral disorders. The setting for the intervention was a self-contained classroom for students with EBD and the teacher was trained to provide the intervention. The intervention was provided individually, one to three times per week, during 10- to 20-minute lessons for a total of 12 sessions.

The intervention included lessons on setting a goal, planning, and adjusting the plan or goal. In stage one (goal setting) students received a total of five lessons. During these lessons students were introduced to the model and encouraged to memorize each phase and the primary question for each phase. Also, each student identified their specific writing needs by reviewing a list of typical writing activities. For example, some specific individual writing goals included spelling, writing quietly, writing more complete sentences, and writing paragraphs. Students were encouraged to compare their own writing or spelling performance to those expected for their grade level and were
guided to select a goal based on their current performance. Finally, students were taught how to articulate the goal in writing.

During phase two (making a plan) students received four lessons on problem-solving skills to identify potential barriers and solutions to a goal and to their specific writing goal. Each student developed timelines for meeting their goals. For example, the student that selected spelling as his writing goal developed a plan to study his words and work with the reading specialist every day. In addition, the teacher reviewed examples of strategies that might help students achieve their individual goals, such as self-instruction, cue cards and students selected one or two strategies to use. Finally, students were provided with a worksheet with four guided questions that helped them update and finalize their writing goals.

In the last phase (adjusting goal or plan) students received three lessons aimed at helping students self-record their progress, evaluate their plans and progress, and adjust goals as necessary. In addition, maintenance data was gathered for all students after intervention was completed for each phase. Generalization data was collected after the last phase and the final maintenance probe. During generalization, students were administered the SDLMI questions and asked to apply them in another content area.

Dependent measures included acquisition of the SDLMI process and level of self-determination. To assess acquisition of the SDLMI model, students had to orally respond to 15 questions about the SDLMI process. To assess levels of self-determination, the AIR Self-Determination Scale was adapted and used to assess students’ self-awareness, goal-setting and attainment, problem-solving, self-regulation, and teachers’ perceptions.
of students’ self-determination levels. In addition, other secondary dependent variables were used and included: (a) academic goal attainment as assessed by the percentage of progress students made towards attaining their stated goals, (b) writing achievement as assessed by the performance of a critical writing skill using curriculum-based measures, (c) rate of increase in writing achievement, (d) academic goal attainment in generalized goal areas, and (e) classroom behavior.

Results revealed that all students mastered the 15 questions about the SDLMI process; however, only two students were able to maintain gains. Half of the students attained their academic goals, while the other two made progress but did not achieve their goals. In addition, two students were able to generalize the SDLMI process to another content area and only one student made significant gains in the new goal area. However, the intervention did not have an impact on students’ self-determination levels and classroom behavior. Both, the intervention teacher and the students, reported satisfaction with the intervention.

Benitez et al. (2005) conducted an AB design study with five students between the ages of 15 to 17 years. All students had EBD and were educated in an alternative middle and high school setting. The study used the Self-Determined Career Development Model (SDCDM), which is identical to the SDLMI model, but also has a career and employment emphasis. The purpose of the study was to help students set individualized employment goals, develop a plan to meet those goals, and adjust their plans or goals. In addition, students were surveyed to assess their perceptions with the SDCDM model.
The study was conducted in three phases. Before intervention began, the researcher met with each student to discuss career and employment interests and needs. Then, students who had similar goals were paired and met with the researcher for the first three weeks of Phase 1, in 30-minute sessions. For the following phases, students met individually with the researcher three times per-week, 30 minutes each session for a total of 11 weeks.

In phase one, students received training on goal setting that lasted approximately four and a half weeks. The training included instruction on identifying and writing goals that were realistic and positive, measuring goal progress, and setting a start date. Students selected goals related to conflict resolution, assertiveness, and career exploration. During phase two students received instruction on how to implement goals and during phase three students evaluated and adjusted their goals. For example, one student selected a conflict resolution goal. He received training on a ten-step conflict resolution process and implemented the steps. Finally, he was encouraged to evaluate his own progress towards attaining his goal.

Scenarios for each goal were developed and each student had to record how they would respond to the problem. Students’ responses were then scored using rated item scales and the percentage of correct scores was calculated. After participants achieved 80% correct responses for two consecutive days, they entered the maintenance phase in which they had one session a week and weekly probes were given.

Overall, results revealed that all students were able to make improvements toward attaining their individual goals based on the ratings of their written responses to specific
scenarios. Moreover, students reported they achieved their goals and were satisfied with the model of instruction.

**Self-management instruction.** Two studies assessed the impact of self-management strategies. One study focused on self-management by using self-determination contracts (Martin et al., 2003). The other two studies examined the effectiveness of two types of instruction: teacher-directed versus student-directed instruction for helping students develop self-regulatory skills (Mithaug and Mithaug, 2003a, 2003b).

Martin et al. 2003 examined if self-determination contracts would help students self-regulate the completion of academic tasks. Researchers employed an interrupted time-series action research design. Participants were eight students with severe behavioral problems between the ages of 9 and 10 years, and served in a small private residential educational treatment program.

The teacher provided the intervention that consisted of three phases similar to the SDLM model described above. These phases were (a) plan, (b) work, (c) evaluate and adjust. Prior to the beginning of the intervention, the teacher introduced the self-determination contracts and explained how to use them. The contracts allowed students to take control of when to begin working, what they would work on, and when they would work during the academic independent practice period. The teacher had to approve all plans and negotiate changes with the students in regard to time, work quantity, and task.
First, all students completed their plans by selecting the academic task, specifying number of problems or pages to work, indicating the number of problems that would be correct, and noting the number of points they would earn. All students had to provide a teacher with a rationale of their plan. During the work phase, students had to note the time they began working. Then, when they completed the work, students circled the name of the subject, indicated the page or problem numbers they worked on and gave the work to the teacher for grading. Finally, during the evaluating/adjusting phase students had to answer a self-evaluation sheet to assess their performance and make plans for their next assignment. In general, students chose to work for 20- to 30-minute periods and the intervention lasted 30 days.

Two sets of dependent measures were used to evaluate the effectiveness of the intervention. The first included the percentage of correspondence between sections of the self-determination contracts. The second set consisted of scores from pre-and post-intervention assessments of academic performance via the W-J III. Overall, the results revealed students learn self-regulatory skills for academic tasks. In addition, significant academic improvements were observed.

Mithaug and Mithaug (2003) reported the effects of a dissertation study conducted by the first author that evaluated two types of instruction: teacher-directed instruction versus student-directed instruction on student’s ability to self-regulate their learning during independent work. This study employed a multiple baseline and reversal design to compare the effects of the two types of instruction. For example, some students received the instructional sequence as follows baseline-teacher directed instruction,
student-directed instruction, and baseline. The sequence of instruction for other students was baseline, teacher-directed instruction, and baseline.

Participants were six elementary students with a variety of disabilities and behavior problems. Their ages ranged between 5 and 6 years and they were educated in a self-contained special education classroom in a private elementary school.

Students in both instructional conditions had color coded folders at their workstations that included worksheets for each of the following academic areas: math, reading, science, social studies, and writing. In addition, students had self-regulation cards that targeted three self-regulation behaviors: goal setting, self-monitoring, and self-evaluation. The cards had pictures of the academic areas students needed to work on, “Subjects to Work;” the number of work sheets to be completed, “What I will do;” and a space to record the number of worksheets completed, “What I did.” In addition, students had to also circle “yes” or “no” to indicate if the number of expected worksheets to be completed during the session matched the number of worksheets actually completed.

During the teacher-directed instruction, the teacher modeled self-management skills by setting goals, assigning work, and recording and evaluating results on the self-record-card for the students. During the student-directed instruction, the teacher only prompted the student to fill in their self-regulation card. Students in both conditions received prizes for correct “yes” responses. Students also participated in independent work sessions in which they worked alone.

At baseline and during independent work sessions students were not reinforced or given guidance. The dependent measure was the number of correct responses in the self-
regulation cards and time on-task behaviors during independent work sessions. Students were evaluated during 20 sessions, 20 minutes each.

Findings revealed that for three students, student-directed instruction was more effective. For these students, when they were in charge of their learning they obtained a higher number of correct self-management responses during independent work. However, for the other three students the results were mixed. For example, two students increased their self-regulation after the teacher-directed instruction was introduced; however they never received student-directed instruction. For the other student, self-regulation scores increased during independent work only after 18 days of teacher-directed instruction and remained stable throughout student-directed instruction.

In order to further investigate the two types of instruction, a follow-up study was conducted with four of the participants that were part of the study described above (Mithaug & Mithaug, 2003b). In this study a multiple baseline with reversal design across pairs of students was conducted. This means that students received alternate teacher- and student-direct instruction. For example, two pairs of students received the instructional sequence as follows: baseline, teacher-directed instruction, student-directed instruction, and baseline. The other two received first student-directed instruction. Instruction was provided in the same manner as the previous study. Findings revealed that students demonstrated more self-regulatory skills during independent work after student-directed instruction than after teacher-directed instruction.

**Five step/stage problem solving strategy instruction.** Glago et al., (2009) conducted a study to assess the effectiveness of a problem solving strategy for increasing
the self-determination skills of students with disabilities. A pre- and post-test design was employed and students were randomly assigned to either the experimental or the control condition. Participants were 21 students in fourth and fifth grades, 9 to 12 years of age, with a mean age of 10.95. Fifteen students were diagnosed with learning disabilities, six with EBD. Students were served in an inclusive setting in which students received services in a resource room or in a self-contained program for students with EBD within the general education setting. The primary researcher provided the intervention.

In this study a five-step problem solving strategy was taught to the experimental group. The strategy consisted of teaching students to identify a problem in the classroom, think about different ways to solve the problem, select the most appropriate solution, seek help, and ask for accommodations. Students practiced applying the strategy through activities, flashcards, problem-solving strategy practice sheets, and scenarios. Instruction was provided in small groups, once a week, between 30 to 40 minutes each session for a total of six weeks. Students in the control group stayed in their regular classrooms and participated in silent reading during the time students in the experimental condition received the intervention.

Both groups were pre-and post-tested on five different measures that included (a) applying the problem-solving strategy to different scenarios, (b) a problem-solving questionnaire, (c) a self-efficacy questionnaire, and (d) generalization and maintenance measures.

Students in the experimental group outperformed students in the control group in almost all the measures. Students who received the intervention were able to apply the
strategy learned to different scenarios and to answer problem-solving questions. Furthermore, they were able to maintain gains three weeks after the intervention ended and generalize their learning. However, on the self-efficacy measure students did not show gains.

Columbus and Mithaug (2003) reported the effectiveness of problem solving instruction in a study conducted by the first author as part of her dissertation research (DeRobertis, 1997). In this study, a pre- and post-test comparison group design was conducted with 63 students with learning disabilities, emotional disorders, and mild intellectual disability placed in a special education vocational school for secondary students with disabilities. Students’ ages ranged from 16 to 19 years. Thirty-six students were in the experimental group and 27 in the comparison group. The exact number of students from each of the disability categories was not clearly reported in either the original study or the subsequent report.

The intervention was provided in five stages. In order to engage students and build their interest in problem-solving instruction, during the first stage students discussed the accomplishments of famous people students admired. Students were encouraged to reflect on the problems these people encountered prior to being famous and how they solved them to be successful. During the next stage, students received instruction on strategies to help them meet their own goals. Students identified their interests, learned how to set goals based on their interests, and made plans to meet those goals. Phase three focused on self-management strategies. Students were taught how to act, evaluate, and adjust their plans by learning how to use calendars, manage their time,
and think positively. In phase four, students were taught how to identify resources at home and school; and during the last phase, students reviewed the strategies learned. Students received a total of 31 lessons; with instruction delivered two times a week in 45-minute sessions.

Student progress was measured with a goals questionnaire they completed after each lesson. In this questionnaire students reported how frequently they problem solved to meet their interests and goals. In addition, the student version of the AIR Self-Determination Scale was used (Wolman, Campeau, Dubois, Mithaug, & Stolarski, 1994).

Findings revealed that problem solving instruction was effective in increasing students’ problem solving skills to meet their goals and interests. Furthermore, students who received instruction also increased their scores on the AIR Self-Determination Scale, which assessed students’ beliefs about their own capabilities and opportunities for engaging in self-determined behavior.

**Self-regulated strategy development.** Konrad and Test (2007) conducted a study that simultaneously taught a writing skill with a self-determination skill. The study employed a multiple probe across groups of students design. Participants were 12 students, with a variety of disabilities, in four middle schools. Seven students had learning disabilities; three were identified as having other health impairment, one with mild intellectual disabilities, and one with an emotional disorder. Four special education teachers provided the intervention in a whole-class format. Instruction was provided over 11 sessions, lasting 45 minutes each.
In this study, students were taught how to write paragraphs related to IEP goals and objectives using a writing intervention based on the Self-Regulated Strategy Development (SRSD) model of instruction, with the mnemonic, GO 4 IT… NOW! SRSD is an empirically validated intervention that explicitly teaches students the writing process while at the same time encouraging the development of self-regulatory skills (Santangelo et al., 2008). SRSD involves six basic stages of instruction, which have previously been described, in detail. The SRSD stages include (a) developing and activating background knowledge, (b) discussing the strategy including benefits and expectations, (c) cognitive modeling of the strategy, (d) memorization of the strategy, (e) collaborative support of the strategy, and (f) independent practice. The mnemonic GO 4 IT… NOW was used to teach students paragraph structure. GO 4 IT…NOW stands for Goal statement (topic sentence), Objectives (four of them, supporting details), and Identify a Timeline. Students were instructed that the NOW part could be used with any type of paragraph. NOW stands for Name topic, Order details, and Wrap it up, restate topic.

Prior to baseline, students received five lessons on the purpose of the IEP. Students developed lists of academic and non-academic needs to be used during the writing intervention. During the SRSD stages students learned the purpose of IEP goals, identified examples and non examples of paragraphs, were introduced to the writing strategy, observed the teacher modeling how to write a paragraph, memorized the strategy, wrote paragraphs with the teacher’s support and feedback, made revisions, and
wrote paragraphs independently. In addition, students wrote paragraphs on expository essay prompts within the phases of the intervention for generalization purposes.

Two primary dependent measures were assessed: students’ written articulation goals and objectives, and quality of writing. In addition, length and quality of students’ IEP goal paragraphs and generalization paragraphs, quality of written responses to sample state writing test prompts, and treatment acceptability were also assessed. Results showed that overall, all students increased their writing IEP goal paragraph performance after the intervention concluded and they were able to maintain gains. With the exception of two students, one of whom was the student with EBD, students reached mastery criteria for quality in at least one of the IEP paragraphs they wrote after instruction. There were no increases in the length of students’ paragraphs. Furthermore, quality of students’ generalization paragraphs increased only after they received booster sessions with explicit instruction on generalization. Finally, students did not make gains in the quality of written responses to sample state writing test prompts.

**Summary**

The literature on self-determination supports the importance of teaching self-determination skills to students with disabilities. Whether it is taught as an independent skill or incorporated into the curriculum, self-determination instruction produces positive outcomes for students with disabilities. Results from this literature review revealed findings worthy of consideration for conducting future research on self-determination skills with students who have EBD.
First, the research suggests that students with EBD lack self-determination skills, and there is too little research that examines students’ knowledge and perspectives on self-determination (Carter et al., 2006). Moreover, very few research studies on interventions related to self-determination have been conducted with students with EBD. In fact, of the 16 intervention studies identified, only seven (Benitez et al., 2005; Fowler, 2007; Martin et al., 2003; Mithaug & Mithaug, 2003a, 2003b; Snyder 2002; Snyder, & Shapiro, 1997) focused solely on students with EBD. In these studies, the entire sample had EBD as their primary or secondary disability, or experienced severe behavior problems. In addition, it is worth noting that a common characteristic among the studies is that all were conducted in more restrictive settings.

These studies focused on two areas: (a) increasing IEP participation skills and (b) teaching students how to self-regulate by learning how to set goals, make plans to attain goals, and evaluate progress. It has been suggested to provide students with EBD structured instruction on self-determination skills and opportunities to practice self-advocacy skills (Sitlington & Neubert, 2004). In this review, two studies aimed at teaching students how to participate in IEP meetings by using the Self-Directed IEP curriculum showed positive results. After intervention, students increased their IEP participation skills and self-determination levels (Snyder, 2002; Snyder & Shapiro, 1997).

From the studies that focused on goal setting and attainment, findings reveal that overall, students showed improvement towards setting and attaining goals. For example, Fowler (2007) found that students were able to set and achieve writing goals, or at least
made progress towards achieving their writing goals: However, students did not increase their self-determination levels. Benitez et al. (2005) found that students were able to set career goals, make plans, and improve towards attaining their goals. Martin et al., 2003 found the use of self-determination contracts effective in helping students self-regulate the completion of academic tasks. Finally, Mithaug and Mithaug (2003a, 2003b) found that when students were (a) taught how to self-regulate, (b) given options, and (c) encouraged to self-direct their instruction, they demonstrated a higher level of self-determined behaviors, as shown by their ability to self-manage. Although the results from these studies are positive, more research aimed at increasing the self-determination skills of students with EBD is needed, as they are the students who perform poorly on transition outcomes and have the highest dropout rates (Ackerman, 2006).

Second, while the other studies included in this review also included at least one student with EBD in their sample, many studies did not segregate the results by disability. This situation makes it more challenging to draw more specific conclusions about the effectiveness of the interventions for a specific student population. This is an issue that previous reviews (Algozzine et al., 2001; Malian & Nevin, 2002) have also raised. Thus, future research should consider segregating results by disability, when possible. In any case, what we know from this review is that overall results of all the interventions are promising. Students can learn self-advocacy skills to participate in their IEP meetings, either through the use of strategies such as the self-advocacy strategy (Lancaster et al., 2002; Test et al., 2004), or other curriculums aimed at increasing the overall self-determination skills of students( Hoffman & Field, 1995; Powers et al., 2001). In
addition, problem solving strategy instruction helps students identify problems or goals, make plans, and act on them (Colombus & Mithaug, 2003; Glago et al., 2009).

Third, the literature suggests the use of curriculum augmentations (e.g., strategies for learning, self-regulation strategies, self-directed learning, goal setting, and problem solving) to promote self-determination skills (Wehmeyer et al., 2004). Four of the intervention studies included in this review incorporated self-determination skills within academics, primarily for teaching students how to set and attain academic goals, and the results were positive (Fowler, 2007; Martin et al., 2003; Mithaug & Mithaug, 2003a, 2003b; Wehmeyer, Palmer et al., 2000). These findings provide further evidence that promoting self-determination skills can be done by teaching students self-regulatory and problem solving skills. Although these results show promise, more research is needed.

Fourth, two studies incorporated self-determination skills within a specific academic content area and both focused on writing (Fowler, 2007; Konrad & Test, 2007). The Fowler (2007) study taught students how to set goals for improving writing or spelling skills by using the SDLM model; whereas the Konrad and Test study (2007) incorporated self-determination skills within a writing strategy, namely SRSD, for teaching students how to write IEP goals. However, this later study only included one student with EBD in the sample. Embedding self-determination skills within academic content is an area of research that has not been investigated in-depth. We know from research that students with EBD face many academic challenges and experience a lack of academic progress in many content areas, especially in writing (Lane, 2004). Yet, little
research has been conducted on academic interventions for students with EBD (Landrum et al., 2003; Mooney et al., 2003; Regan et al., 2009).

Writing instruction is an area that has recently begun to be investigated with students with EBD, and research on writing expression needs to be conducted in order to improve the academic and social skills of students with EBD (Regan et al., 2009). Thus, taking into consideration the identified gaps in the research, there is an urgent need to investigate writing interventions for students with EBD that incorporates instruction in self-determined behaviors.

Finally, teachers’ lack of training and information on how to promote self-determination skills has been reported in the literature (Wehmeyer, Agran, et al., 2000). Hence, there is a need to develop more specific methods, materials, and instructional strategies to empower teachers to do so.

**Synthesis and Conclusions**

The literature review in this chapter has provided a foundation for understanding the needs of students with emotional/behavioral disorders (EBD) and the types of interventions that can positively impact the performance of this student population. There are several things we know from the body of knowledge. First, there is an urgent need to improve the academic achievement of students with EBD in all content areas, especially related to expressive writing instruction (Lane, 2004). However, little research exists on writing interventions for students with EBD.

Second, one writing strategy that research has consistently shown to be very effective in improving the writing skills of students with learning disabilities is the Self-
Regulated Strategy Development (SRSD). Yet, the effectiveness of this intervention has only recently begun to be investigated with students with EBD. To date, only eight studies have investigated the SRSD model for students with EBD, as opposed to more than 20 studies for students with LD. Five studies were conducted in elementary grades (Adkins, 2005; Lane et al., 2008; Lane et al., 2010; Little et al., 2010; Mason & Shriner, 2008), and three were done in middle schools (Mason et al., 2010; Mastropieri et al., 2009, 2010). In addition, the severity level of students in these studies varied, as well as did the settings in which these students received the intervention. Thus, although findings from these studies are promising, the overall lack of more focused research makes it difficult to generalize the results. Hence, there is a need to expand the research on SRSD intervention as an effective writing intervention for students with emotional and behavioral disorders, particularly in the middle school.

Third, self-determination is an important skill that students with disabilities should have; yet many students with EBD lack these skills (Ackerman, 2006). Research has suggested explicitly teaching self-determination skills, or incorporating instruction in self-determination as part of the curriculum. However, little intervention research on self-determination has been conducted with students with EBD. In fact, only five studies on self-determination have focused on students with EBD (Benitez et al., 2005; Fowler, 2007; Martin et al., 2003; Snyder, 2002; Snyder & Shapiro, 1997). In addition, only few studies have incorporated self-determination skills with academics (Fowler, 2007; Konrad & Test, 2007; Martin et al., 2003; Mithaug & Mithaug, 2003a, 2003b; Wehmeyer, Palmer, et al., 2000). Two of these studies incorporated self-determination
skills with writing (Fowler, 2007; Konrad & Test, 2007) and one actually combined self-determination with SRSD instruction. However, this intervention was conducted with middle school students with learning disabilities and it focused on teaching students to write paragraphs related to IEP goals.

In conclusion, this literature review has identified gaps in the research for students with EBD and led to the current study to determine the effectiveness of SRSD instruction on the writing performance and self-determination knowledge of middle school aged students with EBD. In this study, writing instruction with the SRSD model was taught to middle school students with EBD by incorporating self-determination components into the writing intervention. Using strategy instruction, students were taught how to write persuasive essays on topics related to self-advocacy. Within the six SRSD stages of instruction, lessons aimed at improving knowledge of self-determination skills were incorporated and students learned how to use persuasive writing as a vehicle for self-advocacy. In the following chapter the methods of the current study are described.
3. Methods

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

Design of the Study

A pre- and post-test group experimental design was conducted in this study in which participants with emotional and behavioral disorders (EBD) and comorbid high incidence disabilities were randomly assigned to one of two groups: SRSD instruction with self-determination components (SRSD + S-D) and a control group in which students received their regular writing instruction. The purpose was to compare groups and measure change resulting from experimental treatment.

Random assignment was conducted using the following procedure. First, the sample was stratified by writing ability based on the results of the Woodcock-Johnson III writing fluency test and students’ persuasive essay response to a given prompt. Then, students were ranked by ability level from highest to lowest based on the number of words written in their essays, the number of persuasive essay parts (e.g. topic sentence, reasons, explanations, ending) and their W-J III writing fluency standard score. Each student was assigned a sequential number between one and 24. Next, pairs of students
were formed by matching participants on their writing level from highest to lowest. This resulted in 12 pairs. One member of each pair was randomly assigned to either treatment or no treatment condition. This resulted in six instructional groups, three experimental and three control, with four students \((n = 4)\) in each group. Once the groups were formed, teachers who volunteered to be in the experimental groups and in the control groups were assigned to a group, following principal’s recommendations to minimize behavioral issues in the classes.

**Setting and Site**

The study was conducted in a public middle school that serves students with severe emotional and behavioral disorders, located on the East Coast of the United States. This school represents the most restrictive and supportive setting for students with EBD in the county. At the time of the study, approximately 100 students were enrolled in the school. Of those, 83% were male and 17% female. Students were also from diverse backgrounds. Thirty-eight percent were White, 26% African American, 23% Hispanic, 6% Asian or Pacific Islander, and 7% were other. Twenty-two percent of the sample was classified as limited English proficient and 53% received free and reduced lunch. All students participate in statewide assessments and their scores are sent to their home schools.

The school has a small structured setting. All students have an Individualized Education Program (IEP) and class sizes range from 3 to 10 students per teacher and an assistant. Students participate in four core academic classes (English, math, science, social studies) physical education; plus two elective classes, offered every day.
In addition, the school offers daily seminars on different topics or remediation classes during seventh period, which alternate quarterly, by grade level. Thus, during two quarters of the school year students participate in remediation courses in either math or writing and the other two quarters students participate in seminars. The purpose of the seminars is to increase students’ awareness and appreciation of their own personal characteristics, interests, strengths, and abilities. Seminars focus on personal growth by using visual arts and theater, personal well being, service learning, journal writing, and self-advocacy. Students have the option of selecting the seminar they want to attend during the quarter.

The school also has in place an intensive behavioral support program. Counselors and crisis resource professionals collaborate with teachers to provide support for students. In addition, a positive behavioral support system is employed throughout the school. Students’ behaviors are monitored by using daily point sheets (vouchers) by which students can earn 0, 5, or 10 points in every class period, depending on how well they behave according to individualized standards. For example, they can get points for promoting a safe environment, respecting others and property, willingness to learn, asking and accepting help, and participating in class activities. At the end of each class period teachers discuss with students their awarded points, and at the end of the day, students are responsible for counting their total points and recording them on a personal electronic tracking sheet. On Fridays, students total the number of points earned and exchange their points to buy or rent things from the school or to participate in special
activities. Students can also earn bonus points for exceeding behavior standards on their voucher.

However, if students have difficulties meeting their behavioral standards, verbal reminders and warnings are given. Furthermore, when students are unable to control their behavior, time-out procedures were used. Students were placed in time-out for approximately 5 minutes in a quiet place under the supervision of teachers or support staff. Students can also request time-out without penalty on their vouchers. When students are extremely volatile they are provided with “flash passes” to go to the Crisis Response Center (CRC). At the CRC, counselors determine if in-school detention or suspension is warranted. If students are extremely volatile and unable to be in the classroom because they represent a danger to themselves or others, or are too disruptive to be in class, they stay at CRC for in-school suspension. There, students are isolated in a small room that has a desk and a chair and teachers send them academic work. While in CRC, they are consulted by counselors and constantly supervised by behavior specialists. Once the students are calmer, they are then sent to an alternative instructional area (AIA). This is the last setting students go to prior to being re-integrated into their classrooms. In AIA students require less supervision and continue to work.

Participants

Following is a description of students, teachers, and staff. A narrative description of each participant is provided. Participants in this study included 21 students in seventh grade who met state and federal definitions for emotional disabilities. Students were selected to participate following district, school, parental, and individual informed
consent procedures. Four students did not complete the study. Attrition was due to refused consent by parent ($n = 1$), excessive amount of absences ($n = 1$), and students moving out of the school district ($n = 2$). Each student was enrolled in one of two seventh grade special education classrooms. Students in these classrooms were supported by special education teachers and instructional assistants.

Student records were examined to obtain information regarding academic achievement, test scores, disability category, ethnicity, and age. See Tables 1 and 2 for student demographic data, by group. In addition, due to the specific behavioral characteristics of this student population, information about each student behavioral needs, strengths, and goals were also obtained. A narrative description for each participant is provided next. All names used are pseudonyms to protect the identity of each participant.

**Experimental group students.** Eleven students were in the experimental group. Ten were male, one was female. Students’ records were examined and a narrative description of each student’s behavioral needs and characteristics is provided next.

*Carla is a 13-year-old Caucasian female.* She is a very engaging young lady and can participate in social conversations with other students. Her areas of eligibility are ED and LD. She experiences feelings of sadness, frustration, and anger. She has difficulty communicating what is bothering her and becomes very quiet and non-responsive when upset. She expresses feelings of hopelessness.

*Damian is a 12-year-old Caucasian male.* He can be a kind and thoughtful student, offering to help classmates and teachers. His areas of eligibility are ED and LD.
He often exhibits a lack of social judgment and coping skills are poor for his age. When he is overwhelmed, he acts out angrily and inappropriately becoming defiant and verbally/physically aggressive toward others. He exhibits a low tolerance for frustration and has rapid mood swings.

**Dario is a 12-year-old African American male.** He is a friendly and polite young man. Dario has a medical diagnosis of ADHD, and his areas of eligibility are ED and OHI. He is highly distractible and has difficulty complying with instructions and completing class work and tasks. He has poor social relationships, is very impulsive, and anxious.

**Darrel is a 13-year-old African American male.** He is an easy-going youngster who enjoys sports. He has a diagnosis of ADHD and is eligible for services as OHI. He is distracted by environmental stimuli and doesn’t always engage in accordance with school/class procedures. Sometimes, he appears bossy and often attempts to dominate groups.

**Jake is a 12-year-old African American male.** He is likable and can be very friendly, but has extreme difficulty maintaining appropriate boundaries with peers and adults. His areas of eligibility are ED, OHI, and LD. He does well when he is in control but can become easily frustrated and vulnerable to conflicts with others when things do not go his way. He has a history of anxiety, depression, mood swings, and low tolerance for frustration. He can become verbally and physically aggressive when angry or frustrated.
Malik is a 13-year-old African American male. He is polite, compassionate, and helpful. His area of eligibility is ED. He reacts with verbal aggression when he feels others are treating him unfairly. He often misperceives these situations and becomes immediately upset. His low self-esteem and feelings of inadequacy cause him to react with verbal aggression or verbal threats when given redirection from an adult or questioned by a peer. When he is confronted by adults with his inappropriate behavior, he reacts by withdrawing from group, crying, and behaving in an overly defensive manner.

Mike is a 12-year-old Caucasian male. He enjoys helping teachers with chores. He is receiving services for ED. He experiences significant anxiety, demonstrates irritability, and oppositional behavior. He has a tendency to act out aggressively and to engage in oppositional rule-breaking behaviors. Mike tends to be manipulative to get what he wants, will get into verbal badgering, and he has little tolerance for uncertainty and ambiguity.

Neal is a 13-year-old Caucasian male. He can be engaging and responsive. Teachers describe him as a bright child who enjoys learning. His areas of eligibility are ED and OHI. Although his intellectual potential is estimated to be within the superior range, his current academic achievement is below grade level. Frequent absences and often being unavailable for learning while at school seem to be contributing to his low academic achievement. He also has problems discriminating between reality and fantasy, experiences rapid mood fluctuations, and has significant attention problems.
**Raul is a 14-year-old Caucasian male.** He has the ability to be an engaging and responsive individual whether talking to adults or peers. His areas of eligibility are ED, LD, and OHI. He has a short attention span, is distractible, and has difficulty maintaining attention during instruction and when completing assignments. He tends to be noncompliant when reprimanded for inappropriate behavior. Raul also has a tendency to be withdrawn and has difficulty forming close friendships.

**Ronald is a 13-year-old Caucasian male.** He can be polite and is eager to please his teachers. His areas of eligibility are ED and OHI. He can become angry and frustrated very easily, and lacks strategies to cope in social situations. He struggles to maintain attention and has a low tolerance for frustration.

**Saul is a 13-year-old African American male.** He has the ability to be an engaging and responsive individual whether talking to adults or peers. His areas of eligibility are ED, LD, and OHI. Saul has difficulty accepting guidance and/or direction from teachers, as needed, for class work and may exhibit anxiety around classroom performance that results in crying. When angry, he responds to others negatively by using profanity, yelling, or negative tone in his responses.

**Control group students.** Ten students were in the control group. All students were male. One student dropped from the study because he was sent to another school. Students’ records were examined and a narrative description of each student’s behavioral needs and characteristics is provided next.

**Ahmed is a 14-year-old African American male.** He is a compassionate and personable young man who enjoys helping others. He is receiving services for ED, LD
and OHI. When he is frustrated he can become defiant and disrespectful with adults and peers. He has difficulty consistently refraining from involving himself in the behaviors of others.

**Arnold is a 14-year-old Caucasian male.** He can be polite and enjoys sharing stories with others. He is diagnosed with ADHD and an adjustment disorder with mixed disturbance of emotions and conduct. He has difficulty in class daily and has a history of frequent absences. His attention, concentration, and frustration tolerance vary depending on his mood. He also has poor peer interactions and makes inappropriate comments.

**Carter is a twelve-year-old African American male.** He loves to read and has a good imagination. He is receiving special education services for ED. He has difficulty initiating and maintaining relationships with peers due to his inflexibility. He can be resistant to the ideas and opinions of others and is diagnosed as having a mood disorder. He can have episodes of tearfulness that can be intense. He also has defensive boundary issues around touch and personal space.

**Dante is a twelve-year-old Caucasian male.** He can be sociable, pleasant, and interact appropriately with some students in cooperative learning situations. He has difficulty with attention and focus and often expresses that he is tired, and seems to tune out. He is impulsive in educational and social settings and has difficulty self-regulating his emotions.

**Jose is a 13-year-old Hispanic male.** He can be very polite and enjoys sharing and listening to others. His areas of eligibility are ED and LD. He has low self-esteem, lacks motivation, and exhibits poor social skills. Jose has a great deal of difficulty
building and maintaining meaningful relationships and doesn’t have friends. In addition, he has a medical diagnosis of ADHD, which makes it difficult for him to focus and stay on task.

**Joseph is a 13-year-old Caucasian male.** When he is focused and willing to participate he can contribute good information and ideas. His areas of eligibility are ED and AUT. Joseph requires constant redirection and visual cues and exhibits difficulty joining and participating in group activities and working with others. He has difficulties initiating and maintaining conversations with peers and refuses to accept positive reinforcement from adults. He also has difficulty verbalizing his frustrations, concerns, or reading nonverbal cues. Joseph also has a history of aggression and anti-social behavior.

**Noel is a 14-year-old Caucasian male.** He is an engaging and responsive student. He has been diagnosed with ADHD and bipolar disorder. His areas of eligibility are ED, LD, and OHI. He has boundary issues with personal space and with others' belongings. Noel shuts down when angry, often responds to others with sarcasm, and inappropriate comments to teachers. He does not always acknowledge authority and tries to push as far as he can.

**Sam is a 13-year-old Caucasian male.** His teachers describe him as an intelligent, creative, and humorous young man. He has a medical diagnosis of ADHD, anxiety, and depression. Sam gets easily distracted, goes off task, and he is unable to focus. He demonstrates feelings of anxiety, has low frustration tolerance, and mood swings.
Ted is a 13-year-old Caucasian male. He can be polite and likes to read. His areas of eligibility are ED, OHI, and LD. He has difficulty maintaining positive interactions with peers; demonstrates feelings of isolation, and engages in aggressive and inappropriate behaviors to gain attention from peers. He experiences significant feelings of sadness; shows low frustration tolerance, demonstrates mood swings, and engages in self-destructive behaviors.

Walter is a 13-year-old Hispanic male. His teachers describe Walter as a very sweet and polite young boy who loves to learn. His areas of eligibility are ED and LD. He gets very attached to females, has difficulty expressing his feelings and is not always able to use coping strategies.

Teachers. Six special education teachers implemented the intervention. All teachers were Caucasian; two were male, four were females. Three of the teachers had earned master’s degrees. Teachers had an average of 5.33 years of teaching experience (range = 1 to 16 years). As shown in Table 3, four teachers were licensed in LD/ED/MR, and two teachers had provisional licenses in LD/ED.

Six instructional assistants (IA) were in the classroom to support the teachers and students. Five IAs were Caucasian, one was Asian; five were female, one was male. Instructional assistants had an average of 6 years of experience working with students with disabilities (range = 1 to 12 years).

Project staff. Project staff included the primary investigator/researcher who has a bachelor’s degree in special education, a master’s degree in curriculum and instruction, and taught special education for four years. In addition she has three years of teaching
experience with SRSD instruction for students with EBD. The primary investigator trained the teachers to implement SRSD instruction and supported the teachers during the implementation of the study. In addition, three graduate students from the local university (two Caucasian, one Hispanic) were trained on SRSD instruction for fidelity of treatment implementation. Additionally, two graduate students from the same local university (both Caucasian and female) were trained on data scoring procedures to assist with data analysis. Finally, one female Caucasian was an observer. All graduate students had previous experience with SRSD instruction and had an average of 7 years of teaching experience.
Table 1

Experimental Group Student Characteristics

<table>
<thead>
<tr>
<th>Student</th>
<th>Gender</th>
<th>Age/Y.M</th>
<th>Ethnicity</th>
<th>Eligibility</th>
<th>Behavioral Goals</th>
<th>Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carla</td>
<td>Female</td>
<td>13.8</td>
<td>Caucasian</td>
<td>ED, LD</td>
<td>Coping skills, organization</td>
<td>WISC-IV: FSIQ 89; PRI 90; PSI 94; VCI 98; WMI 86.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 78; PRI 88; PSI 73; VCI 96; WMI 68.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 91; PRI 106; PSI 94; VCI 87; WMI 86.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 94; PRI 104; PSI 94; VCI 93; WMI 91.</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>KBIT-2: CIQ 92; RIAS: CIX 97; WISC III: FSIQ 90.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 93; PRI 88; PSI 88; VCI 104; WMI 99.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 114; PRI 121; PSI 106; VCI 114; WMI 97.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 103; PRI 121; PSI 103; VCI 108; WMI 80.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 88; PRI 88; PSI 83; VCI 102; WMI 83.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 86; PRI 94; PSI 97; VCI 85; WMI 80.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WISC-IV: FSIQ 87; PRI 75; PSI 123; VCI 91; WMI 77.</td>
</tr>
</tbody>
</table>

### Table 2

**Control Group Student Characteristics**

<table>
<thead>
<tr>
<th>Student</th>
<th>Gender</th>
<th>Age/Y.M</th>
<th>Ethnicity</th>
<th>Eligibility</th>
<th>Behavioral Goals</th>
<th>Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmed</td>
<td>Male</td>
<td>13.6</td>
<td>African American</td>
<td>ED, LD, OHI</td>
<td>Coping skills</td>
<td>WISC-IV: FSIQ 62; PRI 63; PSI 83; VCI 75; WMI 56</td>
</tr>
<tr>
<td>Arnold</td>
<td>Male</td>
<td>14.11</td>
<td>Caucasian</td>
<td>ED</td>
<td>Attendance, coping skills</td>
<td>WISC-IV: FSIQ 73; PRI 84; PSI 83; VCI 75; WMI 74</td>
</tr>
<tr>
<td>Carter</td>
<td>Male</td>
<td>12.6</td>
<td>African American</td>
<td>ED</td>
<td>Appropriate peer/adult interactions, reducing task avoidance</td>
<td>WISC-IV: FSIQ 100; PRI 112; PSI 88; VCI 96; WMI 99</td>
</tr>
<tr>
<td>Dante</td>
<td>Male</td>
<td>12.7</td>
<td>Caucasian</td>
<td>OHI</td>
<td>Appropriate peer/adult interactions, staying on task, coping skills</td>
<td>WISC-IV: FSIQ 87; PRI 106; PSI 70; VCI 98; WMI 77</td>
</tr>
<tr>
<td>Jose</td>
<td>Male</td>
<td>13.9</td>
<td>Hispanic</td>
<td>ED, LD</td>
<td>Appropriate peer/adult interactions, following directions,</td>
<td>WISC-IV: FSIQ 73; PRI 71; PSI 97; VCI 83; WMI 83</td>
</tr>
<tr>
<td>Joseph</td>
<td>Male</td>
<td>13.10</td>
<td>Caucasian</td>
<td>AUT, ED</td>
<td>Appropriate behavior when frustrated</td>
<td>WISC-IV: FSIQ 71; PRI 71; PSI 90; VCI 83; WMI 82</td>
</tr>
<tr>
<td>Noel</td>
<td>Male</td>
<td>14.2</td>
<td>Caucasian</td>
<td>ED, LD, OHI</td>
<td>Anger management, following directions</td>
<td>WISC-III: FSIQ 86; PRI 119; PSI 97; VCI 107; WMI 80</td>
</tr>
<tr>
<td>Sam</td>
<td>Male</td>
<td>13.10</td>
<td>Caucasian</td>
<td>ED, OHI</td>
<td>Appropriate peer/adult interactions, coping strategies</td>
<td>WISC-IV: FSIQ 114; PRI 110; PSI 103; VCI 121; WMI 102</td>
</tr>
<tr>
<td>Ted</td>
<td>Male</td>
<td>13.5</td>
<td>Caucasian</td>
<td>ED, LD, OHI</td>
<td>Following directions, seeking resources</td>
<td>WISC-IV: FSIQ 65; PRI 69; PSI 68; VCI 85; WMI 59</td>
</tr>
<tr>
<td>Walter</td>
<td>Male</td>
<td>12.9</td>
<td>Hispanic</td>
<td>ED, LD</td>
<td>Coping strategies, task completion</td>
<td>WISC-IV: FSIQ 73; PRI 71; PSI 68; VCI 85; WMI 65</td>
</tr>
</tbody>
</table>

*Note.* AUT = autism; ED = emotional disabilities; LD = learning disabilities; OHI = other health impairment.

WISC III = Wechsler Intelligence Scale for Children-Third Edition; FSIQ = Full Scale IQ (Wechsler, 1991). WISC IV = Wechsler Intelligence Scale for Children-Fourth Edition; FSIQ = Full Scale IQ; PRI = Perceptual Reasoning Index; PSI = Processing Speed Index; VCI = Verbal Comprehension Index; WMI = Working Memory Index (Wechsler, 2003).
Table 3

*Teacher Demographic Data*

<table>
<thead>
<tr>
<th>Teacher Characteristics</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2 (33%)</td>
</tr>
<tr>
<td>Female</td>
<td>4 (66%)</td>
</tr>
<tr>
<td><strong>Licensure</strong></td>
<td></td>
</tr>
<tr>
<td>Provisional LD/ED</td>
<td>2 (33%)</td>
</tr>
<tr>
<td>LD/ED/ Mental Retardation (MR)</td>
<td>4 (66%)</td>
</tr>
<tr>
<td><strong>Earned degree</strong></td>
<td></td>
</tr>
<tr>
<td>Master’s degree</td>
<td>3 (50%)</td>
</tr>
<tr>
<td>Bachelor’s degree +45 hours</td>
<td>1 (16%)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>2 (33%)</td>
</tr>
</tbody>
</table>

**Classroom Narrative Descriptions**

In the following sections, a description of each of the six classrooms is provided. More detailed information about each teacher and IA is provided, as well as a description of classroom interactions. All names used are pseudonyms to protect the identity of each participant.

**Experimental group one.** Bruno was the teacher assigned to experimental group one. Bruno is a Caucasian male with one year of experience as a special education teacher and two years of prior experience working as an IA. He has a bachelor’s degree and a provisional LD/ED license. Initially, his assigned IA was Barbara. Barbara is an Asian female with one year of experience.

Bruno always appeared very relaxed and prepared for his students. He had good rapport with his students, always greeted and welcomed them to the class. On occasion,
he was observed to allow behaviors to get a little out of control before addressing them; thus losing some teaching time. However, other times he was diligent in addressing misbehaviors. He would use humor to bring the students back to refocus, was very diligent in following the lesson plans as they were written to maintain fidelity of treatment. Students assigned to experimental group one were Neal, Malik and Mike.

Students in this group presented many behavioral challenges, especially Mike. Transition to both a new setting and teacher was difficult for him. Bruno was not his usual teacher, and at the beginning, Mike had a difficult time adjusting. In addition, the intervention was not conducted in Mike’s usual classroom, so he had a hard time adjusting to this change, as well. The other two students, Neal and Malik, were compliant and focused when Mike was not there. Mike would be disrespectful on many occasions, leave the classroom without permission, and was not compliant. If the other two students were working, he would try to get them off task. On at least two occasions, Malik was observed telling Mike to stop talking so he could work.

After the first week of class, it was determined to switch IAs because the negative behaviors were escalating. At the beginning of the study, Barbara, Bruno’s IA, had a lot of difficulty dealing with Mike’s behavior. Thus, in order to alleviate some of these issues it was decided to switch Barbara to experimental group two, and have Janet work with Bruno because of her stronger relationships and experience with these students. Janet is a Caucasian female with five years of experience and three years working at this school. Her familiarity with the students, and theirs with her, helped alleviate some
misbehavior. This change was beneficial and students began to respond better; although
Mike still presented some issues from time to time.

Towards the middle of the intervention yet another change was implemented. Prior to 7th period (writing class), students were in P.E. and the transition from P.E. to writing class was difficult. Students came to class very agitated and it took them awhile to calm down and focus. Due to students escalating bad behavior, the administration decided to cancel P.E. for two weeks at the request of the teachers and it was decided to change Bruno’s classroom, so the students would remain in their homeroom. Changing settings and canceling P.E. helped students respond better to instruction. During the last two weeks of the study it was also decided to bring edible reinforcements for all the groups for good behavior and writing. These reinforcements worked very well in Bruno’s classroom. By the end of instruction, students really seemed to respond and focus more. It took them a while to build a relationship with Bruno, but at the end they seemed more comfortable and willing to work, especially Mike. In spite of all the challenges, students learned and were able to complete the intervention.

**Experimental group two.** Jimmy was the teacher assigned to experimental group two. Jimmy has a bachelor’s degree and 45 graduate credits in special education. He has sixteen years of experience working as a special education teacher, and has been working at this school for three years. He has licensure in LD/ED/MR. Barbara was his assigned IA. Barbara is an Asian female with 1 year of experience. Students assigned to this group were Ronald, Darrel, Jake, and Dario.
Jimmy’s experience as a teacher was notable for students' on-task behavior during instruction. The classroom was quiet and controlled. He set clear expectations and dealt with misbehaviors immediately before they could escalate. When dealing with misbehavior, his manner remained calm and matter-of-fact. Nearly the entire class periods were spent on instruction, rather than dealing with misbehaviors, in contrast to other classrooms in the school.

He was always prepared to teach and kept the students focused. Students seemed to respect him a lot and always knew what to expect from him. He was consistent and this helped students remain on task. Students knew they could depend upon him, which made them feel comfortable. All students presented minimal behavioral issues and when they did, it was mutually agreed upon to take a short break and then return to work. Jimmy was also very diligent to follow the lesson plans, as they were written, and maintained fidelity of treatment.

**Experimental group three.** Carol was the teacher assigned to experimental group three. Carol is a Caucasian female with a Bachelors of Science and a Master of Education degree. She has three years of teaching experience and she is licensed in LD/ED/MR. Judith was her IA. Judith is a Caucasian female with 12 years of experience. Students assigned to this group were Damian, Saul, Carla and Raul.

Carol had good rapport with the students. She was always prepared and ready to teach. She was able to keep the students fairly focused unless they were having a really bad day. She tried motivating them, listened to what they said they enjoyed, and used this information to help with instruction. She was diligent addressing behavioral issues;
although sometimes Raul and Saul presented some challenges. Carol also relied on her IA to help her with managing behavior and also with the teaching. She was also very diligent to follow the lesson plans as they were written to maintain fidelity of treatment.

