THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT WITH
CONTENT AREA PROMPTS FOR PERSUASIVE ESSAYS ON THE PLANNING
AND WRITTEN LANGUAGE PERFORMANCE OF STUDENTS WITH
EMOTIONAL AND BEHAVIORAL DISABILITIES

by

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A Dissertation
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The Effects of Self-Regulated Strategy Development with Content Area Prompts for Persuasive Essays on the Planning and Written Language Performance of Students with Emotional and Behavioral Disabilities

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at George Mason University

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DEDICATION

This is dedicated to my husband Peter, my children Adam and Lauren and to the foundation and unwavering support of my entire family. Thank you for believing in me, for always being my touchstone and for the endless and unconditional love and support in this journey. I am incredibly humbled and grateful for all the things that you have done for me. This would not be possible without you. Thank you for celebrating the successes and for your constant faith as I worked toward this achievement. I am so blessed to have each of you in my life. Na zdrowie!

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"Creativity takes courage…" Henri Matisse

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ABSTRACT

THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT WITH CONTENT AREA PROMPTS FOR PERSUASIVE ESSAYS ON THE PLANNING AND WRITTEN LANGUAGE PERFORMANCE OF STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISABILITIES

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This study examined the use of self-regulating strategies (SRSD) to support students with emotional and behavioral disabilities (EBD) in the academic area of writing. Eight, eighth grade students identified as having emotional disabilities participated in a multiple baseline multiple probe designed to assess the effects of teaching persuasive writing and then applying that learning to writing in the civics content area. After baseline, data were collected and two intervention phases were implemented. First, an instructional phase on teaching the SRSD persuasive essay strategy POW-TREE was implemented followed by post intervention testing. Then, a second intervention phase was implemented using the same strategy but with civics content, followed by post testing. Following four weeks delay, maintenance and generalization probes were administered. Students were also assessed on their strategy knowledge, social validity, and timed periodically to assess the

time students spent on planning and writing. Findings revealed that all students improved substantially on all essay measures of length, qualitative, number of essay parts, sentences, and paragraphs. All demonstrated large level changes and decreased variability; resulting percent of nonoverlapping data from baseline to post intervention phases was 100%. There were, however, slight declines from post intervention testing to maintenance and generalization performance, although these data remained substantially higher than baseline performance. Moreover, strategy data revealed that all students learning the essay strategy liked using it and reported seeing the benefits of continued strategy use. Finally, all students improved from low planning and writing times at baseline by significant percent increases in planning and writing at post SRSD intervention. These results replicate and extend previous research on teaching expressive writing to students with EBD. Findings are discussed with respect to educational implications and future research.

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1. INTRODUCTION

A population at risk, students with emotional and behavioral disabilities (EBD), continue to fall academically behind, when compared to their peers in other high incidence disability groups (Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). Students with EBD are also at risk due to increased course failure rates which may endanger their graduation from high school. These students are five times more likely to drop out of school than students with other disabilities (U.S. Department of Education, 2001). These negative factors relating to high school dropout rates may lead to life-long ramifications which include low income and an increased risk for incarceration (Belfield, 2000; Kauffman & Landrum, 2008a; Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). The statistics are not favorable as recognized by those within the field of special education. The need for instructional support and interventions across disciplines for students with EBD has been a constant concern for educators (Bradley, Henderson, & Monfore, 2004).

The educational research on students with EBD has focused primarily on behavioral interventions with the assumption that students who are able to improve their behaviors will be more available for learning academics (Wehby, Lane, & Falk, 2003). However, the evidence has not supported this position, as demonstrated through government reports mandated by the accountability measures for all students in the No

Child Left Behind Act of 2001 (NCLB, 2002; U.S. Department of Education, 2001).

These students continue to fall academically behind.

The NCLB (2002) act also mandates the inclusion of educational practices which are deemed evidence based. The current research base for academic interventions for students with EBD is slim, and educators struggle to identify programs and interventions which have been vetted and deemed as such. Additional research is needed to foster the educational growth and development of students with EBD (Mooney, Epstein, Reid, & Nelson, 2003).

One of the most critical areas for evidence based practices is in the academic area of literacy, notably writing. Students with EBD have a high occurrence of language disorders which affect their receptive, expressive, and pragmatic language skills (Benner, Nelson, & Epstein, 2002). They also require explicit instruction in language-based skills such as written expression, along with strategies for completing language-based tasks that they can apply across settings.

Writing is a key communication skill allowing students to demonstrate understanding of their learning, to create and synthesize material, and to share their thoughts with others via the written word. According to the National Commission on Writing (NCW), "writing is not a frill for a few but an essential skill for many," (NCW, 2003). Writing is also a complex skill which requires time for students to plan, create, edit, and revise their work (Baker, Gersten, & Graham, 2003). Teaching writing has recently come more to the forefront of education reform as national and state mandates

require assessment of writing skills across many grade levels for all students (NCW, 2003).

Writing is also one of the academic areas assessed in schools and reported by the National Assessment of Educational Progress (NAEP) at national, state, and local levels. The NAEP 2003 study reported that two thirds of students in fourth, eighth, and 12th grade were at or below grade level in writing performance (Persky, Daane, & Jin, 2003). Subsequent reports from the NAEP 2007 assessment indicate a slight improvement in overall scores for writing in eighth and 12th grades. However, there were no considerable increases in the numbers of students who were writing at or above proficiency levels (Salahu-Din, Persky, & Miller, 2008).

The ability to write is an essential skill that should be developed and fostered by educators across the curriculum (NCW, 2003). The inability to communicate via the written word can impact students not only in their success at school but also throughout their entire lives. In respect to recent school reform agendas, writing is often overshadowed by reading and math. There have been fewer research studies regarding literacy, specifically writing, than other subject areas (Regan, Mastropieri, & Scruggs, 2005).

The writing process can be difficult for students with disabilities. These students often have difficulty organizing their thoughts, developing ideas, and effectively using the basic mechanics of writing (Graham & Harris, 2003). A particularly difficult area for students is writing arguments, formal and informal persuasive writing (Little, Lane, Harris, Graham, Story, & Sandmel, 2010). To write persuasively requires critical

thinking and planning skills, and the ability to form judgments based on reasoning. Critical thinking is reflective within the persuasive writing genre and involves the ability to organize and plan on multiple levels. Students need access to strategies which can positively impact their development as writers (Graham & Harris, 2009).

One writing intervention which has shown positive outcomes for students with disabilities is Self Regulated Strategy Development (SRSD). This strategy engages students in managing the writing processes of planning, writing, revising, and editing their work (Graham & Harris, 2003). The current research base regarding SRSD includes multiple studies with students who have disabilities with the majority of studies focusing on students with learning disabilities (De La Paz & Graham, 1997; De La Paz, 2005; Graham & Harris, 1989; Graham, Harris & Mason, 2005; Harris, Graham & Mason, 2006; Santangelo, Harris & Graham 2008). More recent research has begun to focus on writing and students with EBD. (Lane et al., 2008; Little et al., 2010; Mason, Kubina, Valasa, & Mong Cramer, 2010; Mason & Shriner, 2008; Mastropieri, Scruggs, Cuenca-Sanchez, Irby, Mills & Mason, 2010; Mastropieri, Scruggs, Irby, Allen-Bronaugh, Thompson, Guckert, Leins & Hauth, Cuenca-Sanchez, (2012); Mastropieri, Scruggs, Mills, Irby, Cuenca-Sanchez, Allen-Bronaugh, Thompson, Guckert & Regan, 2009;)

Students today are required to write across the curriculum for assessments which are both formative and summative. Students are often tasked to write fluently for essay questions on assessments in the classroom and on standardized tests. A noted recommendation for future research is the inclusion of content area prompts to support students as they develop writing skills to meet the demands of writing across content

areas (Mason et. al 2010). To teach writing to students with EBD, a greater focus must be given to the research base which will enhance evidence-based instructional strategies for this population. It is further evident that research regarding writing strategies to enhance student performance with persuasive writing utilizing content area prompts is imperative to the research base for educators of students with EBD.

Characteristics of Students with EBD

Students with emotional and behavioral disorders are initially identified by their social and behavioral impact on academic functions. Students with EBD may have difficulty with externalizing behaviors such as aggression, defiance, and compulsive responses. They may also have characteristics of internalizing behaviors to include anxiety, depression, and social withdrawal (Little et al, 2010). Students with EBD often have difficulty self- regulating their behavior. Academics are also greatly impacted by a student's inability to self-regulate their behavior. Research on the academic outcomes for students with EBD indicates a high percentage of these students are often truant, drop out of school, are incarcerated, and are recipients of welfare (Walker & Severson, 2002).

Students with EBD have such significant academic deficits, and researchers Wehby, Lane and Falk (2003) propose several reasons. Their research indicated that (a) the behaviors of students with EBD interfere with instruction (b) the behaviors of students with EBD influence teacher behaviors so that teachers provide less instruction and (c) that most of the preparation for teachers working with students with EBD focuses on behavior management rather than on academic instruction. The limited research on academic interventions for students with EBD was noted by the research.

The limited research on effective academic instruction for students with EBD is a valid concern. With the passage of No Child Left Behind Act in 2001, teachers are required to use evidence-based practices in the classroom (NCLB, 2002). Without evidence of effective instructional practices for students with EBD, teachers may lack information and training regarding what works for this population in the classroom.

Writing and Intervention Research

Writing is noted as a primary competency area and is one of the academic areas assessed in schools and on district and state assessments. The National Assessment of Educational Progress (NAEP) provides reports pertaining to student knowledge on writing tasks to include narrative, informative, and persuasive genres at the national level. The most recent reports from the NAEP 2007 assessment indicate a slight improvement in overall scores for writing in eighth and 12th grade; however, there were no considerable increases in the numbers of students who were writing at or above proficiency levels (Salahu-Din et al., 2008).

The purposes of writing, as stated in the 2007 NAEP report, are informative, narrative and persuasive (Salahu-Din et al., 2008). Thinking and writing are integral components for student success in each of these purposes for writing. Persuasive writing is often the most difficult for students because of the development of arguments and reasoning skills needed to sway a reader. To write persuasively requires critical thinking skills, planning, and organizing on many levels. Mechanisms for instruction include organizing thoughts, planning, goal setting, and managing the mechanics involved in the writing process (Graham et al, 2003).