In this classroom, there were some students with behavioral issues who were also resistant to writing. For instance, Damian was very insecure and sought constant approval from Carol or Judith. When he was having a bad day, there was nothing the teacher could do to make him work. He just shut down and completely refused to work. Saul was also very insecure about writing and masked his insecurity with off-task behavior and by not accepting any help. He always had a negative attitude and constantly refuted anything the teacher said even when she was complimenting him. Raul, on the other hand, seemed to like Carol a lot, but was extremely resistant and challenging on numerous occasions. He had to be removed from the classroom several times to go to CRC. Carla was very independent and enjoyed writing, which helped the teacher to focus more on the other students. Sometimes she got annoyed by the other students’ behaviors. In spite of all the challenges, students did learn and were able to complete the intervention. Carol never gave up and was consistent. The edible reinforcements also worked very well in this group.

**Control group one.** Nancy was the teacher assigned to control group one. Nancy is a Caucasian female with two years of experience as a special education teacher. She was an IA for 12 years prior to becoming a teacher. She has a provisional license in ED/LD. Nancy has a Master’s degree in Special Education. Catherine was her assigned IA. Catherine is a Caucasian female with two years of experience as an IA. She is working
towards completing her masters in special education. Students assigned to this group were Sam, Noel and Dante.

Nancy got along with her students and was prepared to teach everyday. She sometimes used humor with her students, and she wanted them to succeed. Students in this classroom did not present a lot of challenges. For the most part, students were on-task, followed directions, and worked independently. Sam was really the only student who seemed to be hyperactive from time to time and got off-task, but Nancy, or the IA would immediately redirect him.

Control group two. Sabrina was the teacher assigned to control group two. She is a Caucasian female with seven years of experience as a special education teacher. She has been working at this school for three years. She has a bachelor’s degree in special education and her licensure is in LD/ED/MR. Steve was her IA. Steve is a Caucasian male with one year of experience and he is working towards obtaining his masters in special education degree. Students assigned to this group were Jose, Ted, and Joseph.

Sabrina’s years of experience were evident in the classroom. She had great rapport with the students and knew how to redirect them when necessary. She was always prepared and also relied on Steve to help her during the class. Students seemed to enjoy being in her class and working with her. There were a lot of positive interactions between her and the students.

Control group three. Mary was the teacher assigned to control group three. She is a Caucasian female with three years of teaching experience. She has a bachelor’s degree in special education, a bachelor’s degree in child development, a master’s degree
in special education and a certificate in Applied Behavior Analysis. Her licensure is in LD/ED/MR. Annie was her IA. Annie is Caucasian female with 2 years of experience. Students assigned to this group were Walter, Ahmed, Carter and Arnold.

Mary is an outstanding teacher. She knows how to motivate the students and redirect them effectively when they are off-task. Students really seemed to like her and worked well for her. She had a really good relationship with her IA, who also worked well with the students. Mary seemed to enjoy teaching, always used positive feedback, and treated her students with respect.

Student Materials

This section provides a description of all the materials used by all students during the study. First, the materials used in the experimental condition are described. Next, the materials used in the control condition during students’ regular writing instruction class are described.

**SRSD plus self-determination student materials.** Students in the experimental condition received intervention utilizing SRSD plus self-determination materials. In this study, a persuasive writing strategy with embedded self-determination training was taught by using the acronym POW+TREE, in which P = Pick my idea; O = Organize my notes, W = Write and say more; and T = Topic sentence- tell the reader what you believe; R = Reasons (3 or more including at least one counter reasons); E = Explanations for each reason and counter reason; and E= Ending and examine.

All materials used in this study are similar to those used in previous research on SRSD instruction (Mason & Shriner, 2008; Mastropieri et al., 2009, 2010). However,
some materials were adapted, modified, or created to meet the specific purposes of this study. Students in the experimental group had individual folders containing the following materials, which are described next.

**Student learning contracts.** Students were given a contract in which they had to commit to learn the POW+TREE strategy for writing persuasive essays. The contract stated the purpose of the strategy; the short term goals of participating in the lessons, following directions, and monitoring their progress; the long term goals to write good persuasive essays with all the components, demonstrate self-determined behavior, and the expected date for achieving the goals. The teachers also signed the contracts and committed to teaching the strategy (see Appendix A).

**Self-determined behavior sheet.** A chart depicting the Seven Powerful Self-Determined Behaviors of (a) make a good choice, (b) set a goal and plan, (c) self-awareness, (d) apply problem solving strategies, (e) self-advocacy, (f) monitor and evaluate progress (self-management), and (g) self-efficacy was created. This sheet had prompting questions under each of the behaviors to stimulate and elicit students’ thought process. The chart was used in all lessons and a poster version was used during instruction. In addition, a similar sheet was used during lesson six in which students responded to questions under each of the seven self-determined behaviors (see Appendix B).

**Self-determined behavior diagram.** This diagram portrays the process of how to apply the seven powerful self-determined behaviors to a writing task. Two very similar diagrams of this material were created. One explained the writing process with a general
writing task and the other specifically depicts the process with the POW+TREE strategy for writing persuasive essays (see Appendix C).

**POW + TREE chart.** A chart depicting the POW+TREE strategy was adapted from Mastropieri et al. (2009, 2010) to include counter reasons. The chart has the image of a tree next to mnemonic POW+TREE (*P*ick your idea, *O*rganize your notes, *W*rite and say more, *T*opic sentence, *R*easons including a counter reason, *E*xplanations for each reason and counter reason, and *E*nding). A poster version was used during instruction (see Appendix D).

**TREE graphic organizer.** The TREE graphic organizer allows students to brainstorm their ideas prior to writing. It was adapted from Mastropieri et al. (2009, 2010) to include space for students to write one or two counter reasons and to refute them. This graphic organizer also contains space for students to write, in note format, the components of their essays. For example, there is space to write the topic sentence—what they believe, their position; space for the transition words; and space to write down their reasons, counter reasons, and explanations. In addition, at the end of the sheet students can write their concluding statement including the transition word they will use. Furthermore, students mark “yes” or “no” to indicate they have examined their graphic organizer, included all the components, and have more than three sentences per paragraph. A poster version was used during instruction (see Appendix E).

**Transition words chart.** This chart contains examples of transition words that can be used to alert the reader that a reason will be given, a counter reason, and a concluding statement. A poster version was used during instruction. This transition
word chart was adapted from Mastropieri et al. (2009, 2010) to include transition words for counter reasons (see Appendix F).

**Persuasive essay examples.** During instruction, two examples of good persuasive essays were presented to students. One was a one-paragraph essay used during lesson 4, and the other was a six-paragraph essay used during lesson 6. During instruction, students used these essays to identify persuasive essay components. An overhead version was used during instruction (see Appendix G).

**Persuasive essay writing prompts.** During instruction, collaborative, and independent writing practice, students wrote essays in response to a variety of writing prompts on the topic of self-advocacy. These writing prompts were developed and validated by experts in the field: special education teachers in middle school, and researchers with experience on SRSD instruction (see Appendix H).

**Self-statement sheet.** This sheet was used to help students brainstorm positive statements they could say to themselves while writing. The sheet has space for students to write positive statements to repeat to themselves prior to writing (planning), while writing (monitoring), and after completing their work (evaluating). Every time students wrote an essay, they were asked to take out their self-statement sheet to remind them to talk to themselves in positive ways about the writing process. This sheet has been used in previous SRSD studies (see Mason & Shriner, 2008; Mastropieri et al. 2009, 2010). A poster version was used during instruction (see Appendix I).

**Daily self-determination contracts.** During the collaborative and independent practice stages of the study, where students wrote essays with help and later
independently, self-determination contracts were used. The contract includes four sections: (a) plan, (b) work, (c) evaluate, and (d) adjust. This material was adapted from Martin et al. (2003) study. The purpose of this contract is to help students take ownership of their learning and help them self-regulate. In the first section (plan) students would write the goal for the day (e.g. write a persuasive essay on the topic given). Then, they wrote the strategy for writing a persuasive essay (POW+TREE), and noted their beginning work time. In the second section (work), students engaged in independent work; and when finished, wrote down their end time. In the third section (evaluate) students evaluated their performance (began on time, completed planned work, ended on time). If they were not able to complete their work and end on time, they were asked to write and explain what happened. Finally, during the last section (adjust), students made plans for completing their work the next day (see Appendix J).

**Graphing sheet.** This sheet was used to help students evaluate their writing performance every time they completed an essay. First, students would rate their overall performance and then mark down if they included all the components of the persuasive essay: topic sentence, three reasons, at least one counter reason, explanations, number of transition words, and an ending statement (see Appendix K).

**Paragraph checklist.** A paragraph checklist that provides structure on how to write paragraphs to compose an essay into was used to help students organize their writing. This checklist includes reminders of what should be included in each paragraph: topic sentence, transition word (TW), state reason one, TW, state reason two, and so on (see Appendix L).
Control group student materials. Students in the control condition received their regular writing instruction during the intervention. The school uses the seventh grade Write Traits classroom kit (Spandel, 2002) to teach writing. Each student has a folder that contains pencils, copies of proofreading worksheets, and copies of the Six Traits student workbook. These materials are described next.

Write traits classroom kit. This curriculum consists of teaching students’ the six traits of writing: ideas, organization, voice, word choice, sentence fluency, conventions, and presentation. The purpose of this curriculum is to help students understand the writing process by learning how to differentiate a main idea versus a detail to achieve clarity; organize ideas by understanding organizational sequence; identify the presence of voice in writing; select good word choices to eliminate repetition and increase clarity in writing; develop sentence fluency; and use textual conventions such as grammar, punctuation, capitalization, and spelling. The teacher’s guide has scripted lessons with objectives, skill focus items, and activities for teachers to use. In addition, a student traitbook accompanies each of the lessons in the curriculum. Each student had a folder that contained copies of the student traitbook, a pencil, and paper.

Proofreading worksheets. Students used proofreading worksheets that contained paragraphs with mistakes in capitalization, compound words, possessive nouns, subject-verb agreement, indentation, and spelling. Teachers obtained these worksheets from the Super Teaching Website found at http://www.superteacherworksheets.com/
Teacher Materials

Teachers in both conditions were provided with a binder that included an attendance sheet, a sheet to note make up lessons, folders for each student, paper and pencils. In addition, teachers had a video camera and a tripod to record their classes, daily. A description of specific teaching materials for experimental and control group teachers follows.

SRSD plus self-determination teacher materials. All experimental teachers received a lesson binder with all needed teaching materials. These materials included lesson plans, fidelity of treatment sheets, and copies of all the student materials. A description of all teaching materials for the experimental condition is described next.

Lesson plans. A binder that contained scripted lessons used during the intervention was provided. The binder was divided into sections for each lesson. After each lesson plan, copies of materials used during the lesson were placed into a protective sheet. The lesson plans provided specific guidelines and scripts to follow on how to provide instruction. Text in different colors were used to help teachers better understand the lessons. For instance, black text was used to highlight lesson objectives, blue text highlighted the dialogue, green text was used for examples of essays they could use during discussions, and red text was used to highlight reminders. In addition, a list of materials used per lesson was also provided for a quick reference (see Appendix M).

Fidelity of treatment sheets. Fidelity of treatment sheets were used to help teachers become familiar with the main components of each lesson and to help them monitor their progress as they were teaching. On one side of the sheet the main
components of the lessons were listed with a space for them to check off each step as they were teaching it. On the other side was space to write the date the lesson began and if it was completed in one session. If they were unable to complete the lesson, they wrote down where they stopped, when the lesson was resumed, and the total number of components successfully completed (see Appendix N).

Posters. Posters of some of the main materials used during instruction were provided for each teacher. (See student materials section for the specific poster materials used.) These posters were approximately 18" x 24" inches and were laminated for teachers to write on them. In addition, teachers were provided with other writing supplies such as paper, chart paper, and erasable markers.

Control group teacher materials. Teachers in the control condition used their regular writing instructional materials (Write Traits). However, in order to keep track of the instruction that was conducted in the control groups, control teachers were asked to complete a simple lesson plan every day. Each week, teachers were asked to place in their binders the lesson plans and copies of the materials used during instruction (see Appendix O).

Dependent Measures

This section describes all the dependent measures that were used during the study to assess students in the areas of writing, strategy awareness, self-efficacy in writing, self-determination, and self-advocacy knowledge and awareness. In addition, students and teachers were also interviewed to assess their perspectives.
**Writing prompts.** Essay probes were administered at pre, post, maintenance, and generalization. Students were provided with two prompt options and asked to select one for writing an essay. The essay prompts used were reviewed by experts in the field (middle school special education teachers and researchers with SRSD experience) to ensure age appropriateness and interest level for this student population.

Students’ written essays were typed and evaluated using essay scoring conventions. In addition, the number of persuasive essay parts was also scored for topic sentence, reasons, counter reasons, explanations, and ending (see Appendix P).

Two weeks after completion of the intervention, maintenance was assessed. In addition, students were presented with a generalization measure two days after maintenance. Students were provided with two prompt options and asked to select one for writing an essay. They were asked to write a persuasive essay in response to a prompt related to academic content in either science or social studies.

**Holistic writing rubric.** A holistic rubric was used to assess the quality of all students’ essays. This holistic rubric has been used in other SRSD studies (see Mason & Shriner, 2008; Mastropieri et al. 2009, 2010). Essays could earn 0 points (no essay) up to 10 points (essay includes one topic sentence, more than three reasons with an explanation for each, and an ending sentence). In addition, the essay has a logical sequence, and at least two counter reasons (see Appendix Q).

**Woodcock-Johnson Tests of Achievement (W-J III).** The writing fluency test of the W-J III (Woodcock, McGrew, & Mather, 2001b) was used to assess students writing fluency prior to and post intervention. The test consists of writing simple
sentences, using three given words for each item and describing a picture, as quickly as possible for seven minutes. This measure was administered and scored according to the W-J III manual (Woodcock, McGrew, & Mather, 2001a).

**Writing self-efficacy measure.** Students’ self-efficacy related to essay writing was measured using a seven-item researcher developed questionnaire. Questions included: “How confident do you feel that you can write an essay? How confident are you that you can tell someone what the parts of a good persuasive essay are? How confident are you that you can plan and organize your ideas before writing an essay?” Questions were measured on a scale of 1 (not confident at all) to 7 (very confident). High scores were associated with high levels of self-efficacy and low scores with low levels of self-efficacy (see Appendix R).

**Persuasive essays parts.** All students were asked about their knowledge on persuasive essays, at the beginning and end of the study. They responded in writing to the following question: “Write what are the components of a good persuasive essay.” (see Appendix S). Responses were scored based on the components of a good persuasive essay. A good persuasive essay should include a topic sentence, reasons (at least three); counter reasons (at least one), explanations, and an ending. Students could earn a maximum of six points if they included all the components mentioned above in accordance with a scoring rubric that was developed for this purpose. The order in which students described the components did not matter as long as they included all the components (see Appendix T).
**Criterion reference self-determination/self-advocacy measure.** A criterion reference measure directly tied to the topics that were covered during instruction was developed by the researcher. The first part of the measure included questions related to self-determination and self-advocacy. The second part was a four-point scale questionnaire that had statements related to self-determined behaviors. Students assessed their own self-determined behaviors. For example, one of the statements read: “I can set goals for myself.” Students responded by selecting one of the following options: 1 - very different from me; 2 - different from me; 3 - like me; 4 - a lot like me (see Appendix U). The first portion of the measure was scored using a guide of possible answers students could give for each of the four questions (see Appendix V).

**Student interviews.** After the intervention was completed students were interviewed to assess their knowledge about persuasive essays and self-determination. The interview also included questions to assess their perspectives about the writing class in which they participated (see Appendix W).

**Teachers’ and Instructional Assistant’s interviews.** After the intervention concluded, teachers and IA’s were interviewed to assess their perspectives about the writing intervention. Experimental teachers were asked their perspectives about the SRSD training and SRSD instruction, whereas teachers in the control groups were asked their perspectives about the regular writing instruction they provided. Also, all teachers were asked their opinions about the implementation of the intervention (see Appendix X).
Procedures

First, permission from George Mason University and the school district’s Human-Subjects Review Board was obtained. Permission from the building principal was also obtained. In addition, written student assent, parent consent, and teacher consent was obtained (See Appendix Y).

The intervention lasted approximately 12 weeks. During the first two weeks of the study, the researcher administered all pretest measures in small groups of not more than five students at a time and trained the experimental teachers. Then, students received instruction for a total of 33 days. Immediately after the intervention ended, posttest measures were administered to all students and students were interviewed. Two weeks after posttest, maintenance and generalization were assessed. Procedures for teacher training, instruction, testing, and scoring are described in the following sections.

Teacher Training Procedures

Prior to the implementation of the study, the researcher conducted an initial meeting with both experimental and control teachers. During this meeting, the researcher provided a general overview of the study, explained general research procedures, discussed expectations for both experimental and control teachers and next steps. Following is a description of the teacher training.

Experimental teacher training. Experimental teachers and their assigned IA’s received training during four days, one-hour each day, at a time that was convenient for all. Teachers received training on general research procedures as well as specific instructional procedures. Following, are details of this training.
**Day one.** During the first 30 minutes of the first day of training, the researcher provided an overview of the study. A PowerPoint that contained all the basic information about the study including the purpose, research questions, overview of SRSD instructional lessons, stages, and materials was used for discussion. The researcher briefly explained the purpose of each lesson according to the framework of SRSD instruction, including the six stages: (a) develop and activate background knowledge, (b) discuss the strategy including benefits and expectations, (c) model the strategy, (d) memorize the strategy, (e) provide guided practice, and (f) provide independent practice.

In addition, the researcher discussed the difference between conducting educational research and teaching as well as the importance of following general research procedures (e.g., not sharing information about instructional procedures with the control teachers in order to avoid contamination of the data, only teaching SRSD instruction during the assigned intervention period, and strictly following lesson plans).

Following, each teacher and IA received a copy of all the scripted lessons, materials, and the fidelity of treatment checklists to be used during the training. The researcher briefly explained the difference between the lesson plans and fidelity of treatment checklists, explained how to complete the fidelity of treatment checklists, and the importance of strictly following the lesson plans. The fidelity of treatment checklist provides all the instructional components for each lesson; whereas the lesson plans are more detailed and include all the instructional components with the dialogues, examples, and materials to be used during instruction.
The researcher then proceeded to model lesson one. The researcher modeled the lesson with all the materials (handouts, posters, overheads) that the teachers were going to use during instruction. Teachers and IA’s were asked to follow lesson one with their lesson plan copy and to complete the fidelity of treatment checklist for lesson one. After the lesson was completed, fidelity of treatment checklists were compared to assess accuracy among all observers and to discuss questions or disagreements. Teachers were asked to review lesson plans two and three in preparation for training the next day.

**Day two.** During day two of the training, the researcher modeled lessons two and three with all the materials. Teachers and IA’s were asked to follow the lessons with their copies and to complete the fidelity of treatment checklist for both lessons. During the lessons, the researcher purposefully skipped one or two components of the lessons to assess if teachers and IA’s were able to identify the missing components on their respective fidelity of treatment checklists. At the end of the lessons, fidelity of treatment checklists were compared and it was discussed what to do in case of missing instructional components or in case they were not able to complete a lesson in one day. Teachers were asked to review lesson plans four and five in preparation for training the next day.

**Day three.** The researcher modeled lessons four and five with all the materials. The same procedures were used as the previous two days. Teachers and IA’s were asked to follow the lesson plans and complete fidelity of treatment implementation checklists. In addition, teachers were asked to review lessons six, seven, and eight for the next day and to prepare to model lessons four and five.
**Day four.** During the last day of training, the researcher discussed lessons six, seven, and eight with the teachers. These lessons were not modeled because lesson six was a review, and lessons seven and eight focus on collaborative and independent writing practice; thus less direct teaching is provided because students are writing essays. The purpose of the lessons was explained and questions were answered. Then, teachers were asked to model lessons. One teacher modeled lesson four and the other modeled lesson five. Fidelity of treatment was also completed and the researcher provided feedback and answered questions as they arose. Also, the researcher discussed effective teaching strategies such as maximizing academic engagement (time-on-task), clarity, enthusiasm, appropriate rate, questioning, feedback, and praise (Mastropieri & Scruggs, 2010). Finally, each teacher was provided with a binder that contained all the lesson plans with materials for all students, folders for each student, fidelity of treatment checklists, attendance sheet, a make-up lesson schedule, and a sheet that contained all the researcher contact information. Furthermore, teachers were trained on the use of electronic equipment (video cameras).

**Feedback.** During the training and intervention phase, the researcher checked in with the teachers on a daily basis, provided feedback, and answered questions as they arose. Once the teachers began to implement the study, the researcher provided feedback each day at the end of the class period and was available to answer questions or assist the teachers, if needed. In addition, the researcher watched the daily class videos every night and provided feedback by email, if necessary.
Meetings. One formal meeting was conducted during the intervention phase of the study to discuss how to address instructional and behavioral difficulties that arose. During this meeting the researcher provided guidance and feedback about the progress of the lessons and worked with the teachers, as a team, to come up with solutions on how to address behavioral issues in the classroom. For instance, students in one of the experimental groups were presenting serious behavioral issues, so it was decided to switch IA’s from experimental group one and experimental group two as it was thought familiarity among the students and IAs would alleviate most of the behavioral issues. Further, during this meeting it was also accorded to use edible reinforcements (e.g., cookies, juice boxes, crackers) and WOW tickets to motivate students to write and behave.

Control group teacher training. The researcher met with the control teachers and their respective IA’s to discuss responsibilities, expectations, and answer questions. In this meeting, the teachers described the writing curriculum and materials they were going to use during instruction and gave the researcher copies of all the materials. Also, the researcher discussed general research procedures with the teachers and IAs. In this meeting, each teacher received a binder that contained folders for students, an attendance sheet, a makeup schedule, and copies of the lesson plans. Each teacher was asked to submit daily copies of lesson plans (see Appendix O) in order to have a control of what was going to be covered during the writing period. It was explained that their lesson plans were going to be used as our fidelity. The importance of not sharing information about the writing project or seeking information about what was being done in the
experimental groups was also emphasized. Finally, a sheet that contained the researcher contact information was also provided and teachers were trained on the use of electronic equipment (video cameras).

Testing Procedures

Each measure was administered to small groups of students at pre- and post-testing by the researcher and the research assistant under the supervision of the researcher. Testing procedures were conducted during students’ English periods and home rooms. In addition, teachers and IA’s were available to assist the researcher by helping with students behaviors and monitoring the completion of the measures. A description of testing administration procedures is described next.

Day one testing. Measures for writing were administered during the first day of pretesting (week one) and during the first day of posttesting (week ten) immediately after the conclusion of the intervention. First, students were asked to write an essay response to two prompt options provided. Next, students were asked to complete the strategy awareness probe about the components of a good persuasive essay. Finally, students completed the 7-minute Woodcock-Johnson Tests of Achievement (W-J III).

Day two testing. On day two of pretesting (week one) and day two of posttesting (week ten) students completed the self-efficacy and the criterion reference self-determination/self-advocacy measures.

SRSD Plus Self-Determination Instructional Procedures

The intervention was conducted four times per week, 30 minutes each session, for a total of 33 days. Sessions took place during students’ seventh class period. Each lesson
began by setting the goals of the day and a quick review of the previous lesson. The lessons followed the framework of SRSD instruction including the six stages: (a) develop and activate background knowledge, (b) discuss the strategy including benefits and expectations, (c) model the strategy, (d) memorize the strategy, (e) provide guided practice, and (f) provide independent practice. However, within the SRSD framework some other lessons and discussions about self-determination/self-advocacy were included. In addition, all the persuasive writing prompts and in class discussion writing models were related to self-advocacy topics (knowledge of self, knowledge of rights, leadership). The lessons lasted between one to three days. Lessons seven and eight took longer to complete because it is in these stages that students write essays with guidance and then independently. Following is a description of the instruction by the SRSD stages.

**Stage 1: Developing and activating background knowledge.** The purpose of this stage was to introduce the self-determination concept and how it applies with writing tasks. In addition, the concept of self-advocacy and the persuasive writing genre were introduced. Following is a description of the lessons for this stage. Two lessons covered stage one, but they were not necessarily covered in one day.

**Lesson 1.** The lesson began by reviewing the goals of the day. Then, students signed a contract in which they committed to learn the strategy for writing persuasive essays and to exhibit self-determined behavior during the intervention. The contract stated the purpose of the intervention; the short term goals of participating in the lessons, following directions, monitoring their progress, and demonstrating self-determined behaviors; the long term goals to write good persuasive essays with all the components,
and apply the strategy in other settings; and the expected date for achieving the goal. The teacher also signed the contracts and committed to teaching the strategy (see Appendix A).

Instruction began with a discussion of self-determination. The teacher introduced the concept of self-determination. The following questions guided the discussion. “What is self-determination? What does it mean to have self-determination skills? What are the components of self-determination? Why do you think it is important to have self-determination skills?” Then, he/she introduced the seven components of self-determination (Wehmeyer, Agran, & Hughes, 1998).

1. **Decision making** involves making good choices that will help with attaining the goal.

2. **Goal setting and attainment** refers to setting goals and making plans on how to achieve the goals.

3. **Self-management** is the ability to start and complete a task, and monitor and evaluate progress.

4. **Problem solving** refers to the ability to apply strategies that will help with finishing a task.

5. **Self-awareness** is the ability to identify and understand one’s needs, interests, strengths, limitations, and values.

6. **Self-advocacy** refers to the ability to express one’s needs, wants, and rights in an assertive manner.

7. **Self-efficacy** is having confidence in one’s own abilities to attain a goal.
A sheet that depicts the seven powerful self-determined behaviors was introduced. A poster version was also used (see Appendix B). The teacher then discussed how students can apply the seven powerful behaviors when writing. “We know what the seven powerful behaviors are; how do you think writers apply these behaviors when writing?” The teacher then introduced the self-determined behaviors diagram (see Appendix C) and explained in detail what good writers do when confronted with a writing task. The lesson ended with a review of the self-determined behaviors.

**Lesson 2.** Instruction began by stating the goals of the lesson and by reviewing the seven powerful self-determined behaviors. Then, the teacher introduced the persuasive writing genre: “There are many types of writings, but one that is really important to know is the persuasive writing genre.” The teacher discussed what it means to persuade and how persuasive writing relates to one of the seven powerful self-determined behaviors; namely, self-advocacy: “What does it mean to self-advocate?” You have to convince someone of your point of view with good reasons. Some people might have a different point of view and you need to come up with good reasons to refute their argument.” The teacher discussed some examples of how students can advocate for themselves. For instance, “Imagine you want to be part of a sports team and you need to advocate for yourself to convince the coach that you are a good player, how would you convince the coach?” The coach might think you are not the best candidate, how would you refute his/her point of view.”

Then, the teacher helped students make the connection between self-advocacy and the persuasive writing genre. The teacher explained that in persuasive writing the writer
takes a position for or against an issue and writes to convince the reader to believe or do something. Some questions guided the discussion: “Do you think it is important to have self-advocacy skills? Why? How is persuasive writing similar to the concept of self-advocacy? How can you convince someone through writing of your point of view? Why do you think it is important to know how to write persuasive essays? How can you use persuasive writing to advocate for yourself? The teacher drew a Venn diagram to help students visualize the similarities and differences between the persuasive writing genre and the self-advocacy concept (see Appendix M, lesson 2).

Stage 2: Discuss the strategy including benefits and expectations. In this stage, the POW+TREE strategy was introduced as well as support materials for writing persuasive essays. Benefits and expectations about the strategy were discussed. A detailed description of the lessons is provided next. Two lessons covered stage two, but they were not necessarily covered in one day.

Lesson 3. Instruction began by stating the goals of the lesson followed by a verbal review of the seven powerful self-determined behaviors, persuasive writing genre, and self-advocacy. The teacher discussed what good writers do when writing a persuasive paper: “Part of the seven powerful self-determined behaviors is to set goals and apply problem solving skills to attain these goals. Writers use a problem solving strategy when writing a persuasive essay.” The POW+TREE mnemonic chart was introduced (see Appendix D). In addition, a chart for transition words was introduced (see Appendix F), and an explanation of how these words help in the writing process was provided. Next, the teacher explained how the seven powerful self-determined behaviors
are applied when writing a persuasive essay by using the self-determined behaviors diagram (see Appendix C). The teacher emphasized the importance of self-evaluation and self-monitoring while writing, two of the seven powerful self-determined behaviors.

**Lesson 4.** Instruction began by stating the goals of the lesson. Then, the teacher reviewed the POW+TREE mnemonic for writing persuasive essays and the seven powerful self-determined behaviors. Also, the teacher briefly reviewed transition words. Then, students examined a persuasive paper to find out if the writer had included all the parts and transition words. Following, the teacher discussed counter reasons: “Do you know what a counter reason is? You challenge your own argument and then you turn back to re-affirm it. In a counter reason you consider reasons other people might have that are against what you believe. Who might disagree with you?” The teacher discussed why it is important to consider other people’s perspective when writing a persuasive essay. Next, the graphic organizer was introduced (see Appendix E). The teacher explained that the graphic organizer is a tool students can use to organize the parts of a good persuasive essay according to TREE. Following, the teacher practiced with the students, developing reasons and counter reasons, for two different persuasive prompts and modeled how to fill in the graphic organizer as they were discussing it.

**Stage 3: Model the strategy.** In this stage the teacher modeled how to apply the POW+TREE strategy and the seven powerful self-determined behaviors while writing a persuasive essay. In addition, the self-statement sheet, the student record sheet, and the paragraph checklist were introduced. One lesson covered stage three, but it took approximately two to three days to complete it.
Lesson 5. Instruction began by stating the goals of the lesson. Then, the teacher reviewed the seven powerful self-determined behaviors and other support materials that have been used. Following, the teacher introduced the self-statement sheet by saying: “One thing writer’s do is talk to themselves in positive ways. Since you are learning to become good writers, it is important to talk to yourself in a positive way.” The teacher told students to pay attention to the self-statement he/she used while modeling the essay. Then, the teacher modeled, by thinking out loud, the steps for writing a persuasive essay using the POW+TREE chart and the seven powerful self-determined behaviors sheet. The teacher said: “I have to make a good decision and it will be to work hard on this essay. My goal will be to write a good persuasive essay that has all the parts and I will use POW to plan.” Next, she states, by thinking out loud, how she can solve the task of writing a persuasive essay. “What problem solving strategy is going to help me write a good persuasive essay? I will use TREE.” She modeled how to think of good reasons and counter reasons to write an essay. She also emphasized that when writing an essay to advocate for oneself, it is important to address the readers’ point of view. In addition, the teacher also modeled the use of transition words. Next, the teacher modeled how to transfer notes into essay format: “Now that I have completed my graphic organizer, I am ready to do the last part of POW—W—I am ready to write the essay.” The teacher modeled how to write the essay in paragraphs and explained what goes in each paragraph using the paragraph checklist (see Appendix L). When the essay was completed, the teacher talked about the importance of evaluating the essay to see if it has all the parts, and modeled how to use the student record sheet (see Appendix K): “We have been
talking about what good writers do when they write a paper. They need to have a plan to organize their thoughts and they also need to monitor their progress. Why do you think it is important to monitor your progress? One way that we are going to monitor our progress is by recording how well we are doing in writing all the essay parts.” Finally, students were asked to write personal self-statements while thinking of good ideas, while writing, and when revising their work (see Appendix I).

**Stage 4: Memorize the strategy.** In this stage students practiced memorizing the writing strategy POW+TREE, and the steps needed to write an essay following the seven powerful self-determined behaviors. The purpose of memorizing the strategy is so students learn the steps in order to prepare for the next stage, guided practice.

**Lesson 6.** Goals for the lesson were discussed. The teacher gave students a sheet that had the seven self-determined behaviors with questions under each behavior so that students could think about the process and answer the questions. Then, the teacher reviewed the components of POW+TREE. On a blank piece of paper students were asked to write as many transition words as they could remember, and then their sheets were compared to the transition word poster. Following, the teacher reviewed the structure of the paragraphs and the self-determination contract was introduced: “Now you have an idea of how to write persuasive essays and you have all the tools. It is time for you to be responsible for your learning and demonstrate self-determined behavior.” Finally, the teacher explained how to complete the self-determination contracts.
**Stage 5: Guided practice.** This stage had three lessons, but it lasted several days. The purpose of this stage is to scaffold instruction until students are able to independently use the strategy without the teacher’s guidance or support materials.

*Lessons 7a, 7b, and 7c.* Everyday, the teacher reviewed the goals for the day, monitored the completion of self-determination contracts, and gave students their practice prompts. Students chose to write a persuasive essay on one of two options related to self-advocacy topics. Students had to pick their topic, complete the graphic organizer, write an essay, and review it. In some instances it took students one or two days to complete the graphic organizer and one or two days to finish the essay. It was expected that students would complete at least three essays with guidance. The teacher helped the students, but they were expected to take ownership of their learning. Support materials were available for the students in their folders. Teachers helped students individually and students worked at their own pace. Some students worked faster than others did, and when this happened, the teacher moved those students on to the next lesson. Since the format of all the lessons in this stage are the same, with the exception of the writing prompt options, students were able to work at their own pace.

**Stage 6: Independent practice.** In this stage, students continued to write persuasive essays but without any supportive materials (e.g., transition word chart, graphic organizer, POW+TREE chart) with the exception of the self-determination contract and the graphing sheet. Students were taught how to write the mnemonic POW+TREE at the top of the page as a reminder of the strategy and to create their own graphic organizers.
Lessons 8a, 8b, and 8c. Everyday, the teacher reviewed the goals for the day, monitored the completion of self-determination contracts, and gave students their practice prompts. Students chose to write a persuasive essay on one of two options related to self-advocacy topics. Students also had to complete the process (select a topic, organize their notes in their own graphic organizer, write the essays, and review it). Teachers provided minimal support in this stage. As in the previous stage some students worked faster than others, and when this happened, the teacher moved those students to the next lesson. Since the format of all the lessons in this stage are the same, with the exception of the writing prompt options, students were able to work at their own pace. If students finished writing the required three essays for lesson eight, they continued practicing writing essays by choosing the other writing prompts they did not select before.

Stage 7: Review and generalization. This stage is not part of the traditional SRSD instruction, but it was added to help students understand how to apply the skills learned to other content areas.

Lesson 9. During the final stage, the teacher reviewed the concepts learned about self-determination and self-advocacy. The teacher reviewed the strategy for writing a persuasive essay. Then, the teacher explained how important it is to demonstrate self-determined behavior in other areas of life and how to use self-advocacy skills in different situations. Furthermore, the teacher asks students to think of what other contexts they can use the POW+TREE strategy. See Table 4 for progress on experimental lessons.
Make-up lessons. To ensure all students received the same amount of instruction for the same period of time, make-up lessons had to be conducted. On a weekly basis, some students were absent or, due to behavioral issues, were sent to CRC for in-school detention and missed the 7th period writing class. Since the intervention was conducted Monday through Thursday, on Fridays, students that needed make-up lessons worked with their respective teacher individually on the lesson he/she missed.
Make-up lessons were conducted every Friday during 7th period for 30 minutes and the researcher observed the make-up lessons to ensure they were done with fidelity. However, if a student missed more than two lessons in a week; then teacher’s conducted make-up lessons during student’s 5th period homeroom which was equivalent in time to 7th period. Students that did not need make-ups on Fridays stayed with their assigned IA participating in other activities, none related to writing. When make-ups had to be conducted during homeroom, the teacher and the student went to the school library while the other students stayed with the IA participating in their regular homeroom activities. In order to have a control for the make-up lessons, teachers were asked to note student absences on a sheet, the lesson that the student missed, and when the make-ups were going to take place. On a daily basis, the researcher checked with each teacher regarding the schedule and noted on her master schedule all the make-up lessons.

Over the period of the intervention, the teacher for experimental group one conducted 18 make-up sessions, especially for Neal and Mike. Neal was frequently absent whereas Mike was sent to CRC for behavioral issues. The teacher for experimental group two conducted a total of 11 make-up sessions, mainly due to student absences, and the teacher for experimental group three conducted a total of 13 make-up sessions. All students in experimental groups received the same amount of instruction for the same period of time.

Control Condition Instructional Procedures

The intervention was conducted four times per week, 30 minutes each session for a total of 33 days. The sessions took place during students’ seventh class period. Control
group teachers used the regular writing instruction curriculum and worked together to select some of the lessons they were going to cover during the writing class. Out of a total of 24 lessons in this curriculum, teachers selected eight lessons for instruction and added other support materials, such as editing sheets for students to practice their editing and revising skills. These lessons are labeled and described in accordance with the *Write Traits* curriculum, and in the order they were given.

The lessons were covered in approximately 20 to 21 days. Some of the lessons were covered in one day whereas others were covered during several days. The amount of time each of the teachers spent on a certain lesson varied. In addition, at the beginning of most of the lessons, each student had to complete a warm-up editing sheet in which they had to identify grammar, punctuation, sentence structure, verb agreement, and capitalization errors. Then, from day 22 to day 33 students practiced writing different writing pieces on diverse topics. Following is a description of each of the lessons teachers selected from the *Writing Traits* curriculum with examples of how each of the teachers covered the material.

**Lesson 1: Going local.** The objective of this lesson was to teach students how to identify oversized topics and how to narrow a topic so it gives the writer a good basis for writing. Students were taught how to use a topic tree diagram to narrow a big topic into a smaller one. To help them in this process, students were asked to think about who, what, where, when, why, and how questions. For example, in the students’ traitbook, students narrowed the topic on travel by thinking about the different methods of travel, who uses them, and when. All three teachers covered this lesson. It took control group one, one
day to complete it, whereas it took two days for control groups two and three. All three teachers used the students’ traitbook.

**Lesson 2: Cutting through the fog.** The purpose of this lesson was to teach students the importance of writing clearly by providing details so the reader can understand the writer’s point of view or main idea. In the students’ traitbook, students completed various exercises that helped them understand the difference between clear and foggy writing. For example, they read a story and determined if the writer wrote clearly. They compared foggy writing with clear writing, and revised a piece of writing by adding more details and making it more clear. All teachers completed this lesson in two or three days.

**Lesson 5: Think sequence.** The purpose of this lesson was to help students understand the importance of logical sequencing when writing. Students evaluated examples of writing that had a logical sequence, versus examples that had a weak sequence. They also revised writing that was out of order by creating appropriate sequences. For this lesson, all teachers covered the main objectives and used the students’ traitbook, but they also used different activities to help students understand the logical sequencing concept. For example, one teacher used a story cut into sentence strips and asked students to put the story in order; whereas others asked students to write the steps needed to turn on a computer or the steps needed for finding the measurement of Play-Doh. It took all three teachers three days to complete this lesson.

**Lesson 7: Staying connected.** The purpose of this lesson was to help students’ understand the importance of using transitional phrases and transition words when
writing. Students identified transition words and phrases, and revised writing to make transitions stronger. This lesson was completed in two to five days. All students completed the pages on their traitbooks.

**Lesson 9: A personal definition.** The purpose of this lesson was to discuss voice in writing. Students had to identify and describe different writing voices (e.g., happy, sad, angry, serious, and sarcastic) in pieces of writing and develop a personal definition of voice. Students worked on the assigned pages of their traitbooks; but some teachers also added other activities to help students understand the concept. For example, the control teacher for group one read students two types of letters about the same topic (vacation) but one letter was written for a boss (formal) and one was written a friend (informal). Students were asked to identify her voice and to whom the letters were intended. The control teacher for group two used a video called “Whose line is it anyway?” to help students understand the concept of voice. It took teachers two to three days to complete this lesson.

**Lesson 10: The right voice for the job.** This lesson is an extension of lesson nine. The purpose was to help students understand that voice can help explain why a writer is writing (purpose). All groups completed some of the traitbook exercises. For example, students in control group one read a sample of a newspaper article that was written informally about an “Electrical Black Out” and they rewrote the article using a different tone of voice, with facts, as a newspaper reporter. Students in control group two were asked to write a paragraph describing their day in their voice and have classmates identify who wrote that paragraph. Finally students in control group three read a story from the
traitbook and were asked to identify the voice the author chose to write the piece. This lesson was completed in one to two days.

**Lesson 14: We had fun and stuff.** The purpose of this lesson was to help students understand the importance of word choice when writing. They identified samples of clear writing versus vague writing. All groups completed one of the exercises of the students’ traitbook about how to cook a chocolate almond cake. They read the recipe and identified examples of words or phrases that were clear or specific. Then, teachers incorporated other activities. For example, two groups, control groups one and three, asked students to write either a short descriptive piece about a place they had been or want to go, or write a how-to piece describing the necessary steps for cleaning a room. Control group teachers two and three also played a game with the students. Each student was given a picture and then verbally described the picture to the other students so they could draw the picture without looking. It took teachers three to five days to complete this lesson.

**Lesson 16: Less is more.** The purpose of this lesson was to help students improve their editing skills. Students distinguished between wordy passages of writing versus passages that had the expected amount of detail. They revised writing to eliminate wordiness without leaving out important information. Students completed the traitbook activities.

**Writing practice.** After teachers completed the lessons, students were given the opportunity to practice writing different pieces. Teachers gave students prompts, where they were asked to complete all the writing process from brainstorming, to writing their
first draft, and editing their work. Teachers, on average, spent one or two days helping students brainstorm ideas for their writing piece. They showed students how to use a graphic web to think about ideas prior to writing. Then, all groups spent about two days writing stories and two or more days editing. All groups completed the following two writing prompts: “Imagine you wake up one morning and you have become invisible. What would you do? Would you decide to stay invisible?” and “Select one rule you don’t like and then give three reasons why.” Control group two was also given the opportunity to write a personal narrative about a time when they had to prove themselves to someone, whereas control group one allowed students to write freely. See Table 5 for a description of what was covered each day.
Make-up lessons. To ensure all control group students received the same amount of instruction for the same period of time, make-up lessons had to be conducted. As in the experimental groups, students were absent on a weekly basis or, due to behavioral issues, were sent to CRC for in school detention and would miss the 7th period writing class.
The same make-up procedures described above for experimental groups were conducted for control groups. Make-up lessons were conducted every Friday during 7th period, for 30 minutes and when necessary, a student’s 5th period homeroom was also used for make-up lessons. In order to have a control for the make-up lessons, teachers were asked to note on a sheet student absences and when make-ups were going to take place. On a daily basis, the researcher checked with each teacher regarding the schedule and noted on her master schedule all the make-up lessons.

Over the period of the intervention, the teacher for control group one conducted four make-up sessions. The teacher for control group two conducted a total of three make-up sessions. In this group there was a student who had so many absences, it was decided to drop him from the study, as it wasn’t possible to bring him up to date. Finally, control group teacher three conducted a total of 20 make-up sessions, especially for Arnold, a student with a history of frequent absences. At the end of the intervention, all students received the same amount of instruction for the same period of time.

**Scoring Procedures**

Students’ performance was assessed via the essays they wrote; their knowledge about the components of a persuasive essay; their self-efficacy in writing; and their self-determination and self-advocacy knowledge and awareness. Scoring conventions and guidelines for scoring essays, persuasive essay parts probe, and self-determination questions were developed by the researcher (see Appendices P, S, and V). In addition, the holistic quality rubric was used to assess overall quality of essays as has been used in previous studies (Mastropieri et al., 2009, 2010).
The researcher typed all the essays and assigned a number to each of the participants. The researcher scored a total of 84 essays from pre, post, maintenance, and generalization. In addition, knowledge about the components of a persuasive essay, self-efficacy in writing, and self-determination and self-advocacy knowledge and awareness were assessed pre- and post-test.

**Reliability Checking**

Graduate students served as independent scorers. All had between two and three years of experience working on other SRSD studies and scoring essays. The researcher met with each scorer and discussed the scoring guidelines and rubrics. Then, each scorer was assigned essays to score independently. Ninety five percent of the total number of essays was scored by one or two independent scorers. Then, the researcher met with each scorer to discuss the essays. At pre- and post-test, 95% initial agreement was obtained. After discussion, discrepancies were solved and the reliability between scorers was reconciled to 100% agreement. At maintenance and generalization, initial agreement was 92% and 93% respectively. After discussion, discrepancies were solved and the reliability between scorers was reconciled to 100% agreement.

Reliability of scoring was also calculated for the persuasive essay parts probe. That is, students knowledge about the components of a persuasive essay. At pre- and post-test, 100% agreement was obtained between scorers. Finally, reliability of scoring was also calculated for the first part of the self-determination/self-advocacy measure that included questions in which students could give an open response. At pretest, 100% agreement was obtained between scorers. At posttest, 95% of initial agreement was
obtained. After discussion, discrepancies were solved and the reliability between scorers was reconciled to 100% agreement.

**Fidelity of Treatment**

Fidelity of treatment implementation was assessed for both experimental and control groups. Classes in all groups were videotaped daily and all 198 videos were watched by the researcher. The researcher conducted fidelity of treatment assessment and took anecdotal notes. Three graduate students and one observer were trained on observational procedures and on the use of fidelity of treatment checklists. Following is a description of fidelity of treatment procedures for both groups.

**Experimental groups.** To assess the degree to which treatment was implemented as intended, fidelity of treatment checklists for the lesson plans were developed. Specific items monitored were (a) consistency with implementing intervention for the appropriate amount of time and (b) consistency with implementing intervention using SRSD plus self-determination scripted lessons. Field notes were also taken to provide further details.

Three graduate students were trained on observation procedures and on how to use the checklists that contained step-by-step directions for each lesson. In addition, they were given a copy of the scripted lessons to read and a table (similar to Table 4 above) that contained information about what lesson was covered each day so they could see that some lessons took more than one day to complete. For instance, when teachers were not able to complete all lesson components in one day due to lack of time, the next lesson began with a daily review and started with the concluding lesson component from the previous day. Fidelity of treatment was completed for 33 sessions by independent
observers, 11 sessions for each of the three experimental groups. Thus, fidelity of
treatment was calculated for 33% of the lessons.

Graduate students primarily observed videotapes of lessons 1-6, which took
approximately 11 to 12 days for completion, where the teacher was providing direct
instruction. Among lessons 1 to 6 there were a total of 58 lesson components that needed
to be covered. As the instructor completed a step, observers were asked to check it off.
Examinations of these checklists were conducted and compared to those of the researcher
to calculate the percentage of agreement. Examination of fidelity of treatment checklists
indicated that instruction was delivered with a high degree of fidelity ($M = 99$; range
97%-100%). Initial interrater agreement between independent observers and the
researcher for group one and group two was 98.3%. Disagreements were discussed and a
final agreement of 100% was obtained. Finally, interrater agreement for experimental
group three was 100%

**Control groups.** To establish the extent to which comparison students were
provided with their regular writing instruction, the researcher watched the lessons daily
and recorded on a table what happened each day. In addition, fidelity of treatment
checklists for control groups were developed by the researcher based on the *Write Traits*
curriculum lessons and teacher’s lesson plans. Specific items monitored included (a)
consistency with implementing intervention for the appropriate amount of time, and (b)
consistency with implementing regular writing instruction. The fidelity of treatment
checklists contained three main components: (a) a space to check-off if students
completed the editing sheet warm-up, (b) a space to check off if the teacher covered the
main lesson objective, and (c) a space to check-off if the students worked on their traitbooks. In addition, a space for notes was also provided. These checklists were created for all eight lessons teachers covered from the curriculum (see Appendix Z).

For reliability purposes, fidelity of treatment was completed by an independent female observer with previous experience working as an observer in research studies. She observed a total of 33 sessions. The observer was given a table (see Table 5 above) that contained information about what lesson was covered each day and the researcher explained the main objectives of each lesson. Some lessons lasted more than one day. The observer was asked to watch the videos and complete the fidelity of treatment checklist or to take notes. Interrater agreement between the researcher and the independent observer resulted in 100% agreement.
4. Results

This chapter presents the results for this research study. This study examined the effectiveness of Self-Regulated Strategy Development (SRSD) instruction on the writing performance and acquisition of self-determination skills for middle school-age students with emotional and behavioral disorders (EBD). SRSD instruction was modified by incorporating instruction on self-determined behaviors during the lessons. The intervention was evaluated using a pretest-posttest randomized control group design (Creswell, 2005). In order to examine the effects of this instruction, the following research questions were examined:

1. Does SRSD instruction for persuasive writing increase the quality, length, components, and organization of written persuasive essays?