Self-regulated strategy development. A writing instructional approach

researched and studied for over twenty years by Steve Graham and Karen Harris is self-

regulated strategy development (SRSD). It combines strategy instruction with explicit

instruction on self-regulation procedures. SRSD was developed to address concerns

related to writing difficulties for students, with and without disabilities (Graham &

Harris, 2003). SRSD instruction has a research base with positive effects in providing

students with disabilities the tools to become more effective writers. SRSD gives

students strategies for planning, writing, revising, editing, and monitoring their writing.

Additionally noted are increases in student self-efficacy and overall quality of writing.

(Graham, 2008; Graham & Harris, 2003).

SRSD instruction consists of six stages of writing instruction (1) develop and

activate background knowledge, (2) discuss it, (3) model it, (4) memorize it, (5) support

it, and (6) independent performance. Concurrently, four strategies for self-regulation are

also taught. These include engaging students in goal setting, self-instruction, self-

monitoring, and self-regulation of their writing. Students engage in learning the strategy

through explicit instruction, modeling, and practice (Graham & Harris, 2003; Harris et al.

2002).

Studies teaching students to write using SRSD instruction, both for persuasive

writing and across writing genres, are shown to be effective for students with learning

disabilities (LD) and emotional and behavioral disorders (De La Paz & Graham, 1997;

De La Paz, 2005; Graham & Harris, 1989; Graham, Harris & Mason, 2005; Harris,

Graham & Mason, 2006; Mastropieri et al., 2009; Mastropieri et al., 2010; Mastropieri et

al., 2012; Mason & Shriner, 2008). The main body of research focused on students with LD with recent research foci on students with EBD.

Research by Mason and Shriner (2008) was conducted with elementary school students in second to fifth grades with EBD who were given instruction on the SRSD strategy for persuasive writing POW+TREE. The mnemonic POW + TREE, means Pick an idea, Organize my notes, Write and say more, plus Topic, Reasons, Explanations and Ending.   This strategy allows students to plan, organize, and manage their opinions and ideas. The results of this study indicated that the intervention was successful in helping students to improve performance on persuasive essays.

Six elementary students at risk for EBD were participants in an SRSD study on story writing by Lane et al. (2008). In this study students received 13 one-on-one lessons with the teacher using the SRSD approach. The findings indicated that all of the participants increased on number of essay parts at post-testing (PND = 100%). Research by Little et al. (2010) also involved elementary students with or at risk for EBD. In this study researchers used the POW+TREE strategy with the school-wide positive behavior intervention system (PBiS) with students who demonstrated internalizing and externalizing behaviors. Positive results were reported with an increase in text elements, number of words, and holistic quality.

The impact of SRSD and writing for middle school students with EBD was the focus of follow up studies by Mason et al. (2010) and Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012). The study by Mastropieri et al. (2010) was a design study and included research with ten eighth graders with EBD in a county

school serving students with severe EBD. These students were taught the POW+TREE strategy for writing persuasive essays. The results of this study indicated that subsequent to the SRSD instruction, all of the students showed improvement with the metrics of length, paragraphs, essay parts, transition words, and holistic quality of their essays. Gains were maintained as demonstrated with maintenance testing 12 weeks after instruction.

Follow up studies by Mastropieri et al. (2009) and Mason et al. (2010) investigated the use of the SRSD strategy with added focus on writing fluency with middles school students with EBD. The Mastropieri et al. (2009) study involved twelve, eighth grade students, with EBD in a county school for students with severe EBD. This study used the POW+TREE strategy with persuasive writing prompts. The second instructional phase included the fluency piece with a ten minute timed one paragraph essay. Essay scores demonstrated consistent gains from baseline scores in regard to number of words written, persuasive essay parts, paragraphs written, transition words used, and overall holistic quality. The means and effect sizes across all students were very high ($ES = 1.83$).

Mastropieri et al. (2012) presented findings from a study which included twelve, seventh and eighth grade, students with EBD in a public middle school setting. This study demonstrated positive results with the SRSD strategy POW+TREE with the inclusion of counter-arguments to the persuasive essay lessons. As with previous studies this study reported marked improvement in writing persuasive essays in regard to writing counterarguments, overall quality, number of words, sentences, essay elements, and

transition words on post instruction, post fluency, and maintenance and generalization probes. These were substantiated by (PND = 100%) on student and instructional group for overall quality of essay, and number of essay elements of students' performance. In addition, the students' post intervention essays demonstrated improvement over baseline measures on length, number of sentences, paragraphs, and transition words (PND = 100%). The study also found that fluency scores on pre-post standardized tests demonstrated a large effect size (ES =1.11). The overall results indicated that the SRSD instruction greatly improved persuasive essay writing with counter-arguments for middle school students with EDB.

Subsequent research by Mason et al. (2010) used POW+TREE to teach five middle-school students with EBD a quick-write strategy. After an intervention period of six, 30-minute, sessions all students showed marked improvement in their ability to write persuasive essays within the 10 minute timeframe.

These studies suggest that SRSD instruction is effective in increasing the writing performance of students with EBD at the middle school level on persuasive essays. Additional research is needed, however, in the use of SRSD strategies with the persuasive writing genre which would address and support student writing across disciplines by using content area prompts (Mason et. al 2010).

Content area. With NCLB (2002) all students are to participate in high stakes assessments, including writing across genres. According to the 2007 NAEP report (Salahu-Din et al., 2008), writing across content areas is a primary emphasis with regard to constructed open ended writing on assessments in history, reading, civics, geography,

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foreign language, mathematics, science, and economics. Writing across content areas is also a recommendation by the NWC (2003) namely in the emphasis of additional opportunities to write during the school day and in multiple content areas. Minimally, students should be given the opportunity to respond to writing prompts across multiple content areas throughout the school day.

There is limited research on content area prompts and students with disabilities. Notably, (De La Paz, 2005) addressed content prompts in history with SRSD instruction with positive outcomes for students with and without disabilities. This study utilized content area prompts reflecting the state wide assessment content curriculum guides in combination with SRSD instruction to increase their writing competency in writing persuasive essays.

A recent paper by Mason, Benedek-Wood and Valasa (2009) recommended content area instruction, quick write, and the SRSD POW-TREE strategy to support student the writing performance of low performing students. It was reported that because students are to write across content areas in classrooms and on statewide and national assessments, then it seems necessary to use instruction which reflect these content areas. An area of need for future research with students with EDB and SRSD instruction on writing persuasive essays within content areas was also recommended by Mason et al. (2010).

Time planning and writing. After reviewing the previous research studies regarding SRSD instruction and middle school students with EBD, it was noted that none of the previous studies recorded the amount of time participants spent planning and

writing their essays. An earlier study with students with LD by MacArthur and Graham (1987) found that students with LD do not spend much time preparing to write. These students often began writing as soon as they were given a writing task with little or no planning or preparation. Notably, students began to write as soon as they received an assignment, this activity did not allow adequate planning which was noted as an important technique for successful writers (Chalk, Hagan-Burke & Burke, 2005). An elementary school study by Troia, Graham and Harris (1999) reported planning and writing time for three, fifth grade students with LD. This study also indicated minimal planning prior to SRSD instruction. Planning is one of major focal points for SRSD (Graham, 2006) and is explicitly taught to students through the use of graphic organizers. It is expected that prior to starting the intervention, students would not spend any time planning their essay. However, once they have been exposed to the strategy and learned how to plan their essay, they would spend time planning their ideas prior to writing. Therefore, this study also proposes to investigate the amount of time middle school students with EBD spend planning their essays prior to writing and their time engaged in the writing process.

The Present Study

Research regarding the writing difficulties of students with LD is abundant and more studies have recently been conducted involving students with EBD. Implementation of the SRSD strategy instruction in conjunction with content area prompts has been identified as an area of need by researchers in the field. To support students across content areas, there is a clear need for additional research in this area.

This study will replicate and extend previous studies on SRSD instruction for persuasive writing POW + TREE (Mason et al., 2010; Mastropieri et al., 2009; Mastropieri et al., 2010; Mastropieri et al., 2012) with students with EBD in middle school by incorporating content area prompts relating to current lessons in middle school Civics and the inclusion of time spent on the planning and writing process.

The purpose of this research is to replicate and extend research by Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012) and Mason (2010) to determine the effectiveness of providing SRSD writing instruction to students with EBD using content area prompts and documenting time spent on planning and writing persuasive essays.

- Does SRSD instruction for persuasive writing increase the quality, length, parts and organization of persuasive essays for students with EBD?

- Can the SRSD model of instruction for the POW+TREE persuasive writing strategy, used successfully in previous research with students with learning disabilities, and EBD, be replicated to include Civics content for middle school students with EBD?

- Once students learn the POW + TREE strategy, can they generalize the use of this strategy to other academic areas?

- Does the time used to plan and write persuasive essays change after the SRSD instructional phases?

Definition of Terms

Emotional and Behavioral Disabilities

Emotional and behavioral disabilities (EBD) encompasses those disorders meeting criteria as outlined in the DSM-IV for various emotional or behavioral disorders or meeting the criteria for emotional disturbance according to the guidelines in IDEA 2004. Students are categorized as EBD if they exhibit one or more of the following characteristics over an extended period of time and this impacts their academic performance: (a) an inability to learn that cannot be explained by intelligence, sensory, or health factors; (b) an inability to build or maintain interpersonal relationships; (c) inappropriate behaviors or feelings under normal circumstances, (d) a general persistent mood of unhappiness or depression, or (e) a tendency to develop physical symptoms or fears associated with personal or school problems [Code of Federal Regulations, Title 34, Section 300.7(b)(9)].

Learning Disabilities (LD)

The IDEA 2004 definition states that in order to qualify for special education services as an individual with a learning disability, a disorder in psychological processing along with a discrepancy between ability and achievement in one or more academic areas must be demonstrated. IDEA also allows for student identification when there is a lack of response to increasingly intensive interventions (RTI) designed to remediate their skill deficits.