2. Are students able to maintain gains in writing and generalize knowledge to other content areas?

3. Does SRSD instruction increase knowledge of the components of a good persuasive essay?

4. To what extent does SRSD instruction, taught concurrently with self-determination components, influence students’ self-determination knowledge and their perceived self-efficacy in writing?
5. How do students with EBD perceive the usefulness of learning persuasive writing and self-determination skills?

6. How do experimental teachers and instructional assistants, who are trained and provide SRSD instruction, perceive the usefulness of the POW+TREE strategy with embedded self-determination components?

7. How do control teachers and instructional assistants perceive the usefulness of the district writing curriculum used?

**Writing Performance**

Students writing performance was evaluated using the essays they wrote at pretest, posttest, maintenance, and generalization. Essays were evaluated according to number of words, sentences, transition words, parts of a persuasive essay, paragraphs, and overall quality of the essay.

**Essay scoring.** Each essay was scored using a holistic rubric with a scale from 0 to 10 and scoring rules. An essay received a score of 0 for no essay parts and 10 for a complete essay. For example, an essay worth 10 points had to include the following components: (a) topic sentence, (b) more than three reasons with explanations, (c) ending sentence, (d) a logical sequence of writing including more than one counter argument, and (e) overall essay coherence. Further, each essay was scored by the number of words written, number of transition words, sentences, paragraphs, and parts of the essay including topic sentence, each reason and counter reason, each explanation, and an ending sentence. For example, if an essay included all of the above, but only one counter argument it received a score of nine. Graduate students served as independent scorers.
They scored each essay and essay part individually. Ninety-five percent of the total number of essays was scored by one or two independent scorers. Scorers met to assess interrater reliability and discussed disagreements until they were resolved. At pre- and post-test, 95% initial agreement was obtained. After discussion, discrepancies were resolved and the reliability between scorers was reconciled to 100% agreement. At maintenance and generalization, initial agreement was 92% and 93% respectively. After discussion, discrepancies were resolved and the reliability between scorers was reconciled to 100% agreement.

Following, results for each of the writing components measured are presented for each testing time. First, descriptive data is presented and discussed for each writing component. Table 6 shows the means and standard deviations produced by the essays for each of the two groups at different measure times. Graphic representations, by group, are displayed in Figures 1 - 6. Then, parametric and nonparametric tests were conducted to assess differences in groups. To determine if parametric or nonparametric tests were suitable for analyzing each of the writing measures, the Levene’s test for Equality of Variances was conducted for each of the writing components results to determine if the variances of groups were equal. If the test indicated significant differences in the variances of the two groups, thus reducing the variability and violating necessary assumptions for completing parametric tests, nonparametric tests were conducted.

**Pretest data analysis.** Descriptive data for the pretest essays are in Table 6. As can be seen, the experimental students scored 42.63 ($SD = 35.34$) for number of words, while the comparison condition obtained 52.80 ($SD = 86.43$). For number of sentences
written, experimental students obtained a mean of 2.45 ($SD = 2.69$), whereas control students obtained a mean of 1.70 ($SD = 2.35$). For number of transition words written, experimental students obtained a mean of 0.82 ($SD = 0.98$) and control group scored 1.30 ($SD = 1.83$). For number of essay parts, experimental students obtained a mean of 2.63 ($SD = 1.56$) and the comparison condition a mean of 2.90 ($SD = 1.96$). For number of paragraphs written, the experimental students obtained a mean of 0.36 ($SD = 0.50$) and control students a mean of 0.20 ($SD = 0.42$). Finally, for the overall quality of the essays, experimental students obtained a mean of 2.27 ($SD = 1.19$), whereas the control group obtained a mean of 2.50 ($SD = 1.58$).

To determine whether statistically significant differences existed between experimental and control groups related to essay performance at pretest, individual analyses, for each of the essay components evaluated, were conducted. Analyses of pretest data were conducted by an independent-samples $t$ test to evaluate if groups displayed statistically significant differences on all essay components evaluated. Results revealed there were no statistically significant differences for the two groups for either number of words $t(19) = - .359, p = .72$; number of sentences $t(19) = .679, p = .50$; number of transition words $t(19) = - .763, p = .45$; number of paragraphs $t(19) = .802, p = .43$; number of essay parts $t(19) = - .341, p = .73$; and quality scoring $t(19) = - .374, p = .72$. Thus, both groups performed similarly at pretest.
Table 6

Descriptive Data for Essays Results

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<th>Experimental (N = 11)</th>
<th>Control (N = 10)</th>
</tr>
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<td>Pretest Mean (SD)</td>
<td>Postintervention Mean (SD)</td>
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<td>No. of words</td>
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<td>Control</td>
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<td>Experimental</td>
<td>0.82 (0.98)</td>
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<td>2.60 (2.67)</td>
</tr>
<tr>
<td>No. of paragraphs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>0.36 (0.50)</td>
<td>4.00 (2.19)</td>
</tr>
<tr>
<td>Control</td>
<td>0.20 (0.42)</td>
<td>0.40 (0.52)</td>
</tr>
<tr>
<td>Quality Scoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>2.27 (1.19)</td>
<td>8.27 (1.27)</td>
</tr>
<tr>
<td>Control</td>
<td>2.50 (1.58)</td>
<td>2.30 (2.11)</td>
</tr>
</tbody>
</table>
Posttest data analysis. Descriptive data for the posttest essays results are in Table 6. As can be seen, the experimental students wrote a mean number of words of 131.54 (SD = 36.90); while the comparison condition wrote a mean number of words of 57.60 (SD = 31.19). For the number of sentences written, experimental students obtained a mean of 14.36 (SD = 5.39); whereas, control students obtained a mean of 2.80 (SD = 2.78). For number of transition words written, experimental students obtained a mean of 9.27 (SD = 4.07) and the control group scored 1.10 (SD = 1.45). For number of essay parts, experimental students obtained a mean of 9.27 (SD = 1.27) and the control group, a mean of 2.60 (SD = 2.67). For number of paragraphs written, the experimental students obtained a mean of 4.00 (SD = 2.19) and the control students, a mean of 0.40 (SD = 0.52). Finally, for the overall quality of the essays, experimental students obtained a mean of 8.27 (SD = 1.27); whereas, the control group obtained a mean of 2.30 (SD = 2.11). To determine whether statistically significant differences existed between experimental and control groups, related to essay performance at posttest, individual analyses were conducted for each of the essay components evaluated, and are discussed next.

Number of words. Experimental students’ posttest scores indicated large increases over pretest scores on measures of number of words. An independent-samples $t$ test was conducted to evaluate the performance of students in both groups, for number of words written at posttest. The test was significant: $t(19) = 3.64, p = .000$. Students in the experimental group ($M = 131.54, SD = 56.69$) outperformed students in the control group ($M = 57.60, SD = 31.19$) in number of words. As can be seen in Table 6,
experimental students greatly increased the number of words written, from pretest to posttest (42.63 to 131.54 words); whereas, the performance of students in the control group remained relatively stable (52.80 to 57.60 words). (See Figure 1.)

![Figure 1. Mean number of words by groups at pretest, posttest, maintenance, and generalization.](image)

*Number of sentences.* When evaluating the performance of both groups of students for number of sentences written at posttest, nonparametric tests were used. A Mann-Whitney *U* test was conducted to evaluate the performance of both groups on number of sentences written at posttest. The results of the test were significant: *z* = -3.18, *p* < .05. Students in the control group had a mean rank of 6.50 sentences written; while
students in the experimental group had a mean rank of 15.09 sentences. Thus, students in
the experimental group outperformed students in the control group for number of
sentences written at posttest. (See Figure 2.)

![Figure 2. Mean number of sentences by groups at pretest, posttest, maintenance, and
generalization.](image)

**Number of transition words.** To evaluate the number of transition words written
at posttest for both groups, nonparametric tests were used due to floor and ceiling effects.
At posttest, a statistically significant difference between the experimental and control
groups was obtained for the number of transition words written, according to a Mann-
Whitney U test, $z = -3.28$, $p < .05$. Students in the control group had a mean rank of 6.40
transition words while students in the experimental group had a mean rank of 15.18
words. This finding indicates students in the experimental group outperformed students in the control group. (See Figure 3.)

Figure 3. Mean number of transition words by groups at pretest, posttest, maintenance, and generalization.

*Essay parts.* Number of essay parts improved considerably for all experimental students. An independent-samples *t* test was conducted to evaluate the performance of students in both groups for number of essay parts written at posttest (encompassing topic sentence, reasons, counter reasons, explanations, and ending). The test was significant: *t* (19) = 4.59, *p* = .000. Students in the experimental group (*M* = 8.36, *SD* = 3.04) outperformed students in the control group (*M* = 2.60, *SD* = 2.67) in number of essay parts written. Thus, experimental students’ persuasive essays contained more critical
essay elements on postinstruction measures than did those of students in the control group. (See *Figure 4.*)

![Figure 4](image)

*Figure 4.* Mean number of essay parts by groups at pretest, posttest, maintenance, and generalization.

**Number of paragraphs written.** To evaluate the performance of students for number of paragraphs written at posttest, nonparametric tests were used due to floor and ceiling effects. A Mann-Whitney *U* test was conducted to evaluate the hypothesis that students in the control group would score lower on number of paragraphs written at posttest. The results of the test were significant: *z* = -3.34, *p* < .05. Students in the experimental group outperformed students in the control group for the number of paragraphs written at posttest. (See *Figure 5.*)
Figure 5. Mean number of paragraphs by groups at pretest, posttest, maintenance, and generalization.

**Essay quality.** Quality scores, as measured by a holistic rubric, improved significantly from pretest to posttest measures for students in the experimental group. An independent-samples *t* test was conducted to evaluate the performance of students in both groups for the holistic quality of their essays at posttest. The test was significant: $t(19) = 4.75, p = .000$. Students in the experimental group ($M = 7.45, SD = 2.76$) outperformed students in the control group ($M = 2.30, SD = 2.11$) in the holistic quality score of their essays. (See Figure 6.)
**Maintenance data analysis.** Two weeks after posttest, surprise maintenance essay probes were administered to students. Essays were evaluated in the same manner as at posttest. As can be seen in Table 6, experimental students’ scores decreased slightly for all essay component measures at maintenance; but their performance was higher than at pretest, for all measures, when compared to students in the control group.

For instance, descriptive data revealed scores for experimental students decreased slightly for number of words written at maintenance ($M = 121.27, SD = 62.20$) when compared to posttest ($M = 131.54, SD = 36.90$). However, their performance was still higher than at pretest ($M = 42.63, SD = 35.34$). Students in the control group, performed similarly at pre- and post-test for number of words written ($M = 52.80, SD = 86.43$; $M =$

---

**Table 6.** Mean holistic scoring by groups at pretest, posttest, maintenance, and generalization.

<table>
<thead>
<tr>
<th>Time of Test</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>2.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Posttest</td>
<td>5.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Maintenance</td>
<td>5.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Generalization</td>
<td>5.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>
57.60, SD = 31.19), respectively. However, they increased their number of words written at maintenance when compared to posttest performance (M = 92.20, SD = 107.94).

The same pattern was observed for number of sentences written. Descriptive information in Table 6 indicates that experimental students decreased slightly in the number of sentences written at maintenance (M = 13.00, SD = 7.73), when compared to posttest (M = 14.36, SD = 5.39). However, their performance was still higher than at pretest (M = 2.45, SD = 2.69). Students in the control group, showed a slight increase in number of sentences written at maintenance (M = 3.80, SD = 3.82), when compared to posttest (M = 2.80, SD = 2.78) and pretest (M = 1.70, SD = 2.35).

When looking at the number of transition words written at maintenance, findings revealed experimental students slightly decreased in the number of transition words written at maintenance (M = 7.81, SD = 5.13) when compared to posttest (M = 9.27, SD = 4.07). However, their performance was still higher than at pretest (M = 0.82, SD = 0.98). Students in the control group performed similarly, at pre- and post-test, for number of transition words written (M = 1.30, SD = 1.83; M = 1.10, SD = 1.45), respectively. However, they slightly increased their number of transition words written at maintenance when compared to posttest performance (M = 2.10, SD = 2.07).

Descriptive data for number of essay parts written at maintenance indicate that experimental students slightly decreased in number of essay parts written at maintenance (M = 7.45, SD = 5.13) when compared to posttest (M = 9.27, SD = 1.27). However, their performance was still higher than at pretest (M = 2.63, SD = 1.56). Students in the control group performed similarly, at pre- and post-test, in number of essay parts (M =
2.90, $SD = 1.96$; $M = 2.60$, $SD = 2.67$), respectively. However, they slightly increased in the number of essay parts included at maintenance when compared to posttest performance ($M = 3.90$, $SD = 2.99$).

The number of paragraphs written at maintenance decreased slightly from posttest for experimental students ($M = 3.18$, $SD = 2.52$; $M = 4.00$, $SD = 2.19$). However, it was still higher than at pretest ($M = 0.36$, $SD = 0.50$). Control group students obtained a mean of $0.30$ ($SD = 0.48$) at maintenance, and it was similar to their performance at posttest ($M = 0.40$, $SD = 0.52$) and at pretest ($M = 0.20$, $SD = 0.42$).

Descriptive data for the holistic scoring at maintenance indicated that experimental students decreased slightly in the quality of their essays at maintenance ($M = 6.54$, $SD = 3.44$) when compared to posttest ($M = 8.27$, $SD = 1.27$). However, their performance was still higher than at pretest ($M = 2.27$, $SD = 1.19$). Students in the control group obtained a mean performance of $2.70$ ($SD = 2.00$) for the quality of their essays and their performance was similar to their pre- and post-test essays ($M = 2.50$, $SD = 1.58$; $M = 2.30$, $SD = 2.11$). To determine whether statistically significant differences existed between experimental and control groups, related to essay performance at maintenance, individual analyses were conducted for each of the essay components evaluated and are discussed next. Graphic representations by group are displayed in Figures 1 - 6.

**Number of words.** An independent-samples $t$ test was conducted to evaluate the performance of students in both groups for number of words written on an essay at maintenance. The test was not significant: $t (19) = .765$, $p = .453$. Students in the
experimental group ($M = 121.27, SD = 62.20$) performed similarly to students in the control group ($M = 92.20, SD = 107.94$) in number of words at maintenance. However, a closer examination of the increase in number of words written for students in the control group revealed that two students in the control group outperformed their classmates significantly by writing 154 and 378 words, respectively, in comparison to the other eight students in the control group who wrote an average of 48.75 words. Thus, the overall mean average for the control group was higher for number of words. Nevertheless, even though students in the control group showed gains in number of words at maintenance, they did not improve in any of the other essay components evaluated.

**Number of sentences.** A Mann-Whitney $U$ test was conducted to evaluate the performance of both groups for number of sentences written at maintenance. The results of the test were significant: $z = -2.273, p < .05$. Students in the experimental group ($M = 13.00, SD = 7.73$) outperformed students in the control group ($M = 3.80, SD = 3.82$) in number of sentences written at maintenance.

**Number of transition words.** Similar findings were obtained when conducting nonparametric tests to compare the performance of both groups for number of transition words written. A Mann-Whitney $U$ test was conducted to evaluate the performance of both students at maintenance for this essay component. The results of the test were significant: $z = -2.382, p < .05$. Although students in the experimental group slightly decreased in the number of transition words written from posttest to maintenance ($M = 9.27, SD = 4.07; M = 7.81, SD = 5.13$), their performance was still higher than at pretest
and they outperformed students in the control group who wrote a mean of 2.10 ($SD = 2.07$) transition words at maintenance.

**Number of essay parts.** An independent-samples $t$ test was conducted to evaluate the performance of students in both groups for number of essay parts included in their essays at maintenance. The test was significant: $t(19) = 2.438, p = .025$. Students in the experimental group ($M = 7.45, SD = 3.61$) outperformed students in the control group ($M = 3.90, SD = 2.99$) in number of essay parts written at maintenance. Thus, even though students in the experimental group slightly decreased in the number of essay components they included, from posttest ($M = 9.27, SD = 1.27$) to maintenance ($M = 7.45, SD = 3.61$), their performance was still higher than at pretest and they outperformed students in the control group.

**Number of paragraphs.** A Mann-Whitney $U$ test was conducted to compare the performance of both groups on number of paragraphs written at maintenance. The results of the test were significant: $z = -2.548, p < .05$. Students in the control group performed lower on number of paragraphs written at maintenance ($M = 0.30, SD = 0.48$) when compared to students in the experimental group ($M = 3.18, SD = 2.52$).

**Essay quality.** When evaluating the overall quality of students’ essays at maintenance, experimental students appeared to show strong maintenance effects compared to pretesting. When comparing maintenance to posttest performance, experimental students performance decreased somewhat, but was still higher than the performance of control group students at maintenance. A Mann-Whitney $U$ test was conducted to evaluate if there were statistically significant differences between
experimental and control groups on the quality of their essays at maintenance. The results of the test were significant: \( z = -2.463, p < .05 \). Students in the experimental group obtained a mean of 6.54 \((SD = 3.44)\) whereas, students in the control groups obtained a mean of 2.70 \((SD = 2.00)\).

**Generalization data analysis.** A surprise generalization probe was administered two days after maintenance. The purpose was to evaluate if students were able to write a persuasive essay in either science or social studies. Essays were evaluated in the same manner as described above. As can be seen on Table 6 and *Figures 1 - 6*, experimental students slightly decreased in number of words written at generalization \((M = 98.18, SD = 50.76)\) when compared to posttest \((M = 131.54, SD = 36.90)\), and maintenance \((M = 121.27, SD = 62.20)\). However, their performance was still higher than at pretest \((M = 42.63, SD = 35.34)\). Students in the control group performed similarly at pretest \((M = 52.80, SD = 86.43)\) and posttest \((M = 57.60, SD = 31.19)\) in number of words written. However, they increased their number of words written at generalization \((M = 111.80, SD = 125.30)\) when compared to maintenance \((M = 92.20, SD = 107.94)\), surpassing students in the experimental group.

For number of sentences written, descriptive information on Table 6 indicates that experimental students slightly decreased in number of sentences written at generalization \((M = 10.90, SD = 7.14)\) when compared to posttest \((M = 14.36, SD = 5.39)\) and maintenance \((M = 13.00, SD = 7.73)\). However, their performance was still higher than at pretest \((M = 2.45, SD = 2.69)\). Students in the control group, showed a slight increase
in number of sentences written at generalization ($M = 4.30$, $SD = 4.11$) when compared to maintenance ($M = 3.80$, $SD = 3.82$) and posttest ($M = 2.80$, $SD = 2.78$).

Descriptive data for number of transition words written at generalization revealed experimental students slightly decreased in number of transition words written at generalization ($M = 6.54$, $SD = 4.78$) when compared to maintenance ($M = 7.81$, $SD = 5.13$) and to posttest ($M = 9.27$, $SD = 4.07$). However, their performance was still higher than at pretest ($M = 0.82$, $SD = 0.98$). Students in the control group performed similarly at generalization ($M = 2.50$, $SD = 2.71$) and maintenance ($M = 2.10$, $SD = 2.07$). However, they slightly increased their number of transition words written at maintenance and generalization when compared to posttest performance ($M = 1.10$, $SD = 1.45$) and pretest ($M = 1.30$, $SD = 1.83$).

When evaluating descriptive data for number of essay parts written at generalization, findings revealed that experimental students slightly decreased in number of essay parts written ($M = 6.54$, $SD = 4.78$) when compared to maintenance ($M = 7.81$, $SD = 5.13$) and posttest ($M = 9.27$, $SD = 1.27$). However, their performance was still higher than at pretest ($M = 2.63$, $SD = 1.56$). Students in the control group, slightly decreased in the number of essay parts included at generalization ($M = 1.50$, $SD = 1.65$) when compared to maintenance performance ($M = 3.90$, $SD = 2.52$).

The number of paragraphs written at generalization for experimental students slightly decreased from maintenance ($M = 2.18$; $SD = 2.08$; $M = 3.18$, $SD = 2.52$). However, it was still higher than at pretest ($M = 0.36$, $SD = 0.50$). Control group students
obtained a mean of 0.50 ($SD = 0.71$) at generalization and it was similar to their performance at maintenance ($M = 0.30$, $SD = 0.48$) and at posttest ($M = 0.40$, $SD = 0.52$).

Descriptive data for the holistic scoring indicate that experimental students performed similarly in the quality of their essays at generalization ($M = 6.09$, $SD = 3.72$) when compared to maintenance ($M = 6.54$, $SD = 3.44$); but their performance slightly decreased when compared to posttest ($M = 8.27$, $SD = 1.27$). However, their performance was still higher than at pretest ($M = 2.27$, $SD = 1.19$). Students in the control group obtained a mean performance for the quality of the essays of 1.10 ($SD = 1.19$) at generalization, which slightly decreased from maintenance performance ($M = 2.70$, $SD = 2.00$) and posttest performance ($M = 2.30$, $SD = 2.11$). To determine whether statistically significant differences existed between experimental and control groups, related to essay performance at generalization, individual analyses were conducted for each of the essay components evaluated and are discussed next. Graphic representations by group are displayed in Figures 1 - 6.

**Number of words.** To determine if significant differences existed between both groups for number of words written at generalization, nonparametric tests were employed because variances for both groups were not assumed. Thus, a Mann-Whitney $U$ test was conducted to evaluate if there were statistically significant differences between the two groups for number of words. Findings revealed there were no statistically significant differences among the two groups for number of words written: $z = -.423$, $p = .705$. Thus, even though control group students wrote more words ($M = 111.80$, $SD = 125.30$)
than experimental students ($M = 98.18, SD = 50.76$) at generalization, the difference between groups was not significant.

**Number of sentences.** An independent-samples $t$ test was conducted to evaluate the performance of students in both groups for number of sentences written at generalization. The test was significant $t (19) = 2.56, p = .019$. Students in the experimental group ($M = 10.90, SD = 7.14$) outperformed students in the control group ($M = 4.30, SD = 4.11$) in number of sentences written at generalization.

**Number of transition words.** To determine if significant differences existed between both groups for number of transition words written at generalization, nonparametric tests were employed because variances for both groups were not assumed. Thus, a Mann-Whitney $U$ test was conducted to evaluate if there were statistically significant differences between the two groups for number of transition words written at generalization. Results were not significant: $z = -1.56, p = .132$. Thus, even though experimental students wrote a mean of 6.54 ($SD = 4.78$) for number of transition words at generalization and control students obtained a mean of 2.50 ($SD = 1.65$), the difference between both groups was not significant.

**Essay parts.** Since both floor and ceiling effects were observed at generalization, reducing variability and violating necessary assumptions for completing parametric tests, a Mann-Whitney $U$ test was conducted to compare the performance of both groups on number of essay parts written at generalization. Findings revealed students in the experimental group outperformed students in the control group in the number of essay parts written: $z = -2.74, p = .006$. Thus, even though both groups performed similarly in
the number of words written; experimental students wrote essays that contained more persuasive essay parts ($M = 6.81$, $SD = 3.94$) when compared to students in the control group ($M = 1.50$, $SD = 1.65$).

**Number of paragraphs.** To determine if significant differences existed between both groups for number of paragraphs written at generalization, nonparametric tests were employed because variances for both groups were not assumed. The results were significant: $z = -2.07$, $p = .038$. Thus, even though the performance of experimental students decreased at generalization for number of paragraphs written ($M = 2.18$, $SD = 2.08$), when compared to the control group ($M = 0.50$, $SD = 0.71$), the difference was still significant.

**Essay quality.** To determine if significant differences existed between both groups for the quality of essays written at generalization, nonparametric tests were employed because variances for both groups were not assumed. A Mann-Whitney $U$ test was conducted to evaluate if there were statistically significant differences between the two groups for essay quality. The test was significant: $z = -2.82$, $p = .005$. Thus, experimental students wrote essays that were of a better quality ($M = 6.09$; $SD = 3.72$) when compared to control group students ($M = 1.10$; $SD = 1.19$).

In addition to the quantitative results of the SRSD intervention, Table 7 presents illustrative examples of one experimental student’s pretest and posttest essays after receiving instruction in the SRSD POW+TREE strategy with embedded self-determination/self-advocacy training. As can be seen, noticeable changes are reflected in
essay length, number of transition words used, organization of the essay, and overall quality of the essays.

Table 7
Pretest and Posttest Writing Samples of a Stronger Performing Experimental Student

<table>
<thead>
<tr>
<th>Representative pretest essay prompt. “Imagine the school is thinking about changing the school start time. Should school start time be earlier, later or remain the same?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the school lets me decide on time should start, I think it should stay the same. Changing the time is really confusing. Everyone would wake up at the wrong time. If we started earlier, no one would wake up early enough and if we enter later we would sleep in too much. The time is good the way it is.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Representative postintervention essay prompt. “The school is thinking about making some changes around the cafeteria. Should snack and juice machines be eliminated from the cafeteria?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe that the snack &amp; juice machines should not be eliminated from the cafeteria. First, the school gets money. Second, the students save money. Third, the students might be allergic. First, the school gets money. Gets money from the machines. The money that gets put into the machines some of it goes to the school. Second, the students save money. Students save lunch money. Students save money from their lunch account. Third, students might be allergic. Allergic to ice cream. The students might be lactose intolerant. On the other hand, kids are buying more snacks. Kids are buying more snacks than supposed to. However, make sure a teacher is watching he or she. I believe that the machines should not be eliminated from the cafeteria. First, the school gets money. Second it saves students money. Third they might be allergic. That is why I believe that the school should not eliminate the machines.</td>
</tr>
</tbody>
</table>
Table 8 presents an illustrative example of the same student’s maintenance essay two weeks postintervention. These results are similar to the differences observed for all experimental students in this investigation. Finally, Table 9 presents an illustrative example of the same experimental student’s generalization essay. As can be seen, this student was able to generalize knowledge to a social studies essay prompt, two weeks after the intervention ended. He was able to clearly establish his position, used transition words, wrote three reasons to support what he believes, acknowledged other people’s points of view and concluded his essay by stating what he believed. His essay was organized and of a good quality. Results are similar to the differences observed for other experimental students in this investigation.
Table 8

*Table 8: Maintenance Writing Sample of a Stronger Performing Experimental Student*

| Representative maintenance essay prompt. “Imagine the school is thinking about discontinuing the school store and student lounge in order to save money. Should the school store and student lounge be eliminated from school?” |

I believe that the school should not eliminate school store & lounge. First, lounge is fun. Second, school store is a good experience. Third, that is one thing special about this school.

First, lounge is fun. It is time to have fun. It is a time for students to have fun & miss two periods or one period.

Second, school store is a good & fun experience. It helps you learn how to write & use a checkbook. Because you will need this in everyday life.

Third, those are special programs at this school. We are the only middle school to have that. We are the only middle school to have school store & lounge.

However, the school is running low. The school is running low on money. On the other hand, some of money is from donations and from teachers.

That is why I believe that should not eliminate school store & lounge. First, lounge is fun. Second, school store is a good experience, third, we are the only middle school to have that. I believe that they should not eliminate school store.
Table 9

*Generalization Writing Sample of a Stronger Performing Experimental Student*

<table>
<thead>
<tr>
<th>Representative generalization essay prompt. “Has technology (i.e. communication, transportation, electrification) helped or harmed the world?”</th>
</tr>
</thead>
</table>

I believe that technology has helped the world. First, we have made energy-saver cars. Second, we have found cures. Lastly, we have improved technology.

First, we have made energy-saver cars. We have made cars that save energy. Like the smart car.

Second, we have found cures. We have found cures to diseases. We have found cures for diseases like swine flu.

Lastly, we have improved technology. We have made improvements in technology. We have improved technology by making smart cars.

However, the technology is being used in the wrong ways. Terriosts are using it to make nuclear weapons. On the other hand, make sure it does not fall into the wrong.

That is why I believe that technology has helped the world. First, we have made energy-saver cars. Second, we have found cures. Lastly, we have improved technology & I believe that is has helped the world.

**Standardized Tests**

The WJ-III was used as a standardized measure. At pretest, experimental students obtained means of 79.45 (SD = 11.87) and posttest means of 84.00 (SD = 13.36). Control students obtained pretest means of 76.60 (SD = 20.57) and posttest means of 81.40 (SD = 22.28). Independent sample t tests were conducted to evaluate if there were statistically significant differences between both groups at pretest and posttest. Results revealed, at pretest, there were no statistically significant differences between the two groups, t (19) = .394, p = .698. Thus, both groups performed similarly. Similar results were observed at
posttest. No statistically significant differences between groups were observed, \( t(19) = .328, p = .747 \).

**Knowledge of Parts of a Persuasive Essay**

Prior to and postintervention, students were asked to name the parts of a persuasive essay. One point was awarded for each of the following components that students mentioned: topic sentence, reasons, counter reasons, explanations, and ending. If students specified that a persuasive essay should include three reasons or more, an extra point was given. Results were entered into SPSS for each of the components mentioned and a composite score was generated. Reliability of scoring was also calculated for the persuasive essay parts probe. Scorers individually scored 90% of the essay parts probe at pretest and scored all of the persuasive essay parts probes at posttest. At pre- and post-test, 100% agreement was obtained between scorers.

| Table 10 |
| Means and Standard Deviations for Knowledge of Parts of a Persuasive Essay Composite Score |
|----------|----------------|----------------|
| Group    | N   | Pretest M (SD) | Posttest (SD) |
| Experimental | 11  | 0.73 (1.00)    | 5.45 (0.68)   |
| Control   | 10  | 0.20 (0.63)    | 0.60 (1.26)   |

During pretest, all students’ responses were low and scoring of responses showed less than one essay part on average. An independent sample \( t \) test was conducted to evaluate if there were statistically significant differences between both groups at pretest. The results were not significant: \( t(19) = 1.41, p = .173 \). Thus, both groups performed
similarly at pretest. At posttest, however, results were significant: \( t(19) = 11.07, p = .000 \). Students in the experimental group gained knowledge of the components of a persuasive essay and were able to recall almost all of the persuasive essay parts; students in the control group did not show any gains. Figure 7 shows the frequencies of answers of parts of a persuasive essay for experimental students \((N = 11)\) and control group students \((N = 10)\) at posttest.

![Figure 7](image-url)

*Figure 7.* Frequencies of essay parts recalled by instructional group at posttest.

**Self-efficacy**

To answer research question number four, regarding students perceived self-efficacy related to writing persuasive essays, a seven-item researcher-developed questionnaire was used. Questions were measured on a 5-point Likert scale of 1 (not confident at all) to 5 (very confident). Reliability of the measure was computed. A
Cronbach’s Alpha of .89 was obtained at pretest and a Cronbach’s Alpha of .94 was obtained at posttest.

Student responses were entered into SPSS and a composite persuasive essay self-efficacy score was generated for pretest and posttest. In order to compare the mean change from pretest to posttest for the experimental group, with the mean change from pretest to posttest for the control group and get evidence regarding the effect of an experimental treatment, analyses on gain scores were conducted. Descriptive data on the self-efficacy measure gain scores are shown in Table 11. As can be seen, experimental students obtained a mean gain score of 6.27 ($SD = 4.33$) and control students obtained a mean of 1.60 ($SD = 5.21$).

<table>
<thead>
<tr>
<th>Group</th>
<th>$N$</th>
<th>Gain score $M$ ($SD$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>11</td>
<td>6.27 (4.33)</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>1.60 (5.21)</td>
</tr>
</tbody>
</table>

An independent sample $t$ test on gain scores was conducted to evaluate if there were significant differences between the groups. The test was significant. Results showed students in the experimental group outperformed students in the control group in the self-efficacy measure, $t (19) = 2.24, p = .037$. Thus, experimental students outperformed control students in the self-efficacy measure at the end of the intervention.
Self-determination Knowledge and Perceptions

To answer the second part of research question number three, students were evaluated with a criterion reference measure developed by the researcher. This measure had two parts. The first part contained open-ended questions related to self-determination concepts. The second part was a questionnaire that had 13 statements related to self-determined behaviors. The first part was evaluated with a rubric by which students could obtain a maximum of 12 points for their answers (see Appendix V). For example, the first question asked students to provide a definition for self-determination and they were awarded one point if they answered correctly. Possible answers could have included: ability to understand your needs, express what you believe, set goals, make good choices, problem solve, self-advocate, say “I can do it,” setting goals.

Question number two asked students to mention the seven self-determined behaviors, which include decision making, goal setting and attainment, self-management (monitor your progress, evaluate), problem solving by using POW+TREE, self-awareness (know strengths and needs), self-advocacy (speak up for yourself, ask for help), and self-efficacy (believe in your skills, use positive self-statements, say, “I can do it.”). Students were awarded seven points; one for each component mentioned. For question number three, students had to explain what self-advocacy meant and they were awarded one point. Possible answers were: ability to speak up for yourself, ask for things you need, persuade someone, and communicate what you need in writing or by speaking with someone. Finally the last question asked students to provide three examples of situations in which they could advocate for themselves. Possible answers were:
participating in an IEP meeting, writing a letter to a teacher or principal to ask for something, etc. Students received one point for each example they provided.

To evaluate the second part of the measure, statements were measured on a 4-point Likert scale of 1 (very different from me) to 4 (a lot like me). Students could obtain a maximum of 52 points. Students’ responses for each question and for the 13 statements were entered into SPSS and a composite score was generated for pretest and posttest for both parts of the measure. In addition, reliability of the measure was computed. A Cronbach's Alpha of .81 was obtained at pretest and a Cronbach's Alpha of .87 was obtained at posttest.

Graduate students served as independent scorers. They were given a scoring guideline and scored the responses for the first part of the measure (open-ended questions), individually for 18 out of the 21 participants for pretest, and 20 out of the 21 participants for posttest. Scorers met to assess interrater reliability and discussed disagreements until they were resolved. At pretest, 100% agreement was obtained between scorers. At posttest, there were three disagreements for the composite score among scorers. After discussion, discrepancies were resolved and the reliability between scorers was reconciled to 100% agreement. Following, results for the two parts of the measure are presented. First, results for the self-determination questions are discussed by pretest and posttest. Next, results for the self-determination questionnaire are discussed by pretest and posttest.

**Data analysis self-determination questions.** In order to compare the mean change from pretest to posttest for the experimental group, with the mean change from
pretest to posttest for the control group, and get evidence regarding the effect of an experimental treatment, analyses on gain scores were conducted. Descriptive data on the self-determination measure gain scores are shown in Table 12. As can be seen, experimental students obtained a mean gain score of 7.45 ($SD = 2.87$) and control students obtained a mean of 0.30 ($SD = 1.82$). To analyze if there were differences between both groups on gain scores, an independent sample $t$ test was conducted. The independent sample $t$ test revealed students in the experimental group outperformed students in the control group for their self-determination knowledge: $t (19) = 6.72, p = .000$. Thus, experimental students outperformed control students in their self-determination knowledge at the end of the intervention.

Table 12  
*Means and Standard Deviations for the Self-determination Questions Composite Gain Scores*  

<table>
<thead>
<tr>
<th>Group</th>
<th>$N$</th>
<th>Gain Score M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>11</td>
<td>7.45 (2.87)</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>0.30 (1.82)</td>
</tr>
</tbody>
</table>

**Data analysis self-determination questionnaire.** In order to compare the mean change from pretest to posttest for the experimental group, with the mean change from pretest to posttest for the control group and get evidence regarding the effect of an experimental treatment, analyses on gain scores were conducted. As can be seen in Table 13, descriptive data shows that experimental students mean gain score for the self-determination questionnaire was 7.27 ($SD = 2.87$) and control students obtained a
composite mean gain score of 0.10 ($SD = 7.99$). To analyze if there were differences between both groups on the self-determination questionnaire, an independent sample $t$ test on gain scores was conducted. Results show the experimental group significantly outperformed the control group, $t (19) = 2.29$, $p = .033$. Thus, the experimental group increased their self-determination skills at the end of the intervention.

Table 13

<table>
<thead>
<tr>
<th>Group</th>
<th>$N$</th>
<th>Gain Score M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>11</td>
<td>7.27 (6.31)</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>0.10 (7.99)</td>
</tr>
</tbody>
</table>

In order to examine the data more closely, Table 14 presents the means and standard deviations for each of the 13-item Likert self-determination statements. As can be seen, experimental students increased their means on all of the items measured. For example, from a mean of 2.55 ($SD = 0.82$) for the statement, “I can make good choices.” they increased at posttest to a mean of 3.09 ($SD = 0.70$). For the statement, “I can develop a plan of action for achieving my goals.” at pretest, they obtained a mean of 2.64 ($SD = 1.12$) and at posttest a mean of 3.45 ($SD = 0.93$). A similar pattern was obtained for the statement, “I can communicate what I need in writing.” At pretest they obtained a mean of 2.64 ($SD = 0.81$) and at posttest a mean of 3.27 ($SD = 0.52$). For the statement, “I can persuade someone to agree with my point of view.” at pretest, they obtained a mean of 2.73 ($SD = 1.10$) and at posttest a mean of 3.45 ($SD = 0.52$). As can also be seen
in Table 14, students in the control group scored the same, slightly decreased, or slightly increased on some statements.

Table 14

*Means and Standard Deviations for Self-determination Scale Likert Data*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Experimental Pretest M(SD)</th>
<th>Experimental Posttest M(SD)</th>
<th>Control Pretest M(SD)</th>
<th>Control Posttest M(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can make good choices.</td>
<td>2.55 (0.82)</td>
<td>3.09 (0.70)</td>
<td>3.30 (0.68)</td>
<td>3.40 (0.52)</td>
</tr>
<tr>
<td>I can set goals for completing my work in school.</td>
<td>2.64 (1.12)</td>
<td>3.27 (1.01)</td>
<td>2.50 (0.97)</td>
<td>2.60 (1.17)</td>
</tr>
<tr>
<td>I can develop a plan of action for achieving my goals.</td>
<td>2.64 (1.12)</td>
<td>3.45 (0.93)</td>
<td>3.00 (0.94)</td>
<td>3.20 (0.71)</td>
</tr>
<tr>
<td>I can begin my work on time.</td>
<td>2.82 (0.98)</td>
<td>3.18 (0.98)</td>
<td>2.50 (0.97)</td>
<td>2.90 (0.99)</td>
</tr>
<tr>
<td>I can apply problem-solving strategies.</td>
<td>2.36 (0.81)</td>
<td>3.27 (1.01)</td>
<td>2.80 (1.03)</td>
<td>2.60 (1.07)</td>
</tr>
<tr>
<td>I can stay on a work schedule or time plan.</td>
<td>2.64 (0.81)</td>
<td>3.27 (0.91)</td>
<td>2.10 (0.87)</td>
<td>2.00 (1.05)</td>
</tr>
<tr>
<td>I can work independently.</td>
<td>3.45 (0.82)</td>
<td>3.64 (0.67)</td>
<td>3.00 (0.94)</td>
<td>2.60 (1.23)</td>
</tr>
<tr>
<td>I can stay on task until I finish my work.</td>
<td>2.64 (0.92)</td>
<td>2.73 (0.79)</td>
<td>2.40 (1.08)</td>
<td>2.20 (0.79)</td>
</tr>
<tr>
<td>I can compare my work to a standard and evaluate if it is good or not.</td>
<td>2.55 (0.82)</td>
<td>3.18 (0.98)</td>
<td>2.10 (1.19)</td>
<td>2.10 (1.37)</td>
</tr>
<tr>
<td>I can advocate for myself.</td>
<td>3.18 (0.87)</td>
<td>3.64 (0.50)</td>
<td>2.80 (0.63)</td>
<td>2.70 (1.16)</td>
</tr>
<tr>
<td>I can communicate what I need in writing.</td>
<td>2.64 (0.81)</td>
<td>3.27 (0.79)</td>
<td>2.20 (1.03)</td>
<td>2.50 (1.08)</td>
</tr>
<tr>
<td>I know how to communicate what I believe.</td>
<td>2.91 (1.04)</td>
<td>3.55 (0.52)</td>
<td>2.90 (0.99)</td>
<td>2.80 (0.79)</td>
</tr>
<tr>
<td>I can persuade someone to agree with my point of view.</td>
<td>2.73 (1.10)</td>
<td>3.45 (0.52)</td>
<td>3.00 (0.82)</td>
<td>3.10 (0.88)</td>
</tr>
</tbody>
</table>
**Student Interviews**

All students were interviewed individually after instruction to ascertain their perceptions about instruction and their knowledge about persuasive writing, self-determination, and what they learned. Following, a description of students’ interviews, by group, is provided.

**Experimental students.** All students \((N = 11)\) were able to recall the components of the SRSD strategy POW+TREE for writing persuasive essays. When asked what strategy can be used for writing persuasive essays, all students were able to immediately recall what each letter of the mnemonic POW+TREE represented. Only one student out of the 11 had difficulty recalling the POW part, but knew the TREE part. Only two students were able to recall the last step “examine.” Table 15 presents some comments about the writing intervention that specific students reported.

When student were asked their opinions about POW+TREE instruction, all students \((N = 11)\) noted it helped them become better writers. Eight out the 11 students said they liked learning the POW+TREE strategy because it was fun or “cool.” Two students said it was boring, but that it helped them become better writers. Nine out of the 11 students stated they liked using the graphic organizer because it was easy to use, helped them concentrate in their work, and was less confusing than using web organizers. Two students said the graphic organizer was boring.

When asked what their favorite part of instruction was, four students did not have a favorite part and eight identified a favorite part. Among the things they mentioned were writing paragraphs \((n = 1)\), learning POW+TREE \((n = 1)\), writing essays \((n = 2)\), the
topics given \((n = 1)\), reinforcements \((n = 1)\), and all instruction \((n = 1)\). When asked what their least favorite part of instruction was, four students said they did not have a least favorite part. Seven students were able to identify a specific least favorite part. Among the least favorite things they mentioned were topics given \((n = 2)\), learning the strategy \((n = 1)\), writing a lot of essays \((n = 1)\), hearing other kids complain \((n = 1)\), completing self-determination contracts because it was hard to finish and stay on task \((n = 1)\) and the beginning of the class \((n = 1)\). Students agreed that persuasive writing is an important genre to learn and that they can use persuasive writing to self-advocate in school or at home.

Students were also asked to provide recommendations for what they would change. Five students said they would not change anything, “*It should stay the same because I learned the way they taught me, so I think other kids can learn*” (Darrel). Another student stated: “*I would keep it the same. I know all students are going to get frustrated at first because I did, too, but they should keep it the same because after maybe a week or so they could get used to it. And then it would be kind of fun*” (Jake). Three students expressed they should be allowed to pick their own writing topics, one student said, “more writing, less instruction,” one student said “never do it,” and finally one student mentioned changing the groups. He stated: “*Well, just groups. Just like the group of people you are put in with. Some people they really do not do their work and they just sit there and disrupt other people and people have problems ignoring stuff. Sometimes I could not concentrate.*”
Students were also asked if they had used POW+TREE in other classes. Two out of the 11 students expressed having used the strategy in English, science, and social studies and the rest expressed they haven’t used it, but that they can use it in other classes and at home. In fact, some teachers reported that many of the students who participated in the intervention were now creating a graphic organizer, without prompting, to organize their thoughts prior to writing every time they were asked to write an essay. Also, two weeks after the intervention, one of the experimental teachers (Jimmy) reported that one of his students (Jake) wrote a graphic organizer/persuasive essay at home and brought it to school to the guidance counselor in an effort to switch his 8th period class.

During the intervention, students were also taught about counter reasons when writing an essay. At the time of the interview, students were asked to define counter reasons and to state why it was important to address other people’s points of view. Neal stated: “Counter reasons are like your critics. If you address what they are saying you will sound more responsible.” Damian and Carla stated that counter reasons were good because you can learn from what other people think. Ronald, Darrel, Jake, Mike, Dario, and Malik saw the value of counter reasons in terms of making your essay stronger, because by thinking about other perspectives, you can then refute and make your essay stronger. Only two students (Saul and Raul) did not provide a definition for counter reasons.
Table 15

Interview Comments after the Study Regarding the Writing Strategy

<table>
<thead>
<tr>
<th>What do you think about the POW+TREE strategy?</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I think it is actually pretty good because it helped me a lot writing essays because the truth is I couldn’t write essays before. It has helped me succeed in school basically. I feel I don’t have to hide certain stuff. I can just write and put it in words instead of getting mad and holding back.” (Carla)</td>
</tr>
<tr>
<td>“I really didn’t know how to write a persuasive essay before and this actually helped me. It helped me learn about the parts I didn’t know.” (Malik)</td>
</tr>
<tr>
<td>“My writing was not really good at first and a lot of people tried to help me work on it and I just didn’t get it. But once I started doing this program it started to help me a lot.” (Jake)</td>
</tr>
<tr>
<td>“It was good to organize because your information is not all over the place, it is neat and don’t get lost. You know exactly what you are going to write. You just have all there and basically copy it.” (Darrel)</td>
</tr>
<tr>
<td>“I didn’t like writing because I thought writing was hard for me, but now I like it.” (Ronald)</td>
</tr>
<tr>
<td>“It helped me be a better writer. Because I can use the same skills that I did on POW+TREE (Dario)</td>
</tr>
<tr>
<td>“It taught me to stand up for myself in a way. My writing was pretty sloppy, before I did not know how to do much. I used to stay forget this I am not writing anything. But now I do.” (Damian)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you think it is important to learn persuasive writing/ POW+TREE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It is something that you can use in your life. It helps you in life when you like work for the government you can persuade people you want this or that.” (Ronald)</td>
</tr>
<tr>
<td>“Yeah because it helps you get what you want. Like, you can’t persuade somebody if you don’t give them like good reasons. They won’t accept it” (Dario)</td>
</tr>
<tr>
<td>“It can help other kids in life too. When they are older they can teach it to their kids and if they ever become a teacher they can teach it to their students.” (Ronald)</td>
</tr>
</tbody>
</table>

During the interviews, students were also asked to express their opinions about self-determination and self-advocacy. Table 16 presents comments about self-
determination and self-advocacy that students reported during the individual interviews. Only one student was not able to define self-determination (Saul) and another student could not provide a definition for self-advocacy (Neal). When asked to provide an example, he just said “write to teachers.”

Students were also asked if they believed communicating in writing was important and if learning how to write persuasive essays was an important skill to learn. All students agreed that learning how to communicate in writing and learning how to write persuasive essays was important. For example, Neal stated: “If you are trying to make a point, your point will be kind of crappy, if you don’t have reasons.” Carla, Ronald, Darrel, Dario, Raul, and Malik saw the value for the future. Among the reasons they gave, they stated it is a skill they will need to apply in high school, college, for getting a job, or in life—to get what they want or need. Carla also added that: “If the person is like not there, once they have a time they can read it. Then, find out when they can talk to you in person about it. You can really think about what you are to say and what the problem is and make suggestions about what to do. Try to make suggestions about how to solve the problem.”