Mild Disabilities

This term is often used to describe students within the special education categories of learning disabilities, mild intellectual disabilities, or emotional disturbance. These students are (a) the largest subgroup of children receiving special education services, (b) most often identified during early childhood, and (c) have some psychological, educational, and social characteristics in common (Henley, Ramsey, & Algozzine, 2009).

Middle School

Middle school indicates a range of school years from grades fifth to ninth grade. For the purposes of this study, Middle school is defined as students in the eighth grade.

Persuasive Essays

Outlined by the NAEP reports, persuasive essays are writings which involve a clear use of arguments used to persuade readers to act or change. Persuasive essays may include the use of analysis, inference, synthesis, and evaluation skills (Salahu-Din, Persky, & Miller, 2008).

POW+TREE

This is a mnemonic which was developed to be used in conjunction with the Self-Regulated Strategy Development (SRSD) model of instruction to assist students with the elements of persuasive writing (Harris, Graham, Mason, & Friedlander, 2008). POW stands for **P**ick my idea, **O**rganize my notes and **W**rite and say more. TREE represents the next section for writing the **T**opic Sentence, **R**easons, **E**xplanations, and **E**nding.

Self-regulated Strategy Development for Writing (SRSD)

Self-regulated strategy development (SRSD) is an empirically based approach to writing instruction combining strategy instruction and explicit instruction with self-regulation techniques to support students with the writing process. Instructional lessons integrate the six stages of SRSD: (a) develop background knowledge, (b) discuss it, (c) model it, (d) memorize it, (e) support it, and (f) perform it. The SRSD model uses scaffolding during the intervention to encourage students to perform the strategy steps independently without support materials. SRSD strategy incorporates instruction in self-regulation processes which include goal setting, self-instruction, self-monitoring, and self-reinforcement (Harris et al., 2003).

Virginia Standards of Learning (SOL) Writing Test

Virginia's SOL high stakes end of year testing includes writing in grades four, eight, and 11. Prompts for the writing portion include instructions to write narrative, expository, and persuasive writing. The focus for the eighth grade writing test is often persuasive writing. The test assesses how well students statewide are reaching standards of achievement in writing. Prompts for this test are released by the Virginia Department of Education (VDOE). Previous prompts are available to educators to use as practice prompts for the SOL writing test.

Writing Process

The writing process refers to the ability of a person to organize thoughts and language in written form which then conveys meaning to the reader. It involves planning, writing, and revising phases (Hayes & Flowers, 1980).

Writing Content Area Prompt

       A writing prompt is defined as a written assignment that requires a student to provide a written response to an idea, question or situation in a prescribed period of time (Angelillo, 2005). A content area prompt allows students to write about a topic related to instruction from a specific content area such as history, math or science.

2. LITERATURE REVIEW

This chapter presents a précis of the literature on students with emotional and behavioral disorders (EBD). The following section reviews the literature on students with EBD in relation to academic achievement, more specifically written expression. Subsequent sections provide a review of writing intervention research for students with mild disabilities with a focus on the use of SRSD strategies. This segues to writing intervention research with SRSD strategies with students with EBD, and culminates in the review of this research with the incorporation of content area prompts and time spent planning and writing.

Literature Search Procedures

Included in this review are studies which were selected via a comprehensive search of the available literature. The researcher made every attempt to identify and locate empirical research relevant to the study. Searches on students with EBD and academic characteristics, writing, and writing interventions, SRSD studies, and content area prompts were included. The researcher utilized computer-assisted searches of the following databases: ERIC, Social Citation Index, Dissertations Abstracts, 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, and students with EBD, writing and content area prompts, and time writing and planning. Ancestry searches were also conducted using the relevant reference sections of articles and meta-analyses. Peer reviewed journals were examined to include: *American Educational Research Journal, Behavioral Disorders, Exceptional Children*, *Journal of Learning Disabilities, Journal of Special Education, Learning Disabilities Research & Practice, and Remedial and Special Education.*

Characteristics of Students with EBD

The Individuals with Disabilities Education Improvement Act (IDEA, 2004) defines an emotional disturbance as:

A condition exhibiting one or more of the following characteristics over an extended period of time and to a marked degree:

An inability to learn that cannot be explained by intellectual, sensory, or health factors;

An inability to build or maintain satisfactory relationships with peers and teachers;

Inappropriate types of behavior or feelings under normal circumstances;

A general pervasive mood of unhappiness or depression; or

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

In addition, this definition does specify the inclusion of children who are schizophrenic, but excludes children who are labeled as socially maladjusted (34 C.F.R. § 300.8 (c) (4), 2006, p. 46756).

According to recent research by Bradley, Doolittle and Bartolotta (2008) there are 471,306 students between the ages of six and twenty-one with EBD listed as their primary disability label. This data was further disaggregated to explain that EBD is the primary label for approximately (6%) of elementary students and (11.2%) of secondary students who receives special education services. This difference in rates is recognized as largely due to changes made in primary disability labels from elementary to secondary school levels.