Students were also asked to provide specific example of situations in which they could use persuasive writing to self-advocate in school. Table 17 illustrates examples students gave.
Table 16
*Interview Comments after the Study Regarding Self-determination/Self-advocacy*

<table>
<thead>
<tr>
<th>What did you learn about self-determination?</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It is kind of like pushing yourself. Instead of just stopping and saying, ‘I am done with this I am not doing this anymore.’ You just keep doing it and as you are doing it you just keep thinking of what could happen. Maybe you can earn something or something like that.” (<em>Jake</em>)</td>
</tr>
<tr>
<td>“You are determined to get it done. Set a goal and accomplish that goal.” (<em>Ronald</em>)</td>
</tr>
<tr>
<td>“To stand up for yourself. It is you can stay focus on writing; you say in your mind, “Oh yeah I can do it!” Just get over it with...you set a goal, make a good decision. Because once you achieve the goal I am done, I don’t have to do this again, and move on.” (<em>Carla</em>)</td>
</tr>
<tr>
<td>“To make your own goals. It is mainly part of your life. There is always writing involved with your life and setting goals is also part of your life. You have to use your strategies and goals at the same time and put them together to write.” (<em>Damian</em>)</td>
</tr>
<tr>
<td>“Know your own strengths and weaknesses.” (<em>Malik</em>)</td>
</tr>
<tr>
<td>“You are determined to get it done. Set a goal and accomplish that goal.” (<em>Darrel</em>)</td>
</tr>
<tr>
<td>“You are determined to do something. Give yourself good statements and stuff.” (<em>Dario</em>)</td>
</tr>
<tr>
<td>“Self-advocacy, self-efficacy—believe in you.” (<em>Mike</em>)</td>
</tr>
<tr>
<td>“Determined to do something, positive thinking—I can do this. (<em>Neal</em>)</td>
</tr>
<tr>
<td>“To take control.” (<em>Raul</em>)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What is self-advocacy?</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Advocating for yourself is like trying to tell yourself not to give up, to stand up for yourself.” (<em>Jake</em>).</td>
</tr>
<tr>
<td>“To advocate for yourself, to try your best.” (<em>Ronald</em>)</td>
</tr>
<tr>
<td>“It is telling somebody else what you want in a good way.” (<em>Carla</em>).</td>
</tr>
<tr>
<td>“To stand up for yourself.” (<em>Damian</em>)</td>
</tr>
<tr>
<td>“You do good in a way that people notice it. Standing up for yourself.” (<em>Malik</em>)</td>
</tr>
<tr>
<td>“Like asking for something. Standing up for yourself.” (<em>Darrel</em>)</td>
</tr>
<tr>
<td>“Speak up for yourself.” (<em>Dario</em>)</td>
</tr>
<tr>
<td>“Tell people what you need.” (<em>Mike</em>).</td>
</tr>
<tr>
<td>“To talk for yourself.” (<em>Raul</em>)</td>
</tr>
<tr>
<td>“Speak up for yourself.” (<em>Saul</em>)</td>
</tr>
</tbody>
</table>
Table 17

*Interview Comments after the Study Regarding Self-advocacy Examples*

<table>
<thead>
<tr>
<th>How can you use persuasive writing to self-advocate in school? Give examples.</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Like writing a letter for your 8th period, just like saying I am having trouble in this class and would like to be moved to…and so and if they think it is good enough they will move you.” (Carla)</td>
</tr>
<tr>
<td>“Yeah, for example if you have been put in shadow and you have been on it and you have been really, really good or if you have been in full escort and you have been really good. You can write a persuasive essay for that so they can take you off the full escort.” (Malik)</td>
</tr>
<tr>
<td>“Like if you are having a debate, you can write an essay. Like if you are running for class president.” (Darrel)</td>
</tr>
<tr>
<td>“If you want to change something in the school you can write a note to the principal or the teachers. I would write to Dr. Jakulski to tell her to change the food. I have to bring my own lunches because they taste so bad.” (Damian)</td>
</tr>
<tr>
<td>“If I want to be a student council.” (Mike)</td>
</tr>
<tr>
<td>“I got baseball tickets to the National’s game, but I had to convince one of the teachers at the school that I could be able to handle myself because he didn’t think I could handle myself throughout the whole week to be able to earn the tickets. I convince him to give me a chance. To letting me try to earn the tickets for the baseball game.” (Jake).</td>
</tr>
<tr>
<td>“Writing an essay to the football coach. Like you have to say reasons why you should join the team and they should decide. Also write to the teachers to get extra credit for grades.” (Ronald)</td>
</tr>
<tr>
<td>“Like write a letter and send it to somebody. They should have soda machines. You can tell them like why. Kids get thirsty at lunch and they ran out of money to get milk.” (Dario)</td>
</tr>
<tr>
<td>“Like to get a job.” (Raul)</td>
</tr>
<tr>
<td>“Write an essay of Hitler for social studies, or your teachers…maybe for more WOW’s.” (Saul).</td>
</tr>
</tbody>
</table>

**Control students.** Students in the control group were also individually interviewed about their perspectives related to the writing class and their knowledge about the persuasive essay genre and self-determination and self-advocacy. All students (N = 10) expressed not enjoying the writing class and stated it was boring. In fact, many
of them could not even remember what was discussed during the writing class even thought they were interviewed following posttesting. The only two things they were able to recall were that they wrote a couple of essays and that they completed editing sheets. When asked what was their favorite part of instruction two out of the 10 students said writing stories or essays and the rest simply said “nothing.” When asked what their least favorite part of instruction was, students said typing on the computer ($n = 2$), workbook ($n = 1$), the entire class ($n = 4$), and editing ($n = 1$). When asked what they would change about instruction, they said making it more fun, playing games, teaching cursive, more activities, or not giving the class at all.

These students were also asked about persuasive essays. Three students were able to provide a definition: “Writing an essay and try to make the reader agree with you and see your side of the story.” (Dante). Another student said that in persuasive writing, “you have to have few opinions, strong verbs, and examples.” (Sam). Finally, Noel said that persuasive writing is “writing about something that you are trying to persuade the other reader.” The rest of the students could not provide a definition for persuasive writing.

When asked about the meaning of self-determination, only one out of the 10 students was able to provide a definition. “Believe in yourself.” (Dante). When students were asked about what it means to self-advocate or the meaning of the word self-advocacy, only two out of the 10 students were able to provide a definition. “Standing up for yourself.” (Noel). “It means to help yourself and do whatever you can by yourself.” (Sam). Overall, students in the control group expressed not enjoying
participating in the writing class because it was boring and that they really did not learn much.

**Teachers’ and Instructional Assistant’s Interviews**

All teachers and instructional assistants (IAs) were individually interviewed after the conclusion of the intervention. Experimental teachers and IAs were interviewed regarding their perceptions and opinions in relation to the SRSD training, effectiveness of the intervention, challenges, participation on a research study, and future recommendations. Control teachers and IAs were interviewed regarding their perceptions and opinions of the writing curriculum used by the county, effectiveness of the writing curriculum, challenges, recommendations, and their experience participating in a research study. The interview questions were reviewed by other researchers and a special education teacher with experience in the field to provide feedback on the structure of the questions, as well as on their clarity (Glesne, 2006; Maxwell, 2005). All face-to-face semi-structured interviews were audiotaped and transcribed verbatim.

The following procedures were used to analyze the data. First, all the interviews were carefully read. Then, the first interview was coded by identifying what appeared to be important and giving it a (code) name (Glesne, 2006). A list of codes was developed and then used to code subsequent interviews. New codes were created as they appeared. Next, in order to identify codes that belonged together, codes were categorized into major themes (Corbin & Strauss, 1990). Following, the interviews were color coded according to major themes. Finally, a matrix was created for all the major themes in order to make more sense of the data and identify relationships among participants’ statements.
Experimental teachers and IAs. After analyzing the interviews, the following themes were created: (a) SRSD training, (b) lesson plans, (c) fidelity of treatment, (d) perspectives about the writing instruction, (e) favorite part of instruction, least favorite/challenges, (f) SRSD and self-determination, (g) persuasive writing as a means to self-advocate, (h) future use of SRSD instruction and teaching self-determination, and (i) perspectives about participating in a research study. Findings are discussed according to the themes described above.

SRSD training. All three experimental teachers, Bruno, Jimmy, and Carol, agreed the SRSD training prepared them well to implement the intervention. All mentioned it was beneficial, provided in a sufficient amount of time, and that the training structure worked well. “I thought that the combination of instruction and having you model and having us model back to you was effective.” (Carol). Jimmy also expressed, “I wouldn’t have understood exactly the ideas behind everything...not having tried it out first, and then get feedback from you.” He also mentioned having the IAs take the training was beneficial because they understood the strategy and were able to assist with instruction. All the IAs, Barbara, Janet, and Judith, also mentioned being satisfied with the training because it not only helped them, it also helped them help the teachers. “In my opinion I think it really helped put words in their mouths before they did it.” (Janet)

Lesson plans. All teachers and IAs agreed (N = 6) the lesson plans were clear, concise, and provided concrete examples they were able to follow. Bruno mentioned that
sometimes the lesson plans seemed a little redundant, but that the amount of repetition was necessary to help students understand the strategy and concepts taught. Carol also stated, “The lesson plans were very specific and it’s good especially for teachers who are not as confident...I also think that the color-coded piece also helped us understand the lesson plans.”

**Fidelity of treatment.** When asked about the fidelity of treatment piece included within the training, all teachers and IA’s agreed it was beneficial for ensuring they covered all the material. Bruno stated, “We knew what we had to do and it was clear what we had to do. It also helped us focus to make sure we covered everything to the best of our abilities.” Carol also mentioned, “I thought it was a good way for us to check and for our observers to make sure that we were all completing the same instruction.”

**Perspectives about the writing instruction.** All three teachers expressed the writing strategy was beneficial for their students because it provided them with a structure, helped them organize their thoughts prior to writing, increased students’ confidence and independence when writing persuasive essays, and students were able to apply self-regulatory skills. Carol liked the amount of repetition during instruction, teaching students to monitor their writing, and the use of rewards, because it helped students memorize the strategy, use it independently, and be aware of the importance of monitoring and evaluating their progress. One of Carol’s students, Carla, made great progress and she described the effectiveness of the intervention by discussing Carla’s progress.
I think she especially was a perfect example of somebody who, simply because she had no organizational technique, had no ability to write an essay. Her essays were one-line sentences, no capitalization, no punctuation, spelling...you know everything that could be wrong with it. That’s all she knew how to do. And so, with this one organizer, POW+ TREE organizer, it completely transformed her writing into writing six-paragraph essays consistently, every time. Once she got the organization down it was much easier to pick out what she could improve to make almost perfect papers. I mean she was a good example, she really was one of the lowest to begin with and she ended up being one of the best.

The three IAs were also impressed with the effectiveness of the intervention. “I was very impressed with the students who I expected to get it – did get it, and even some who you aren’t sure even in a regular class that they’re listening, but they got it. And that was very nice.” (Janet). Barbara also mentioned that on occasions the lessons were redundant and that sometimes the kids got a little bored. However, she stated, “the amount of repetition pounded into their heads, so at the end it was easier for students.”

**Favorite part of instruction.** Bruno, Jimmy, and Carol agreed their favorite part of instruction was observing students apply the strategy and become independent writers. Bruno stated, “It was really nice to see that they took it and understood it.” Jimmy mentioned it was very rewarding for him to observe one of his students, Jake, apply the strategy to advocate for himself:

“One of them was trying to get switched out of 8th period so he’s at home. Brought in this graphic organizer in an effort to switch his 8th period class, you know the
whole nine yards filled out—that he made up! For that kid to do that, it was unreal!

The three IAs were also in agreement about their favorite part of instruction. They all agreed they enjoyed observing the strategy unfold. “It’s always enjoyable to watch a kid when they start to do something and they realize it’s not hard. It was such a process and they could work in stages, so it was much easier than they thought it was going to be.” (Janet).

**Least favorite part/challenges.** When asked about their least favorite part of instruction, teachers and IAs had different opinions. For example, Bruno’s least favorite part was the self-statement piece; teaching students to talk to themselves in positive ways, because he thought his students did not seem to really buy into the self-statement piece. For Jimmy, the least favorite part had to do with weather-related issues (snow) because it delayed instruction. For Carol, the least favorite part was more dependent on students’ behavior on a daily basis and how it affected instruction some days. The three IAs also mentioned student behaviors and dealing with the transition from the gym class period to the writing period was problematic. In addition, teachers and IAs identified challenges related to the setting of instruction, the time, and students’ behaviors rather than with the instructional procedures. For example, Carol and Bruno agreed that the setting where the intervention was conducted (outside classrooms) affected student learning because it made it kind of a non-academic environment and it took students a while to get used to the change. All the IAs mentioned it was difficult for them to deal with the transition between P.E. and writing because it took students time to calm down, and it was difficult
to connect with them and get them on-task. Bruno also added it was sometimes difficult for the teachers to be ready on time because they had to move all the materials to the outside classrooms.

Student behaviors were also identified as a challenge due to the variety of difficult behaviors and students’ availability to learn when they were having a bad day. Make-up work was also identified as a challenge because of students’ absences and challenging behaviors. Bruno and Carol also mentioned that having 30 minutes for instruction was challenging. However, Jimmy stated that for him 30 minutes was the right amount of time.

**SRSD and self-determination.** When asked about the inclusion of self-determination components within the lessons, all three teachers expressed it was a good idea and necessary, but that for the future more emphasis should be given on teaching the self-determination components. “The students may need more information about self-determination. Maybe examples of what it looks like, whether it’s reading a short narrative about a student who made positive changes so that they can have more real life examples.” (Carol). It was also suggested to come up with an acronym, key word, or visual aids for the self-determination behaviors to help with the memorization.

**Persuasive writing as a means to self-advocate.** All three teachers agreed that teaching persuasive writing as a means to self-advocate was a good idea. For example, Carol stated that because writing involves planning and thinking things through, it helped students organize their thoughts and plan out what they want to say in order to be able to express what they want or need in an effective manner.
In some cases you don’t have the ability to speak to somebody about your problem or what you want to have changed so they need to know other forms of expression, other than speaking. Also with writing comes the whole planning piece so they’re able to think about what they want to say. A lot of times their challenges are that they don’t really think through things and they don’t have a lot of logical arguments. They can’t express them verbally, so it’s better if they can organize their thoughts and plan it out to be able to express what they want or need.

Jimmy agreed by stating that learning persuasive writing helped students realize they can get someone to listen in a productive and positive way rather than screaming. “The fact that they know they can be heard in a very effective way and kind of like in an adult way, that’s kind of high-level stuff.” Bruno saw the value in persuasive writing by stating, “We need to be able to teach our kids to write and then be able to write persuasively so that, you know, when they’re applying for a job for instance.”

**Future use of SRSD instruction and self-determination.** All three teachers expressed feeling motivated to use SRSD instruction in the future. Carol actually mentioned she was in charge of the summer English curriculum and that she was planning to use SRSD instruction. “Every teacher should know POW+TREE; every student should know POW +TREE.” When asked about teaching self-determination skills to their students in the future, all three mentioned they will try to teach self-determination skills in a more structured way either by incorporating self-determination skills every day within the content areas or as part of the homeroom routine.
**Perspectives about participating in a research study.** For the three teachers and the three IAs this was the first time directly participating in a research study and all were satisfied with the experience. Carol stated, “I thought that it was organized and I think that you communicated well and so I felt pretty comfortable with it.” All teachers reported feeling supported and appreciated the feedback provided during the intervention. “The feedback was great because you were there every step of the way, you know, monitoring everything and recording everything and something we didn’t do...you told us right away.” (Jimmy).

When asked about their perspectives about research, all three said they are now more inclined to learn about research because they were part of it. For example, Carol stated,

*A lot of times the research that I see is through whatever professional development opportunities I take. Like, if I’m taking an academic class or something like that I’m more likely to use it if I’ve actually worked with it. So I obviously learned about POW TREE last year; and again I had the intentions of using it last year when I just heard about it. Now that I’ve actually taught it and been through it, I’m definitely going to use it. So I think I kind of need to participate.*

**Control teachers and IAs.** After analyzing the interviews, the following themes were created: (a) perspectives about the writing instruction used by the county, (b) favorite part and least favorite part of instruction, and (c) experience participating in a research study. Findings are discussed according to the themes described above.
Writing curriculum. All three control teachers (Nancy, Sabrina, and Mary) agreed the English curriculum used by the county lacked structure, was broad, and abstract for the students. “It wasn’t specific enough for them to be able to look...this is what I have to do to write this paragraph or do this.” (Mary). Sabrina also stated students might need more concrete and basic information before using the curriculum. “I think there are areas they really need, like narrowing the topic or word choice, but again I feel like there needs to be more basics or a better structure for how to write because just saying write an essay or write a paragraph to these kids doesn’t mean much. Like they don’t know what that means, they don’t know what it looks like.” All agreed students needed more structure for writing. Teachers felt the curriculum was not systematic and explicit to teach students how to write essays.

I think that for our kids writing is abstract. For them to write they don’t know what that means and so I feel that when you give them sort of an outline for them to follow it’s better and not just a graphic organizer. Graphic organizers are a bunch of big blank bubbles on a bunch of big blank pieces of paper which doesn’t guide them at all; and that’s what the six traits wants you to use...is big blank bubbles and then to have to put those big blank bubbles in a cohesive paragraph doesn’t work. (Sabrina)

Teachers were somewhat concerned because they thought students were not able to transfer what they learned about the six traits in writing into their actual writing. However, Mary did mention some of her students were able to apply transition words and the use of voice in their writings. Also, Nancy mentioned it was difficult to tailor the
curriculum to students’ individual needs. The IAs had similar opinions. For example, Annie stated, “It was difficult for some of them every single day because they just don’t have any strengths.” Steve stated, “I think the students that came in as strong writers progressed more than the students that came in, uh, at a lower level.” Catherine actually liked the curriculum: “I thought it was a really good approach because it was a step–by-step.” She actually recommended adding vocabulary warm up or incorporating different types of writing like nonfiction, fiction, fantasy.

**Favorite and least favorite part of instruction.** Sabrina mentioned her favorite part was teaching about voice in writing to her students. For Mary, teaching editing skills was her favorite part: “I felt like that was valuable for them. I mean it was valuable for them to learn there’s a period at the end of a sentence. You know like really get the repetition over and over again.” She also enjoyed teaching students how to describe things and provide details in their writing. For Nancy, her favorite part was when some of her students were able to write a good product, revise it, and put effort into their writings. Teachers least favorite part of instruction had to do with the actual workbook used, the lack of an overhead projector to help with instruction, and with the amount of material covered during the intervention time period. As far as challenges identified, only Nancy mentioned students’ absences, make ups, and trying to make students work at the same pace was challenging.

The IAs mentioned different things. For example, Catherine said, “the kids seemed to actually enjoy, and I know writing is very difficult for a lot of our students, so they were able to actually kind of enjoy it and the workbook had some fun things in it.
There were some interesting topics.” For Steve, the writing process was the best part and Annie couldn’t identify a specific favorite part. In terms of challenges, the IAs mentioned that spelling for kids was a challenge, lack of creativity from the students, some behaviors, and having the writing class during 7th period.

**Participating in a research study.** Of all the control teachers, only Sabrina had previous experience participating in a research study. For Nancy and Mary, this was their first experience. Both Sabrina and Mary valued the importance of being part of a research study. Mary stated: “I think that it gives you some insight into how we come up with what strategies do work for our kids and why we try different things and how just doing the run of the mill stuff isn’t enough anymore. So yeah, I think it’s really valuable especially for someone who hasn’t been exposed to research at all. Two of the teachers (Mary and Sabrina) were satisfied with the communication and feedback the researcher provided to the teachers. Nancy liked participating in a study, but said the communication was not clear at times. Finally, all of the three IAs agreed the support and feedback the researcher provided, as well as the organization of the study, was good.

**Supplemental Analyses**

In order to better explain the variability in performance of the control condition (at maintenance and generalization) and to explain issues that arose during the study with some experimental students, supplemental analyses were conducted for both groups of students and also for individual student data. Supplemental analyses are presented by group.
Control group supplemental analyses. Analysis of maintenance data indicated that students in the control group increased their number of words written when compared to pretest and posttest. However, when both groups were compared, the independent-samples $t$ test was not significant: $t (19) = .765, p = .453$. Thus, experimental and control group students performed similarly, at maintenance, in number of words written. However, a closer examination of single subject data revealed extreme variability in the performance of control students. As can be seen in Figure 8, two students in the control group (represented by numbers 9 and 10 in Figure 8), outperformed their classmates significantly, at maintenance, in comparison to the other eight students in the control group. Thus, resulting in the overall mean average for the control group being higher for number of words written.
Even though students in the control group showed gains in number of words at maintenance, they did not show significant gains in any of the other essay components, with the exception of these two students. This variability led us to examine, in more depth, the performance of these two control students throughout the study, in comparison to the rest of the control students. As can be seen in Figure 8, Student 9 and Student 10 were higher performers from pretest. For example, at pretest, Student 9 wrote 68 words and Student 10 wrote 294 words when the mean average for number of words for the other eight control students was 20.75. At posttest, Student 9 increased his number of words to 92 and Student 10 wrote 108 words, when the mean average for number of

Figure 8. Number of words written at pretest, posttest, maintenance, and generalization for individual students in the control group.
words for the eight other control students was 47 words at pretest. Thus, for these two students, the overall writing performance, for number of words, was significantly higher from the beginning of the study than was the performance of the other control students.

At maintenance, the performance of these two students continued to show the same pattern. Student 9 wrote 154 and Student 10 wrote 378 words, in comparison to the other eight students in the control group who wrote an average of 48.75 words, at maintenance. As can be seen in the Figure 8, great variability in the data for number of words is portrayed. Student 9 and 10 specifically varied their performance at different times, but overall their performance was significantly higher than the rest of the group. When looking at the individual data for number of words each student in the control group wrote at generalization, we can see that four students wrote more words than the rest of the control group students. Two of these students, Student 9 and Student 10, were the higher performers.

Also, it may be relevant to mention that the two prompts used at maintenance were very appealing to all students (e.g. use of electronics or eliminating school store and lounge). Thus students might have felt more inclined to write more about topics that were of high interest to them. However, an increase in number of words doesn’t necessarily result in better essays. To illustrate this point, Table 18 shows maintenance writing samples of a stronger and a lower performing control student. The essay of the stronger performing control student lacks organization, although he provides several reasons for not eliminating study lounge (students learn how to use checkbooks, students can relax, kids will not have anything to look forward to if lounge is closed). The essay
of the lower performing student is poorly written, although he provides two reasons for not eliminating school lounge and one explanation (lounge is fun, kids are treated like stars).

Table 18

_Maintenance Writing Samples of a Stronger and a Lower Performing Control Student_

<table>
<thead>
<tr>
<th>Imagine the school is thinking about discontinuing the school store and student lounge in order to save money. Should the school store and student lounge be eliminated from school?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stronger Performing Student</strong></td>
</tr>
<tr>
<td>I think that school store and lounge should stay because the main reason we have vouchers is so we can add them up for lounge and school store. I do realize that the school needs to save money but we can find a different solution like a fundraiser or car wash or sell things because there are so many different things we can do for the school because lounge is a great thing were kids relax, take a beak and be themselves and kids try to save up there money in there check books to buy stuff. It is also a great way to learn how to use a checkbook and money and handle a cash register. But say we take them away then kids will have nothing to look forward and will be to upset to even go to school and they will not try to earn anything because there will be nothing. Plus school store is a place where kids can relax and wait around having fun and when the school does have the money what will you spend it on we don’t need supplies and there are no upcoming field trips so why would we bother take them away. I men it is Thursday and lounge is tomorrow I bet the whole school is looking forward to lounge and you want to take that away from them that don’t even make sense. And the year is almost over so you can sell yearbooks and we will make a lot more money if there 15 dollars a piece. So theres about 60 aclers for you so I hope that we keep school store and lounge because we can switch to energy saving light bulbs and turn off the lights when were done with them and keep the door closed so we can save power and we also go to less expensive field trips like to a small pond or creak. So there are more money savings ideas but we could also close down for all the Most a week. But anything else is not okay I just speak for everyone when I say that school store and lounge should stay so I hope I have convinced you to not eliminate school store and lounge thank you.</td>
</tr>
<tr>
<td><strong>Lower Performing Student</strong></td>
</tr>
<tr>
<td>I do not thak thay soad shut down school stor or loung because we have so much fun dowing louung and scool stor we get treated ad what we have for instcae sport’s football and soccer and basketball and do not forget hockey we get game’s to and outside we have fun and inside we get pizza and ice cream to one more thing we get is to go to your homeroom</td>
</tr>
</tbody>
</table>
Two days after maintenance, generalization was assessed. Students were asked to write a persuasive essay for a topic in either science (Is water pollution an important issue to address?) or social studies (Has technology harmed or helped the world?). These topics were familiar to students since they were part of the 7th grade curriculum. When analyzing the data, at generalization, there were no significant differences in number of words written and transition words both groups of students. As can be seen in Figure 8, four control students (Students 7-10) wrote more words at generalization when compared to their peers. However, when examining control group students’ generalization essays, their essays were lacking a clear position, or they wrote statements arguing for both sides, which indicated these students did not understand the persuasive essay genre. Thus, these students wrote more words, but their essays were not of a good quality.

According to the essay scoring rubric developed (see Appendix P), if the students were unable to pick a side, or argued equally for both sides, then their essay was not considered to be a persuasive essay. In a persuasive essay, the writer needs to take a clear position, provide reasons that support the position, understand/present the opposite viewpoint, and then counter it by providing contrasting evidence or by finding inconsistencies in the logic of the opposing argument. Then, the essay should end with restating the original position, with evidence that appeals to reason. Table 19 illustrates this point. As can be seen, these two control students wrote many words, but their essays were not of good quality and although they provided good reasons, they argued for both sides, clearly not understanding the purpose of the persuasive essay.
Table 19

Generalization Writing Samples of a Stronger and a Lower Performing Control Student

<table>
<thead>
<tr>
<th>Has technology (i.e. communication, transportation, electrification) helped or harmed the world?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stronger Performing Student</td>
</tr>
<tr>
<td>I think that technology has helped the world with whatever we need. Like for communication we have telephones Cп’s and more. And this paper was typed on a computer and was printed out for us to work on so we will be mater and get a good job so technology has helped us But technology has alos harmed us. Because if we do no actual labor then we will be lazy. But we need it for life here is a list of stuff we need. The oven, microwave, refridgerator, car, light bulb, cpu, printer, and TV. These are all important and some cant even live without it so we must have these but we can cut down the pollution so are planet will benefit with us when we use technology and technology prints and makes the money we spend and use today wich we need for food, power, water and more so imagine if we did not have any of that then were would we bee III tell you were on the streets begging for food and homes. So we can have technology only if we do not over use it so we can then be happy and healthy with technology so to save technology we could ride bike to places and not waste so much of it so it can benefit us more since we still have technology with us with common day house things with us even more including robots so we can have help everywhere we go so that how good technology keeps inprvong so maybe we will have flying cars and more great things brought to you by the great benefits company of the world called technology but once again technology can make us lazy, dumb, and fat from not doing any work but it will save power and stop global warming But it might make life even harder for us so we may never know and be 100% safe If technology will always help us or destroy our lives unless we find out how to stop global warming and make us live longer that will be great for all of mankind even more if we can teleport so we can teleport food and money to traits that is all thank you for listening.</td>
</tr>
<tr>
<td>Lower Performing Student</td>
</tr>
<tr>
<td>Modern technology has helped a lot by getting rid of most man use labor, communication, transportation info entertainment, ect. But it has also harmed the world by causing more deaths, polluting, selfishness, ect. If we keep using tech then sooner or later it will advance to a point were it will not harm the world. But still its not okhay to use then in bad ways for it will cause harm in many ways. If we do this then we can keep the tech. The bad effects are T/B/A &amp; N/A. It will happened all in due time. So be prepared to face the facts. The goverment should ban it cause a majority of the people like it &amp; use it in many ways. To prevent what coming you must be awhere of what right &amp; whats not right. And then we can save the modern &amp; future tech.</td>
</tr>
</tbody>
</table>
**Experimental group supplemental analyses.** We also conducted supplemental analyses on the performance of each student in the experimental group for number of words written at different measure times. As can be seen in *Figure 9*, there was a substantial increase in the performance of all experimental students, from pretest to posttest, and although the performance of some students decreased at maintenance and generalization, their performance was still higher than at pretest.

*Figure 9.* Number of words written at pretest, posttest, maintenance, and generalization for individual students in the experimental group.

*Note.* No posttest data shown for Student 1 who did not write at posttest. Supplemental data on this student was gathered subsequent to posttest and is displayed in Table 20.
As can be seen in Figure 9, only one student (Student 1) did not show any gains from pretest to posttest. This student did not write an essay the day we conducted posttest, thus he got a score of zero in all writing measures assessed. This student was presenting significant behavioral issues the day we conducted posttesting and refused to write for us. However, in an attempt to examine his performance at posttest we gave this student a second prompt on another day when he was in a better disposition to write. Even though we could not count this supplemental data, on the second day, he wrote 121 words and his essay contained a topic sentence, three reasons, three explanations, a counter reason, and an ending (See Table 20). Thus, he clearly increased his performance from pretest when he had only written 12 words.

Table 20

Supplemental Writing Sample of an Experimental Student Posttest Essay

I beilve that baseball should stay here at school. First I will be mad if the schools takes the baseball team away. Second because you can stay fit. Third also it is very fun and cool!

First I well be mad if the school takes the baseball team a way. Because I like baseball a lot.

Second because you can stay fit. Because you are running a lot to get points.

Third it is always fun and cool. Because when my team wins we get then we all get big rewards.

On the other hand some people well say that it might be boring. And it feels like is very slow.

In conlsuion, beilve that baseball should stay here at school.
We also examined experimental students maintenance essays to illustrate the differences in performance when compared to control group students. Table 21 displays the performance of two experimental students at maintenance. As can be seen, these students selected the same topic as did the two control students whose essays are shown in Table 18; but the experimental students’ essays were of a better quality, organized, and coherent. They clearly stated their positions, provided reasons and explanations; used transition words; counter argued; and ended their essays by restating their positions. Thus, this comparison clearly illustrates that writing, which is more fully developed with regard to all the components of a persuasive essay, does lead to a better essay; whereas merely more words in an essay does not.

### Table 21

*Maintenance Writing Samples of Experimental Students*

<table>
<thead>
<tr>
<th>Imagine the school is thinking about discontinuing the school store and student lounge in order to save money. Should the school store and student lounge be eliminated from school?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental Student 4</strong></td>
</tr>
</tbody>
</table>

I don’t think the school store or loung should be taken away. First kids look forward to doing those. Second it encourage kid to try and get those. Third it make us feel like we are the funniest school in the worlrd.

So to start kids’s look forward to do those activities. Like playing games or buying games. Also it encourage kid to get there point and do those. Because you need point to do those activities. And a lot of kid get to do that and we don’t want to take away a fun Friday.

Lastly it makes me and all the kids feel like this is the funist, best school ever. Because other school don’t have a wii or ping pong table just us. Because we earned it.

But you or other’s might think it cost to much to by food and drinks for the store and the school dosent have that much money. Alltho it is worth it because you teacher in joy the loung and school store’s toy and game to.

So in summary I think that kid’s look forward to school store. And it encourage kid’s to do good. And lastly it make’s us feel good. So that why school store and lounge shouldn’t get eliminated.
The same situation was observed when examining generalization data for experimental students. When analyzing the data, there were not significant differences in number of words written, sentences, transition words, or paragraphs between both groups of students at generalization. However statistical analyses showed there were significant differences in number of parts and holistic quality of their essays for the experimental group. Experimental students, overall, wrote essays that contained more persuasive essay parts, were of a better quality, and more coherent. As can be seen in Table 22, two experimental students’ essays are provided. These students selected the same topic (e.g. technology) as did the control group students whose essays are shown in Table 19. Experimental students essays clearly demonstrate that they understood the persuasive essay genre. They were able to establish clear positions and provide arguments to support their positions; contrary to control group students’ essays, which argued for both sides and/or were not clear in their position.
Table 22

*Generalization Writing Samples of Experimental Students*

<table>
<thead>
<tr>
<th>Has technology (i.e. communication, transportation, electrification) helped or harmed the world?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental Student 6</strong></td>
</tr>
<tr>
<td>I believe that technology has helped the world. First, we have made energy-saver cars. Second, we have found cures. Lastly, we have improved technology. First, we have made energy-saver cars. We have made cars that save energy. Like the smart car. Second, we have found cures. We have found cures to dieases. We have found cures for dieases like swine flu. Lastly, we have improved technology. We have made improvements in technology. We have imporved technology by making smart cars. However, the technology is being used in the wrong ways. Terriosts are using it to make nuclear weapons. On the other hand, make sure it does not fall into the wrong. That is why I believe that technology has helped the world. First, we have made energy saver cars. Second, we have found cures. Finally, we have improved technology and believe that it has helped the world.</td>
</tr>
</tbody>
</table>

| **Experimental Student 8** |
| Technology has harmed the world. First global warming was caused by too many cars. Second bluetooth causes cancer. Third electrical sockets kill you. First global warming was caused by too much co emissions which came from cars. Also by factories. Second blue tooth are known to cause cancer. They do so by sending waves of radiation into your brain. Third electrical sockets can kill you. If you stick something in it or touch it. However these things help us get by everyday. But they are bad for the environment. Finally technology harmed the earth by global warning. |

Analyses on all measures assessed in this study suggest that students in the experimental group outperformed students in the control group. In the next chapter a discussion of major findings is provided.
5. Discussion

This chapter presents a discussion based on several important findings from the current study. The specific purpose of this study was to determine the effectiveness of SRSD instruction on the writing performance and acquisition of self-determination skills for middle school-age students with EBD. Twenty-one seventh-grade students with severe emotional and behavioral disorders, placed in a public day school, participated in a group experimental design study (Creswell, 2005). Students were randomly assigned to receive instruction in one of two intervention groups: The experimental group received Self-Regulated Strategy Development (SRSD) instruction with embedded self-determination skills, and the control group students received writing instruction through the county’s writing curriculum (Write Traits). Performance was evaluated at pretest, posttest, maintenance, and generalization. Special education teachers delivered instruction and experimental teachers were trained on SRSD procedures.

Major Findings

The intent of the study was to (a) replicate and extend previous SRSD studies conducted with students with emotional and behavioral disorders (EBD) in middle school (Mastropieri et al., 2009, 2010), and (b) examine the effectiveness of the Self-Regulated Strategy Development (SRSD) model of writing instruction with regard to persuasive
essay-writing performance. However, the current study extends previous SRSD studies in three ways.

**Extension by incorporating self-determination instruction.** In this study SRSD instruction was modified by incorporating self-determination instruction, during the SRSD lessons to examine if, by explicitly teaching self-determination skills within a content area (writing), students will enhance their knowledge of and skills in self-determination, in conjunction with improving their writing skills.

**Extension through use of trained special education teachers to provide the intervention.** Students’ special education teachers were trained on SRSD procedures and implemented the intervention. Thus, for the first time in SRSD studies conducted with students with EBD, teachers were the interveners instead of researchers.

**Extension through use of group experimental design.** The methodology employed in this study is different from previous SRSD studies conducted with students with EBD. In the current study, a group experimental random assignment design was employed. In previous studies, single subject designs have been employed (Adkins, 2005; Lane, Harris et al., 2008; Mason & Shriner, 2008; Mastropieri et al., 2009, 2010). Thus, the purpose of this study was to compare groups and measure change resulting from experimental treatment. The intent was to evaluate if, at the end of the SRSD instruction with embedded self-determination training, experimental students writing performance and acquisition of self-determination skills would increase as a result of experimental treatment.
Findings from this study revealed substantial improvement for all experimental students in all measures assessed. In the following sections a discussion of major findings and recommendations for future research are provided.

**Writing Performance**

In this study writing performance was evaluated by the essays students wrote at different points in time including pretest, posttest, maintenance, and generalization. Essays were evaluated across six components: numbers of words, sentences, transition words, parts of a persuasive essay, paragraphs, and overall quality of the essay. Major findings at posttest, maintenance, and generalization are discussed next.

**Postintervention results.** At posttest, experimental students significantly outperformed control students in all six writing components assessed. These findings support previous SRSD research conducted with students, with and without EBD, in that SRSD instruction is shown to be an effective strategy that helps students improve their persuasive writing skills. Moreover, the results from this study also support what other SRSD studies conducted with students with EBD have found (Adkins, 2005; Lane, Harris et al., 2008; Lane et al., 2010; Little, et al., 2010; Mason, et al., 2010; Mason & Shriner, 2008; Mastropieri et al., 2009, 2010). SRSD training is an effective strategy that improves the writing skills of students with EBD with regard to number of words, essay components, and the overall quality of their essays.

However, the results from the current study differ from findings of other SRSD studies conducted with students with severe EBD with regard to the amount of instruction needed for these students to master the persuasive essay genre. For example, in the
Mastropieri et al. (2009) multiple baseline study, 12 middle school students with severe EBD placed at a public day school, received instruction 4 days a week, 30 minutes each session for a total of 55 sessions or 29 hours of instruction, with individual students receiving a mean number of 43.3 days of instruction. In the Mastropieri et al. (2010) exploratory study, 10 students with severe EBD, also placed in a restrictive setting, received instruction 4 days per week, 29 minutes each session for a total of 55 sessions or 26.6 hrs of instruction, with individual students receiving a mean number of 42.2 sessions. Thus in both of these studies, a relatively lengthier intervention period was required to teach middle school students with significant emotional and behavioral disorders how to write persuasive essays. In the current study, however, middle school students with severe EBD placed at a public day school received instruction 4 days a week, 30 minutes each session for a total of just 33 sessions or 16.5 hours of instruction. Yet, findings revealed experimental students significantly improved their writing performance at posttest by increasing their scores on all six writing measures, including improvement in overall quality of their essays.

These two Mastropieri studies are similar to the current study with regard to the setting, participants’ characteristics, and number of sessions per week. However, they differ from the current study in their research design and type of intervener. In the current study, a group experimental design was conducted with the purpose of examining the effects of SRSD instruction, with embedded self-determination skills, on the writing performance and self-determination skills of students with EBD, and students’ special education teachers were trained on SRSD procedures and provided the intervention. In
the Mastropieri et al. (2009) study a multiple baseline design was employed, graduate students provided the instruction, and a fluency phase was implemented after postintervention measures. In the Mastropieri et al. (2010) study, an exploratory study was conducted to examine how to adapt instruction and SRSD instructional procedures for students with severe EBD, and the interveners were also graduate students.

Although there are differences between these studies and the current one, the amount of instruction needed for students to learn the persuasive essay genre in all three studies is significant and exceeds the amount of instructional time schools traditionally devote to the teaching of the persuasive essay genre. However, in the current study, instructional time was still less (16.5 hrs) when compared to these other studies that provided between 26.6 and 29 hours of instruction. What can explain the positive results obtained in this study, in light of the substantial differences in the amount of instructional time? It has been suggested that behavioral issues and comorbidity might influence the amount of instructional time required for students with EBD to learn (Scruggs & Mastropieri, 1986). However, the results of the present study may indicate that the type of intervener (e.g., the familiarity of the intervener) is a factor that influences the amount of instruction needed for students with severe EBD to learn. This finding might suggest that because students were already familiar and had an established rapport with their teachers, teachers spent less time dealing with behavioral issues and time devoted to instruction, although cumulatively less, was more effective due to fewer behavioral interruptions and distractions. However, this assertion needs to be considered cautiously since, in this study, time on task data was not collected to examine if there was a
relationship between the percentage of time on task, the amount of time devoted to instruction, and writing outcomes. In the Mastropieri et al. (2009, 2010) studies described previously, on-task behavior data was collected to record students’ on- and off-task behavior in 30-second intervals for 15 minutes during one-third of the instructional sessions. Results suggested students, in both studies, demonstrated an overall low percentage of time on task despite small group instruction and high levels of teacher interactions. In fact, authors reported that students’ off-task behaviors were due to disruptive classroom behavior and students internalizing behaviors that hindered their ability to attend appropriately. Although these correlations were not of significance to affect results, it was suggested that students’ characteristics considerably affected instructional time. Thus, from these studies we know that students’ behavioral characteristics can influence their academic engagement. However, we don’t know if students’ familiarity with the intervener is also a factor that influences students’ ability to be engaged in instruction. Future research could examine how the interactions between students, teachers, and classroom settings influence the effectiveness of an intervention (Conroy et al., 2008; Sutherland et al., 2008) and how these interactions influence the amount of instructional time needed for students with EBD to learn. Further research might also examine the comparative effects of intervention provided by outside graduate students or researchers, with interventions provided by school staff following receipt of diligent training from the researcher.

**Maintenance results.** In the current study, maintenance was assessed two weeks after posttest. Students were given the option of writing a persuasive essay from two
prompts given. Experimental students outperformed control students at maintenance by obtaining statistically significant differences in number of sentences written, transition words, essay parts, paragraphs, and overall essay quality. However, there were no statistically significant differences between both groups for number of words written. Experimental students slightly decreased in number of words written at maintenance, when compared to posttest; but their performance was still significantly higher than at pretest for number of words written and all other writing areas assessed. Although, the experimental group’s mean performance for all writing measures decreased slightly when compared to pretest and posttest, this is not an uncommon finding. Previous SRSD studies have reported similar results at maintenance (Mason & Shriner, 2008; Mastropieri et al., 2009, 2010). For example, Mason and Shriner (2008) in their multiple baseline study conducted SRSD instruction for the persuasive writing strategy POW+TREE with six second to fifth grade students with EBD and found that after students received 11 to 13 sessions on SRSD instruction, students’ essays were more complete, of higher quality, and students increased the number of words used. However, they reported students’ performance decreased slightly, postinstruction, during generalization, and maintenance phases conducted a few weeks after instruction.

Another example is the Mastropieri et al. (2009) study that conducted SRSD instruction for the persuasive writing strategy POW+TREE with 12 students with severe EBD. In this study, students received SRSD training on how to write multi-paragraph essays and were assessed postinstruction with five essay probes. Following, students received fluency instruction on how to write a one-paragraph essay with all the
components taught within a 10-minute period. Then, they were assessed post-fluency instruction. Finally, maintenance and generalization probes were conducted after a delay interval of 11.5 to 15 weeks after postinstruction measure. Students’ maintenance essays were higher than at baseline, but were somewhat lower than when fluency testing was conducted. Thus, the results from the current study support what other SRSD studies conducted with students with EBD have found. Students’ performance at maintenance tends to decrease slightly; yet their performance is still higher when compared to their performance prior to intervention. This finding suggests that students with EBD might need to receive longer-term support to maintain consistent performance levels.

*Control group students’ maintenance performance.* Another interesting finding during maintenance data analysis was a change in the performance of control group students in relation to the number of words they wrote after instruction. The mean number of words written at maintenance for the control group increased when compared to their mean performance at pre- and post-test. Due to this increase and a slight decrease in the number of words experimental students wrote at maintenance, statistical analyses revealed that, at maintenance, both groups actually performed similarly on this one measure. However, even though students in the control group showed gains in number of words, at maintenance, they did not show significant gains in any of the other essay components.

These results were surprising and in order to explain this variability in the performance of control group students it was necessary to conduct supplemental analyses that examined the individual performance of each student in the control group. These
analyses revealed that the increase in number of words written for the control group at maintenance was mainly due to the individual performance of two students who, on average, significantly outperformed their classmates, thus making the mean performance of the control group higher. It was also noted that these two students were higher performers since pretest, so it was not surprising that they continued to perform well at this stage. The essays of these students, however, lacked organization and their overall writing quality was poor, which is reflective of their lack of understanding of the persuasive writing process.

Research on the writing characteristics of students with mild disabilities (students with EBD are included in this category) has found that these students often experience difficulties with expressive types of writing. They struggle to categorize and organize ideas, lack knowledge about the elements and organization of a paragraph, and fail to apply self-regulatory skills such as planning, monitoring, evaluating, and revising (Englert et al., 1991; Graham, 1999; Hooper et al., 2002; Wong, 2000). Thus, writing more words doesn’t necessarily result in better essays. This example sheds light on the importance of teaching students about the many overlapping components to the writing process.

Students need to understand that good writers are goal-oriented, aware of their audience, able to apply transitional connections to make their writing more coherent, and revise their writing to increase clarity (Englert et al., 1991; Gersten & Baker, 2001; Graham, 1999; Gregg & Mather, 2002; Hooper et al., 2002; Wong, 2000). When examining the essays experimental students wrote after instruction, during maintenance,
and generalization it was evident that SRSD instruction helped students better understand the writing process, as they planned, organized, and wrote essays that were of a better quality. Whereas, this was not the case for students in the control group.

**Generalization findings.** In the current study, it was examined if students were able to transfer what they had learned by asking them to write a persuasive essay in either science or social studies. Students were familiar with the content area topics since they were part of the 7th grade curriculum. Generalization was conducted two days after maintenance. Previous SRSD studies have suggested the need to incorporate more explicit generalization instruction, embedded within the SRSD training to help students transfer skills into content areas (Mastropieri et al., 2009, 2010). Thus, following this recommendation, a generalization lesson was incorporated into this study at the end of the six SRSD stages. Findings are interesting. Experimental students’ means in all essay components assessed, slightly decreased when compared to posttest and maintenance performance, but their performance was still significantly higher than at pretest. Also, a significant difference, between groups, was seen at generalization for number of essay parts and overall quality, where experimental students outperformed control group students.

Few SRSD studies conducted with students with EBD have examined generalization. For example, Adkins (2005) single subject study with second-graders examined if students were able to generalize to personal narratives after receiving instruction on story writing. Findings revealed that instruction in generalization did not have an impact on the overall quality of students’ narrative writing. Mason and Shriner
(2008) study described above, reported giving one generalization essay probe to students following instruction, but they did not specify if generalization was to other content areas. Nevertheless, they reported that students’ performance slightly decreased, post instruction, during generalization. The Mastropieri et al. (2009) study, previously described, conducted a generalization phase by giving students a prompt in either science or social studies and results revealed students also decreased their performance at generalization although they performed significantly higher than at baseline. These findings support the results from the current study in that, at generalization, students’ performance tends to decrease, but it is still higher than prior to instruction. Thus, based on these findings and recommendations from previous SRSD studies, generalization training embedded within SRSD training, should be considered. It is also suggested that more than one generalization lesson be provided and repetition of the SRSD stages of modeling, guided practice, and independent practice—with generalization examples to other content areas—be incorporated.

Control group students’ generalization performance. During generalization data analysis a change in the performance of control group students was also observed. Control group students increased in number of words and transition words written at generalization when compared to other time measures such as pre- and post-test, but this increase was not statistically significant in comparison to the performance of experimental students. In addition, their essays were not of a good quality and did not contain many persuasive essay parts.
Yet again, this variability in the control group data led us to also examine the performance of each control group student in more detail. In this case, we found that four control students wrote more words at generalization when compared to their peers. Two of these students were the same ones who were higher performers since pretest. Thus, it was not surprising to see that their performance remained high for this measure. The other two students wrote more words and were able to elaborate more on the topic of their essays, demonstrating their knowledge in the content area they selected (science or social studies). This is also no surprise given the fact that during the school year all students had discussions related to water pollution and technology as part of their science and social studies classes. However, when examining and comparing control group and experimental students’ generalization essays, it was observed that the essays of control group students lacked organization and it was evident they lacked knowledge about the writing process: which is characteristic of students who need more instruction on how to plan, organize, and revise their writing. Furthermore, it was also noticed that control students did not fully understood the purpose of persuasive writing.

**The persuasive writing genre.** The purpose of persuasive writing is to convince someone about your point of view. Thus, the writer should establish a clear position, provide reasons that support the position, understand/present the opposite viewpoint, and then counter it by providing contrasting evidence or by finding inconsistencies in the logic of the opposing argument. Therefore, good writers take into consideration their audience and fully understand the purpose of writing (Englert et al., 1991; Gersten & Baker, 2001). Although 4 out of the 10 control group students wrote more words, their
essays were lacking a clear position, or they wrote statements arguing for both sides, which indicated these students did not understand the persuasive essay genre. These students wrote more words, but their essays were not of a good quality.