The population of students who receive services under the EBD label are primarily male (80%) with a disproportionately large number from African American descent (Wagner et al., 2005). A lower socioeconomic status is also a risk factor related to students with EBD. Thirty-three percent of elementary and middle school children with EBD are considered to be living in poverty whereas only sixteen percent of students in the general education population live in poverty (Wagner et al., 2005).

Co-morbidity is also commonly reported with students with EBD. These conditions may include 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 (Kauffman, 2005).

Students with EBD are at greater risk for a number of factors pertaining to family stress and life-long outcomes than their non-disabled peers. Recent longitudinal studies include the Special Education Elementary Longitudinal Study (SEELS) and the National Longitudinal Transition Study–2 (NLTS-2). These two studies, as reported by Wagner et al. (2005), demonstrate the increased economic stresses on families who have a student with EBD. These reports indicated that one-third of students with EBD live in single-parent homes, (45%) live with a family member with a disability, and (20%) live in homes where the head of the household did not graduate from high school. Additionally, students with EBD have a higher mobility rate and have a rate four times greater than their peers with and without disabilities regarding school suspensions and expulsions. The reports also relayed parent concerns for their children with EBD. Parents confirmed that they spend more time assisting their students with homework and that they often fail to receive services for their students.

Critical to economic indicators are educational outcomes for students with disabilities which include graduating from high school. Reports by Belfield (2000) indicate that students who do not attain a high school graduation level certification are at greater risk to receive public assistance in terms of welfare and health care, be incarcerated, and have reduced levels of health and longevity. Students with EBD are then at greater risk for these negative lifelong outcomes based on reports which indicate that half of all students with EBD drop out of high school. This is the highest rate by any disability category as reported by Wagner et al (2005). Only (20%) of adolescents with EBD continue with post high school education (Bradley et al., 2008). Without adequate

education and training it is not surprising that unemployment rates for young adults with EBD range from (42% to 70%), a troubling rate compared to their peers with other disabilities (Bradley et al., 2008; Carter & Wehby, 2003). Also of concern are the statistics regarding sustained employment for young adults with EBD. These reports indicate that even when these young adults are employed immediately after high school, by the second year (35%) are unemployed (Carter & Wehby, 2003). Another alarming outcome for these young people is increased activity within the criminal justice system and an arrest rate of nearly (60%), (Bradley et al., 2008).

The numerous factors affecting both the education and lifelong outcomes for students with EBD are unsettling to educators and families. It is vital that these students receive the appropriate supports for their academic and behavioral challenges in order to become successful and productive members of society.

Academic Achievement and Students with EBD

According to national statistics by the Office of Special Education Programs (OSEP) in comparing students with disabilities across academic and behavioral settings, those students with EBD consistently demonstrate the most negative outcomes (Bradley et al., 2004; Bradley et al., 2008). The research interventions and trends for this population were investigated by Trout et al. (2003) with an analysis of the academic research regarding students with EBD between the years of 1961 and 2000. The inclusion criteria for this analysis included studies where students with EBD ranged in age from five to twenty-one with a minimum of one content area included as a dependent variable. The review included sixty-five peer-reviewed journal articles. The report

described two specific categories and created an analysis which resulted in data sets divided across four decades which demonstrated the chronological trends of research.

The categories described by Trout et al. (2003) included student demographics regarding age, gender, intelligence quotient, race, socioeconomic status, placement setting, academic content areas; and student academic status in relation to grade level performance. Most relevant, to the need for additional supports for this population, was that of the 16 data sets regarding academic performance none of the sets showed students with EBD at or above grade level. The analysis also reported that students with EBD performed below grade level in the critical competency content areas of mathematics, reading and written expression.

A subsequent meta-analysis of the academic status of students with EBD by Reid, Gonzalez, Nordness, Trout, and Epstein (2004) reported very comparable results. This study reviewed twenty-five articles published between 1961 and 2000 with inclusion criterion of (a) students with EBD or co-morbidity of EBD and another disability; (b) an evaluation including one or more academic content areas; and (c) a sample age between five and 21 years of age. Results of this analysis reported that (75%) of students with EBD achieved grades below the mean of their non-disabled peers. Also noted from this study were academic functioning data which demonstrated that students with EBD performed significantly lower in all core subject areas with the largest deficits evidenced in mathematics and literacy.

Another finding from the Reid et al. (2004) meta-analysis was the discovery regarding academic setting and students with EBD. This analysis indicated that

regardless of the instructional setting, students with EBD continued to demonstrate academic delays. These findings further demonstrate the critical need for additional supports and interventions for students with EBD across settings and subject areas.

Academic interventions for students with EBD. Empirical research continues to demonstrate the academic issues and lack of progress made by students with EBD. The most notable areas of concern regard progress in the NCLB mandated areas of reading, mathematics, and writing (Nelson et al., 2003; Reid et al., 2004). NCLB also mandates that evidence-based practices be in practice to address these academic areas. However, to date, few research studies have been conducted to identify the practices which address the diverse and complex needs of this population of students (Lane, 2004; Mooney et al., 2003; Regan et al., 2009).