In contrast, experimental students’ generalization essays, overall, showed they not only had a better understanding about the writing process; they also fully understood the purpose of persuasive writing. They were able to pick a side, provide reasons and explanations, counter argue, and end their essays by restating their position. This is evidence that further supports the effectiveness of SRSD instruction for POW+TREE persuasive writing. By teaching experimental students POW+ TREE (Pick a topic, Organize your notes, Write and Say More + Topic sentence, Reasons and counter reasons, Explanations and Ending) they were able to grasp and understand the purpose of persuasive writing. Even though experimental students scored slightly lower across all writing components at generalization, in relation to posttest and maintenance, their scores were uniformly and significantly higher than at pretest, and with the exception of a slightly higher score for number of words by the control group, experimental students outperformed the control group overall and wrote essays that were of better quality.

Standardized Tests

The writing fluency test of the W-J III (Woodcock, McGrew, & Mather, 2001b) was used to assess students’ writing fluency prior to and postintervention. There were no significant increases in the mean performance of both groups of students, from pretest to posttest. Neither were there significant differences when the performance of both groups was compared. This finding contradicts what other SRSD studies have found. Three of
these studies provided fluency training as part of SRSD instruction (Mason et al., 2010; Mastropieri et al., 2009, Mastropieri, n.d.), and one did not provide fluency training (Mastropieri et al., 2010), yet still achieved significant gains in the W-J fluency measure after instruction.

For example, Mason et al. (2010) single subject study for middle school students with EBD evaluated the effectiveness of SRSD instruction for persuasive writing, focusing only on teaching students how to write fluently in 10 minutes. Students received five 30-minute lessons and three 10-minute lessons for approximately two to three weeks. The lessons followed all SRSD instructional stages and the four self-regulatory procedures. It was found that overall student performance improved for the quality of their persuasive quick write responses. Although they wrote fewer words at posttest, the quality of their responses was higher than at baseline and during instruction. In addition, it was also found that all students improved in writing fluency as tested on the W-J III fluency assessment.

Mastropieri et al. (2009) multiple baseline study, previously discussed, also reported students increased their writing fluency on the W-J III fluency assessment. In this study students with severe EBD were taught how to write persuasive essays in 10 minutes, after first learning how to write multi-paragraph essays. Moreover, in a recent study also conducted by Mastropieri, (n.d.), 12 students with EBD in an inclusive setting were taught how to write multi-paragraph essays over 15 days and then received three days of writing fluency instruction on how to write one-paragraph essays in 10 minutes. This study also found significant fluency differences after only 17 days of instruction.
Mastropieri et al. (2010) exploratory study with middle school students with EBD did not provide fluency training as part of SRSD instruction and yet, students, after receiving 55 sessions over a four-month period showed gains in the W-JIII fluency measure. In the current study, however, students were not specifically taught how to write persuasively and quickly (in 10 minutes) or fluently, and the intervention was conducted over 33 days for a total of 16.5 hours. Thus, results are not comparable. The lack of progress in writing fluency may indicate that specific fluency training, rather than simply increasing the amount of instructional time spent on writing, is a factor that influences students’ ability to improve their writing fluency on standardized measures such as the W-J III fluency test. Students in the Mastropieri et al. (2010) study were tested on the W-J III fluency test after 4 months of instruction. In the current study they were tested after a month. Future research could further examine the influence of fluency training on students’ performance on standardized measures vs. increased time on task writing and overall writing instructional time.

Knowledge of Parts of Persuasive Essay

A persuasive essay parts probe, prior to and postintervention, was used to examine if students were able to identify the parts of a persuasive essay (topic sentence, reasons, counter reasons, explanations, and ending). Results from this measure at posttest revealed experimental students outperformed control students. Experimental students learned the parts of a persuasive essay, whereas students in the control group did not show any gains. This finding also replicates previous findings that have shown students who learn how to use the POW+TREE strategy are able to recall all parts. The
Mastropieri et al. (2009, 2010) and Mastropieri, (n.d.) studies, previously described, are examples. In their studies, all students at the end of the intervention were able to recall all persuasive essay parts, when probed, and it was further reported that students used the strategy in other academic areas and even during high-stakes testing (Mastropieri et al., 2009).

In the current study, analyses of experimental students’ interviews also confirmed results of persuasive essay probes. During the interviews, when asked what strategy can be used for writing persuasive essays (POW+TREE), all experimental students were able to recall the parts of a persuasive essay. Further, all students reported the strategy helped them (a) write better, (b) organize their thoughts before writing, and (c) increase their confidence in writing. Anecdotal reports from teachers also revealed some interesting findings. For example, one experimental student applied the POW+TREE strategy, without prompting, to write a persuasive essay to the guidance counselor in an effort to change his 7th period class. Other experimental students applied similar POW+TREE graphic organizers every time they were asked to write an essay. It is encouraging to hear these reports. Future research could examine more closely how students are applying, the skills and tools taught, into other content areas or for their own use after the research has ended.

Moreover, in the current study teachers and students were satisfied, overall, with SRSD training and POW+TREE. This finding replicates what other SRSD studies have found. In fact, in all SRSD studies reviewed that were conducted with students with various disabilities and even those without disabilities, students and teachers who work
with SRSD instruction have consistently reported being satisfied with the strategy and find it very beneficial for improving students’ writing skills (Lane et al., 2008; Mason et al. 2010; Mason & Shriner, 2008; Mastropieri et al., 2009, 2010).

**Self-Efficacy**

Self-efficacy is defined as having confidence in one’s own abilities to attain a goal (Wehmeyer et al., 1998) and has been identified as an important component of self-determined behavior. Also, when examining the purpose of SRSD writing instruction, the development of positive student attitudes and self-efficacy about writing is integrated within the teaching of self-regulation strategies, as part of the six stages of explicit writing instruction. This is done by teaching students how to set goals for writing and to develop positive self-statements before, during, and after writing essays (Santangelo et al., 2008). Thus, the development of self-efficacy skills is important for increasing students’ self-determination and for increasing students’ confidence as it pertains to writing. In the current study, self-efficacy skills were emphasized during the SRSD stages of instruction by teaching students how to develop self-statements, but they were also taught more explicitly by discussing self-efficacy as one of the seven self-determined behaviors within the embedded self-determination lessons in the SRSD framework.

Students’ perceived self-efficacy related to writing persuasive essays was measured at pretest and posttest by using a seven-item researcher-developed questionnaire. Findings revealed students in the experimental group significantly outperformed students in the control group at posttest on the self-efficacy measure. Thus, by the end of the intervention students felt more confident about setting goals for writing.
and about their ability to write good persuasive essays. This finding is also supported by experimental students’ interviews. When students were asked what they learned about self-determination, several students made reference to the importance of having positive thoughts while setting goals and believing in themselves.

Previous SRSD studies have examined the development of self-efficacy skills in writing and the results have been mixed (Graham & Harris, 1989; Graham et al., 2005). For example, in the Graham & Harris (1989) multiple baseline study designed to teach sixth-grade students with learning disabilities how to write argumentative essays using TREE, students’ self-efficacy increased at the end of the intervention. Whereas in the Graham et al. (2005) experimental study that focused on teaching third grade students with LD to write stories using POW+WWW and persuasive essays using POW+TREE, no significant differences were observed among experimental and control groups in relation to self-efficacy measures. However, the authors noted that at pretest, students’ self-efficacy scores were already high. Similarly, in the current study, at pretest experimental students’ self-efficacy scores were slightly higher, although not significantly so, compared to those of control students. However, at posttest, significant differences between groups were observed. Moreover, self-efficacy gain scores on the self-efficacy measure demonstrated that at the end of instruction experimental students significantly outperformed control students; thus they felt more confident about their ability to write good persuasive essays.

Based on this finding, it is suggested that explicitly teaching and emphasizing the development of self-efficacy skills can be beneficial in increasing students’ perceptions
about their abilities to set goals and to write persuasively. Also, aside from teaching self-efficacy through SRSD training in the form of self-statements while writing, the emphasis placed on teaching self-efficacy as one of the seven self-determined behaviors may have also influenced students’ perceptions about their self-efficacy. Future research could examine, in more depth, if teaching self-efficacy more explicitly, influences students’ own perceptions about their writing abilities.

**Self-Determination**

Self-determination skills have been identified as an important skill for students with disabilities to develop because it helps them better prepare for the demands of the adult world (Algozzine et al., 2001). However, the literature on self-determination has shown that the teaching of self-determination skills is often seen as problematic due to lack of information and training for teachers on how to teach these skills (Test, Fowler, Brewer, & Eddy, 2005; Thoma et al., 2002, 2005; Mason et al., 2004; Wehmeyer, Agran et al., 2000). Moreover, when looking specifically at the population of students with EBD and the literature on self-determination, little intervention research that focuses on the development of self-determination skills has been conducted (Benitez et al., 2005; Fowler, 2007; Martin et al., 2003; Snyder, 2002; Snyder & Shapiro, 1997).

Self-determination skills can be taught as an independent skill. However, previous research suggests the incorporation within the curriculum, of instructional strategies for learning (self-regulation, self-directed learning, goal setting, and problem solving) is an effective means of promoting self-determination skills and access to the general education curriculum for students with disabilities (Wehmeyer et al., 2004).
Thus, we can say that SRSD writing instruction is aligned with the self-determination literature in that by explicitly teaching self-regulation strategies within the SRSD framework we are also promoting self-determination skills. However, in this study we wanted to make the teaching of self-determination skills even more evident by purposefully incorporating explicit lessons on self-determination skills within the SRSD framework and by teaching students how to use persuasive writing as a means to self-advocate. Thus, this study provides a clear example of how to incorporate self-determination skills within content areas, and more specifically, within writing.

In the current study, students’ self-determination knowledge and perspectives were evaluated with a criterion-referenced measure that assessed if students gained more knowledge about self-determination and self-advocacy skills by the end of instruction. It also examined if, after instruction, their perceptions about important self-determination behaviors, such as setting goals, working independently, applying problem-solving strategies, and so on had changed. In addition, during students’ interviews, they were asked, and were able, to provide examples of how they could use persuasive writing to self-advocate in school.

Results were encouraging. At postinstruction, experimental students significantly outperformed control group students in both self-determination knowledge and their perceptions about self-determination behaviors. Moreover, students’ interviews supported these findings. All (but one student) were able to provide clear examples of how they could use persuasive writing to self-advocate in school. Further, experimental teachers’ and IA’s interviews also supported these findings. Teachers agreed that
teaching persuasive writing as a means to self-advocate, is a good idea because with writing comes the whole planning and thinking piece, so students with EBD, who traditionally have difficulty thinking things through, can organize their thoughts and plan out what they want to say in order to express what they want or need in an effective manner.

The current study is an example of how to replicate and extend previous studies by merging two bodies of literature that are important in the education of students with EBD and for which little research exists; namely, self-determination and writing. Up to this point, no research has examined the teaching of self-determination skills within SRSD instruction, as was done in the current study. Thus, although the results of the current study are positive, more research is needed. Future research should be conducted and the current study should be replicated with other samples of students, in different grades, and with various writing abilities.

Teachers as Interveners

Few previous SRSD studies have had teachers provide the intervention (De La Paz, 1999, 2005), and all of these studies have been conducted with students with LD or with average writers. For example, De La Paz (1999) conducted a multiple baseline design study with 22 seventh and eighth graders with LD, low, average, and high writing abilities to teach expository writing using the mnemonics PLAN & WRITE. Three regular education teachers provided the intervention for 12-16 full class periods over four weeks of instruction. Instruction followed the basic stages of SRSD instruction, but some modifications were made to accommodate the teaching styles of regular education
teachers. Prior to the intervention, teachers attended two full-day workshops in which they were given a manual with scripted lesson plans and instructional materials. During the first day, an overview of the strategy was discussed and they were able to observe modeling of the strategy. During the second day, teachers practiced the steps of the strategy and decided how to personalize their instruction. Results were positive as all students improved in length and quality of their writing, especially students with LD. Fidelity of treatment was on average 96% (range = 92% - 99%).

De La Paz (2005) conducted an experimental study to provide two simultaneous interventions: an historical reasoning strategy and a writing intervention, as part of a social studies and language arts unit. One hundred thirty-three eighth grade students participated in the study: twelve had learning disabilities and the rest were considered either average or talented writers. Sixty students were in the experimental condition and the rest in the control. However, all students with disabilities were in the experimental condition. Students in the control group were randomly assigned to read one of the historical units and write an essay about it. Five seventh and eighth grade teachers provided the intervention and taught both experimental and control groups. Teachers were trained as in the previous De La Paz (1999) study described above and the researcher met weekly with teachers. They reported that if the teacher was not implementing the experimental treatment with 100% accuracy, written corrective feedback was given, but the study did not provide an overall percentage of treatment acceptability. Nevertheless, results were positive as students in the experimental condition outperformed students in the control group by writing longer essays and better
quality essays. Traditionally, SRSD instruction is either provided by the researchers or by trained graduate students. Thus, among the SRSD studies that have investigated SRSD instruction for students with EBD, the current study is the only one to date that has trained students’ special education teachers to be the interveners. This is an important extension to the literature on SRSD studies because teachers are the ones for whom research is conducted so that they, and their students, ultimately benefit from implementation of effective instructional practices that are informed and evidence-based.

Literature suggests that failure to involve practitioners in the research process, research conducted in settings or under circumstances that are different from the classroom, and research that lacks specific guidelines for use by practitioners are factors that contribute to the research to practice gap (Greenwood, & Abbot, 2001). By involving teachers in the current study, we have contributed to bridging this gap. Based on teachers’ and IA’s interviews, all were very satisfied with the experience of participating in a research study and with students’ gains. Moreover, all experimental teachers expressed feeling more inclined to continue to learn about research because they had been involved in it with this study. They also expressed willingness to future application of the strategy learned, because they now have a clear understanding of how the strategy works, and confidence in their abilities to teach it.

Hence, based on the success of the procedures used and the results in the current study, as also supported by previous SRSD studies that have trained teachers to provide the intervention (De La Paz, 1999; 2005), some recommendations for future research are important to discuss, particularly when involving teachers in research.
First, designing a comprehensive and explicit training on SRSD procedures is extremely important to the success of a study. In this study, teachers and IAs received training on general research procedures as well as on specific instructional procedures over four days, one-hour each day. The training was conducted by discussing the lessons, and by modeling how to teach each lesson. Teachers were then asked to model one or two lessons and received feedback from the researcher. Teachers and IAs were given lesson plans that were very explicit and were trained on monitoring fidelity of treatment. In addition, teachers were required to assess fidelity of treatment for the instruction they provided as a means of self-monitoring their adherence to its appropriate implementation. IAs were also asked to conduct fidelity of treatment on their teachers to help them during instruction.

During the interviews, teachers and IAs expressed that the fidelity of treatment checklists were invaluable in helping them be aware of the importance of not deviating from what they were supposed to teach. Clear and constant communication with teachers, videotaping of the lessons, monitoring teachers’ progress, and providing constant feedback were also strategies that helped teachers stay on track and helped the researcher problem solve. All these efforts resulted in teachers implementing the intervention with a high degree of fidelity. Future research on SRSD instruction should involve teachers as interveners as they are the ones that ultimately need to know the best strategies available to help their students succeed.
Limitations and Implications for Future Research

There are several possible limitations to the current study related to the study sample, students with EBD characteristics, students’ time on-task, the writing genre taught and mechanics of writing. Each area is discussed, and recommendations for future research are provided.

**Study sample.** The sample of students used in this study was not large. There were few teachers and few students. By having a small sample, the potential for sampling error increases. When working with students who have a diagnoses of EBD, it is particularly difficult to find a large enough sample as many are either included in general education settings, or if educated in more restrictive settings, as in the current study, classes are traditionally smaller due to the need for more individualized attention. Thus, even though all of the seventh-grade students with EBD in this setting were included, the sample was still small. Future research could examine the possibility of having more than one research site in order to have a bigger sample of students, or to work with additional grades within one school.

**Students with EBD characteristics.** An issue to consider when working with students with EBD is students’ school attendance or moving out of the school district. For example, one student in our sample had severe issues with attendance that made it impossible to keep him in the research study. Also, during the study, two students were transferred to other settings, thus their participation was lost. These issues are not uncommon when working with students with EBD, who are placed in restrictive settings, and have also been reported in similar SRSD studies with students with EBD, where
participants have either been expelled or transferred to other settings (Mastropieri 2009, 2010). Thus, loss of student participation must be taken into account when designing future studies.

Students missing instruction due to behavioral problems, which caused additional absences from the classroom, also created issues for the current study, and have the potential to impact future work in this area. Since this was an experimental study and all students in both groups had to receive the same amount of instruction for the same amount of time, Fridays were designated as established make-up sessions for students who missed instruction during the week. For the most part make-up Fridays worked well, but on occasion some students were also absent on a Friday, so other times within the week had to be found to do time-equivalent (30 minutes) make-up lessons. This took extra effort on the part of teachers, and is an issue that needs to be considered when conducting a group experimental study with students with EBD.

In addition, previous research has noted that students’ affective and internalizing and/or externalizing behavior problems contribute to their academic achievement and progress in school (Abikoff et al., 2002; Lane, Barton-Arwood, et al., 2008; Nelson et al., 2004). Thus, behavioral characteristics influence students’ performance. In the current study, one student in the experimental group presented serious behavioral issues the day we were conducting posttesting and he refused to write for us. Thus, we were unable to count his data. Although we gave him another prompt on a day when he was in a better disposition to write, we were unable to count this data, as it was not written in the procedures and would have violated the research design. Based on this experience, future
research should take into account students’ behavioral issues and be prepared to address this type of situation by clearly establishing alternative or back-up testing procedures in the research design.

Previous research has emphasized the importance of taking into consideration the influence of comorbid diagnoses on students with EBD (e.g., learning disabilities, speech/language impairment, or other conditions) with regard to the amount of instructional time these students need (Mastropieri et al., 2009, 2010). In the current study, instructional time was set for 30 minutes per session. While the majority of participants have comorbid diagnoses, it is unknown how dual diagnoses might have impacted student outcomes and instructional time. As previous SRSD studies have suggested, future research should examine the relationship between comorbid diagnoses and student outcomes (Mastropieri et al., 2009, 2010).

**Students time on task.** Previous SRSD studies (Mastropieri et al., 2009, 2010) have collected on-task behavior data to record students’ on- and off-task behavior while writing and for overall academic engagement. In fact these studies underline the relationship between time engaged on task and writing outcomes. The current study is limited in this area as this type of data was not collected. Thus, it is unclear how on-task or off-task behavior might correlate with writing outcome measures.

**Writing instruction and mechanics.** The current study only focused on one writing genre, persuasive writing. Thus, it is unclear how students might respond to instruction in other writing genres, such as narrative or story writing. Also, in this study we did not address the mechanics of writing (spelling, grammar, punctuation,
capitalization). Future research endeavors could consider revision and editing skills as part of the research and investigate other writing genres with the EBD population.

**Educational Implications**

Results of this study have some educational implications worth considering. First, teachers of students with EBD should provide students with specific writing instruction on higher order writing skills by using the SRSD framework, as research has shown it is an effective strategy that helps students understand the writing process and to develop self-regulatory skills.

Second, teacher preparation programs and college courses that focus on teaching research-based practices to future educators should incorporate the teaching of the SRSD model of writing instruction as part of their course requirements. This should be done by providing students with articles that explain the SRSD model of writing instruction, but also by providing direct instruction and modeling on how to apply the strategy.

Third, teaching self-determination skills is very important for students with disabilities and the development of self-determined behaviors such as goal setting, self-advocacy, and making good choices can easily be incorporated into the curriculum, across content areas. Students need to be incidentally and explicitly taught self-determination skills. Teaching persuasive writing as a means to self-advocate makes the self-advocacy concept more concrete and allows students to think of specific ways in which they can apply self-advocacy skills.

The results of the present investigation contribute to the body of knowledge in both the existing literature on SRSD writing instruction for adolescents with EBD and to
the literature on self-determination interventions for students with EBD. Even though the results are overall very positive, more research is needed to add to the body of knowledge on writing instruction and self-determination. Both areas are fairly new, and need to continue being investigated. However, based on the results from this study, it can be stated that SRSD strategies for writing can be very effective in improving the writing performance of adolescent students with EBD. In addition, the incorporation of explicit self-determination training within the SRSD framework is an effective way to increase students’ knowledge and perceptions of self-determined behaviors.

**Conclusions**

As previously stated, the intent of the study was to (a) replicate and extend previous SRSD studies conducted with students with emotional and behavioral disorders (EBD) in middle school (Mastropieri et al., 2009, 2010), and (b) examine the effectiveness of the Self-Regulated Strategy Development (SRSD) model of writing instruction with regard to persuasive essay-writing performance. In designing and conducting this study it is important to note its unique aspects: (a) the embedding of self-determination instruction within SRSD instruction, (b) training of classroom teachers to provide the intervention, and (c) experimental group design. As has been discussed, overall findings of the study are positive and provide further evidence of the effectiveness of SRSD instruction for improving the writing performance of middle school students with EBD. The study also raises some interesting questions and issues that may have potential for future investigation. Some of these issues/questions include
1. What is the amount of instructional time necessary to maximize the effectiveness of SRSD instruction when working with students with EBD? What interferes with accomplishing this? What impacts or interferes with students’ time spent on task? How can these interferences best be overcome?

2. Are there recognizable, valid differences between interventions provided by external researchers/graduate students versus interventions provided by trained classroom teachers, which influence results in meaningful ways?

3. Could greater and more lasting effectiveness be realized with the addition/expansion of maintenance, specific fluency instruction and generalization lessons?

At present, however, the results of this study have shown that SRSD instruction is a writing strategy that can be highly effective in increasing the writing performance of students with EBD. Also, the value-added of embedding self-determination skills within content areas is important as there is a need for these skills to be attained by this student population. Further replications of the current study are needed to establish the validity and effectiveness of SRSD instruction, with embedded instruction in self-determination as an integral complement to and reinforcement for SRSD instruction; so that students can succeed in gaining necessary, lifelong skills in self-determination and communication, through effective written expression.
Self-Determined Behavior and Writing to Persuade Learning Contract

Student: ____________________________ Date: ________________

Teacher: ______________________________

Target Completion Date: __________________________

Goal: Write good persuasive essays and demonstrate self-determined behavior.

How to meet this goal:

1. Participate in the lessons
2. Follow directions
3. Monitor my progress
4. Evaluate my progress
5. Apply learning strategies
6. Be responsible for my own learning

Signatures:  
Student: _______________________________

Teacher: _______________________________

___________________________________________________________________________________________

_____________________________ has successfully completed instruction on _______________________

___________________________________________________________________________________________

and agrees to use it in ________________________________

___________________________________________________________________________________________

Student: ____________________________ Date ________________

Teacher: ____________________________ Date ________________
<table>
<thead>
<tr>
<th>The Seven POWERFUL Self-Determined Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Make a good decision that will help me attain a goal.</strong></td>
</tr>
<tr>
<td>I am going to work hard on this assignment.</td>
</tr>
<tr>
<td><strong>Set a goal and make a plan:</strong></td>
</tr>
<tr>
<td>What would my goal be?</td>
</tr>
<tr>
<td>What is my plan of action?</td>
</tr>
<tr>
<td><strong>Self-awareness:</strong></td>
</tr>
<tr>
<td>What are my strengths?</td>
</tr>
<tr>
<td>Do I need help?</td>
</tr>
<tr>
<td><strong>Apply problem-solving strategies:</strong></td>
</tr>
<tr>
<td>What strategy is going to help me write a good essay?</td>
</tr>
<tr>
<td><strong>Self-advocacy:</strong></td>
</tr>
<tr>
<td>How can I communicate what I need in a persuasive manner?</td>
</tr>
<tr>
<td><strong>Monitor and evaluate my progress:</strong></td>
</tr>
<tr>
<td>Am I following a plan?</td>
</tr>
<tr>
<td>How am I doing my work?</td>
</tr>
<tr>
<td><strong>Self-efficacy:</strong></td>
</tr>
<tr>
<td>I have confidence in my abilities to attain my goal.</td>
</tr>
</tbody>
</table>
## APPENDIX B

### The Seven POWERFUL Self-Determined Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Description</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Make a good decision that will help me attain a goal.</strong></td>
<td></td>
<td>What would your decision be?</td>
</tr>
</tbody>
</table>
| **Set a goal and make a plan:** | | What would your goal be?  
What is your plan of action? |
| **Self-awareness:** | | What are my strengths?  
What do I need? |
| **Apply problem solving strategies:** | | What strategy is going to help you write a good essay? |
| **Self-advocacy:** | | How can you advocate for yourself when writing a persuasive essay? |
| **Monitor and evaluate my progress:** | | How are you going to monitor your work?  
How are you going to evaluate your essay? |
| **Self-efficacy:** | | What statements are you going to say to yourself to have confidence in your abilities? |
Diagram 1

**Self-Determined Behaviors Diagram**

1. **Make a good decision**
   I am going to work hard on this project

2. **Goal and plan**
   Write a paper

3. **Apply problem solving strategy**

   **Self-awareness and Self-efficacy**
   - "What are my strengths? Do I need help?"
   - "I have confidence in my writing abilities"
   - "How can I communicate what I need in a positive way?"

   **Self-advocacy**
   - "I need to slow down and take my time."
   - "I have to take my time...think of the steps."

   **Self-monitoring**
   - "Am I following my plan?"

   **Self-monitoring**
   - "Self-evaluation Graph my progress"

   **Self-evaluation**
   - "Graph my progress"

   **Hooray I am DONE!**
APPENDIX C

Self-Determined Behaviors Diagram

Diagram 2

1. Make a good decision
   I am going to work hard on this project

2. Goal and plan
   Write a persuasive essay using PW

3. Apply problem solving strategy
   TREE

Self-awareness and Self-efficacy

“What are my strengths? Do I need help?”
“I have confidence in my writing abilities”
“How can I communicate what I need in a positive way?”

Self-monitoring

“I need to slow down and take my time.”
“I have to take my time...think of the steps.”

Self-monitoring

Self-evaluation

“Am I following my plan?”

Graph my progress

Self-advocacy

Hooray I am DONE!

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APPENDIX D

POW + TREE Chart

POW
P ick my idea
O rganize my notes
W rite and say more

TREE
T opic sentence
R easons (3 or more) and
C ounter reasons (1 or more)
E xplain reasons
E nding and Examine
## APPENDIX E

### TREE Graphic Organizer

<table>
<thead>
<tr>
<th>T</th>
<th>TOPIC Sentence</th>
<th>What do I believe?</th>
</tr>
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<tr>
<td></td>
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<table>
<thead>
<tr>
<th>TWs</th>
<th>TRANS. WORDS</th>
<th>R</th>
<th>REASONS (3 or more)</th>
<th>Why do I believe this?</th>
<th>Will my readers believe this?</th>
<th>E</th>
<th>EXPLANATIONS</th>
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<tr>
<td></td>
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<td></td>
<td>Say more about each reason.</td>
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<thead>
<tr>
<th>CR</th>
<th>COUNTER REASONS (1 or more)</th>
<th>What might my audience think? How can I argue his/her beliefs?</th>
<th>E</th>
<th>EXPLANATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Say more about why you refute his/her belief. What details will persuade my reader?</td>
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</table>

<table>
<thead>
<tr>
<th>TWs for ENDING</th>
<th>E ENDING</th>
<th>What do I want my reader to remember?</th>
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</table>

309
Words you can use to show a reason.

First    Second    Third    In addition
Another   To begin  Also     Furthermore
Next      Finally   My final  Lastly

Words you can use to show a counter reason.

However  Nevertheless Instead  Conversely
Yet       On the other hand  On the contrary

Words you can use to conclude your essay.

In conclusion  In short  On the whole  In sum
To summarize    In general
APPENDIX G

Persuasive Essay Examples

Essay 1: Advocate for Yourself

I believe it is important that students my age learn self-advocacy skills. There are three reasons why I believe this. First, it helps students learn how to ask for things they need. For example, a student might need help with an assignment and by knowing how to speak up he might let the teacher know he needs help. Second, self-advocacy skills are important because it teaches you how to defend yourself in the real world. For instance, when you grow up and go to the real world your parents are not always going to be with you to help you get the things you need, so it is important that you learn how to talk to people and communicate your needs. Finally, self-advocacy skills teach you about your rights and responsibilities. It is important that you know what your rights are as a citizen and as a student. However, some people might think students my age are not old enough to learn how to self-advocate. They might think we do not know what we want, how to defend ourselves, and how to ask for things. However, in the long run we will have to speak for ourselves when we grow up, so it is a good practice to start early learning self-advocacy skills. Why wait? In conclusion, students my age should learn self-advocacy skills and teacher and parents should help us be prepared for the real world.
APPENDIX G

Persuasive Essay Examples

Essay 2: Students Should Help with School Rules

It is important that students my age have some say in creating school rules. First, we are part of the school. Second, it would be easier to follow the rules. Third, we will be more aware of the consequences.

To begin, we are part of the school and old enough to give our opinion about how students should behave. We are expected to know how to behave whether we are at school, home, or in the community. We need to demonstrate self-determined behaviors.

In addition, if we help make the rules it will be easier for us to follow them. We will have them in our minds all the time. We need to know our rights and responsibilities.

Lastly, we will be more aware of the consequences of not following the rules. There will be no excuses for not accepting responsibility for our actions. We need to make good choices.

On the contrary, some people might think that students may create permissive rules that give students too much freedom. The students could be too wild and not learn anything. However, teachers and principals can review student rules to insure that they are appropriate.

With this in mind, middle schools should allow students some input into writing the school rules. First, students are old enough to give their opinion. Second, students will be able to remember the rules. Finally, there will be no excuses for not following the rules. We can help make the rules!
APPENDIX H

Persuasive Essay Writing Prompts Used During Lessons

1. Imagine your principal is thinking about canceling all field trips for the remainder of the year. Write a persuasive essay to your principal persuading him or her to allow students to continue attending field trips. Should field trips be cancelled for the rest of the school year?

2. Some parents are considering paying allowances to their kids for helping around the house but are still not convinced. Should students receive an allowance to do things around the house?

3. People say good habits such as exercising improve our health. Should students make the habit of exercising part of their lives?

4. Some people think it might be a good idea for students your age to learn how to manage their money by having a savings account. Should students your age have a savings account?

5. IEP meetings are coming up. In these meetings teachers, parents, principal and others are going to be there to discuss students’ goals, performance, and new objectives for the new school year. Should middle school students’ who have an IEP be part of this meeting?

6. The school is considering assigning each student volunteer work to help the school stay clean. You are meeting with your teachers and principal to talk about this. Should middle school students be assigned volunteer work to help maintain the school clean?

7. The school is thinking about reducing the number of laptops per classroom in order to save money. Should the number of laptops be reduced in each classroom?

8. Imagine you got a bad grade because you did not do your work. Now you are ready to work and you want to persuade the teacher to give you another chance. Should students who did not work and got bad grades be given a second chance to improve their grades?

9. Imagine the administration is considering whether to eliminate carrying vouchers once you reach the director level and wants to know your opinion. Should students that reach the director level not be required to carry their vouchers anymore?

10. Imagine a classmate is being a bully and you are tired of his attitude. You are thinking about talking to someone about this. Write a persuasive essay to the administrator, behavior specialist or clinician to convince them to convey a meeting to discuss this issue.

11. In order to save money, a school is considering closing the school library and wants to know your opinion. Should the school close the library?

12. Imagine you are preparing to have a meeting with your parents and teachers to discuss high school placements as part of your IEP meeting. Write a persuasive essay to let them know where you want to go and what you need from special education services.
APPENDIX I

Self-Statement Sheet

My Self-Statements

To think of good ideas:


While I work:


To check my work:


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APPENDIX J

Self-Determination Contract

Name: ________________________________________ Date: __________

Goal: ___________________________________________________________________

Plan  Work

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>11</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Start time __________  End time __________

Strategy I will use to write a persuasive essay: _________________________________

Evaluate

Began on time? YES NO  End on time? YES NO

Do I have all essay parts? YES NO

If No, what do I need to do to improve my essay? _______________________________

Did I graph my progress? YES NO

If NO, what do I need to do to next time? _________________________________

Adjust

Next time I will begin work: EARLIER LATER SAME TIME

In order to finish my work I will: _________________________________

Next time I will end work: EARLIER LATER SAME TIME
Student’s Name: ________________________________

Use this sheet to track how you do and what you complete each day. Look at the example in the first column.

Rate how well you did today - ☺ 3 ☺ 2 ☹ 1

<table>
<thead>
<tr>
<th>Date</th>
<th>2/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate your performance today.</td>
<td>☺ 3</td>
</tr>
<tr>
<td>Completed Graphic Organizer</td>
<td>✓</td>
</tr>
<tr>
<td>Wrote Topic</td>
<td>✓</td>
</tr>
<tr>
<td>Wrote Reasons</td>
<td>✓</td>
</tr>
<tr>
<td>Wrote Explanations</td>
<td>✓</td>
</tr>
<tr>
<td>Wrote Counter Reason &amp; Explanation</td>
<td>✓</td>
</tr>
<tr>
<td>Wrote Refute to Counter Reason</td>
<td>✓</td>
</tr>
<tr>
<td>Wrote Ending</td>
<td>✓</td>
</tr>
<tr>
<td>Number of Transition Words</td>
<td>5</td>
</tr>
<tr>
<td>Examined Essay (3 sentences)</td>
<td>✓</td>
</tr>
<tr>
<td>Used Self Statements</td>
<td>✓</td>
</tr>
</tbody>
</table>
APPENDIX L

Persuasive Essay Paragraph Checklist

Name:________________________________________ Date:_________

Paragraph 1
_____ Sentence 1 Topic sentence
_____ Sentence 2 Transition Word (TW), Reason 1
_____ Sentence 3 TW, Reason 2
_____ Sentence 4 TW, Reason 3

Paragraph 2
_____ Sentence 1 TW, restate Reason 1
_____ Sentence 2 Explanation for Reason 1
_____ Sentence 3 Expand on explanation

Paragraph 3
_____ Sentence 1 TW, restate Reason 2
_____ Sentence 2 Explanation for Reason 2
_____ Sentence 3 Expand on explanation

Paragraph 4
_____ Sentence 1 TW, restate Reason 3
_____ Sentence 2 Explanation for Reason 3
_____ Sentence 3 Expand on explanation
(repeat paragraph 4 for each addition reason)

Paragraph 5
_____ Sentence 1 TW, Counter Reason (CR)
_____ Sentence 2 Explanation for CR
_____ Sentence 3 TW, Refute it
(repeat paragraph 5 if you have an additional counter reason)

Paragraph 6 (ending)
_____ Sentence 1 TW, restate your position
_____ Sentence 2 Briefly restate your reasons
_____ Sentence 3 Wrap it up!
APPENDIX M

Lesson Plans

Stage 1 - Develop and Activate Background Knowledge

<table>
<thead>
<tr>
<th>Lesson 1: Develop and Activate Background Knowledge</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose: Introduce the self-determination concept and how it applies to writing tasks.</td>
<td>Student Learning Contracts, Appendix A.</td>
</tr>
<tr>
<td>1. The lesson will begin by reviewing the goals of the day.</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
</tr>
<tr>
<td>“Today we are going to set goals for our work together. During the following weeks we are going to be learning a writing strategy that will be very fun to learn and very useful for you. Also, we will be talking about self-determination skills and how important these skills are for you. Everyday we meet we will have an agenda and our goal is to cover all items in the agenda.”</td>
<td>The Self-Determined Behaviors Diagrams, Appendix C.</td>
</tr>
<tr>
<td>Agenda:</td>
<td></td>
</tr>
<tr>
<td>a. Sign the contract.</td>
<td></td>
</tr>
<tr>
<td>b. Discuss self-determination.</td>
<td></td>
</tr>
<tr>
<td>c. Applying the Seven Powerful S-D Behaviors when writing (example).</td>
<td></td>
</tr>
<tr>
<td>2. Students will sign a contract in which they will have to commit to learn the strategy for writing persuasive essays and to exhibit self-determined behavior during the intervention. The teacher will also sign the contracts and commit to teaching the strategy.</td>
<td></td>
</tr>
<tr>
<td>“We are going to sign a contract in which you will commit to learn the strategy and I will commit to teach you.”</td>
<td></td>
</tr>
<tr>
<td>a. The contract will state the purpose of the intervention,</td>
<td>Note on Text Colors</td>
</tr>
<tr>
<td>b. The short term goals (e.g. participate in the lessons, follow directions, monitor progress, demonstrate self-determined behaviors),</td>
<td>Black = Step by step instructions;</td>
</tr>
<tr>
<td>c. The long-term goal (e.g. write good persuasive essays with POW+TREE and apply the strategy in other settings),</td>
<td>Blue = Teacher’s script;</td>
</tr>
<tr>
<td>d. The expected date for achieving the goal.</td>
<td>Red = Important reminders.</td>
</tr>
</tbody>
</table>

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APPENDIX M

Lesson Plans

<table>
<thead>
<tr>
<th>Lesson 1: Develop and Activate Background Knowledge</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____3. Discussion of self-determination. The teacher will introduce the concept of self-determination. “Self-determination is a very important skill that all students should develop. Questions: Do you know what self-determination is? What does it mean to have self-determination skills? What are the components of self-determination? Why do you think it is important to have self-determination skills?</td>
<td>Student Learning Contracts, Appendix A.</td>
</tr>
<tr>
<td>_____4. Teacher discusses self-determination definition. “Self-determination is the ability to understand your needs, express what you believe, set goals for the things you want to achieve, make good choices, have confidence in your abilities, problem solve, self-advocate.” (Discuss and give examples.)</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
</tr>
<tr>
<td>_____5. Introduction of the seven components of self-determination. “The Seven Powerful Self-Determined Behaviors can be applied to any type of task. Let’s look at the chart and see what questions we can ask ourselves under each of the behaviors.” Discuss the Seven Powerful S-D Behaviors sheet. a. <strong>Decision making</strong> involves making good choices that will help us attain a goal. b. <strong>Goal Setting and attainment</strong> refers to setting goals and making plans on how to achieve our goals. c. <strong>Self-awareness</strong> is the ability to identify and understand one’s needs, interests, strengths, limitations, and values. d. <strong>Problem solving</strong> refers to the ability of applying strategies that will help us finish a task. e. <strong>Self-advocacy</strong> refers to the ability to express one’s needs, wants, and rights in an assertive manner. f. <strong>Self-management</strong> is the ability to start and complete a task and monitor and evaluate our progress. g. <strong>Self-efficacy</strong> is having confidence in our own abilities to attain a goal.</td>
<td>The Self-Determined Behaviors Diagrams, Appendix C.</td>
</tr>
</tbody>
</table>

Note on Text Colors
Black = Step by step instructions; Blue = Teacher’s script; Red = Important reminders.
### Lesson Plans

**Lesson 1: Develop and Activate Background Knowledge**

<table>
<thead>
<tr>
<th>Lesson 1: Develop and Activate Background Knowledge</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover the chart and ask students if they remember what the Seven Powerful S-D Behaviors are (Repetition).</td>
<td>Student Learning Contracts, Appendix A.</td>
</tr>
<tr>
<td>6. Seven powerful S-D behaviors and writing.</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
</tr>
<tr>
<td>“We know what the seven powerful behaviors are. How do you think writers apply these behaviors when writing?” Let students give examples and provide feedback.</td>
<td>The Self-Determined Behaviors Diagrams, Appendix C.</td>
</tr>
<tr>
<td>The teacher will introduce the S-D behaviors diagrams and he/she will explain in detail what good writers do when confronted with a writing task.</td>
<td></td>
</tr>
<tr>
<td>“It is as easy as A, B, C. Imagine you are asked to write an essay to convince the principal you are a good candidate to go on a field trip.</td>
<td></td>
</tr>
<tr>
<td>a. The first thing you need to do is to make a good decision- Your decision is going to be to write the essay and to work hard on this project. <strong>Decision making</strong></td>
<td></td>
</tr>
<tr>
<td>b. Then you need to set a goal and plan your paper. <strong>Goal Setting and attainment</strong></td>
<td></td>
</tr>
<tr>
<td>c. You have to be aware of your strengths and the areas in which you might need help. <strong>Self-awareness</strong></td>
<td></td>
</tr>
<tr>
<td>d. Then you need to apply a problem solving strategy- a strategy that will help you write a good essay. <strong>Problem solving</strong></td>
<td></td>
</tr>
<tr>
<td>e. You also need to think how you are going to communicate what you need in a positive way and to convince her about your reasons. You might also need to think in advance what her counter reasons might be (why she might disagree with you). <strong>Self-advocacy</strong></td>
<td></td>
</tr>
<tr>
<td>f. During this process you need to monitor how you are doing, check your work, and evaluate how you did. <strong>Self-management</strong></td>
<td></td>
</tr>
<tr>
<td>g. Then, you have to have confidence in your abilities. <strong>Self-efficacy.”</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Note on Text Colors**

- **Black** = Step by step instructions;
- **Blue** = Teacher’s script;
- **Red** = Important reminders.

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Lesson Plans

<table>
<thead>
<tr>
<th>Lesson 1: Develop and Activate Background Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Verbally review the Seven Powerful S-D Behaviors again and the S-D definition.</td>
</tr>
<tr>
<td>8. Check off the agenda.</td>
</tr>
</tbody>
</table>
### Lesson Plans

**Lesson 2: Develop and Activate Background Knowledge**

<p>| | |</p>
<table>
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</tbody>
</table>

**Materials**

- The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.
- The Self-Determined Behaviors Diagrams, Appendix C.
- Venn diagram
- Markers.

---

1. Instruction will begin by stating the goals of the lesson.

**Agenda:**

a. Review of the 7 Powerful S-D Behaviors.
b. Discuss what it means to persuade.
c. Discuss what it means to self-advocate.
d. How are persuasive writing and self-advocacy related?

2. The teacher will review the seven powerful self-determined behaviors.

“Yesterday we talked about self-determination and we said self-determination means having the ability to understand your needs, express what you believe, set goals for the things you want to achieve, make good choices, have confidence in your abilities, problem solve, and self-advocate.” We also discussed the powerful 7 self-determined behaviors. Let’s see who can remember what they are.” *(Verbal discussion about the 7 Powerful S-D Behaviors with the sheet).*

3. The teacher will introduce the persuasive writing genre.

“There are many types of writing, but one that is really important to know is the persuasive writing genre.” *(Discuss what it means to persuade and how persuasive writing relates to one of the seven powerful self-determined behaviors; namely, self-advocacy.)*

“What does the word ‘persuade’ mean?” To convince someone about your point of view with good reasons and explanations to support your reasons.

*(Possible examples of trying to persuade someone include political campaigns, advertising, convincing your parents that you should be allowed to go out with your friends.)*

“So those are examples of persuading that we hear every day. When we are talking about persuasive writing, it means that we are trying to convince someone with good reasons, but we are going to do it through our writing.”
**APPENDIX M**

**Lesson Plans**

**Lesson 2: Develop and Activate Background Knowledge**

<table>
<thead>
<tr>
<th><strong>4. Discuss the self-advocacy concept.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>“One of the seven powerful S-D behaviors is self-advocacy. Self-advocacy is part of self-determination. What does it mean to self-advocate?”</td>
</tr>
<tr>
<td>Self-advocacy means: learning how to speak up for yourself (verbally or in writing). Speaking out on an issue that concerns you. This can mean talking to the principal about your schedule, talking to your teachers about your IEP, or talking with your parents about something you want to do. It involves making your own decisions about your own life, learning how to get information so that you can understand things that are of interest to you, finding out who can support you, knowing your rights and responsibilities, problem solving, listening and learning, reaching out to others when you need help, and learning about self-determination.</td>
</tr>
<tr>
<td>A key component of self-advocacy is knowing how to communicate what you think or need, in a persuasive manner. You need to be clear in what you believe, think about why and be prepared with explanations.”</td>
</tr>
<tr>
<td>The teacher will discuss some examples of how students can advocate for themselves.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>5. Example One:</strong> “Imagine you want to be part of a sports team and you need to advocate for yourself to convince the coach that you are a good player. How would you convince the coach?” The coach might think you are not the best candidate. How would you convince him/her you are a good candidate?” (Self-advocating by making decisions for your own life, reaching out to others.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6. Example Two:</strong> “Imagine you are having difficulties in one of your classes and you feel that you need help. Who would you talk to? How would you explain your difficulties to the teacher, with reasons and explanations? The teacher might think you do not need help. How would you convince her/him, in a positive manner, that you do need help? (Self advocating by looking for support.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Materials</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
</tr>
<tr>
<td>The Self-Determined Behaviors Diagrams, Appendix C.</td>
</tr>
<tr>
<td>Venn diagram</td>
</tr>
<tr>
<td>Markers.</td>
</tr>
</tbody>
</table>

**Note on Text Colors**

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Red = Important reminders
## APPENDIX M

### Lesson Plans

<table>
<thead>
<tr>
<th>Lesson 2: Develop and Activate Background Knowledge</th>
<th>Materials</th>
</tr>
</thead>
</table>
| ____ 7. Example Three: “Imagine you are going to have an English test and you get easily distracted in the classroom. You think that you will do a better job on the test if the teacher allows you to take the test in another classroom. How would you explain your difficulties to the teacher with reasons and explanations to convince her that taking the test in another setting might be a good option for you? (Knowing your rights, reaching out, problem solving.)

“When you advocate, you have to convince someone of your point of view with good reasons. Some people might have a different point of view and you need to come up with good reasons to refute their argument.” |
| The Seven Powerful Self-Determined Behaviors Sheets, Appendix B. |
| The Self-Determined Behaviors Diagrams, Appendix C. |
| Venn diagram |
| Markers. |

| ____ 8. The teacher will help students make the connection between self-advocacy and the persuasive writing genre. |
| In persuasive writing the writer expresses what he/she believes and writes to convince the reader to believe or do something. Some questions will guide the discussion: |
| a. How is persuasive writing similar to the concept of self-advocacy? |
| b. How can you convince someone through writing of your point of view? |
| c. Why do you think it is important to know how to write persuasive essays? |
| d. How can you use persuasive writing to advocate for yourself or others? (Brainstorm with students possible topics related to self-advocacy.) |
| e. Do you think it is important to have self-advocacy skills? Why?” |

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### Lesson Plans

#### Lesson 2: Develop and Activate Background Knowledge

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>9.</td>
<td>The teacher will draw a Venn diagram to help students visualize the similarities and differences between the persuasive writing genre and the self-advocacy concept.</td>
</tr>
<tr>
<td></td>
<td>“Persuasive writing is a way of speaking up. It can be used to self-advocate because in writing you can communicate what you need by saying what you believe, providing reasons, and explanations. You can use persuasive writing to self-advocate in many ways.”</td>
</tr>
<tr>
<td>11.</td>
<td>Check off the agenda.</td>
</tr>
</tbody>
</table>
Lesson Plans

Stage 2- Discuss the Strategy Including Benefits and Expectations

**Lesson 3: Discuss the Strategy Including Benefits and Expectations**

<table>
<thead>
<tr>
<th>Purpose: In this stage, the POW+TREE strategy will be introduced as well as supportive materials for writing persuasive essays. Benefits and expectations about the strategy will be discussed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> State the goals of the lesson. “Remember that part of the powerful seven self-determined behaviors is to make good choices and achieve goals. My goal is to discuss some material with you, and your responsibility is to achieve the goals of the day. Today’s goals are…”</td>
</tr>
<tr>
<td><strong>Agenda:</strong> (Write on white board)</td>
</tr>
<tr>
<td>a. Review the powerful 7 S-D.</td>
</tr>
<tr>
<td>b. Discuss a problem solving writing strategy to write persuasive essays.</td>
</tr>
<tr>
<td>c. Learn how to apply the powerful 7 S-D behaviors when writing a persuasive essay.</td>
</tr>
<tr>
<td>d. Learn about transition words.</td>
</tr>
<tr>
<td><strong>2.</strong> Instruction will begin by verbally reviewing the 7 Powerful Self-Determined Behaviors and the concept of persuasive writing and self-advocacy.</td>
</tr>
<tr>
<td>a. What is self-determination?</td>
</tr>
<tr>
<td>b. What are the 7 powerful S-D behaviors?</td>
</tr>
<tr>
<td>c. What is persuasive writing?</td>
</tr>
<tr>
<td>d. What does it mean to self-advocate? (review VENN Diagram)</td>
</tr>
<tr>
<td>e. How can you self-advocate through persuasive writing?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
</tr>
<tr>
<td>The Self-Determined Behaviors Diagrams, Appendix C.</td>
</tr>
<tr>
<td>POW+TREE chart and Graphing Sheet, Appendix D and K.</td>
</tr>
<tr>
<td>Transition Words Chart, Appendix F.</td>
</tr>
</tbody>
</table>

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# APPENDIX M

## Lesson Plans

<table>
<thead>
<tr>
<th>Lesson 3: Discuss the Strategy Including Benefits and Expectations</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venn Diagram</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
</tr>
<tr>
<td><strong>Persuasive writing</strong></td>
<td>The Self-Determined Behaviors Diagrams, Appendix C.</td>
</tr>
<tr>
<td>To convince someone about your point of view with good reasons and explanations to support your reasons.</td>
<td>POW+TREE chart and Graphing Sheet, Appendix D and K.</td>
</tr>
<tr>
<td><strong>Self-advocacy</strong></td>
<td>Transition Words Chart, Appendix F.</td>
</tr>
<tr>
<td>Means understanding your strengths/needs, making good decisions about your life, identifying personal goals, knowing rights and responsibilities, problem solving, and communicating on your own behalf.</td>
<td></td>
</tr>
</tbody>
</table>

The teacher will discuss what good writers do when writing a persuasive paper:

“Part of the powerful seven self-determined behaviors is to set goals and apply problem solving skills to attain these goals. Writers use a problem solving strategy when writing a persuasive essay.”

Describe and discuss POW+TREE chart. *(Cover the chart so that only POW is visible.)*

1. **3. POW:** “Now we are going to start learning a new writing trick - one that helps you write a paper that tells the reader what you believe or what you think about something. This is called a persuasive paper. The writing strategy is called POW.

Do you know what POW stands for?

What does it sounds like?  **POW = POWER**

POW gives you POWER when you write because of the 3 steps:
- **P** – Pick my idea.
- **O** – Organize my notes
- **W** – Write and say more

When we combine POW with other writing strategies, POW becomes even more powerful.”

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Lesson Plans

**Lesson 3: Discuss the Strategy Including Benefits and Expectations**

4. Discuss what makes writing to persuade powerful.

“Who knows what makes a good persuasive response?

Writing a powerful persuasive essay tells the reader what the writer believes, gives the reader at least three reasons why they believe it and provide descriptions, consider other people's points of view and has an ending.

We will learn a trick for remembering the parts of a good persuasive response.”

5. Introduce TREE - uncover the rest of the chart.

“Let's look at what the parts of a good persuasive response are. Look at the chart. How it relates to a living tree? Let's see...

T—The topic sentence is like the trunk -- it is strong and every part of the tree is connected to it.

R—The reasons and counter reasons are like the roots. They support the trunk. The more roots (reasons) a tree has the stronger the trunk will be. However when you add a counter reason or another's person's perspective your essay will be even stronger.

E—The explanations are like the earth. The earth has the rich nutritious soil that the roots can grab on to. Explanations will nourish your reasons and make them more persuasive.

E—The last part of TREE is ending. The ending is the tree you see. It is the impression you are leaving your reader with, and what you want them to remember.”

6. Cover the chart and verbally review what the letters of POW+TREE stand for. (Give students a copy of the mnemonic POW+TREE chart.)

7. The teacher explains how the seven powerful self-determined behaviors are applied when writing a persuasive essay by using the self-determined behaviors diagram.

**Materials**

- The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.
- The Self-Determined Behaviors Diagrams, Appendix C.
- POW+TREE chart and Graphing Sheet, Appendix D and K.
- Transition Words Chart, Appendix F.

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APPENDIX M

Lesson Plans

<table>
<thead>
<tr>
<th><strong>Lesson 3: Discuss the Strategy Including Benefits and Expectations</strong></th>
<th><strong>Materials</strong></th>
</tr>
</thead>
</table>
| “It is as easy as A, B, C. Imagine you are asked to write an essay to convince your mom to allow you to go to a football game with your friend and his parents.  
a. The first thing you need to do is to make a good decision- Your decision is going to be to write the essay and to work hard on this project.  
b. You also need to think how you are going to communicate what you need in a positive way and to convince her about your reasons.  
c. Then you need to set a goal and plan your paper. You are going to use POW- Do you remember what POW stands for?  
d. Then you need to apply a problem solving strategy- a strategy that will help you write a good essay, so you will use TREE- What does TREE stands for?  
e. “When writers write, they monitor their progress and evaluate their essays to make sure they have included all the parts. “ | The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.  
The Self-Determined Behaviors Diagrams, Appendix C.  
POW+TREE chart and Graphing Sheet, Appendix D and K.  
Transition Words Chart, Appendix F. |

(Be sure to emphasize the importance of self-evaluation and self-monitoring while writing, two of the seven powerful self-determined behaviors.)

8. Discuss transition words – how writers use them.

“Do you know what transition words are? Words that help the reader identify reasons are given. It helps the essay flow and makes the essay more organized. There are transition words to show a reason, a counter reason and to conclude the essay.” (Show the chart of transition words and explain the difference between transition words for showing a reason, transition words to show a counter reason, and transition words to end an essay. Ask students to come up with more transition words and write them in the chart. Give each student a copy of the transition word chart.)

9. Check off the agenda.
Lesson Plans

Lesson 4: Discuss the Strategy Including Benefits and Expectations

Purpose: Counter reasons and find parts in a persuasive essay.

Objectives: The students will discuss and review counter reasons. The students will practice identifying counter reasons in different essays.

1. State lesson goals:

Agenda:
   a. Review the powerful 7S-D behaviors, POW+TREE and TW
   b. Read and examine an essay
   c. Learn how to use the graphic organizer
   d. Learn about counter reasons with 2 examples

2. Oral review by asking the following questions: “Do you remember what writing to persuade means? How do we self-advocate when writing a persuasive essay? Do you remember what POW+TREE stand for? What are the seven self-determined behaviors?”

3. Practice transition words. “Yesterday we talked about transition words. Each time you find a reason or a counter reason, transition words are used to show that a reason or counter reason has been given. Do you remember some transition words?”
   (Show transition word chart)

4. Read and examine a writing to persuade paper (Lay out the Essay: Self-advocacy)

“Now we’re going to read and examine a writing to persuade paper to find out if the writer used all of the parts – Remember the paper should tell what the author/writer believes, at least three reasons why with explanations, a counter reason and an ending.”

Materials

The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.
POW+TREE chart, Appendix D.
Transition Words Chart, Appendix F.
TREE Graphic Organizer, Appendix E
Essay: Self-advocacy.
Over head projector
Erasable markers for completing the GO.

Note on Text Colors
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### Lesson Plans

**Lesson 4: Discuss the Strategy Including Benefits and Expectations**

**Materials**

<table>
<thead>
<tr>
<th>Materials</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
<td></td>
</tr>
<tr>
<td>POW+TREE chart, Appendix D.</td>
<td></td>
</tr>
<tr>
<td>Transition Words Chart, Appendix F.</td>
<td></td>
</tr>
<tr>
<td>TREE Graphic Organizer, Appendix E</td>
<td></td>
</tr>
<tr>
<td>Essay: Self-advocacy.</td>
<td></td>
</tr>
<tr>
<td>Over head projector</td>
<td></td>
</tr>
<tr>
<td>Erasable markers for completing the GO.</td>
<td></td>
</tr>
</tbody>
</table>

“This is an example of a one-paragraph essay. Later we will be writing longer essays.

Let’s say our topic is: Should students learn how to advocate for themselves?”

Give each student a copy of the first opinion essay. Ask students to read along silently while you read the essay out loud. Students will be asked to identify the parts in their essays and to circle the transition words. The teacher will do the same in the essay over head projector. It is OK to move around the essay. They don’t have to be found in order.

5. Discuss counter reasons:

“When you write a persuasive essay, you make an argument: you state what you believe, offer reasons, and use explanations to support your position. We said that a good persuasive essay should have TREE (topic sentence, reasons and counter reasons, explanations for each reason and counter reason and ending).

When you write an essay the reasons are important because you are supporting what you believe. However, your persuasive essay would be even more POWERFUL when you counter argue – when you recognize that other people might have other points of view.

What is a counter reason? You challenge your own argument and then you turn back to re-affirm it. In a counter reason you consider reasons other people might have that are against what you believe. Who might disagree with you?”

Thinking about other people’s perspectives is a good way to test your ideas when drafting your essay and your writing could be more powerful because the reader is going to see you as the kind of person who considers other people’s point of view before arguing one. Why do you think is important to consider other peoples points of view?”

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APPENDIX M

Lesson Plans

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<tr>
<th>Lesson 4: Discuss the Strategy Including Benefits and Expectations</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Introduce the graphic organizer: Lay out a TREE Graphic Organizer. Point out the TREE Reminder at the top, and review what it stands for</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.</td>
</tr>
<tr>
<td>“We are going to be using this graphic organizer to help us organize the parts “This graphic organizer is really good because it helps us organize the parts of TREE and write transition words. Writers also use the GO to organize their thoughts prior to writing an essay and they write in note format. Review the parts of the GO.”</td>
<td>POW+TREE chart, Appendix D.</td>
</tr>
<tr>
<td>7. Example One: Animals. Use the GO to brainstorm with the students the reasons and counter reasons.</td>
<td>Transition Words Chart, Appendix F.</td>
</tr>
<tr>
<td>“Advocacy for animals: Imagine you are trying to convince a friend that adopting a dog from an animal shelter is better than buying a dog at a pet store. Should pets be adopted from an animal shelter?”</td>
<td>TREE Graphic Organizer, Appendix E</td>
</tr>
<tr>
<td>Teacher fills in the GO in note format with the topic, reasons and explanations. (Make sure to also write transition words). Students might come up with other reasons and it is ok to use their reasons. However, here is a guide of reasons and explanations you can use.</td>
<td>Essay: Self-advocacy.</td>
</tr>
<tr>
<td>Note on Text Colors</td>
<td>Over head projector</td>
</tr>
<tr>
<td>Black = Step by step instructions</td>
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<tr>
<td>Red = Important reminders</td>
<td></td>
</tr>
</tbody>
</table>

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Lesson Plans

Lesson 4: Discuss the Strategy Including Benefits and Expectations

Example One: Animals

**TREE Graphic Organizer (GO)**

| Topic: Adopting a dog is better than buying a dog at a pet store |
|---|---|---|
| TWs | Reasons | Explanation |
| First | Less expensive or no cost | Buying a dog might cost between $300-700 |
| Second | Help animals | Giving them a home
Helping with the overpopulation |
| In addition | Dogs could be already trained | Some pets might have received training |
| Some people might think | Counter reason Different opinion? | Explanation |
| | Buying pets from breeders or at a pet store is better. | You can get puppies instead of older pets. They might think dogs cannot be trained. |
| However | Refute it- Turn back | |
| | You can also get puppies at a shelter and usually older dogs are already trained | |
| In conclusion | Ending | Adopting a pet is much better than buying a dog at a pet store |
Lesson Plans

Lesson 4: Discuss the Strategy Including Benefits and Expectations

“Who might have a different opinion than mine?” (Encourage students to think about other peoples perspectives). “Some people might have a different opinion than yours and that is fine. For instance, some people might think buying pets is better because many pets in shelters are older and not trainable. These are valid reasons; however in a persuasive essay you have to acknowledge other points of view but provide explanations to prove your point of view.”

8. Example Two: “Imagine the principal is thinking of making students wear uniforms for school. Do you agree or disagree? You want to write a persuasive essay stating your reasons to convince her either to make uniforms a requirement or not. Should students be required to wear school uniforms?”

Teacher fills in the GO in note format with the topic, reasons and explanations. (Make sure to write transition words). Students might come up with other reasons and it is ok to use their reasons. Here is a guide of reasons and explanations you can use depending on students opinion. If students agree that school uniforms should not be a requirement, you can use this example:

Materials

The Seven Powerful Self-Determined Behaviors Sheets, Appendix B.
POW+TREE chart, Appendix D.
Transition Words Chart, Appendix F.
TREE Graphic Organizer, Appendix E
Essay: Self-advocacy.
Over head projector
Erasable markers for completing the GO.

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## Lesson Plans

### Lesson 4: Discuss the Strategy Including Benefits and Expectations

#### Example Two: School Uniforms

**TREE Graphic Organizer (GO)**

<table>
<thead>
<tr>
<th>TWs</th>
<th>Reasons</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To begin</strong></td>
<td>It is boring</td>
<td>No one wants to look like everyone else</td>
</tr>
<tr>
<td><strong>Second</strong></td>
<td>Shopping for school clothes makes going to school fun</td>
<td>If you have to wear a uniform, then you can’t shop</td>
</tr>
<tr>
<td><strong>Next</strong></td>
<td>Students can’t express their individuality</td>
<td>Some students like to support their favorite sports teams by wearing a jersey</td>
</tr>
<tr>
<td><strong>On the other hand</strong></td>
<td><strong>Counter reason</strong></td>
<td><strong>Explanation</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Different opinion?</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some people might think that school uniforms make getting dressed easy</td>
<td>Don’t have to spend time in the morning deciding what to wear</td>
</tr>
<tr>
<td><strong>However</strong></td>
<td><strong>Refute it</strong>- <strong>Turn back</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students may feel more comfortable wearing something they like instead of looking like everybody else</td>
<td></td>
</tr>
<tr>
<td><strong>In summary</strong></td>
<td><strong>Ending</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uniforms should not be required in schools.</td>
<td></td>
</tr>
</tbody>
</table>
Lesson Plans

**Lesson 4: Discuss the Strategy Including Benefits and Expectations**

If students agree that school uniforms should be a requirement you can use this example.

<table>
<thead>
<tr>
<th>Topic: Students should be required to use school uniforms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TWs</strong></td>
</tr>
<tr>
<td>To begin</td>
</tr>
<tr>
<td>Second</td>
</tr>
<tr>
<td>Next</td>
</tr>
<tr>
<td>On the other hand</td>
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<td></td>
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<tr>
<td>However</td>
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<td></td>
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<tr>
<td>In summary</td>
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</tbody>
</table>

______9. Check off agenda.
Lesson Plans

Stage 3 - Model the Strategy

**Lesson 5: Model the Strategy**

**Purpose:** Modeling the entire process for writing a persuasive essay.

**Objectives:** In this stage the teacher will model how to apply the POW+TREE strategy and the seven powerful self-determined behaviors while writing a persuasive essay. In addition, the self-statement and the record sheet will be introduced.

1. Discuss the goals for the day.
   a. Review 7 powerful S-D behaviors, POW+TREE and transition words, and GO.
   b. Discuss self-statements and write self-statements.
   c. Observe the teacher model how to complete a GO and write an essay.
   d. Learn about the paragraph check list.
   e. Introduce self-record sheet and graph the essay.

2. Briefly review 7 powerful S-D behaviors, POW+TREE and transition words.

3. Introduce the self-statements sheet: “We have been discussing self-determined behaviors and how to apply those behaviors when writing a persuasive essay using POW+TREE. One other thing good writers do is talk to themselves in positive ways. This is also one of the 7 powerful S-D behaviors called self-efficacy, meaning to have confidence in your own abilities as a writer.” (Refer to the 7 powerful S-D chart.)

“Why do you think it is important to talk to yourself in positive ways? Since you are learning to become good writers, it is important for you to talk to yourself in a positive way. Today I am going to model the strategy- I am going to model how to write an essay using all the materials we have been using. Pay attention to the self-statements that I use to talk to myself in positive ways.” (The purpose of this stage is for students to observe you having an inner dialogue. They need to see the thought process.)
APPENDIX M

Lesson Plans

<table>
<thead>
<tr>
<th>Lesson 5: Model the Strategy</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>______ 4. Essay to model: (You will say)</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>“Imagine your principal is thinking about canceling all field trips for the remainder of the year. Write a persuasive essay to your principal persuading him or her to allow students to not cancel field trips. Should field trips be cancelled for the rest of the school year?”</td>
<td>POW+TREE Chart and Graphing Sheet, Appendix D and K</td>
</tr>
<tr>
<td>(Lay out the TREE Graphic Organizer and model all of the process for organizing an essay and then writing it. Refer to the 7 powerful S-D chart for the steps while doing this and to the POW+TREE chart. Follow the script below.)</td>
<td>Transition Words Chart, Appendix F</td>
</tr>
<tr>
<td>“The first thing I need to do is make a good decision- My decision is going to be to write the essay and to work hard on this essay. I also need to think how I am going to communicate what I need in a positive way and to convince the reader about my reasons. Then, I need to set a goal and plan my essay. I am going to use POW- My essay needs to makes sense and have all the parts. The first letter in POW is P - pick my idea. I have to be creative and let my mind be free: I will write an essay to convince the principal not to cancel field trips. The second letter in POW is O- ORGANIZE my NOTES. I will use the GO to organize my notes. I need to apply a problem-solving strategy- a strategy that will help me write a good essay, so I will use TREE, I will organize my notes by using TREE.”</td>
<td>TREE Graphic Organizer, Appendix E</td>
</tr>
<tr>
<td>(Model the entire process for organizing your notes by completing the entire GO. Use transition words, self-evaluation, and self-statements as you go. I underlined self-statements on the dialogue.)</td>
<td>Paragraph checklist, Appendix L</td>
</tr>
<tr>
<td></td>
<td>Over head projector</td>
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<tr>
<td></td>
<td>Self-statement overhead</td>
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<tr>
<td></td>
<td>Erasable markers for completing the GO</td>
</tr>
</tbody>
</table>

Note on Text Colors

Black = Step by step instructions
Blue = Teacher’s script
Red = Important reminders
Green text = Essay writing prompts
### Lesson Plans

**Lesson 5: Model the Strategy**

You will say:

“First, what do I believe – What should I write for the topic sentence: field trips should not be cancelled. Good idea!” (Write on the GO- see below.)

“Now I better figure out at least 3 reasons and give an explanation for each reason. Let my mind be free, think of good ideas. (Now talk out and briefly write notes for at least 3 reasons- not in full sentences - use coping statements at least twice.) I can come up with three good reasons!” (Write on the GO- see below.)

“Hmmm, my essay would be even stronger if I think about other points of view. For example in this case: The principal might think field trips should be cancelled because we need the money for something else in school. I am doing a good job.” (Write on the GO- see below.)

The GO should look like this. (Use the poster.)

<table>
<thead>
<tr>
<th>Lesson 5: Model the Strategy</th>
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</thead>
<tbody>
<tr>
<td>“First, what do I believe – What should I write for the topic sentence: field trips should not be cancelled. Good idea!” (Write on the GO- see below.)</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>“Now I better figure out at least 3 reasons and give an explanation for each reason. Let my mind be free, think of good ideas. (Now talk out and briefly write notes for at least 3 reasons- not in full sentences - use coping statements at least twice.) I can come up with three good reasons!” (Write on the GO- see below.)</td>
<td>POW+TREE Chart and Graphing Sheet, Appendix D and K</td>
</tr>
<tr>
<td>“Hmmm, my essay would be even stronger if I think about other points of view. For example in this case: The principal might think field trips should be cancelled because we need the money for something else in school. I am doing a good job.” (Write on the GO- see below.)</td>
<td>Transition Words Chart, Appendix F</td>
</tr>
<tr>
<td>The GO should look like this. (Use the poster.)</td>
<td>TREE Graphic Organizer, Appendix E</td>
</tr>
<tr>
<td></td>
<td>Paragraph checklist, Appendix L</td>
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<td></td>
<td>Over head projector</td>
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<td>Self-statement overhead</td>
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<td>Erasable markers for completing the GO</td>
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<td>Note on Text Colors</td>
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<td>Red = Important reminders</td>
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<td></td>
<td>Green text = Essay writing prompts</td>
</tr>
</tbody>
</table>
Lesson Plans

Lesson 5: Model the Strategy

Example Three: Field Trips

TREE Graphic Organizer

| Topic: Field trips should not be cancelled for the rest of the year |
|---|---|---|
| TWs | Reasons | Explanation |
| To begin | Good way to socialize | You can have fun with friends. |
| Second | Good reinforcement | Kids need positive reinforcement for working hard. |
| Next | We can learn. | Some field trips are related to school work. |
| On the other hand | Counter reason Different opinion? | Explanation |
| | The principal might think cancelling trips is better because the school needs to save money. | With the economy nowadays she needs to make sure we have all we need at school. |
| However | Refute it- Turn back | |
| | There are many places that welcome students and are free to visitors. | |
| In summary | Ending | Field trips should not be cancelled for the rest of the year. |
Lesson 5: Model the Strategy

(STOP HERE if you have less than 10 minutes available. Continue the next day. Start with a brief review of what was done and go straight to the following.)

___5. Write and Say More: “Now I can do W in POW - write and say more. I will use the notes in the GO to help me write my essay. I can write my opinion essay and think of more good ideas or transition words as I write.” (Now - talk yourself through writing the essay; the students can help. Use a clean piece of paper and print. Also, model how to use the checklist for writing paragraphs.)

Start by saying:

"How shall I start? I need to tell the reader what I believe, I need a topic sentence. So in P1 – I write the topic sentence - Tell the reader what I believe. Then on this paragraph I am only going to mention my reasons and I will use TW to introduce each reason.“ (Mark the paragraph checklist as you go.)

Green font is how you will write the essay for the students

I believe field trips should not be cancelled for the rest of the year. First, it is a good opportunity to socialize. Second, it is a good way to reinforce positive behavior. Next, we can learn during field trips.

“Good. Now I have to restate each reason I came up with and explain it more. So in P2 I will start my essay with a TW, then I will write my reason. To support my reason I will give an explanation or example to support this reason.” (Mark the paragraph checklist as you go.)

First, field trips are a good time to socialize. During field trips many students can make new friends. Also, students can get closer to other friends.

Materials

The Seven Powerful Self-Determined Behaviors Sheets, Appendix B

POW+TREE Chart and Graphing Sheet, Appendix D and K

Transition Words Chart, Appendix F

TREE Graphic Organizer, Appendix E

Paragraph checklist, Appendix L

Over head projector

Self-statement overhead

Erasable markers for completing the GO

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### APPENDIX M

**Lesson Plans**

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>“Now, on P3 I have to write my next reason. Again I will start with a TW, then my reason and my explanation. Excellent job!” (Mark the paragraph checklist as you go.)</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td><strong>Second, field trips are a good way to reinforce good behavior. For example, if students have been following rules and working well they should be reinforced. Field trips can help students stay motivated.</strong></td>
<td>POW+TREE Chart and Graphing Sheet, Appendix D and K</td>
</tr>
<tr>
<td>“I am doing an excellent job. Now on P4 I will have to write my third reason. Again I will start with a TW, my reason, and explanation.” (Mark the paragraph checklist as you go.)</td>
<td>Transition Words Chart, Appendix F</td>
</tr>
<tr>
<td><strong>Next, we can learn from field trips. For example, if we go to a museum we can better understand what we are learning in history class. In addition, we can have fun while learning.</strong></td>
<td>TREE Graphic Organizer, Appendix E</td>
</tr>
<tr>
<td>“I can do this. I wrote my three reasons and explained each of them. Now, I better think about the counter argument. Who might have a different opinion than mine? On P5 I will begin with a TW for showing the opposite view and then I will state what another’s position might be and then provide an explanation for that position and refute it.” (Mark the paragraph checklist as you go.)</td>
<td>Paragraph checklist, Appendix L</td>
</tr>
<tr>
<td>On the contrary, the principal might think field trips are too costly. With the economy these days she might think it’s better to save money. She might think the school needs to save money for other things.</td>
<td>Over head projector</td>
</tr>
<tr>
<td>“Good I wrote the counter reason and explained it, now I have to turn back and provide reasons to refute others’ position.” (Mark the paragraph checklist as you go.)</td>
<td>Erasable markers for completing the GO</td>
</tr>
<tr>
<td>However, there are many places that welcome students and are free for visitors.</td>
<td>Note on Text Colors</td>
</tr>
<tr>
<td></td>
<td>Black = Step by step instructions</td>
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<td></td>
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</tbody>
</table>
Lesson Plans

Lesson 5: Model the Strategy

“Now, on P6 I will write my ending or summary of the three reasons I have given. I did it! This is a good essay! Restate my topic statement or belief and follow with the summary of my three reasons. Wrap it up!”

In conclusion, I believe field trips should not be cancelled. First, it is a good time to socialize. Second, field trips are a good way to reinforce good behavior. Third, we can learn. Please do not cancel field trips!

Teacher, your essay should look like this:

I believe field trips should not be cancelled for the rest of the year. First, it is a good opportunity to socialize. Second, it is a good way to reinforce positive behavior. Next, we can learn during field trips.

First, field trips are a good time to socialize. During field trips many students can make new friends. Also, students can get closer to other friends.

Second, field trips are a good way to reinforce good behavior. For example, if students have been following rules and working well they should be reinforced. Field trips can help students stay motivated.

Next, we can learn from field trips. For example, if we go to a museum we can better understand what we are learning in history class. In addition, we can have fun while learning.

On the contrary, the principal might think field trips are too costly. With the economy these days she might think it’s better to save money. She might think the school needs to save money for other things. However, there are many places that welcome students and are free for visitors.

In conclusion, I believe field trips should not be cancelled. First, it is a good time to socialize. Second, field trips are a good way to reinforce good behavior. Third, we can learn. Please do not cancel field trips!

Materials

- The Seven Powerful Self-Determined Behaviors Sheets, Appendix B
- POW+TREE Chart and Graphing Sheet, Appendix D and K
- Transition Words Chart, Appendix F
- TREE Graphic Organizer, Appendix E
- Paragraph checklist, Appendix L
- Over head projector
- Self-statement overhead
- Erasable markers for completing the GO

Note on Text Colors

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Lesson Plans

<table>
<thead>
<tr>
<th>Lesson 5: Model the Strategy</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Model how to graph this essay on the Student Record Sheet. Ask students, “Does this essay have at least 10 parts?”</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>“We have been talking about what good writers do when they write a paper. They need to have a plan to organize their thoughts and they also need to monitor their progress. Why do you think it is important to monitor your progress? One way that we are going to monitor our progress is by recording how well we are doing in writing all the essay parts.” (Give each student a copy of the Student Record Sheet. Guide student to fill in the sheet for the essay you wrote: Note the number of parts in the essay.)</td>
<td>POW+TREE Chart and Graphing Sheet, Appendix D and K</td>
</tr>
<tr>
<td>Self-Statements: Ask the students if they can remember</td>
<td>Transition Words Chart, Appendix F</td>
</tr>
<tr>
<td>a. Things you said to yourself to get started?</td>
<td>TREE Graphic Organizer, Appendix E</td>
</tr>
<tr>
<td>b. Things you said while you worked?</td>
<td>Paragraph checklist, Appendix L</td>
</tr>
<tr>
<td>c. Things you said to yourself when you finished?</td>
<td>Over head projector</td>
</tr>
<tr>
<td>(Jot their ideas on the self-statement overhead.)</td>
<td>Self-statement overhead</td>
</tr>
<tr>
<td>Ask the students to write some things they could say to themselves on their individual Self-statement Sheet, using the chart as a reference.</td>
<td>Erasable markers for completing the GO</td>
</tr>
<tr>
<td>“What to say to get started? This must be along same lines as What is it I have to do? I have to write an opinion essay using TREE.” (Be sure students use their own words.)</td>
<td>Note on Text Colors</td>
</tr>
<tr>
<td>Things to say while you work? Self-evaluation, coping, self-reinforcement, and any others he/she likes.” (in students' own words)</td>
<td>Black = Step by step instructions</td>
</tr>
<tr>
<td>“Things to say when you're finished.” (in students' own words)</td>
<td>Blue = Teacher’s script</td>
</tr>
<tr>
<td>“Note that we don't always have to think these things out loud; once we learn them we can think in our heads or whisper to ourselves.”</td>
<td>Red = Important reminders</td>
</tr>
<tr>
<td>7. Check off agenda.</td>
<td>Green text = Essay writing prompts</td>
</tr>
</tbody>
</table>
APPENDIX M

Lesson Plans

Stage 4 - Memorize the Strategy and Steps for Writing an Essay

<table>
<thead>
<tr>
<th>Lesson 6: Memorize the Strategy and Steps for Writing an Essay</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose: In this stage students will memorize the writing strategy POW+TREE and the steps needed to write an essay following the seven powerful self-determined behaviors. The purpose of memorizing the strategy is for students to learn the steps in order to prepare for the next stage, guided practice. They will also be introduced to the self-determination contract.</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>____1. Goals for the lesson:</td>
<td></td>
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<tr>
<td>a. Complete 7 S-D behaviors sheet.</td>
<td></td>
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<tr>
<td>b. Write as many transition words as you can remember.</td>
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</tr>
<tr>
<td>c. Review structure of paragraphs.</td>
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</tr>
<tr>
<td>d. Self-determination contracts.</td>
<td></td>
</tr>
<tr>
<td>e. Steps for writing an essay.</td>
<td></td>
</tr>
<tr>
<td>____2. Students will complete a sheet that has the seven self-determined behaviors with questions under each behavior so that students think about the process and answer the questions.</td>
<td></td>
</tr>
<tr>
<td>____3. Review components of POW+TREE: The teacher will read the definition of each letter of TREE and students should verbally identify each part of TREE: (Students can use small white boards with markers.)</td>
<td></td>
</tr>
<tr>
<td>“It tells the reader what the writer believes. It is strong and every part of the TREE is connected to it. They are the roots of the trunk. They support the trunk. It tells the reader why he believes what he believes. Acknowledge other people’s points of views. Provide details about the roots of the tree. They are like the earth- provide rich nutritious soil that the roots can grab onto. It is the impression you are leaving the reader with- what you want them to remember. Words that help us identify a reason or counter reasons are given. Statements that we use to talk to ourselves in positive ways. Number of sentences a paragraph should have (at least three).”</td>
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</tr>
</tbody>
</table>

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**APPENDIX M**

**Lesson Plans**

<table>
<thead>
<tr>
<th>Lesson 6: Memorize the Strategy and Steps for Writing an Essay</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>____4. On a blank piece of paper ask students to write as many transition words as they can remember. Then, show them the TW poster and compare.</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>____5. Find parts of TREE in an essay (School Rules).</td>
<td>Self-Determination Contracts, Appendix J</td>
</tr>
<tr>
<td>____6. Review structure of paragraphs-Briefly review what goes in each paragraph of a persuasive essay, using the checklist as a reference and the essay above.</td>
<td>POW+TREE chart, Appendix D</td>
</tr>
<tr>
<td>____7. The self-determination contract will be introduced and the teacher will say:</td>
<td>Transition Words Chart, Appendix F</td>
</tr>
<tr>
<td>“Now you have a good idea of how to write persuasive essays and have all the tools. It is time for you to be responsible for your learning and demonstrate self-determined behavior. To monitor your learning, everyday you are going to fill in a self-determination contract.” (Other supportive materials will be available for the students in their folders. See example of a filled S-D contract so you can explain it to the kids.)</td>
<td>TREE Graphic Organizer, Appendix E</td>
</tr>
<tr>
<td>Collaborative Writing – Support It. “In the following weeks you are going to write essays by yourself, with my help. You will use all the material we have been using and I am sure you will do great! Remember to use self-statements to help you gain confidence in your writing!!! You will do great!”</td>
<td>Paragraph Checklist, Appendix L</td>
</tr>
<tr>
<td>____8. Review the 6 steps for writing an essay: “Every day I will give you a writing prompt and this is what you will have to do:</td>
<td>Essay: School Rules</td>
</tr>
<tr>
<td>a. Complete the S-D contract and state your goal.</td>
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<tr>
<td>b. POW is P - pick my idea- You will pick what to write about from two options I will give you.</td>
<td></td>
</tr>
<tr>
<td>c. POW is O- ORGANIZE my NOTES- You will complete the GO with all your ideas following TREE.</td>
<td></td>
</tr>
<tr>
<td>d. POW is W- Write and say more- Once you finish the GO, then you are ready to begin writing your essay.</td>
<td></td>
</tr>
<tr>
<td>e. As soon as you finish your essay you will have to graph your essay.</td>
<td></td>
</tr>
<tr>
<td>f. Complete the S-D contract to see how you did.”</td>
<td></td>
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<tr>
<td>____9. Check off the agenda.</td>
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</tbody>
</table>

**Note on Text Colors**

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APPENDIX M

Lesson Plans

Stage 5 - Guided Practice

Lesson 7a: Guided Practice

| Purpose: This stage is expected to last three to four lessons. The purpose of this stage is to scaffold instruction until students are able to independently use the strategy without the teacher’s guidance or use of the support materials. Students will chose to write a persuasive essay on one of two topics given related to a self-advocacy topic. |

1. Review goals for the day.
   a. “Complete the S-D contract and state your goal.
   b. POW is P - Pick my idea- You will pick what to write about from two options I will give you.
   c. POW is O- ORGANIZE my NOTES- You will complete the GO with all your ideas following TREE.
   d. POW is W- Write and say more- Once you finish the GO, then you are ready to begin writing your essay.
   e. As soon as you finish your essay you will have to graph your essay.
   f. Complete the S-D contract to see how you did.”

   “Yesterday I told you that now it is your turn to apply everything we learned during the past weeks. You have to demonstrate self-determined behaviors. You have to set goals for writing and demonstrate responsibility.” (Quickly review the 7 Powerful S-D Behavior chart.)

2. Monitor the completion of S-D contracts.

3. Monitor and help students complete their GO. (Give each student a blank graphic organizer and ask each student to get out their transition word chart and self-statements sheet.)

Materials

- Persuasive Essay Writing Prompts, Appendix H
- The Seven Powerful Self-Determined Behaviors Sheets, Appendix B
- POW+TREE chart and Graphing Sheet, Appendix D and K
- Transition Words, Appendix F
- TREE Graphic Organizer, Appendix E
- Self-statement sheet, Appendix I
- Self-Determination Contract, Appendix J

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Lesson Plans

<table>
<thead>
<tr>
<th>Lesson 7a: Guided Practice</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put out practice prompt.</td>
<td>Persuasive Essay Writing Prompts, Appendix H</td>
</tr>
<tr>
<td><strong>Some parents are considering paying allowances to their kids for helping around the house but are still not convinced. Should students receive an allowance to do things around the house?</strong></td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>____ 4. Give students blank piece of paper to write their essays and help as much as needed.</td>
<td>POW+TREE chart and Graphing Sheet, Appendix D and K</td>
</tr>
<tr>
<td>____ 5. Monitor students when graphing their essays.</td>
<td>Transition Words, Appendix F</td>
</tr>
<tr>
<td>____ 6. Monitor students when completing the S-D contracts.</td>
<td>TREE Graphic Organizer, Appendix E</td>
</tr>
<tr>
<td>For the first lesson of Lesson 7, all students will write about the same topic. However, they should all come up with their own ideas for topic, reasons, counter reasons explanations, and ending, and write their own essays. This time let the students lead as much as possible, but prompt and help as much as needed.</td>
<td>Self-statement sheet, Appendix I</td>
</tr>
<tr>
<td>Encourage them to use other self-statements of their choice while they write. If students do not finish writing today, they can continue at the next lesson.</td>
<td>Self-Determination Contract, Appendix J</td>
</tr>
<tr>
<td>____ 7. Lesson wrap-up: Review agenda.</td>
<td>Note on Text Colors</td>
</tr>
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Lesson Plans

Lesson 7b: Guided Practice

Purpose: This stage is expected to last three to four lessons. The purpose of this stage is to scaffold instruction until students are able to independently use the strategy without the teacher’s guidance or use of the support materials. Students will choose to write a persuasive essay on one of two topics given related to a self-advocacy topic.

1. Review goals for the day.
   a. “Complete the S-D contract and state your goal.
   b. POW is P - pick my idea - You will pick what to write about from two options I will give you.
   c. POW is O - ORGANIZE my NOTES - You will complete the GO with all your ideas following TREE
   d. POW is W - Write and say more - Once you finish the GO, then you are ready to begin writing your essay.
   e. As soon as you finish your essay you will have to graph your essay.
   f. Complete the S-D contract to see how you did.”

2. Monitor the completion of S-D contracts.

3. Monitor and help students complete their GO. Give each student a blank graphic organizer and ask each student to get out their Transition Words chart and Self-Statements Sheet. Put out practice prompts. (Students should select one writing prompt.)

Option A: People say good habits such as exercising improve our health. Should students make the habit of exercising part of their lives?

Option B: Some people think it might be a good idea for students your age to learn how to manage their money by having a savings account. Should students your age have a savings account?

Materials

The Seven Powerful Self-Determined Behaviors Sheets, Appendix B

POW+TREE Chart and Graphing Sheet, Appendix D and K

Transition Words, Appendix F

TREE Graphic Organizer, Appendix E

Self-Statement Sheet, Appendix I

Self-Determination Contract, Appendix J

Note on Text Colors

Black = Step by step instructions
Blue = Teacher’s script
Red = Important reminders
Green text = Essay writing prompts
## Lesson Plans

### Lesson 7b: Guided Practice

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<thead>
<tr>
<th>Materials</th>
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<tbody>
<tr>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
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<tr>
<td>POW+TREE Chart and Graphing Sheet, Appendix D and K</td>
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<tr>
<td>Transition Words, Appendix F</td>
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<tr>
<td>TREE Graphic Organizer, Appendix E</td>
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<td>Self-Statement Sheet, Appendix I</td>
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<td>Self-Determination Contract, Appendix J</td>
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<tr>
<td><strong>4.</strong> Give students a blank piece of paper to write their essays and help as much as needed.</td>
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<tr>
<td><strong>5.</strong> Monitor students when graphing their essays.</td>
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<tr>
<td><strong>6.</strong> Monitor students when completing the S-D contracts.</td>
<td></td>
</tr>
<tr>
<td><strong>7.</strong> Lesson wrap-up: Review agenda.</td>
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</tbody>
</table>

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**Note on Text Colors**

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- **Blue** = Teacher’s script
- **Red** = Important reminders
- **Green text** = Essay writing prompts
APPENDIX M

Lesson Plans

Lesson 7c: Guided Practice

Purpose: This stage is expected to last three to four lessons. The purpose of this stage is to scaffold instruction until students are able to independently use the strategy without the teacher’s guidance or use of the support materials. Students will chose to write a persuasive essay on one of two topics given related to a self-advocacy topic.

1. Review goals for the day
   a. Complete the S-D contract and state your goal.
   b. POW is P - pick my idea- You will pick what to write about from two options I will give you.
   c. POW is O- ORGANIZE my NOTES- You will complete the GO with all your ideas following TREE
   d. POW is W- Write and say more- Once you finished the GO, then you are ready to begin writing your essay.
   e. As soon as you finish your essay you will have to graph you essay
   f. Complete the S-D contract to see how you did.

2. Monitor the completion of S-D contracts

3. Monitor and help students complete their GO. Give each student a blank GRAPHIC ORGANIZER and ask each student to get out their transition word chart, SELF-STATEMENTS SHEET.

Put out practice prompts: (students should select one writing prompt)

Option A: IEP meetings are coming up. In these meetings teachers, parents, principal and others are going to be there to discuss students’ goals, performance, and new objectives for the new school year. Should middle school students’ who have an IEP be part of this meeting?

Option B: Some parents believe student should be paid for good grades. What is your opinion? Should students be paid for getting good grades in school?

Materials

Persuasive Essay Writing Prompts, Appendix H
The Seven Powerful Self-Determined Behaviors Sheets, Appendix B
POW+TREE Chart and Graphing Sheet, Appendix D and K
Transition Words, Appendix F
TREE Graphic Organizer, Appendix E
Self-Statement Sheet, Appendix I
Self-Determination Contract, Appendix J

Note on Text Colors
Black = Step by step instructions
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Red = Important reminders
Green text = Essay writing prompts
## APPENDIX M

### Lesson Plans

<table>
<thead>
<tr>
<th><strong>Lesson 7c: Guided Practice</strong></th>
<th><strong>Materials</strong></th>
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</thead>
<tbody>
<tr>
<td>____4. Give students blank piece of paper to write their essays and help as much as needed.</td>
<td>Persuasive Essay Writing Prompts, Appendix H</td>
</tr>
<tr>
<td>____5. Monitor students when graphing their essays</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>____6. Monitor students when completing the S-D contracts</td>
<td>POW+TREE Chart and Graphing Sheet, Appendix D and K</td>
</tr>
</tbody>
</table>

This time let the students lead as much as possible, but prompt and help as much as needed. Encourage them to use other self-statements of their choice while they write. If students do not finish writing today, they can continue at the next lesson.

| ____7. Lesson wrap-up: Review agenda. | TREE Graphic Organizer, Appendix E |
| | Self-Statement Sheet, Appendix I |
| | Self-Determination Contract, Appendix J |

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## Lesson Plans

### Stage 6 - Independent Practice

**Lesson 8a: Independent Practice**

**Purpose:** Independent practice/wean off supportive materials.

**Objectives:** The student will draw an organizer and will write an opinion essay with at least 10 essay parts.

___1. Discuss the goals for the day:
   a. Seven S-D behaviors
   b. POW+TREE review
   c. POW+TREE reminder
   d. Write essay independently
   e. Record sheet

___2. Verbally review POW+TREE and the 7 powerful S-D behaviors, and TWs.

___3. Wean off Graphic Organizer and other supportive materials.

Explain to the students that they won’t usually have a TREE reminder page with them when they have to write persuasive essays, so they can make their own notes on blank paper.

“Now you know how to write persuasive essays and you are doing great. Not all the time will you have a graphic organizer with you, but since you know how to organize your notes prior to writing, you don’t need a GO anymore. However there is a trick you can use to remind you of TREE and write some notes prior to writing your essay. This is what you can do.”

Discuss and model how to write down the reminder at the top of the page:

POW
TREE

### Materials

- Self-Determination Contract, Appendix J
- POW+TREE Graphing sheet, Appendix K
- Persuasive Essay Writing Prompts, Appendix H

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- Blue = Teacher’s script
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Lesson Plans

Lesson 8a: Independent Practice

Then make a space on the paper for notes for each part.

<table>
<thead>
<tr>
<th>P</th>
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<tr>
<td>Refute</td>
<td>E</td>
<td>E</td>
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</tbody>
</table>

4. Say, “Remember that the first letter in POW is P - Pick my Idea. Refer students to their self-statements for creativity or thinking free. Help each student decide what they believe and start to think of good reasons why.

5. Say, “The second letter in POW is O- ORGANIZE my NOTES. I will use my TREE reminder to help me. I will use this page to make my notes and organize my notes.” Review - what should my goal be? To write better opinion essays. “Good persuasive essays tell the reader what you believe, give at least three good reasons why, give an explanation for each reason, has a counter reason and have an ending sentence. Also, good opinion essays are fun for me to write and for others to read, and make sense.”
## Lesson Plans

### Lesson 8a: Independent Practice

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<td>6.</td>
<td>The last letter in POW is W - Write and Say More. Encourage and remind them to start by saying, “I finished writing notes for my essay. What is it I have to do here? I have to write a good essay following my plan- a good essay has all the parts and makes sense”.</td>
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<td></td>
<td>“Now I will give you two practice prompts. You will choose one to write about. However, this time you will not have the GO or TW chart with you. Write the TREE reminder at the top of the page and write your notes. When you are done, you can write your essay.”</td>
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<tr>
<td>7.</td>
<td>Monitor the completion of S-D contracts.</td>
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<tr>
<td>8.</td>
<td>Give each student a blank piece of paper.</td>
</tr>
</tbody>
</table>

Put out practice prompts. *(Students should select one writing prompt.)*

**Option A:** The school is thinking about reducing the number of laptops per classroom in order to save money. Should the number of laptops be reduced in each classroom?

**Option B:** Imagine you got a bad grade because you did not do your work. Now you are ready to work and you want to persuade the teacher to give you another chance. Should students who did not work and got bad grades be given a second chance to improve their grades?

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<tbody>
<tr>
<td>9.</td>
<td>Give students blank piece of paper to write their essays.</td>
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<tr>
<td>10.</td>
<td>Monitor students when graphing their essays.</td>
</tr>
<tr>
<td>11.</td>
<td>Monitor students when completing the S-D contracts.</td>
</tr>
<tr>
<td>12.</td>
<td>Check off the agenda.</td>
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### Materials

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<td></td>
<td>Self-Determination Contract, Appendix J</td>
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<td></td>
<td>POW+TREE Graphing Sheet, Appendix K</td>
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<td></td>
<td>Persuasive Essay Writing Prompts, Appendix H</td>
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</tbody>
</table>

### Note on Text Colors

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- **Blue** = Teacher’s script
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- **Green text** = Essay writing prompts
APPENDIX M

Lesson Plans

<table>
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<tr>
<th>Lesson 8b: Independent Practice</th>
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<tbody>
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<td>Purpose: Independent practice/wean off supportive materials.</td>
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<tr>
<td>Objectives: The student will draw an organizer and will write an opinion essay with at least 10 essay parts.</td>
<td>POW+TREE Graphing sheet, Appendix K</td>
</tr>
<tr>
<td>___1. Discuss the goals for the day:</td>
<td>Persuasive Essay Writing Prompts, Appendix H</td>
</tr>
<tr>
<td>a. Seven S-D behaviors</td>
<td></td>
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<tr>
<td>b. POW+TREE review</td>
<td></td>
</tr>
<tr>
<td>c. POW+TREE reminder</td>
<td></td>
</tr>
<tr>
<td>d. Write essay independently</td>
<td></td>
</tr>
<tr>
<td>e. Record sheet</td>
<td></td>
</tr>
<tr>
<td>___2. Verbally review POW+TREE and the 7 powerful S-D behaviors, and TWs.</td>
<td></td>
</tr>
<tr>
<td>___3. Wean off Graphic Organizer and other supportive materials. Explain to the students that they won’t usually have a TREE reminder page with them when they have to write persuasive essays, so they can make their own notes on blank paper. “Now you know how to write persuasive essays and you are doing great. Not all the time you will have a graphic organizer with you, but since you know how to organize your notes prior to writing, you don’t need a GO anymore. However there is a trick you can use to remind you TREE and write some notes prior to writing your essay. This is what you can do.”</td>
<td></td>
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<tr>
<td>Discuss and model how to write down the reminder at the top of the page:</td>
<td></td>
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<tr>
<td>POW</td>
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<td>TREE</td>
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<tr>
<td>Then make space on the paper for notes for each part.</td>
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Lesson Plans

### Lesson 8b: Independent Practice

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</table>

#### Materials

- **T** _____________
- **R** ___________ **E** ___________
- **R** ___________ **E** ___________
- **R** ___________ **E** ___________
- **CR** ___________ **E** ___________
- **Refute** ______________
- **E** ______________

4. Say, “**Remember that the first letter in POW is P - Pick my Idea.** Refer students to their self-statements for creativity or thinking free. Help each student decide what they believe and start to think of good reasons why.”