A review of academic interventions for students with EBD was conducted by Mooney et al. (2003). These researchers focused on research trends between the years of 1975 and 2002. They identified fifty-five peer-reviewed experimental studies during this time frame which included academic interventions that included students with EBD. Findings revealed a tremendous need for more academic intervention research focused on students with EBD. Mooney and colleagues (2003) found that the majority of the studies reviewed lacked important demographic information such as race and socio-economic information. Additionally, the primary content areas in these studies were math and reading, leaving content areas such as writing, science, and civics with minimal information.

An additional review of literature by Lane (2004) found similar results. The criteria for this study included literature published between 1990 and 2003 which included academic interventions for students with or at risk of EBD in the content areas of reading, written-expression, and math. A primary finding from this literature review indicated the critical need for additional research with academic interventions regarding written expression and this population. A more recent review of the literature by Regan et al. (2009) investigated intervention studies with regard to literacy and students with EBD. This study found that of the 21 articles identified, three categories of interventions emerged. These included (a) peer-mediated literacy interventions, (b) reading, and (c) writing interventions. This study identified the need for additional research on writing interventions with students with EBD. The researchers elaborated on the emergence of interventions which demonstrated the most promise in the area of written expression. These included (a) one study where dialogue journals were used to improve writing fluency and quality for elementary students with EBD (Regan, Mastropieri, & Scruggs, 2005), and (b) three studies which used the SRSD strategy with 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 not as prevalent as other disability areas, researchers have begun an emergent research base in the area of written expression. Regan et al. (2009) also concluded that additional research is needed to support students with EBD, both academically and socially, especially in the area of writing.

Writing Research and Interventions

Writing is a key communication skill allowing students to demonstrate understanding of their learning, to create and synthesize material, and to share their thoughts with others via the written word. Researchers Hayes and Flowers (1980) defined writing as a three stage process which includes planning, drafting (translating), and revising. They further state that writing is a fluid process where writers weave back and forth through the different stages as they write. This process is noted as non-linear in nature and requires the writer to reflect and think about the process as well. Their research states that writing requires the ability to work fluidly within and between the different stages of the writing process.

The research focus shifted to more research on the cognitive process of writing after the paper by Hayes and Flowers (1980). During the next decade, instead of targeting the mechanics of writing, more research focused on expressive instructional strategies to help strengthen and improve student understanding of the process and engage students in this metacognitive practice to include content and organization.

Writing research also began to focus not only on the writing process itself but on how we teach writing and instruction of the writing process. According to Graham and Harris (1996), there are many ways to facilitate this process to include classroom environments where routines are established. Students are asked to plan and revise their writing as well as share and collaborate with others. Teachers, as facilitators, play an integral part in the process of instruction and assist students as they become more adept at

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writing by assisting students with explicit procedures to help facilitate the cognitive processes involved in writing (Scardemalia & Bereiter, 1986).

Writing research is vast and covers multiple facets of the writing process and the instruction of the process with students. To facilitate and consolidate the process, meta-analyses of writing may be used to help analyze the research to find what works as we teach generations of students to write every day.

Meta-analysis of writing research. To summarize a large body of research, meta-analyses are a way to cull and sort the existing research on a given topic. Meta-analysis involves descriptive information as well as a report on effect size for given dependent variables in the study. The most frequently used measure for effect size in group experimental and quasi-experimental studies is Cohen's *d*. Lipsey and Wilson (2001) reported standard guidelines for determining the relative effects of interventions based on the *d* statistic. Effect sizes (*ES*) of $d = 0.20$ are considered small effects; $d > 0.50$ are considered moderate effects; and $d > 0.80$ are considered large effects. However, in single-subject research, the most reported effect size is percent of non-overlapping data (PND) which uses visual analysis of data and indicates effect sizes of interventions with the following scale: a (PND < 50%) are noted as ineffective, PND ranging from (50-70%) are noted to have small effects, PND between (70-90%) are considered to have moderate effects, and (PND > 90%) are considered large effects (Scruggs, Mastropieri, & Castro, 1987).

Meta-analysis of writing research and students without disabilities. Within the past 25 years researchers have conducted meta-analyses of writing research for

students without disabilities. These studies allowed researchers to identify the most prevalent writing strategies and their outcomes for students from pre-school through college (Bangert-Drowns, 1993; Bangert-Drowns, Hurley, & Wilkinson, 2004; Graham & Perin, 2007a; Graham & Perin, 2007b; Hillocks, 1986). Learning-to-write studies were the primary focus for the following meta-analysis (Bangert-Drowns, 1993; Goldberg, Russell, & Cook, 2002; Graham & Perin, 2007a; Graham & Perin, 2007b; Hillocks, 1986) whereas writing-to-learn across grade levels and content areas was researched by Bangert-Drowns, Hurley, & Wilkinson (2004).

Hillocks (1986) conducted the first learning-to-write meta-analyses which reviewed the research on writing for students from elementary school age through college. The findings from this analysis indicated that the most effective mode for writing instruction was the environmental presentation mode ($ES = 0.44$). In the environmental mode, instruction includes (a) clear and explicit objectives, (b) materials and problems chosen to engage students with each other regarding a specific process in writing, and (c) activities encouraging high levels of peer interaction concerning specific tasks. Significant findings were also reported regarding the focus of instruction. This study indicated that inquiry activities which allowed students to base their writing after investigating data on a topic had the greatest effect size ($ES = 0.56$) followed by; student evaluation of writing using a concrete scale provided by the instructor ($ES = 0.36$), and sentence-combining instruction which asked students to make simple sentences into more complex sentences ($ES = 0.35$).