5. Say, “**The second letter in POW is O- ORGANIZE my NOTES. I will use my TREE reminder to help me.** I will use this page to make my notes and organize my notes.” **Review** - what should my goal be? To write better opinion essays. “Good persuasive essays tell the reader what you believe, give at least three good reasons why, give an explanation for each reason, has a counter reason and have an ending sentence. Also, good opinion essays are fun for me to write and for others to read, and make sense.”

6. The last letter in POW is W - Write and Say More. Encourage and remind them to start by saying, “I finished writing notes for my essay. What is it I have to do here? I have to write a good essay following my plan- a good essay has all the parts and makes sense.”
## Lesson Plans

### Lesson 8b: Independent Practice

“Now I will give you two practice prompts. You will choose one to write about. However, this time you will not have the GO or TW chart with you. Write the TREE reminder at the top of the page and write your notes. When you are done, you can write your essay.”

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<tr>
<td>Persuasive Essay Writing Prompts, Appendix H</td>
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7. Monitor the completion of S-D contracts.
8. Give each student a blank piece of paper.

Put out practice prompts. *(Students should select one writing prompt.)*

Option A: The administration is considering whether to eliminate carrying vouchers once you reach the director level and wants to know your opinion. Should students that reach the director level not be required to carry their vouchers anymore?

Option B: Imagine a classmate is being a bully and you are tired of his attitude. You are thinking about talking to someone about this. Write a persuasive essay to the administrator, behavior specialist or clinician to convince them to convey a meeting to discuss this issue.

9. Give students blank piece of paper to write their essays.
10. Monitor students when graphing their essays.
11. Monitor students when completing the S-D contracts.
12. Check off the agenda.
### Lesson Plans

#### Lesson 8c: Independent Practice

<table>
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<tr>
<th>Purpose: Independent practice/wean off supportive materials.</th>
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<tr>
<td>Objectives: The student will draw an organizer and will write an opinion essay with at least 10 essay parts.</td>
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</table>

1. Discuss the goals for the day:
   a. Seven S-D behaviors
   b. POW+TREE review
   c. POW+TREE reminder
   d. Write essay independently
   e. Record sheet

2. Verbally review POW+TREE and the 7 powerful S-D behaviors, and TWs.

3. Wean off Graphic Organizer and other supportive materials. Explain to the students that they won’t usually have a TREE reminder page with them when they have to write persuasive essays, so they can make their own notes on blank paper. “Now you know how to write persuasive essays and you are doing great. Not all the time you will have a graphic organizer with you, but since you know how to organize your notes prior to writing, you don’t need a GO anymore. However there is a trick you can use to remind you TREE and write some notes prior to writing your essay. This is what you can do.”

Discuss and model how to write down the reminder at the top of the page:

POW
TREE
Then make a space on the paper for notes for each part.

### Materials

- Self-Determination Contract, Appendix J
- POW+TREE Graphing sheet, Appendix K
- Persuasive Essay Writing Prompts, Appendix H

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### Lesson Plans

#### Lesson 8c: Independent Practice

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<td>R</td>
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<tr>
<td>Refute</td>
<td>E</td>
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</tbody>
</table>

**Materials**
- Self-Determination Contract, Appendix J
- POW+TREE Graphing sheet, Appendix K
- Persuasive Essay Writing Prompts, Appendix H

__4. Say, “Remember that the first letter in POW is P - Pick my Idea. Refer students to their self-statements for creativity or thinking free. Help each student decide what they believe and start to think of good reasons why."

__5. Say, “The second letter in POW is O- ORGANIZE my NOTES. I will use my TREE reminder to help me. I will use this page to make my notes and organize my notes.” Review - what should my goal be? To write better opinion essays. “Good persuasive essays tell the reader what you believe, give at least three good reasons why, give an explanation for each reason, has a counter reason and have an ending sentence. Also, good opinion essays are fun for me to write and for others to read, and make sense.”

__6. The last letter in POW is W - Write and Say More. Encourage and remind them to start by saying, “I finished writing notes for my essay. What is it I have to do here? I have to write a good essay following my plan- a good essay has all the parts and makes sense.”

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APPENDIX M

Lesson Plans

**Lesson 8c: Independent Practice**

“Now I will give you two practice prompts. You will choose one to write about. However, this time you will not have the GO or TW chart with you. Write the TREE reminder at the top of the page and write your notes. When you are done, you can write your essay. ”

7. Monitor the completion of S-D contracts.

8. Give each student a blank piece of paper.

Put out practice prompts. *(Students should select one writing prompt.)*

Option A: In order to save money, the administration is considering closing the school library and wants to know your opinion. Should the school close the library?

Option B: Imagine you are preparing to have a meeting with your parents and teachers to discuss high school placements as part of your IEP meeting. Write a persuasive essay to let them know where you want to go and what you need from special education services.

9. Give students blank piece of paper to write their essays.

10. Monitor students when graphing their essays.

11. Monitor students when completing the S-D contracts.

12. Check off the agenda.

**Materials**

- Self-Determination Contract, Appendix J
- POW+TREE Graphing sheet, Appendix K
- Persuasive Essay Writing Prompts, Appendix H

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APPENDIX M

Lesson Plans

Stage 7- Review and Generalization

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<th><strong>Lesson 9: Review and Generalization</strong></th>
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<tbody>
<tr>
<td>Purpose: Review and generalization to other classes, signing contracts.</td>
<td>Student Learning Contracts, Appendix A.</td>
</tr>
<tr>
<td>“For the past four weeks we have been talking about persuasive writing, self-determination, and self-advocacy. You have done an OUTSTANDING job writing essays and learning these skills. We are almost at the end of this quarter and it is time to review. Demonstrating S-D behaviors and learning how to write persuasively are skills that you will have to use next year, in high school, and in life. Today we are going to review everything we have talked about and then we are going to discuss how you can apply what you learned in other classes and in school.”</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td>Agenda:</td>
<td>Chart papers</td>
</tr>
<tr>
<td>a. Review 7 S-D behaviors</td>
<td>Markers</td>
</tr>
<tr>
<td>b. Components of a good persuasive essay</td>
<td>Paper</td>
</tr>
<tr>
<td>c. Self-advocacy and persuasive writing</td>
<td>Pencils</td>
</tr>
<tr>
<td>d. Apply S-D and POW+TREE in other classes and places</td>
<td></td>
</tr>
<tr>
<td>e. Sign the contracts</td>
<td>Note on Text Colors</td>
</tr>
<tr>
<td>___1. Seven self-determined behaviors- Give students a piece of paper or ask them to go to the board and write down the 7 S-D behaviors. If they can’t remember the exact word they should at least write down a word that describes the main idea. (No more than five minutes.)</td>
<td>Black = Step by step instructions</td>
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<td>Blue = Teacher’s script</td>
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<td>Red = Important reminders</td>
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APPENDIX M

Lesson Plans

### Lesson 9: Review and generalization

Once they are done, write the 7 S-D behaviors on the board and briefly discuss each:
- a. Make a good decision that will help me attain a goal.
- b. Set a goal and make a plan.
- c. Apply problem solving strategies.
- d. Self-awareness.
- e. Monitor and evaluate my progress.
- f. Self-advocacy.
- g. Self-efficacy.

2. Parts of a good persuasive essay—“You have been using a strategy that helps you remember the parts of good persuasive essay. If you want your persuasive essay to be good it HAS to have the TREE components.”

“What are the parts of a GOOD persuasive essay?”

EACH student should verbally mention the TREE components or you can ask them to write down TREE on a page and/or on the board, (your choice) but you have to be sure they have it memorized.

**TOPIC**
**REASONS (3 or more) including a CR**
**EXPLANATIONS**
**ENDING**

“When we are doing the W in POW we also follow a process.” (Quickly discuss with the kids)

“What goes in the first paragraph?
What goes in the second?
What goes in the third? The fourth? The fifth?
What goes in the ending paragraph?
How many sentences should you have in each paragraph?
Once you finish always REVIEW, REVIEW, REVIEW.”

### Materials

- Student Learning Contracts, Appendix A.
- The Seven Powerful Self-Determined Behaviors Sheets, Appendix B
- Chart papers
- Markers
- Paper
- Pencils

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### APPENDIX M

#### Lesson Plans

<table>
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3. Advocate for yourself—Help students mention examples in which they can advocate for themselves in writing using POW+TREE

> “What does it mean to self-advocate? Persuasive writing can help you advocate for things you want or need. For example you have written essays advocating for certain things at school. Example: participating in IEP meetings, eliminating or not computers, the use of green vouchers, be paid for grades, field trips, etc. I want you to each come up with at least three other examples and I will write them on the box.”

Draw:

**Advocate:**

4. Can you think of some classes where you can use POW+TREE? (Let the students brainstorm. You can help by asking what topics they are discussing in Social Studies and Science.)

Model either: the importance of every person voting in all elections/importance/impact of recycling

> “POW+TREE is a strategy that you can use in other classes to write essays. I am going to model how to do it so you can have an idea.”

Discuss and model how to write down the reminder at the top of the page for organizing their essays:

POW
TREE

Then make a space on the paper for notes for each part.

---

**Note on Text Colors**

- **Black** = Step by step instructions
- **Blue** = Teacher’s script
- **Red** = Important reminders
**APPENDIX M**

**Lesson Plans**

<table>
<thead>
<tr>
<th>Lesson 9: Review and generalization</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE THE BOARD AS YOUR PAGE and write down the TREE reminder on one corner. Just write down some notes. Then, use chart paper to write the essay. <strong>You take control</strong>, the kids can help but the whole idea is to demonstrate that they need to do it fast because they already know how to do it. Once you are done, model how to write the essay. If you see you don’t have enough time to finish the essay, at least discuss what you should write in each paragraph.</td>
<td>Student Learning Contracts, Appendix A.</td>
</tr>
<tr>
<td><strong>5. Sign the contract:</strong> “At the beginning of this class you signed a contract in which you committed to learn the strategy and demonstrate self-determined behaviors. Today we officially finish this class so we are signing the contract again. I am VERY PROUD because you have done a great job and I am sure you will use this strategy again in other classes or to advocate for things you need or want. In the next couple of days you will have to demonstrate your learning and we will ask you to write more essays. You have to apply all you know and do it totally independent. The essays will not be graded, but it is very important you do the best that you can. Once we are done we will have a celebration/ party.” (Sign the contracts.)</td>
<td>The Seven Powerful Self-Determined Behaviors Sheets, Appendix B</td>
</tr>
<tr>
<td></td>
<td>Chart papers</td>
</tr>
<tr>
<td></td>
<td>Markers</td>
</tr>
<tr>
<td></td>
<td>Paper</td>
</tr>
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<td></td>
<td>Pencils</td>
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</tbody>
</table>

Note on Text Colors

Black = Step by step instructions
Blue = Teacher’s script
Red = Important reminders
### Fidelity of Treatment

#### Lesson 1

**Fidelity of Treatment**  
**Lesson 1 POW+TREE**  
Lesson 1 total components: 8

1. The teacher discussed the goals for the day and classroom expectations.  
   **Agenda:**  
   a. Sign the contract.  
   b. Discuss self-determination.  
   c. Applying the 7 Powerful S-D behaviors when writing (example).

2. Students and teacher signed the contract in which they commit to learn the strategy for writing persuasive essays and to exhibit self-determined behavior during the intervention.

3. Teacher discussed the S-D concept by asking the following questions:  
   "Do you know what self-determination is? What does it mean to have self-determination skills? What are the components of self-determination? Why do you think it is important to have self-determination skills?"

4. Teacher defined self-determination:  
   "Self-determination is the ability to understand your needs, express what you believe, set goals for the things you want to achieve, make good choices, have confidence in your abilities, problem solve, self-advocate."

5. Teacher introduced and discussed the seven components of self-determination: decision making, goal setting and attainment, self-management, problem solving, self-awareness, self-advocacy, self-efficacy.

---

**Observer:**

**Circle:** Live or Video

**Instructor:**

**Group #**

**Day lesson started:**

Was the lesson completed in one session? **________**

If NO, please indicate where the lesson stopped

**Section:**

**Date resumed:**

**Section where lesson began:**

**Date Completed:**

Total # of components completed successfully **______**
### APPENDIX N

#### Fidelity of Treatment

<table>
<thead>
<tr>
<th>Fidelity of Treatment</th>
<th>Date: ______________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1 POW+TREE</td>
<td>Lesson 1 total components: 8</td>
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<tr>
<td>6</td>
<td>The teacher introduced the seven powerful diagrams and he/she explained in detail what good writers do when confronted with a writing task.</td>
</tr>
<tr>
<td>7</td>
<td>Verbally reviewed the powerful 7 S-D again.</td>
</tr>
<tr>
<td>8</td>
<td>Checked off the agenda.</td>
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APPENDIX N

Fidelity of Treatment

Lesson 2

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<tr>
<th>Fidelity of Treatment</th>
<th>Date: ____________________</th>
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<tbody>
<tr>
<td>Lesson 2 total components: 11</td>
<td>Observer:_________________</td>
</tr>
</tbody>
</table>

1. Teacher discussed lesson goals.  
Agenda:  
a. Review of the 7 Powerful S-D  
b. Discuss what does it mean to persuade  
c. Discuss what does it mean to self-advocate  
d. How is persuasive writing and self-advocacy related

2. The teacher verbally reviewed the powerful seven self-determined behaviors.

3. The teacher introduced the persuasive writing genre by discussing the meaning of the word persuade. “What does it mean to persuade?”

4. Teacher discussed the self-advocacy concept. “One of the seven powerful S-D behaviors is self-advocacy. What does it mean to self-advocate?” Self-advocacy means understanding your strengths and needs, making good decisions about your life, identifying your personal goals, knowing your rights and responsibilities, problem solving, and communicating these to others.

5. Teacher discussed example 1- Sport team.

6. Teacher discussed example 2- Difficulties in class.

7. Teacher discussed example 3- Taking the test in another setting.

Observer:_________________  
Circle: Live or Video  
Instructor:_________________  
Group #:______________

Day lesson started:_________________  
Was the lesson completed in one session? __________

If NO, please indicate where the lesson stopped  
Section:_________________  
Date resumed:_________________  
Section where lesson began:_________________  
Date Completed:_________________  
Total # of components completed successfully________
Fidelity of Treatment

| Fidelity of Treatment | Date:_____________________
|-----------------------|--------------------------
| Lesson 2 POW+TREE     | Lesson 2 total components: 11 |

8. The teacher discussed the connection between self-advocacy and the persuasive writing genre by saying the following:

“In persuasive writing the writer takes a position for or against an issue and writes to convince the reader to believe or do something. Some questions will guide the discussion:

a. How is persuasive writing similar to the concept of self-advocacy?
b. How can you convince someone through writing of your point of view?
c. Why do you think it is important to know how to write persuasive essays?
d. How can you use persuasive writing to advocate for yourself? – Brainstorm with students possible topics related to self-advocacy
e. Do you think it is important to have self-advocacy skills? Why?”

9. The teacher drew a Venn diagram to help students visualize the similarities and differences between the persuasive writing genre and the self-advocacy concept.

10. Teacher verbally reviewed the concepts discussed today: of self-advocacy and persuasive writing.

11. Checked off the agenda.
Fidelity of Treatment
Lesson 3

**Fidelity of Treatment**

**Lesson 3**

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</thead>
<tbody>
<tr>
<td>Lesson 3 POW+TREE</td>
<td>Total components for lesson: 9</td>
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</tbody>
</table>

1. Teacher discussed the agenda.
   
   **Agenda:**
   a. Review the 7 powerful S-D
   b. Discuss a problem solving writing strategy to write persuasive essays
   c. Learn how to apply the 7 powerful S-D behaviors when writing a persuasive essay.
   
   **1.** Learn about transition words

2. Teacher verbally reviewed the 7 powerful self-determined behaviors and the persuasive writing and self-advocacy concepts (No more than 5 minutes).

   a. What is self-determination?
   b. What are 7 powerful S-D behaviors?
   c. What is persuasive writing?
   d. What does it mean to self-advocate?
   e. How can you self-advocate through persuasive writing?

3. Teacher discussed **POW** by saying the following:
   "Now we are going to start learning a new writing trick - one that helps you write a paper that tells the reader what you believe or what you think about something. This is called a persuasive paper. The writing strategy is called **POW**. Do you know what POW stands for? What does it sound like? POW = POWER. POW gives you POWER when you write because of the 3 steps:
   
   - **P** – Pick my idea.
   - **O** – Organize my notes
   - **W** – Write and say more

Observer: ____________________

Circle: Live or Video

Instructor: ____________________

Group #: ________________

Day lesson started: ________________

Was the lesson completed in one session? ________

If NO, please indicate where the lesson stopped

Section: ________________________

Date resumed: ________________

Section where lesson began: ________________

Date Completed: ________________

Total # of components completed successfully _______
### Fidelity of Treatment

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<tr>
<td>Lesson 3 POW+TREE</td>
<td>Total components for lesson: 9</td>
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</table>

When we combine POW with other writing strategies, POW becomes even more powerful.”

_____ 4. Teacher discussed what makes writing to persuade powerful by saying:

“Who knows what makes a good persuasive response?” “Writing a powerful persuasive essay tells the reader what the writer believes, gives the reader at least three reasons why they believe it and provide descriptions, consider other peoples points of view and has an ending.”

_____ 5. Teacher introduced TREE by saying:

“Let’s look at what the parts of a good persuasive response are.” Look at the chart. How it relates to a living tree? Let’s see...

**T** The topic sentence is like the trunk – it is strong and every part of the tree is connected to it.

**R** The reasons and counter reasons are like the roots. They support the trunk. The more roots (reasons) a tree has the stronger the trunk will be. However when you add a counter reason or another’s person’s perspective your essay will be even stronger.

**E** The explanations are like the earth. The earth has the rich nutritious soil that the roots can grab onto. Explanations will nourish your reasons and make them more persuasive.

**E** The last part of TREE is ending. The ending is the tree you see. It is the impression you are leaving your reader with, and what you want them to remember.”

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### Fidelity of Treatment

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<tr>
<td>Lesson 3 POW+TREE</td>
<td>Total components for lesson: 9</td>
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6. Teacher covered the chart and verbally reviewed what the letters of POW+TREE stood for. Gave students a copy of the mnemonic POW+TREE chart.

7. The teacher explained how the seven powerful self-determined behaviors are applied when writing a persuasive essay by using the powerful seven self-determination diagram.

“It is as easy as A,B,C. Imagine you are asked to write an essay to convince your mom to allow you to go to a football game with your friend and his parents.

- a. The first thing you need to do is to make a good decision- Your decision is going to be to write the essay and to work hard on this project.
- b. You also need to think how you are going to communicate what you need in a positive way and to convince her about your reasons.
- c. Then you need to set a goal and plan your paper. You are going to use POW- Do you remember what POW strand for?
- d. Then you need to apply a problem solving strategy- a strategy that will help you write a good essay, so you will use TREE- What does TREE stands for?
- e. The teacher will state the importance of self-evaluation and self-monitoring while writing, two of the seven powerful self-determined behaviors. “When writers write, they monitor their progress and evaluate their essays to make sure they have included all the parts.”

8. Teacher introduced the transition words chart and discussed the different types of TWs.

9. Checked off the agenda.
# APPENDIX N

## Fidelity of Treatment

### Lesson 4

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<tr>
<td>Date:___________________</td>
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<tr>
<td>Total components for lesson: 9</td>
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</tbody>
</table>

___1. Teacher discussed the agenda.

Agenda:
- Review the 7 powerful S-D behaviors, POW+TREE and TW
- Read and examine an essay
- Learn how to use the graphic organizer
- Learn about counter reasons with 2 examples

___2. Oral review by asking the following questions: “Do you remember what writing to persuade means? Do you remember what POW+TREE stand for? What are the seven self-determined behaviors?”

___3. Practiced transition words by reviewing the transition word chart.

___4. Read and examined a writing to persuade paper: Self-advocacy essay

___5. Teacher discussed counter reasons

___6. Teacher introduced the Graphic organizer chart and explained it.

___7. Teacher discussed Example 1 (Animals should be adopted) and showed how to fill in the GO.

___8. Teacher discussed Example 2 (School uniforms) and showed how to fill in the GO.

___9. Check off the agenda.

Observer:_________________

Circle: Live or Video

Instructor:_________________

Group #:___________

Day lesson started:____________

Was the lesson completed in one session? __________

If NO, please indicate where the lesson stopped

Section:_________________

Date resumed:______________

Section where lesson began:_________________

Date Completed:____________

Total # of components completed successfully_______
Fidelity of Treatment

Lesson 5

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<tbody>
<tr>
<td>Lesson 5 POW+TREE</td>
<td>Total components for lesson: 13</td>
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</tbody>
</table>

___1. Teacher discussed the agenda.

   Agenda:
   a. Review 7 powerful S-D behaviors, POW+TREE and transition words, and GO
   b. Discuss self-statements and write self-statements
   c. Observe the teacher model how to complete a GO and write an essay
   d. Learn about the paragraph check list
   e. Introduce self-record sheet and graph the essay

___2. Briefly reviewed 7 powerful S-D behaviors, POW+TREE, and transition words.

___3. Teacher introduced the self-statements sheet.

___4. Teacher said the following:

   “Imagine your principal is thinking about canceling all field trips for the remainder of the year. Write a persuasive essay to your principal persuading him or her to allow students to continue attending field trips. Should field trips be cancelled for the rest of the school year?”

Teacher laid out a copy of the TREE Graphic Organizer and modeled the process for organizing an essay and then writing it. Followed the script below:

Observer:_________________

Circle: Live or Video

Instructor:_________________

Group #___________

Day lesson started:_____________

Was the lesson completed in one session? _________

If NO, please indicate where the lesson stopped

Section:_____________________

Date resumed:_____________

Section where lesson began:_____________

Date Completed:_____________

Total # of components completed successfully_______
**APPENDIX N**

**Fidelity of Treatment**

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<tbody>
<tr>
<td>Lesson 5 POW+TREE</td>
<td>Total components for lesson: 13</td>
</tr>
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</table>

5. “The first thing I need to do is to make a good decision- My decision is going to be to write the essay and to work hard on this essay. I also need to think how I am going to communicate what I need in a positive way and to convince the reader about my reasons. Then, I need to set a goal and plan my essay. I am going to use POW- My essay needs to makes sense and have all the parts.

6. The first letter in POW is P - pick my idea. I have to be creative and let my mind be free: I will write an essay to convince the principal not to cancel field trips.

7. The second letter in POW is O- ORGANIZE my NOTES. I will use the GO to organize my notes. I need to apply a problem solving strategy- a strategy that will help me write a good essay, so I will use TREE- I will Organize my notes by using TREE (parts of a persuasive essay).”

8. The teacher modeled the entire process for organizing your notes by completing the entire GO.

9. Write and Say More: “Now I can do W in POW - write and say more. I will use the notes in the GO to help me write my essay. I can write my opinion essay and think of more good ideas or transition words as I write.” The teacher modeled how to write the essay by using the paragraph checklist.
## Fidelity of Treatment

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<tbody>
<tr>
<td>Lesson 5 POW+TREE</td>
<td>Total components for lesson: 13</td>
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</tbody>
</table>

___10. The teacher modeled how to graph this essay on the Student Record Sheet.

___11. The teacher asked students if they could remember:
   - things you said to yourself to get started?
   - things you said while you worked,
   - things you said to yourself when you finished.

Teacher jotted their ideas on the self-statement chart.

___12. Teacher asked students to write some things they could say to themselves on their individual SELF-STATEMENT SHEET, using the chart as a reference.

- What to say to get started. **This must be along same lines as "What is it I have to do? I have to write an opinion essay using TREE."** – ensured students use their own words.
- Things to say while you work: self-evaluation, coping, self-reinforcement, and any others he/she likes (in students' own words).
- Things to say when you're finished (in students' own words).
- Noted that we don't always have to think these things out loud; once we learn them we can think in our heads or whisper to ourselves.

___13. Checked off agenda.
### APPENDIX N

#### Fidelity of Treatment

**Lesson 6**

| Fidelity of Treatment Lesson 6 POW+TREE | Date: ____________________  
|----------------------------------------|-------------------------------
| **Total components for lesson:** 9     | Observer: ________________     |

| 1. Teacher discussed the agenda.      | Observer: ________________     |
| **Agenda:**                           | Circle: Live or Video         |
| a. Completed 7 S-D behaviors sheet.   | Instructor: ________________  |
| b. Game: Guess what I am talking about!| Group # ________________      |
| c. Write as many transition words as you can remember. | Day lesson started: __________ |
| d. Reviewed structure of paragraphs with essay (identify parts). | Was the lesson completed in one session? __________ |
| e. Self-determination contracts.      | If NO, please indicate where the lesson stopped |
| f. Steps for writing an essay.        | Section: ____________________ |

| 2. Students completed a sheet that had the seven self-determined behaviors with questions under each behavior so that students thought about the process and answered the questions. | Was the lesson completed in one session? __________ |

| 3. Reviewed components of POW+TREE: The teacher read the definition of each letter of TREE and students verbally identified each part of TREE. | If NO, please indicate where the lesson stopped |

- ✓ It tells the reader what the writer believes. It is strong and every part of the TREE is connected to it.
- ✓ They are the roots of the trunk. They support the trunk. It tells the reader why he believes what he believes.
- ✓ Acknowledge other people's points of view.
- ✓ Provide details about the roots of the tree. They are like the earth - provide rich nutrituous soil that the roots can grab onto.
## Fidelity of Treatment

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<th>Fidelity of Treatment</th>
<th>Date: ____________________</th>
<th>Total components for lesson: 9</th>
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<tbody>
<tr>
<td>Lesson 6 POW+TREE</td>
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</table>

- It is the impression you are leaving the reader with- what you want them to remember.
- Words that helps us identify a reason or counter reason is been given.
- Statements that we use to talk to ourselves in positive ways.
- Number of sentences a paragraph should have (at least three).

4. On a blank piece of paper students wrote as many transition words as they could remember. Then, students compared their TWs to the poster.

5. Found parts of TREE in an essay (School rules).

6. Teacher briefly reviewed the structure of paragraphs by using the checklist as a reference and the essay above.

7. The teacher discussed the self-determination contract and explained how to use it.

**Collaborative Writing – Support It.** “In the following weeks you are going to write essays by yourself, with my help. You would use all the material we have been using and I am sure you will do great! Remember to use self-statements to help you gain confidence in you writing!!! You will do great!”

8. The teacher reviewed the 6 steps for writing an essay: “Every day I will give you a writing prompt and this is what you will have to do:”
APPENDIX N

Fidelity of Treatment

<table>
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<tbody>
<tr>
<td>Lesson 6 POW+TREE</td>
<td>Total components for lesson: 9</td>
</tr>
</tbody>
</table>

a. Complete the S-D contract and state your goal.
b. POW is P - pick my idea- You will pick what to write about from two options I will give you.
c. POW is O- ORGANIZE my NOTES- You will complete the GO with all your ideas following TREE
d. POW is W- Write and say more- Once you finished the GO, then you are ready to begin writing your essay.
e. As soon as you finish your essay you will have to graph your essay
f. Complete the S-D contract to see how you did.

9. The teacher checked off the agenda.
### APPENDIX N

**Fidelity of Treatment**

#### Lesson 7a

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<tr>
<th>Fidelity of Treatment Lesson 7a POW+TREE</th>
<th>Date:____________________</th>
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<tbody>
<tr>
<td></td>
<td>Total components for lesson: 7</td>
</tr>
</tbody>
</table>

1. Teacher reviewed goals for the day.
   a. Complete the S-D contract and state your goal.
   b. POW is P - pick my idea- You will pick what to write about from two options I will give you.
   c. POW is O- ORGANIZE my NOTES- You will complete the GO with all your ideas following TREE
   d. POW is W- Write and say more- Once you finished the GO, then you are ready to begin writing your essay.
   e. As soon as you finish your essay you will have to graph your essay
   f. Complete the S-D contract to see how you did.

2. Teacher monitored the completion of S-D contracts.

3. The teacher monitored and helped students complete their GO. Teacher gave each student a blank Graphic Organizer and asked each student to get out their transition word chart, self-statements sheet.

**Put out practice prompt:** Some parents are considering paying allowances to their kids for helping around the house but are still not convinced. Should students receive an allowance to do things around the house?

4. Students wrote their essays and teacher helped as much as needed.

5. Teacher monitored students when graphing their essays.

Observer:__________________
Circle: Live or Video
Instructor:__________________
Group #__________
Day lesson started:______________
Was the lesson completed in one session? _________

If NO, please indicate where the lesson stopped
Section:__________________
Date resumed:______________
Section where lesson began:______________
Date Completed:______________
Total # of components completed successfully_______
### Fidelity of Treatment

<table>
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<th>Fidelity of Treatment</th>
<th>Date:____________________</th>
<th>Total components for lesson: 7</th>
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<tbody>
<tr>
<td>Lesson 7a POW+TREE</td>
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</table>

6. Teacher monitored students when completing the S-D contracts.

7. Teacher checked off the agenda.
Fidelity of Treatment
Lesson 7b

<table>
<thead>
<tr>
<th>Fidelity of Treatment Lesson 7b POW+TREE</th>
<th>Date:_________________</th>
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<tbody>
<tr>
<td>Total components for lesson: 7</td>
<td>Observer:_______________</td>
</tr>
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</table>

___1. Teacher reviewed goals for the day.
   a. Complete the S-D contract and state your goal.
   b. POW is P - pick my idea- You will pick what to write about from two options I will give you.
   c. POW is O- ORGANIZE my NOTES- You will complete the GO with all your ideas following TREE.
   d. POW is W- Write and say more- Once you finished the GO, then you are ready to begin writing your essay.
   e. As soon as you finish your essay you will have to graph your essay
   f. Complete the S-D contract to see how you did.

___2. Teacher monitored the completion of S-D contracts.

___3. The teacher monitored and helped students complete their GO. Teacher gave each student a blank Graphic Organizer and asked each student to get out their transition word chart, self-statements sheet.

Put out practice prompt
Option A: People say good habits such as exercising improve our health. Should students make the habit of exercising part of their lives?

Option B: Some people think it might be a good idea for students your age to learn how to manage their money by having a savings account. Should students your age have a savings account?

Observer:_________________
Circle: Live or Video
Instructor:_______________
Group #_______________
Day lesson started:_______________
Was the lesson completed in one session? __________
If NO, please indicate where the lesson stopped
Section:___________________
Date resumed:_______________
Section where lesson began:_______________
Date Completed:_______________
Total # of components completed successfully_______
### Fidelity of Treatment

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<tbody>
<tr>
<td>Lesson 7b POW+TREE</td>
<td>Total components for lesson: 7</td>
</tr>
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</table>

4. Students wrote their essays and teacher helped as much as needed.

5. Teacher monitored students when graphing their essays.

6. Teacher monitored students when completing the S-D contracts.

7. Teacher checked off the agenda.
### Fidelity of Treatment

#### Lesson 7c

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<tr>
<th>Fidelity of Treatment Lesson 7c POW+TREE</th>
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<tbody>
<tr>
<td><strong>Total components for lesson:</strong> 7</td>
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</table>

1. Teacher reviewed goals for the day.
   a. Complete the S-D contract and state your goal.
   b. POW is P - pick my idea - You will pick what to write about from two options I will give you.
   c. POW is O- ORGANIZE my NOTES - You will complete the GO with all your ideas following TREE.
   d. POW is W- Write and say more - Once you finished the GO, then you are ready to begin writing your essay.
   e. As soon as you finish your essay you will have to graph your essay.
   f. Complete the S-D contract to see how you did.

2. Teacher monitored the completion of S-D contracts.

3. The teacher monitored and helped students complete their GO. Teacher gave each student a blank Graphic Organizer and asked each student to get out their transition word chart, self-statements sheet.

**Put out practice prompt**

Option A: IEP meetings are coming up. In these meetings teachers, parents, principal and others are going to be there to discuss students’ goals, performance, and new objectives for the new school year. Should middle school students’ who have an IEP be part of this meeting?
### Fidelity of Treatment

| Fidelity of Treatment | Lesson 7c POW+TREE | Date:_____________________
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total components for lesson: 7</td>
<td></td>
</tr>
</tbody>
</table>

**Option B:** The school is considering assigning each student volunteer work to help the school stay clean. You are meeting with your teachers and principal to talk about this. Should middle school students be assigned volunteer work to help maintain the school clean?

_____ 4. Students wrote their essays and teacher helped as much as needed.

_____ 5. Teacher monitored students when graphing their essays.

_____ 6. Teacher monitored students when completing the S-D contracts.

_____ 7. Teacher checked off the agenda.
## APPENDIX N

### Fidelity of Treatment

#### Lesson 8a

<table>
<thead>
<tr>
<th>Observation</th>
<th>Date: ____________________</th>
<th>Total components for lesson: 12</th>
</tr>
</thead>
</table>

___1. Teacher discussed the goals for the day:
   a. Seven S-D behaviors
   b. POW+TREE review
   c. POW+TREE reminder
   d. Write essay independently
   e. Record sheet

___2. Verbally reviewed POW+TREE and the 7 powerful S-D behaviors, and TWs.

___3. The teacher **weaned off Graphic Organizer and other supportive materials and said:**
   “Now you know how to write persuasive essays and you are doing great. Not all the time you will have a graphic organizer with you, but since you know how to organize your notes prior to writing, you don’t need a GO anymore. However there is a trick you can use to remind you TREE and write some notes prior to writing your essay. This is what you can do.”
   (Discussed and modeled how to write down the reminder at the top of the page.)

POW
TREE
(Then made a space on the paper for notes for each part.)

___4. Teacher said: **“Remember that the first letter in POW is P - Pick my Idea.** Referred students to their self-statements for creativity or thinking free. Helped each student decide what they believe and start to think of good reasons why.

Observer: ____________________
Circle: Live or Video
Instructor: ____________________
Group #: ________________
Day lesson started: ________________
Was the lesson completed in one session? ________________
If NO, please indicate where the lesson stopped
Section: ________________
Date resumed: ________________
Section where lesson began: ________________
Date Completed: ________________
Total # of components completed successfully ________________
<table>
<thead>
<tr>
<th>Fidelity of Treatment</th>
<th>Date:____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total components for lesson:</strong> 12</td>
<td></td>
</tr>
</tbody>
</table>

___5. The teacher said: “The second letter in POW is O-ORGANIZE my NOTES. I will use my TREE reminder to help me. I will use this page to make my notes and organize my notes.” **Review** - what should my goal be? To write better opinion essays. “Good persuasive essays tell the reader what you believe, give at least three good reasons why, give an explanation for each reason, has a counter reason and have an ending sentence. Also, good opinion essays are fun for me to write and for others to read, and make sense.”

___6. The teacher said the last letter in POW is W - Write and Say More. Encouraged and remind them to start by saying, “I finished writing notes for my essay. What is it I have to do here? I have to write a good essay following my plan- a good essay has all the parts and makes sense.

“No now I will give you two practice prompts. You will choose one to write about. However, this time you will not have the GO or TW chart with you. Write the TREE reminder at the top of the page and write your notes. When you are done, you can write your essay.”

___7. The teacher monitored the completion of S-D contracts.

___8. Teacher gave each student blank piece of paper. Put out practice prompts. Students selected one writing prompt.
**APPENDIX N**

**Fidelity of Treatment**

<table>
<thead>
<tr>
<th>Fidelity of Treatment</th>
<th>Date: __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 8a POW+TREE</td>
<td>Total components for lesson: 12</td>
</tr>
</tbody>
</table>

Option A: The school is thinking about reducing the number of laptops per classroom in order to save money. Should the number of laptops be reduced in each classroom?

Option B: Imagine you got a bad grade because you did not do your work. Now you are ready to work and you want to persuade the teacher to give you another chance. Should students who did not work and got bad grades be given a second chance to improve their grades?

_____9. Gave students blank piece of paper to write their essays.

_____10. Monitored students when graphing their essays.

_____11. Monitored students when completing the S-D contracts.

_____12. Checked off the agenda.
### Fidelity of Treatment

**Lesson 8b**

<table>
<thead>
<tr>
<th>Fidelity of Treatment Lesson 8b POW+TREE</th>
<th>Date:__________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total components for lesson: 12</td>
</tr>
</tbody>
</table>

___1. Teacher discussed the goals for the day:
   a. Seven S-D behaviors
   b. POW+TREE review
   c. POW+TREE reminder
   d. Write essay independently
   e. Record sheet

___2. Verbally reviewed POW+TREE and the 7 powerful S-D behaviors, and TWs.

___3. The teacher weaned off Graphic Organizer and other supportive materials and said: “Now you know how to write persuasive essays and you are doing great. Not all the time you will have a graphic organizer with you, but since you know how to organize your notes prior to writing, you don’t need a GO anymore. However there is a trick you can use to remind you TREE and write some notes prior to writing your essay. This is what you can do.”

(Discussed and modeled how to write down the reminder at the top of the page.)

POW
TREE
(Then made a space on the paper for notes for each part.)

___4. Teacher said: “Remember that the first letter in POW is P - Pick my Idea. Referred students to their self-statements for creativity or thinking free. Helped each student decide what they believe and start to think of good reasons why.

Observer:_________________
Circle: Live or Video
Instructor:_________________
Group #:___________
Day lesson started:_____________
Was the lesson completed in one session? _________

If NO, please indicate where the lesson stopped
Section:____________________

Date resumed:________________
Section where lesson began:_________

Date
Completed:_________________
Total # of components completed successfully_______
Fidelity of Treatment

| Fidelity of Treatment | Date:_____________________
|-----------------------|---------------------------
| Lesson 8b POW+TREE    | Total components for lesson: 12 |

5. The teacher said: “The second letter in POW is O- ORGANIZE my NOTES. I will use my TREE reminder to help me. I will use this page to make my notes and organize my notes.” Review - what should my goal be? To write better opinion essays. “Good persuasive essays tell the reader what you believe, give at least three good reasons why, give an explanation for each reason, has a counter reason and have an ending sentence. Also, good opinion essays are fun for me to write and for others to read, and make sense.”

6. The teacher said the last letter in POW is W - Write and Say More. Encouraged and remind them to start by saying, “I finished writing notes for my essay. What is it I have to do here? I have to write a good essay following my plan- a good essay has all the parts and makes sense.

“Now I will give you two practice prompts. You will choose one to write about. However, this time you will not have the GO or TW chart with you. Write the TREE reminder at the top of the page and write your notes. When you are done, you can write your essay.”

7. The teacher monitored the completion of S-D contracts.

8. Teacher gave each student blank piece of paper. Put out practice prompts. Students selected one writing prompt.
### Fidelity of Treatment

<table>
<thead>
<tr>
<th>Fidelity of Treatment</th>
<th>Date:_____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 8b POW+TREE</td>
<td>Total components for lesson: 12</td>
</tr>
</tbody>
</table>

Option A: The administration is considering whether to eliminate carrying vouchers once you reach the director level and wants to know your opinion. Should students that reach the director level not be required to carry their vouchers anymore?

Option B: Imagine a classmate is being a bully and you are tired of his attitude. You are thinking about talking to someone about this. Write a persuasive essay to the administrator, behavior specialist or clinician to convince them to convey a meeting to discuss this issue.

9. Gave students blank piece of paper to write their essays.

10. Monitored students when graphing their essays

11. Monitored students when completing the S-D contracts

12. Checked off the agenda
Fidelity of Treatment

Lesson 8c

<table>
<thead>
<tr>
<th>Fidelity of Treatment</th>
<th>Date:____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 8c POW+TREE</td>
<td>Total components for lesson: 12</td>
</tr>
</tbody>
</table>

1. Teacher discussed the goals for the day:
   a. Seven S-D behaviors
   b. POW+TREE review
   c. POW+TREE reminder
   d. Write essay independently
   e. Record sheet

2. Verbally reviewed POW+TREE and the powerful 7 S-D behaviors, and TW.

3. The teacher weaned off Graphic Organizer and other supportive materials and said: “Now you know how to write persuasive essays and you are doing great. Not all the time you will have a graphic organizer with you, but since you know how to organize your notes prior to writing, you don’t need a GO anymore. However there is a trick you can use to remind you TREE and write some notes prior to writing your essay. This is what you can do.”

   (Discussed and modeled how to write down the reminder at the top of the page.)

   POW
   TREE
   (Then made a space on the paper for notes for each part.)

4. Teacher said: “Remember that the first letter in POW is P - Pick my Idea. Referred students to their self-statements for creativity or thinking free. Helped each student decide what they believe and start to think of good reasons why.

Observer:_________________
Circle: Live or Video
Instructor:_______________
Group #:_______________
Day lesson started:_______________
Was the lesson completed in one session? __________
If NO, please indicate where the lesson stopped
Section:_________________
Date resumed:_________________
Section where lesson began:_______________
Date Completed:_______________
Total # of components completed successfully_______
Fidelity of Treatment

___5. The teacher said: “The second letter in POW is O-ORGANIZE my NOTES. I will use my TREE reminder to help me. I will use this page to make my notes and organize my notes.” Review - what should my goal be? To write better opinion essays. “Good persuasive essays tell the reader what you believe, give at least three good reasons why, give an explanation for each reason, has a counter reason and have an ending sentence. Also, good opinion essays are fun for me to write and for others to read, and make sense.”

___6. The teacher said the last letter in POW is W - Write and Say More. Encouraged and remind them to start by saying, “I finished writing notes for my essay. What is it I have to do here? I have to write a good essay following my plan- a good essay has all the parts and makes sense.

“Now I will give you two practice prompts. You will choose one to write about. However, this time you will not have the GO or TW chart with you. Write the TREE reminder at the top of the page and write your notes. When you are done, you can write your essay.”

___7. The teacher monitored the completion of S-D contracts.

___8. Teacher gave each student blank piece of paper. Put out practice prompts. Students selected one writing prompt.
APPENDIX N

Fidelity of Treatment

<table>
<thead>
<tr>
<th>Fidelity of Treatment</th>
<th>Date:____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 8c POW+TREE</td>
<td>Total components for lesson: 12</td>
</tr>
</tbody>
</table>

Option A: In order to save money, the administration is considering closing the school library and wants to know your opinion. Should the school close the library?

Option B: Imagine you are preparing to have a meeting with your parents and teachers to discuss high school placements as part of your IEP meeting. Write a persuasive essay to let them know where you want to go and what you need from special education services.

____ 9. Gave students blank piece of paper to write their essays.

____ 10. Monitored students when graphing their essays.

____ 11. Monitored students when completing the S-D contracts.

____ 12. Checked off the agenda.
APPENDIX N

Fidelity of Treatment

Lesson 9

<table>
<thead>
<tr>
<th>Fidelity of Treatment Lesson 9 POW+TREE</th>
<th>Date: ____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total components for lesson: 8</td>
<td></td>
</tr>
</tbody>
</table>

Purpose: Review/Generalization to other classes/ Signing contracts

___ 1. Discussed the agenda.

___ 2. Discussed the seven self-determined behaviors.-

___ 3. Discussed the parts of a good persuasive essay-TREE (students did verbally or by writing them).

___ 4. Discussed with the students the components of each paragraph.

What goes in the first paragraph?
What goes in the second?
What goes in the third? The fourth? The fifth?
What goes in the ending paragraph?
How many sentences should you have in each paragraph?
Once you finish always REVIEW, REVIEW, REVIEW

___ 5. Helped students mention examples in which they can advocate for themselves in writing using POW+TREE.

DREW: Persuasive Writing  Advocate:

Observer:____________________
Circle: Live or Video
Instructor:__________________
Group #:______________
Day lesson started:____________
Was the lesson completed in one session? __________
If NO, please indicate where the lesson stopped
Section:_____________________
Date resumed:________________
Section where lesson began:____________
Date Completed:________________
Total # of components completed successfully_______
<table>
<thead>
<tr>
<th>Fidelity of Treatment</th>
<th>Date: ____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 9 POW+TREE</td>
<td>Total components for lesson: 8</td>
</tr>
</tbody>
</table>

6. Helped students think of some classes where they can use POW+TREE.

7. Teacher modeled how to write an essay for either social studies (voting in elections) or science (recycling).

(Discussed and modeled how to write down the POW+TREE reminder at the top of the page for organizing their essays.)

8. Signed the contract.
Writing Remediation Period Control

Teacher: __________________________________________
Date: __________________________________________

Purpose: __________________________________________

Lesson Objectives:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Activities Conducted with students:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Materials used:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Assessment:
______________________________________________________________________________
______________________________________________________________________________
APPENDIX P

Essay Scoring Conventions

Length
Count and write the number of words. Do not count words that are in [ ].
Numbers count as words.
If a student uses a contraction, count it as one word: “Doesn’t” counts as one word, not two.
AM or PM counts as one word.
Question marks or exclamation marks count as words.
If they write two words together “abook,” count it as one word.
If a word is repeated, you still count it as a word.

Sentences
Must have a period to count as a sentence.

Paragraphs
Must have 3 sentences to count as a paragraph.

Essay components
1 Point for Topic Sentence
1 Point for each Reason
1 Point for each Counter Reason
1 Point for Explanation (If the student writes two or more sentences explaining the same reason, just award 1 point)
1 point if it has an Ending sentence.
If the student deviates from the topic in a sentence, do not award points in that part.
Reasons are the justifications for her/his point of view. If the student writes about personal experiences, not related to the topic, do not award points for that part.
Explanations are an expansion on the Reasons. They can provide examples to make their argument stronger.
If the student doesn’t pick a side, or argue equally for both, then it is not considered to be a persuasive essay.
If the student answers the questions by saying “yes” or “no” and provides reasons and explanations, but not a clear topic sentence, award points for the reasons but not for topic.
DO NOT COUNT SPELLING

Count the number of transition words (TW)
Some examples: first, second, third, in addition, another, to begin, also, furthermore, next, finally, my final, because, last, however, nevertheless, conversely, on the contrary, yet, instead, on the other hand, in conclusion, on the whole, to summarize, that is why, in general, in sum.
APPENDIX Q

Holistic Quality Score

Score of 10: Persuasive essay includes topic sentence, more than three reasons with at least three explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer’s argument. Writer uses more than one counter argument/point in the essay.

Score of 9: Persuasive essay includes topic sentence, three reasons or more, at least 3 explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer’s argument. Writer uses 1 counter argument/point in the essay.

Score of 8: Persuasive essay includes topic sentence, three reasons or more, at least 2 explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer’s argument.

Score of 7: Persuasive essay includes topic sentence, three reasons with at least two explanations, and ending sentence. Essay is written in a logical sequence that strengthens the writer’s argument.

Score of 6: Persuasive essay includes topic sentence, three reasons with at least 1 explanation, and ending sentence. Essay’s sequence is weak, therefore limiting the writer’s argument.

Score of 5: Persuasive essay includes topic sentence, three reasons, and ending sentence.

Score of 4: Persuasive essay includes four of the following parts: topic sentence, reasons, and ending sentence.

Score of 3: Persuasive essay includes three of the following parts: topic sentence, reasons, and ending sentence.

Score of 2: Persuasive essay includes two of the following parts: topic sentence, reasons, and ending sentence.

Score of 1: Persuasive essay includes one of the following parts: topic sentence, reason, and ending sentence.

Score of 0: No essay parts.
APPENDIX R

Writing Self-Efficacy Measure

Name: _______________________________________

These questions will help us better understand the kinds of things that are hard for students when writing essays. Rank your confidence level on a scale from 1 to 5. Number 1 means that you are not confident at all (you feel you cannot do it) and five means that you are very confident (you are sure you can do it).

Examples:

How confident do you feel that you can tie your shoes?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

How confident do you feel that you can play the guitar?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

1) How confident do you feel that you can write a good persuasive essay?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

2) How confident do you feel about telling someone the parts of a good persuasive essay?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

400
APPENDIX R

Writing Self-Efficacy Measure

3) How confident are you that you can plan and organize your ideas before writing a persuasive essay?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

4) How confident are you about writing the order of writing a persuasive essay?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

5) How confident are you about thinking of good ideas when writing a persuasive essay?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

6) How confident are you about finding the right words to say when writing an essay?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident

7) How confident are you that you can convince your audience when writing a persuasive essay?

1 2 3 4 5
Not confident at all Not very confident Somewhat confident Confident Very confident
APPENDIX S

Persuasive Essay Parts

Name: __________________________________

Write what are the components of a good persuasive essay below.
APPENDIX T

**Persuasive Essay Components Rubric**

Award one point for each of the components mentioned below

<table>
<thead>
<tr>
<th>Parts</th>
<th>Other possible answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Topic sentence</td>
<td>State what you believe</td>
</tr>
<tr>
<td>2. Reasons</td>
<td>Support what you believe</td>
</tr>
<tr>
<td>3. Three reasons or more</td>
<td></td>
</tr>
<tr>
<td>4. Counter reasons (at least 1)</td>
<td>Other people’s perspective</td>
</tr>
<tr>
<td>5. Explanations</td>
<td>Examples, details</td>
</tr>
<tr>
<td>6. Ending</td>
<td>Conclusion</td>
</tr>
</tbody>
</table>

**TOTAL:**

403
1. What is self-determination?

2. Mention the components of self-determined behavior.

3. What is self-advocacy?

4. Mention three examples of situations in which you can advocate for yourself.
Please answer each statement. Answer as honestly as you can.

EXAMPLE:

I like the color red

1 2 3 4

Very different from me Different from me Like Me A lot like me

I can make good choices

1 2 3 4

Very different from me Different from me Like Me A lot like me

I can set goals for completing my work in school

1 2 3 4

Very different from me Different from me Like Me A lot like me
**APPENDIX U**

**Criterion Reference Test**  
**Self-Determination/Self-Advocacy Measure**

<table>
<thead>
<tr>
<th>I can develop a plan of action for achieving my goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Very different from me</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I can begin my work on time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Very different from me</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I can apply problem solving strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Very different from me</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I can stay on a work schedule or time plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Very different from me</td>
</tr>
</tbody>
</table>
APPENDIX U

Criterion Reference Test
Self-Determination/Self-Advocacy Measure

I can work independently

1              2              3              4

Very different from me  Different from me  Like Me  A lot like me

I can stay on task until I finish my work

1              2              3              4

Very different from me  Different from me  Like Me  A lot like me

I can compare my work to a standard and evaluate if it is good or not

1              2              3              4

Very different from me  Different from me  Like Me  A lot like me

I can advocate for myself

1              2              3              4

Very different from me  Different from me  Like Me  A lot like me
### APPENDIX U

**Criterion Reference Test**

**Self-Determination/Self-Advocacy Measure**

<table>
<thead>
<tr>
<th>I can communicate what I need in writing</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very different from me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different from me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like Me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A lot like me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I know how to communicate what I believe</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very different from me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different from me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like Me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A lot like me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I can persuade someone to agree with my point of view</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very different from me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different from me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like Me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A lot like me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX V

Self-Determination/Self-Advocacy Measure Scoring Guide

Instructions: Students can give different answers to each of the following questions. Under each question you will find examples of responses.

1. **What is self-determination? (1 point)**
   Students can answer: Ability to understand your needs, express what you believe, set goals, make good choices, problem solve, self-advocate, say I can do it, setting goals.

2. **Mention the components of self-determined behavior (7 points)**
   Award one point for each of the following components:
   1. Decision making (make a decision)
   2. Goal setting and attainment
   3. Self-management (monitor your progress, evaluate)
   4. Problem solving (POW+TREE)
   5. Self-awareness (know strengths and needs)
   6. Self-advocacy (speak up for yourself, ask for help)
   7. Self-efficacy (believe in my skills, use positive self-statements, I can do it)

3. **What is self-advocacy? (1 point)**
   Students can answer: Ability to speak up for yourself, ask for things you need, persuade someone, communicate what you need in writing or by speaking with someone.

4. **Mention three examples of situations in which you can advocate for yourself. (3 points)**
   Some examples: asking for help, participating in IEP, writing to a teacher and a parent to ask for something,
APPENDIX W

Student Interview Guiding Questions

Experimental Students

1. What strategy can you use for writing persuasive essays?

2. What does it mean to have a self-determined behavior?

3. How is persuasive writing similar to self-advocacy?

4. How can you use writing to advocate for yourself?

5. Why do you think it is important to communicate in writing?

6. Is persuasive writing important to learn? If yes, why?

7. What is a counter reason?

8. Why do you think counter reasons are important?

9. Has using counter arguments in your writing helped you think about other people’s perspectives? If yes, why is this important?

10. What was your favorite part of instruction?

11. What was your least favorite part of instruction?

12. Have you used the strategy in other classes? Where?

13. What would you change?

Control Students

1. What is persuasive writing?

2. What are the components of a good persuasive essay?
APPENDIX W

Student Interview Guiding Questions

3. What does it mean to have a self-determined behavior?

4. How is persuasive writing similar to self-advocacy?

5. How can you use writing to advocate for yourself?

6. Why do you think it is important to communicate in writing?

7. Is persuasive writing important to learn? If yes, why?

8. What is a counter reason?

9. Why do you think counter reasons are important?
APPENDIX X

Teachers/Instructional Aides Interview Guiding Questions

Experimental Teachers: Interview Guiding Questions

Semi-structured interviews

Training:

1. Tell me about how the SRSD training you received prepared you to provide the intervention?
   a. Do you feel the training prepared you well enough to provide instruction? If yes, how?
   b. What do you think about the scripted lesson plans? Would you recommend making any changes?
   c. What do you think about the list of materials used per lesson? Would you recommend making any changes?
   d. Fidelity of treatment checklists were also provided during training. What do you think about the fidelity of treatment checklists?
   e. The researcher modeled each of the lessons during training. What is your opinion about receiving the training in this way? Do you think it helped you better understand how to provide instruction? If yes, how?
   f. You were also asked to model a couple of lessons; do you think it was helpful? Why?
   g. What would you change from the training? Recommendations?

Instruction

1. Tell me about how the writing strategy worked in your classroom.
   a. What went well, what didn’t work?
   b. What was your favorite part of instruction?
   c. What was your least favorite part of instruction?
APPENDIX X

Teachers/Instructional Aides Interview Guiding Questions

d. What was the most difficult part of instruction? Challenges?

e. What was the most rewarding part of instruction?

f. What are your thoughts of SRSD strategy for persuasive writing (POW+TREE) in particular, and the inclusion of self-determination/self-advocacy?
   i. Do you think it is a good writing strategy for your students to learn? Why?
   ii. In this study we incorporated self-determination training within the SRSD instructional model, what is your opinion about incorporating self-determination within academics (e.g. writing)?
   iii. Do you believe teaching students to use persuasive writing as a mean to self-advocate was helpful? If yes, how and why?
   iv. Before this intervention how frequently did you teach self-determination/ self-advocacy to students? Do you think it is important to teach students self-determination skills?

2. During instruction we used a lot of materials (e.g. posters, hand outs). What do you think about the materials used? Would you add or eliminate materials?

3. Next steps- How do you see yourself using SRSD and self-determination instruction with students in the future?

4. What do you think about the feedback and support the researcher provided you during instruction?

5. If this study were to be conducted again, what would you recommend doing differently or the same?

6. Do you like SRSD better than the traditional writing curriculum (Six traits of writing).
APPENDIX X

Teachers/Instructional Aides Interview Guiding Questions

Experimental Instructional Assistants: Interview Guiding Questions

1. Tell me about how the SRSD training you received prepared you to help the teacher provide the intervention?
2. Tell me about how the writing strategy worked in your classroom.
   a. What went well, what didn’t work?
   b. What was your favorite part of instruction?
   c. What was your least favorite part of instruction?
   d. What was the most difficult part of instruction? Challenges?
   e. What was the most rewarding part of instruction?
   f. What are your thoughts of SRSD strategy for persuasive writing (POW+TREE) in particular, and the inclusion of self-determination/ self-advocacy?
3. During instruction we used a lot of materials (e.g. posters, hand outs). What do you think about the materials used? Would you add or eliminate materials?
4. Recommendations

Control Teachers and Instructional Aides: Interview Guiding Questions

Semi-structured interviews

1. For writing instruction you used the seventh grade Six Traits of writing curriculum used by the county. Tell me your opinion about this writing approach?
   a. What writing topics did you cover?
   b. What went well, what didn’t work?
   c. What was your favorite/least favorite part of instruction?
   d. What was the most difficult part of instruction? Challenges?
   e. What was the most rewarding part of instruction?
f. In your opinion, how effective is this writing curriculum in increasing the writing skills of students?

2. Would you like to use something different for teaching writing? If so, what?

3. What do you think about the feedback and support the researcher provided you during instruction?
Federal Regulations and George Mason University policy require that all research involving humans as subjects be reviewed and approved by the University Human Subjects Review Board (HSRB). Any person, (GMU faculty member, staff member, student, or other person) wanting to engage in human subject research at or through George Mason University must receive written approval from the HSRB before conducting research. Approval of this project by the HSRB only signifies that the procedures adequately protect the rights and welfare of the subjects and should not be taken to indicate University approval to conduct the research.

Please complete this cover page AND provide the Protocol information requested on the back of this form. Forward this form and all supporting documents to the Office of Research Subject Protections, MS 4C6. If you have any questions please feel free to contact ORSP at 703-993-4121.

Project Title: Teaching Persuasive Writing

Required Data Principal Investigator (Must be Faculty) Co-Investigator/Student Researcher*  
Name Margo A. Mastropieri, PhD Yojanna Cuenca-Sanchez  
Department College of Education and Human Development College of Education and Human Development  
Mail Stop 6D2 5601 Seminary Rd Apt 707, Falls Church, VA 22041  
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Type of Project  
☑Faculty/Staff Research  ☑Doctoral Dissertation  ☐Masters Thesis  
☐Student Project (Specify Grad or Under Grad)  ☐Other (Specify)  

I certify that the information provided for this project is correct and that no other procedures will be used in this protocol. I agree to conduct this research as described in the attached supporting documents. I will request and receive approval from the HSRB for changes prior to implementing these changes. I will comply with the HSRB policy for the conduct of ethical research. I will be responsible for ensuring that the work of my co-investigator(s)/student researcher(s) complies with this protocol.

__________________________________________________________________________  __________________________________________________________________________
Principal Investigator Signature Date
APPENDIX Y

Application for Human Subjects Research Review

1. Describe the aims and specific purposes of the research project and the proposed involvement of human participants.

The purpose of this study is to teach students persuasive writing skills while developing self-determined behaviors that will help them be successful in academic tasks. The Self-Regulated Strategy Development (SRSD) model of writing instruction will be used. At the same time, self-determination skills will be integrated throughout the writing lessons.

SRSD for writing is an empirically validated strategy that explicitly teaches students the writing process at the same time it encourages the development of self-regulatory skills. Research SRSD instruction has been conducted over the past 20 years with the purpose of helping students with disabilities acquire the necessary skills to become effective writers in an array of genres, including persuasive writing. SRSD is an instructional approach that combines explicit instruction in self-regulation procedures and strategy instruction. It helps students monitor, evaluate, and revise their writing while at the same time promotes self-regulation skills, increase content knowledge, and improve motivation (Graham & Harris, 2003; Harris, Graham, Mason, & Friedlander, 2008). Furthermore, the effectiveness of SRSD instruction for students with EBD has been recently seen in two studies in which the SRSD model was used to teach 8th grade students with EBD to write persuasive essays. Findings revealed the strategy was effective in significantly improving the writing quality, length, number of transition words, and writing fluency of all participants.
The development of written expression skills and self-determined behaviors are two areas from which students with EBD could greatly benefit. Historically, students with EBD have the poorest academic outcomes, transition skills and the highest dropout rates and they lack self-determination skills (Ackerman, 2006; Carter, Lane, Pierson, & Glaeser, 2006). What is more, due to federal legislation such as No Child Left Behind, special education students are expected to make progress in the general education curriculum and with the Standards of Learning (SOL), they are expected to be tested in written expression at several grade levels. Thus, this intervention is in alignment with the SOL’s requirements for learning.

Results of this investigation are of importance because little research exists on writing instruction and self-determination skills for students with EBD, thus this study is expected to contribute to the body of knowledge in the areas of writing interventions for students with EBD as well as to the body of literature on self-determination.

2. Describe the characteristics of the intended sample (number of participants, age, sex, ethnic background, health status, etc).

Participants in this study will be middle or high school students in either seventh, eighth, or ninth grade. A minimum of 30 students are expected to be part of the research study. Ages would range between 13 to 15 years of age and participants are expected to be from both genders. Students will be attending public schools in Northern VA. Students will also have emotional disorders as their primary or secondary disability. Students with emotional and behavioral disorders (EBD) often experience difficulties with behaviors and in many academic areas in schools. According to the Individuals with Disabilities Education Act 2004 (IDEA) students are eligible for services under the emotional disturbance category if they exhibit one or more of five characteristics over a long period that affects their performance in school. These include: an inability to learn, inappropriate behavior or feelings, unsatisfactory relationships with teacher and peers, unhappiness and depression, and physical symptoms or fears.

3. Identify the criteria for inclusion or exclusion. Explain the rationale for the involvement of special classes of participants (children, prisoners, pregnant women, or any other vulnerable population).
APPENDIX Y

Application for Human Subjects Research Review
Criterion for inclusion in the study requires that students receive special education services at the school, have emotional disorders as their primary or secondary disability, and have writing goals as specified by their Individualized Education Programs (IEP) or as part of the general education curriculum.

4. Describe your relationship to the participants if any.

There is no known relationship to the participants if any.

PROTOCOL – Involving Human Participation

1. If there are direct benefits to the participants, describe the direct benefits and also describe the general knowledge that the study is likely to yield. If there are no direct benefits to the participants, state that there are no direct benefits to the participants and describe the general knowledge that the study is likely to yield.

There are no direct benefits for participants. The general knowledge that the study is likely to yield is to assess if SRSD instruction for persuasive writing with embedded instruction on self-determination skills is effective in improving the writing quality, length and writing fluency of young adolescents with emotional disabilities on writing a persuasive essays. In addition, this study intends to assess if students increase their knowledge on self-determination skills.

2. Describe how participants will be identified and recruited. Note that all recruitment materials (including ads, flyers, letters to participants, emails, telephone/presentation scripts, SONA postings) for participants must be submitted for review for both exempt and non-exempt projects.

Administrators and teachers from the school will be asked to identify students for possible participation in the study based on the criteria for inclusion: (1) students are receiving special education services at the school, (1) have emotional disorders as their primary or secondary disability, (3) and have writing goals as specified by their Individualized Education Programs (IEP) or as part of the general education curriculum. Once the pool is identified, students will be randomly assigned by the researcher to either the treatment condition or the control group.

3. Describe your procedures for obtaining informed consent. Who will obtain consent and how will it be obtained. Describe how the researchers will ensure that subjects receive a copy of the consent document.
APPENDIX Y

Application for Human Subjects Research Review

Administrators from the school will be asked to provide letter of permission to conduct the research at their school. Consent forms for parents and teachers will be shown to the administrators when meeting with the researcher. They will be provided with 2 copies for each person. Two consent forms for teachers, two consent forms for parents and assent forms for children/ minors. Administrators will be asked permission for meeting with the teachers to explain the study and the procedures involved. In this meeting the researcher will explain in detail the study and answer all the questions teachers might have. In addition, during this meeting, teachers will be asked to give parents the consent and assent forms for the study. Parents will be asked to sign the form and return it to the teacher. Permission for audio and video taping will be included in the consent form as well as permission to access students’ school records. The consent forms will be made available in the language used at home. If needed, the researcher will be available to meet with the parents and children to explain the purpose of the study and obtain permissions. The researcher will verbally explain the study to the children in a language they can understand and will ask the students to sign the assent forms if they agree to participate. The researcher will be available to answer all questions teachers, parents and children might have in relation to the purpose of the study.

4. State whether subjects will be compensated for their participation, describe the form of compensation and the procedures for distribution, and explain why compensation is necessary. State whether the subjects will receive course credit for participating in the research. If yes, describe the nonresearch option for course credit for the students who decide not to participate in the research. The nonresearch option for course credit must not be more difficult than participation in the research. Information regarding compensation or course credit, should be outlined in the Participation section of the consent document.

Participation in this study will be voluntary. Participants will not be compensated in any way nor receive a course credit for participating in this study.

5. If minors are involved, their active assent to the research activity is required as well as active consent from their parents/guardians. This includes minors from the Psychology Department Undergraduate Subject Pool. Your procedures should be appropriate to the age of the child and his/her level of maturity and judgment. Describe your procedures for obtaining active assent from minors and active consent from parents/guardians. Refer to the Guidelines for Informed Consent for additional requirements if minors from the Psychology Subject Pool are involved.
Active assent will be obtained from minor students participating in the study. Teachers along with researchers will give the assent forms to students. Active assent forms will be written at a reading level that it is appropriate for students reading ability. Forms will be developed using Microsoft Word’s ability to format a document within a given reading level. Also, parents will be given the active assent forms for approval. If English is not the primary language at home, forms will be translated.

6. Describe the research design and methods. What will be done to participants during the study? Describe all tests and procedures that will be performed. Include an estimate of the time required to complete the tests and procedures.

Research Design

A pretest-posttest group experimental design will be conducted in this study in which participants with emotional and behavioral disorders (EBD) and comorbid high incidence disabilities will be randomly assigned to one of two groups: SRSD instruction with self-determination components (SRSD + S-D) and a control group in which students would receive their regular literacy (writing) instruction. The purpose is to compare groups and measure change resulting from experimental treatment. Assignment of groups will be conducted by matching participants on a salient variable (e.g. writing level) and randomly assigning one member of each pair to either treatment or no treatment condition.

Experimental Group

Students in the intervention group will participate in a series of writing lessons in which they will learn to set goals for writing and learn a writing strategy for persuasive essays called POW + TREE (Pick your idea, Organize your notes, Write and say more, Topic sentence, Reasons including a counter reason, Explanations, and Ending). Students will learn to plan and organize their thoughts prior to writing, and write and revise their writing. In addition, they will receive training on self-determination skills within the writing intervention which include goal setting, identifying strengths and limitations, problem solving, and self-advocacy. Students are expected to receive instruction four to five days a week 30- minutes each session for approximately 5 weeks. The writing lessons will be implemented by the teachers and they will follow the framework of SRSD instruction that includes six stages: (a) Develop and activate background knowledge, (b) Discuss the strategy including benefits and expectations, (c) Model the strategy, (d) Memorize the strategy, (e) Provide guided practice, and (f) Provide independent practice.
However, within the SRSD framework some other lessons and discussions about self-determination/self-advocacy will be included. In addition, all the persuasive writing prompts and in class discussion writing models will be related to self-advocacy topics (e.g. knowledge of self, knowledge of rights, leadership). See Appendix A for examples of writing prompts.

The researcher will train teachers to provide the intervention and they will be supervised by the researcher. Teachers and instructional assistants will be interviewed regarding their perceptions of the SRSD instructional procedures following the end of the study. Teachers will be provided with materials that will be used during instruction. These materials will include a tape recorder, attendance sheet, fidelity of treatment sheets, and a container for organizing all materials. A description of all teaching materials for the experimental condition is described next.

Teaching materials. Teachers in the experimental condition will receive a binder that will contain the following materials: (a) scripted lessons that the teachers will used during instruction, (b) photocopies and posters of each strategy sheets that students would use in the lessons, (c) writing supplies (e.g. markers, pencils, paper) that students and teachers will need to implement each lesson.

Teacher Training Procedures

Prior to the implementation of the study, the researcher will train the teachers in general research procedures as well as specific instructional procedures. Following is a description of both procedures:

General research procedures. The teachers will receive one hour orientation about general research procedures. First, the researcher will explain in detail the purpose of the study. Then, the researcher will explain the importance of obtaining parent consent forms and student assent forms for participation in the study. Teachers will be given folders labeled with students’ names to help them organize permissions as they are received. The researcher will also talk about the differences between conducting educational research and teaching as well as the importance of not sharing information about the instructional procedures with the control teachers in order to avoid contamination of the data. All teachers will be trained on record keeping, timing, fidelity of treatment implementation, and taping instructional lessons. During this orientation, teachers will be given a small binder with the scripted lessons so that the teacher can take
it home and read the lessons prior to receiving the formal training sessions on instructional procedures.

**Specific training procedures.** The researcher will conduct formal training sessions on instructional procedures. The training will be conducted over the period of a week at times that are more convenient for the teachers (e.g. morning, after school, planning period, etc). It is expected to conduct approximately 5 sessions one hour each during the period of a week. During the training, the researcher will model how to implement each lesson and how to use the materials in each lesson. The purpose of each of the materials and strategies will be explained. The researcher will check in with the teachers on a daily basis, provide feedback, and answer questions as they arise. During the training sessions the researcher will also discuss effective teaching strategies such as maximizing academic engagement (time-on-task), clarity, enthusiasm, appropriate rate, questioning, feedback, and praise.

**Control Group**

Students in the control condition will be participating in their regular writing instruction. Before the start of the study, the researcher will ask teachers to complete a brief questionnaire about their approach to writing instruction and will have brief follow up interviews to clarify responses. They will be asked how frequently they write with the students as well as how often they engage with their students in planning, revising, modeling and specific writing skills. Teachers of these students will be asked to provide copies of lesson plans as well as the materials used for their writing lessons. In addition, he/she will be asked to submit teaching plans for review and to participate in two to three brief meetings with the researcher over a period of the intervention with the purpose of assessing the type of instruction and activities provided to students in the control group. Observations of these classes will be conducted in two to three occasions. The purpose is to ensure that students in the control condition are not receiving any type of strategy instruction that emulates the instruction students in the experimental condition are receiving. In addition, teachers and instructional assistants will be interviewed regarding their perceptions of the respective instructional procedures following the end of the study.
APPENDIX Y

Application for Human Subjects Research Review

Dependent Measures

Students will be assessed in the areas of writing, strategy awareness, self-efficacy in writing, and self-determination/ self-advocacy knowledge prior to the intervention and post intervention. Students in both conditions will be assessed with the same writing measures.

Students’ essays. Students’ written essays will be typed and evaluated using a rubric that includes the following components: number of words, paragraphs, number of transition words. In addition, the number of persuasive essay parts will be also scored (topic sentence, reasons, counter reasons, explanations, and ending). See Appendix B for Scoring Guidelines and Rubric.

Holistic writing rubric. A holistic rubric will be used to assess the quality of students’ essays. This holistic rubric has been used in other SRSD studies (see Mason & Shriner, 2008; Mastropieri et al. 2008; 2009). Essays could earn 0 points (no essay) up to 10 points (essay includes one topic sentence, more than three reasons with an explanation for each, and an ending sentence). In addition, the essay has a logical sequence, and at least one counter reason. See Appendix C for Holistic Essay Scoring Rubric.

Woodcock-Johnson Tests of Achievement (WJ III). The writing fluency test of the WJ III will be used to assess students writing fluency. The test consists of writing simple sentences, using three given words for each item and describing a picture, as quickly as possible for seven minutes. This measure will be administered prior and post-intervention. See Appendix D WJ III.

Writing self-efficacy measure. Students’ self-efficacy related to essay writing will be measured using a seven-item researcher developed questionnaire. Questions types will include: “How confident do you feel that you can write an essay? How confident are you that you can tell someone what the parts of a good persuasive essay are? How confident are you that you can plan and organize your ideas before writing an essay?” Questions will be measured on a scale of 1 (not confident at all) to 7 (very confident). High scores will be associated with high levels of self-efficacy and low scores with low levels of self-efficacy. See Appendix E Efficacy measure.

Strategy awareness persuasive essays. All students will be asked at the beginning and end of the study their knowledge about persuasive essays. They will respond in
writing to a prompt that has the following question: “Write what are the components of a good persuasive essay.” Responses will be scored based on the components of a good persuasive essay. A good persuasive essay should include a topic sentence, reasons, counter reasons, explanations, transition words, and an ending paragraph. Students could earn a maximum of six points if they included all the components mentioned above as scored by a rubric that will be developed. The order in which students describe the components will not matter as long as they have included all the components. See Appendix F for Strategy rubric.

**Criterion reference self-determination/self-advocacy measure.** A criterion reference measure with questions related to self-determination and self-advocacy directly tied to the topics that will be covered during instruction will be developed by the researcher. The purpose is to assess students’ knowledge and awareness of self-determination and self-advocacy. Students in both conditions will complete this measure before and after the study. See Appendix G for Criterion Reference Self-Determination/Self-Advocacy Measure.

**Generalization.** Approximately during week eight of the study, students will be presented with a generalization measure. They will be asked to write a persuasive essay in response to a prompt related to academic content in either science or social studies. Students’ written essays will be typed and evaluated on different components. The number of words, paragraphs, and number of transition words will be counted. In addition, the number of persuasive essay parts will be also scored (topic sentence, reasons, counter reasons, explanations, and ending). Furthermore, the quality of the essays will also be assessed by using the holistic scoring rubric described above.

**Maintenance.** Approximately during week nine of the study, two weeks after the completion of the intervention, maintenance will be assessed. Students will be asked to write an essay in response to a writing prompt scenario or prompt. Students’ written essays will be assessed in the same way as in post-test and generalization. Essays will be typed and evaluated on different components. The number of words, paragraphs, number of transition words, number of persuasive essay parts, and quality will be assessed using the holistic scoring rubric described above.

**Students’ interviews.** After the intervention is completed students will be interviewed to assess their and their knowledge about persuasive essays and self-determination. The interview for students in the experimental condition will also include
questions to assess their perspectives about the intervention such as: What is the strategy that you learned? What was your favorite part? What was your least favorite? Have you used the strategy in other classes? What would you change? How can you use writing to advocate for yourself? Why do think is important to communicate in writing? See Appendix H Interview.

*Teachers questionnaire.* Before the intervention begins, teachers in the control group will be asked to complete a brief questionnaire about their approach to writing instruction and will have brief follow up interviews to clarify responses. See Appendix I

Experimental teachers and instructional assistants’ interviews: At the end of the intervention, teachers and aides who assisted with instruction in the experimental groups will be asked to provide feedback about the SRSD training they received prior to implementing the intervention, their opinions about the implementation of the intervention, and to provide recommendations for future research. They will be asked to participate in an interview with the researcher that will be audio taped.

Control teachers and instructional assistants’ interviews: Teachers and aides who assisted with instruction in the control groups will be asked to provide feedback regarding their perceptions of the respective instructional procedures following the end of the study. They will be asked to participate in an interview with the researcher that will be audio taped.

*Specific Testing Procedures*

*Day One Testing*—Measures of writing will be administered during the first day of pre-testing and immediately after the conclusion of the intervention on week seven of the study. First, students will be asked to write an essay response to a prompt provided. Next, they will be asked to complete the 7-minute *Woodcock-Johnson Tests of Achievement (WJ III)*. Following, students will complete the self-efficacy measure.

*Day Two Testing*—On day two of pre-testing (week one) and post-testing (week seven), students will complete the strategy awareness prompt about the components of a good persuasive essay. Following, students will complete the criterion reference self-determination/self-advocacy measure.
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Application for Human Subjects Research Review

Generalization and Maintenance- During week eight of the study, generalization will be assessed. During week nine, three weeks after the end of the intervention, students will be assessed on maintenance. Students will be asked to write an essay in response to a writing prompt and to complete the strategy awareness prompt about the components of a good persuasive essay.

Timeline for the Study

The study will last approximately 9 weeks including pre-testing, instruction, post-testing, generalization, and maintenance. During the first week of the study, all pre-test measures will be administered to control and experimental groups in small groups of students of not more than 10 students at a time. For approximately five weeks, students in the experimental treatment will receive instruction. During week seven, post-test measures will be administered to all students by the researchers and research assistants. During week eight, generalization to a content area will be assessed and during week nine, maintenance will be assessed.

7. Describe how confidentiality will be maintained. If data will be collected electronically (e.g. by email or an internet web site), describe your procedures for limiting identifiers. Note that confidentiality may have to be limited if participants are asked questions on violence toward self or others or illegal behavior. Contact the Office of Research Subject Protections for assistance.

All data in this study will be confidential. Pseudonymous will be used for all participants, and when coding and examining identifiable data: (1) names will not be included; (2) a code will be placed on all collected data; (3) through the use of an identification key, only the researchers will be able to link the data to specific participants; and (4) only the researchers and research assistants will have access to the identification key. No person identifiable information will ever be reported.

8. Describe in detail any potential physical, psychological, social, or legal risks to participants, why they are reasonable in relation to the anticipated benefits and what will be done to minimize the risks. Where appropriate, discuss provisions for ensuring medical or professional intervention in case participants experience adverse effects. Where appropriate, discuss provisions for monitoring data collection when participants' safety is at risk.
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There are no foreseeable physical, psychological, social or legal risks to participants involved in this research.

9. If participants will be audio-or video-taped, discuss provisions for the security and final disposition of the tapes. Refer to Guidelines for Informed Consent.

All audio or video tapes will be confidential. The tapes will be locked in a safe place and only the researchers will have access to the tapes. The tapes will be used only for data analyses purposes.

10. If participants will be misinformed and/or uninformed about the true nature of the project, provide justification. Note that projects involving deception must not exceed minimal risk, cannot violate the rights and welfare of participants, must require the deception to accomplish the aims of the project, and must include a full debriefing. Refer to Guidelines for Informed Consent.

For this study it is not necessary to deceive participants about reasons, data or analysis of the outcomes.

11. Submit a copy of each data collection instrument/tool (including questionnaires, surveys, standardized assessment tools, etc.) you will use and provide a brief description of its characteristics and development. Submit scripts if information and/or questions are conveyed verbally.

Copies of each data collection instruments that will be used for this study are attached in the order described below.

1. Appendix A. Examples of writing prompts that will be used during instruction and testing (added more prompts. See attached)
3. Appendix C Holistic Essay Scoring Rubric
4. Appendix D WJIII.
5. Appendix E Writing Efficacy Measure (minor changes in language and response stems. See attached)
6. Appendix F Strategy Awareness rubric.
7. Appendix G Criterion Reference Self-Determination/Self- Advocacy Measure. (Minor changes in language and response stems. See attached)
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8. Appendix H Interview questions.
9. Appendix I- Teachers questionnaire (See attached)
10. Appendix J- Teachers interview guiding questions (See attached)

12. INFORMED CONSENT: Attach appropriate Proposed Informed Consent document(s).
   See Guidelines for Informed Consent and the Template Informed Consent Document for additional information.

Copies of each of the consent forms that will be used for this study are attached in the order described below. Teacher and administrator consent forms will be given when meeting with the researcher. In these meetings, both teachers and administrators will be provided with an overview of the purpose of the study and all questions and concerns will be clarified.
1. Teacher consent form.
2. Parent consent form
3. Active assent for minor students.

13. APPROVAL FROM COOPERATING INSTITUTION/ORGANIZATION:
If a cooperating institution/organization provides access to its patients/students/clients/employees/etc. for participant recruitment or provides access to their records, Attach written evidence of the institution/organization human subjects approval of the project.

   1. Description of study for administrators

References

APPENDIX Y

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APPENDIX Y

Application for Human Subjects Research Review

George Mason University
College of Education and Human Development
(703) 993-3850
Email: ycuencas@gmu.edu

Parent Permission for Participating in Research Study: Informed Consent

Project Title: Teaching Persuasive Writing

RESEARCH PROCEDURES
This study will be conducted to assess the effectiveness of writing instruction for persuasive essays. Students will be randomly assigned to one of two groups. Some students might be in the group that receives the writing instruction and others will continue to receive instruction in the normal fashion with their regular teachers.

If your son or daughter is assigned to receive the writing instruction, your child’s teacher will show your child how to write persuasive essays by using a writing strategy. Instruction about self-determination skills will be provided within the writing lessons. Self-determination help students set and attain goals, recognize one’s strengths and limitations, self-advocacy, and decision and choice making.

Prior to instruction your child will be asked to write essay responses to essay prompts and to complete some tests that will help us determine your child’s writing level. The instruction will last approximately 9 weeks. During the first and last weeks of the study, your child’s writing level will be assessed. For approximately five weeks, your child will receive 30 minute lessons four to five days a week. After instruction we will assess his/her writing by asking her or him to write persuasive essays and complete the same testing from the beginning of the study.

Some teaching sessions may be observed by trained graduate students to make sure the intervention is provided according to the plan. We will explain to your child the purpose of this study and the activities he/she will be doing. Your child will receive a separate assent form to sign in order to indicate his/her agreement.

We will interview your child and ask if he/she liked or disliked the instruction and why. We would also like to audiotape your child during the interviews. In addition, we will
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Application for Human Subjects Research Review

like to access your child’s school record, to examine the IEP goals and objectives, behavioral plans, and academic and behavioral testing.

If your child is randomly assigned to be in the control group, he/she will not receive the writing. Your child will continue to receive writing instruction in the normal fashion with his/her teacher. However, your child will be asked to write essay responses to essay prompts given and to complete some tests during the first and last weeks of the study that will help us determine your child writing level, skills, and knowledge. I might also interview your child about his/her knowledge of persuasive writing and self-determination. The interviews will take only a few minutes and will not interfere with the classes. We would also like to audiotape your child during the interviews. In addition, we will like to access your child’s school records, to examine the IEP goals and objectives, behavioral plans, and academic and behavioral testing.

RISKS
There are no foreseeable risks for your son’s/daughter’s participation in this research.

BENEFITS
There are no direct benefits to you or your child from this study. This study will help us assess if SRSD instruction for persuasive writing is effective in improving the writing skills of students with disabilities.

CONFIDENTIALITY
The data in this study will be confidential. All data will be coded so that no one, including individual students or their families, can be identified. We will use codes when sharing information from this study with others. Only the researcher will have access to the data with and identification key. All collected data will be maintained in a separate secure location.

PARTICIPATION
Your child’s participation in this project is voluntary. You may withdraw your child from the study at any time and for any reason. There is no penalty for not participating or withdrawing.

ALTERNATIVES TO PARTICIPATION
If you decide that your son/daughter should not participate in the study, he/she will continue to receive instruction in the normal fashion in his/her respective classroom.
CONTACT
This research is being conducted by Yojanna Cuenca-Sanchez, doctoral candidate at George Mason University. She may be reached at (703)993-3850 for questions or to report a research-related problem. Ms. Cuenca-Sanchez’s faculty advisor name is Dr. Margo A. Mastropieri and her phone number is 703.993.4136. You may contact the George Mason University Office of Research Subject Protections at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.

You received two copies of this consent form. If you choose to have your child participate, please sign below. Please keep one copy for your records and return the other.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

CONSENT
I have read this form and agree to participate in this study. I understand that my child might receive the intervention or might be in the control group. I give my permission to include my child in the study and to access his/her school records.

________________________________________________________________
(Student’s Name)
_______________________________________            Date_______________
(Parent Signature)

Legally authorized representative signature (LAR)

Please check one:
_____ I agree to audio taping           _____ I do not agree to audio taping
_____ I agree to video taping           _____ I do not agree to video taping
APPENDIX Y

Application for Human Subjects Research Review

George Mason University
College of Education and Human Development
(703) 993-3850
Email: ycuencas@gmu.edu

Student Permission for Participating in Research Study: Informed Assent
Project Title: Teaching Persuasive Writing

RESEARCH PROCEDURES
We are conducting a study to see if writing instruction can help students write better persuasive essays. In this study we will have two groups of students. You will be assigned at random to be in one of the two groups.

If you get assigned to the group that will receive the writing strategy we will ask you to participate in writing lessons four to five days a week that will last 30 minutes each. During these classes you will meet with your teacher and she/he will teach you how to write persuasive essays. They will also talk about self-determination. We will monitor how you write and we will ask you to complete some simple tests during the first and last weeks of the study that will give us information about how you write and what you think about writing. Some lessons will be videotaped to evaluate the writing instruction. I will interview you when you finish all the lessons to ask your opinion about what you learned, what you liked, and did not like. The interviews will take only a few minutes and I would like to audiotape our conversation.

If you get assigned to the group that will not receive the writing strategy you will keep taking classes with your regular teachers. However, we will ask you to complete some simple tests during the first and last weeks of the study that will give us information about how you write and what you think about writing. I might also interview you about what you know about persuasive writing and self-determination. The interviews will take only a few minutes and I would like to audiotape our conversation.

RISKS AND BENEFITS
There is no benefit to you and nothing bad will happen to you if you do or don't take part in this project.

CONFIDENTIALITY
All the information will be confidential. We will use codes so that no one can identify your personal information or the results from your tests. No one else will be able to see this information.
APPENDIX Y

Application for Human Subjects Research Review

PARTICIPATION
You do not have to participate in the lessons if you do not want to. You can stop at any time.

CONTACT
My name is Yojanna Cuenca. I’m a student at George Mason University. You can call me if you have questions about this study. My phone number is (703) 993-3850. Ms. Cuenca-Sanchez’s faculty advisor is Dr. Margo A. Mastropieri and her phone number is 703.993.4136. The George Mason University Office of Research Subject Protections knows all about our research. You can call them at 703-993-4121 if you have any questions about being a part of this research.

CONSENT
I have read this form or someone read it to me and I agree to participate in the study.

___________________________________________            Date_______________
(Student Signature)

Please check one:
_____ I agree to audio taping         ______ I do not agree to audio taping
_____ I agree to video taping          ______ I do not agree to video taping
APPENDIX Y

Application for Human Subjects Research Review

George Mason University
College of Education and Human Development
(703) 993-3850
Email: ycuencas@gmu.edu

TEACHER INFORMED CONSENT FORM

Project Title: Teaching Persuasive Writing

RESEARCH PROCEDURES
This research is being conducted to assess the effectiveness of persuasive writing with embedded instruction on self-determination skills. Students will be randomly assigned to either the writing experimental or the control group. Students that are assigned to the experimental group will receive instruction. The study will last approximately 9 weeks including pre-testing, instruction, post-testing, generalization, and maintenance. Instruction will be implemented for approximately five weeks, four to five days per week and each session will last 30 minutes. Students will receive instruction on setting goals for writing and strategy instruction for persuasive writing that includes planning and organizing thoughts prior to writing and revision skills. In addition, they will receive training on self-determination skills within the writing intervention which includes goal setting, identifying strengths and limitations, problem solving, and self-advocacy.

If you agree to participate in this study, you might be the teacher or instructional assistant of students in the experimental group. The researcher will train you on how to implement SRSD instruction and you will provide the writing intervention under the researcher’s supervision. You will participate in an initial one hour orientation about general research procedures and then you will receive formal training on instructional procedures. It is expected that the training will be conducted over the period of a week in approximately five sessions lasting one hour each. These sessions will be conducted at a time that is more convenient for you. During the training sessions you will receive copies of all the materials that you will need as well as scripted lessons for implementing the writing lessons. The researcher will discuss and model each lesson and will be available to answer questions, provide feedback, and assistance as needed. You will be observed, audio, and videotaped during the writing instruction to ensure instruction is being provided with fidelity. At the end of the study, students will be interviewed to ask if they liked or disliked the intervention and why. The interviews will take only a few minutes.
APPENDIX Y

Application for Human Subjects Research Review

and will be audio taped. In addition, at the end of the intervention, the researcher will like to interview you to ask your opinion about the training and implementation of the intervention, and will ask you to provide recommendations for future research. The interview will be audio taped and will be conducted at a time that is convenient for you.

If you agree to participate in this study, you might be the teacher or instructional assistant of students in the **control group**. You will be asked to conduct instruction in the normal fashion. Prior to the beginning of the study, the researcher will interview you to determine your approach to writing instruction and will ask you to complete a brief questionnaire about how you teach writing. In addition, the teacher of these students will be asked to provide copies of teaching plans for review and to participate in two to three brief meetings with the researcher over a period of the intervention with the purpose of assessing the type of instruction and activities provided to students in the control group. Your class might also be observed and videotaped in few occasions. In addition, students in the control group might be also interviewed about their knowledge of persuasive writing and self-determination. The interviews will take only a few minutes, will be audio taped, and will not interfere with the classes. In addition, at the end of the intervention, the researcher will like to interview you to ask your opinion about the writing approach you used. The interview will be audio taped and will be conducted at a time that is convenient for you.

Students in both groups (experimental and control) will be assessed in the areas of writing, strategy awareness, self-efficacy in writing, and self-determination/ self-advocacy knowledge prior to the intervention and post intervention, at maintenance and generalization.

**RISKS**

There are no foreseeable risks for participating in this research.

**BENEFITS**

There are no benefits for you and your students other than to further research in the effectiveness of SRSD instruction for persuasive writing with embedded instruction on self-determination skills. We want to know if the writing strategy is effective on improving the writing quality, length and writing fluency of young adolescents with emotional disabilities on writing a persuasive essays and increasing students’ knowledge on self-determination skills.
APPENDIX Y

Application for Human Subjects Research Review

CONFIDENTIALITY
The data in this study will be confidential. Pseudonyms will be used for all participants, and when coding identifiable data: (1) participant’s name will not be included; (2) a code will be placed on all collected data; (3) through the use of an identification key, the researcher will be able to link the data to specific participants; and (4) only the researcher will have access to the identification key. All collected data will be maintained in a separate secure location.

PARTICIPATION
Your consent to participate in this study is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate, or if you withdraw from the study, there is no penalty or loss of benefits to which your school are otherwise entitled. There are no costs to you or any other party.

ALTERNATIVES TO PARTICIPATION
Students who decide not to participate in the research will continue to receive instruction in the normal fashion in their respective classrooms.

CONTACT
This research is being conducted by Yojanna Cuenca-Sanchez, doctoral candidate at George Mason University. She may be reached at (703) 993-3850 for questions or to report a research-related problem. Ms. Cuenca-Sanchez’s faculty advisor name is Dr. Margo A. Mastropieri and her phone number is 703.993.4136. You may contact the George Mason University Office of Research Subject Protections at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

CONSENT
I have read this form and agree to participate in this study.

__________________________
Name

__________________________
Date of Signature
APPENDIX Y

Application for Human Subjects Research Review

Version date:

Please check one:

_____ I agree to audio taping  _____ I do not agree to audio taping
_____ I agree to video taping  _____ I do not agree to video taping
_____ I agree to participate in an interview at the end of the study that will be audio taped.
APPENDIX Z

Fidelity of Treatment Control Group

Observer: ___________________  Group: ___________________

Day 1:
_____ Students completed a prompt about which animal they would like for animal care.

Notes:

Lesson 1: ‘Going local’ Day _______ Completed in one day? _______
_____ Students completed and editing sheet
_____ Objective: The objective of this lesson was to teach students how to identify oversized topics and how to narrow a topic so it gives the writer a good basis for writing. Students were taught how to use a topic tree diagram to narrow a big topic into a smaller one.
_____ Student traitbook pages 8-11

Notes:

Lesson 2: “Foggy Writing” Day _______ Completed in one day? _______
_____ Students completed and editing sheet
_____ Objective: The purpose of this lesson was to teach students the importance of writing clearly by providing details so the reader can understand the writer’s point of view or main idea.
_____ Student traitbook pages 12-15

Notes:
APPENDIX Z

Fidelity of Treatment Control Group

Lesson 5: “Think Sequence” Day ________ Completed in one day? ________
_____ Students completed and editing sheet
_____ Objective: The purpose of this lesson was to help students understand the importance of logical sequencing when writing. Students evaluated examples of writing that had a logical sequence versus examples that had a weak sequence. They also had to revise writing that was out of order by creating appropriate sequencing.
_____ Student traitbook pages 25-28

Notes:

Lesson 7: Staying Connected” Day ________ Completed in one day? ________
_____ Students completed and editing sheet
_____ Objective: The purpose of this lesson was to help students’ understand the importance of using transitional phrases and transition words when writing. Students had to identify transition words, phrases, and revise writing to make transitions stronger.
_____ Student traitbook pages 33-36.

Notes:

Lesson 9: “A personal definition” Day ________ Completed in one day? ________
_____ Students completed and editing sheet
_____ Objective: The purpose of this lesson was to discuss voice in writing. Students had to identify and describe different writing voices (i.e. happy, sad, angry, serious, and sarcastic) in pieces of writing and develop a personal definition of voice.
_____ Student traitbook pages 42-45

Notes:
APPENDIX Z

Fidelity of Treatment Control Group

Lesson 10: “The Right Voice for the Job” Day _______ Completed in one day? _______

_____ Students completed and editing sheet

_____ Objective: This lesson is an extension of lesson nine. The purpose was to help students understand that voice can help explain why a writer is writing (purpose).

_____ Student traitbook pages 46-49

Notes:

Lesson 14: “We had fun and stuff” Day _______ Completed in one day? _______

_____ Students completed and editing sheet

_____ Objective: The purpose of this lesson was to help students understand the importance of word choice when writing. They had to identify samples of clear writing versus vague writing.

_____ Student traitbook pages 63-66

Notes:

Lesson 16: “Less is More” Day _______ Completed in one day? _______

_____ Students completed and editing sheet

_____ Objective: The purpose of this lesson was to help student improve their editing skills. Students had to distinguish between wordy passages of writing versus passages that had the expected amount of detail.

_____ Student traitbook pages 71-74

Notes:
REFERENCES
References


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CURRICULUM VITAE

Yojanna Cuenca-Sanchez, an American citizen, was born in Mexico City, and raised and lived in Puerto Rico until she was an adult. She earned a Bachelor of Arts degree in Special Education from the University of Puerto Rico, in 2000 and a Master of Education degree in Curriculum and Instruction from George Mason University in 2005.

Ms. Cuenca-Sanchez’s education and work experiences within the field of special education have been varied. She began her career in Puerto Rico as a special education teacher working with young adolescents with intellectual disabilities and comorbid emotional disorders. Years later, she moved to Virginia and worked at the National Dissemination Center for Children with Disabilities (NICHCY), as a bilingual information specialist, outreach coordinator, and part time research analyst. Further on, she obtained a position at George Mason University (GMU) Counseling Center, as the Learning Specialist serving college students with learning disabilities (LD) and attention-deficit hyperactivity disorder (AD/HD).

In 2007, she was awarded a fellowship to work with Dr. Margo Mastropieri and Dr. Thomas Scruggs on a U.S. Department of Education Doctoral Leadership Training Grant (H325D070008) with emphasis on training, research, teaching, and service for children with mild disabilities. Through this fellowship, she participated in four different research studies under the GMU-Pennsylvania State University Writing Project Grant (R324A070199-07) from the U.S. Department of Education. The grant, to study writing instruction for adolescents with emotional and behavioral disorders (EBD), was awarded to Pennsylvania State University, with a subcontract to George Mason University and was headed by Dr. Margo Mastropieri.

While completing her doctoral degree, she worked as adjunct instructor for the College of Education and Human Development at George Mason University, teaching both undergraduate and graduate courses in special education. Currently, she is an Assistant Professor in the Department of Special Education at Illinois State University.