Technology and the impact of word-processing on writing were the primary

criteria for two later meta-analyses regarding learning-to-write. The earlier study

conducted by Bangert-Drowns (1993) reviewed experimental and quasi-experimental

studies in which the same writing instruction was given to all of the students. One group

had access to the word processors for their writing while the other did not. This analysis

found that use of a word processor actually had a small effect size ($ES = 0.27$).

Interestingly, they concluded, that word processing did have a positive or motivational

impact on weaker writers. This was due to findings in the study which showed that

weaker writers had stronger gains in writing ability with the use of word processors than

their peers with stronger writing skills.

The second meta-analysis of research on the use of word processing was

conducted by Goldberg, Russell, and Cook (2002). These researchers investigated ten

years of studies with students (K-12). There results indicated that the use of a word

processor had no significant effects on writing ability. The use of technology did have a

moderate effect size of ($ES=.50$) on quantity and a smaller effect size ($ES= .41$) on the

quality of student writing.

Writing interventions for grades four through twelve were the focus of two meta-

analyses by Graham and Perin (2007a; 2007b). The two studies were differentiated by

methodology and design. The first study *Writing Next* by Graham & Perin (2007a) was a

meta-analysis of writing intervention research utilizing experimental or quasi-

experimental design. Findings from this meta-analysis generated 12 recommendations

for writing instruction for these grade levels. All findings from this report were given in

weighted analyses of variance and regression which are commonly used in meta-analysis studies. This study reported that the two intervention strategies with the largest effect size ($ES = 0.82$) were strategy, and summarization instruction ($ES = 0.82$). Large effect sizes were also reported for collaborative writing ($ES = 0.75$) and for setting specific goals for the writing product ($ES = 0.70$). Moderate effect sizes were reported were word processing ($ES = 0.55$) and sentence-combining instruction ($ES = 0.50$). Three interventions with ($ES = 0.32$) were also reported to include pre-writing activities, inquiry, and a program called process writing approach. Average weighted effect sizes were reported in the intervention use of models ($ES = .25$). Whereas, the final learning to write intervention of traditional school grammar showed a negative effect size of ($ES = -0.32$). The meta-analysis included write-to-learn interventions in content areas such as math and history which generated smaller but still significant effect sizes ($ES = 0.23$), indicating that content learning can be enhanced through writing.

The second meta-analysis by Graham and Perin (2007b) included smaller studies with single subject designs as well as studies that were qualitative with students from grades four through twelve. Reported here are the PND values for the writing interventions engaged in single subject design. Notably, as with the previous meta-analysis, the strategy instruction had the largest effect size (PND = 91%). Word processing (PND = 77%) had a moderate effect. Interventions with small effects included self-monitoring (PND = 67%), direct instructions (PND = 62%), grammar (PND = 61%) and behavior reinforcement (PND = 56%). From these two meta-analyses by Graham

and Perin (2007a; 2007b) across design types, strategy instruction was the intervention shown to be most effective with adolescent writers.

Writing-to-learn strategies involving writing across content areas were the focus of a meta-analysis study involving students without disabilities from elementary through college. Bangert-Drowns, Hurley, & Wilkinson (2004) found that writing-to-learn effects on school achievement were typically positive but small ($ES = 0.26$). The study also reported that 75% of the outcomes favored writing to learn over conventional instruction within the same content area. All grade levels except for grades six through eight showed increased student achievement with the increase in length of the intervention as well as the inclusion of meta-cognitive prompts. Also reported was the ineffectiveness of longer writing assignments in relation to student outcomes.

The writing meta-analyses presented were conducted with students in the general education population as well as some with struggling writers. Following are findings regarding meta-analysis on writing that include students with learning disabilities. A meta-analysis of studies regarding students with EBD and writing interventions has not been completed to date.

Meta-analyses of writing research including students with learning disabilities. Students with LD are the largest group of students in special education. Therefore, research on instructional strategies in the field of special education often focuses on this population. Henley, Ramsey, and Algozzine (2009), stated that the academic characteristics of students with EBD are similar to their learning disabled peers. Both groups of students exhibited deficits in school functioning to include below average

achievement in academic content courses, an inability to demonstrate executive functioning skills such as attentiveness, note-taking and test taking skills, and lack of motivation to complete tasks. Both groups of students share noted deficits in terms of educational progress in school (Anderson et al. (2001). Although a meta-analysis of research concerning writing strategies has not been done with students with EBD, the research regarding students with LD informs educators and leads to potential practices in which students with EBD may also benefit.

The following five meta-analyses reported findings regarding writing instruction and students with LD (Gersten & Baker 2001; Graham, 2006; Graham & Harris, 2003; Mason & Graham, 2008; Rogers & Graham, 2008. The studies on the subject of writing and students with LD revealed similar findings to the meta-analysis conducted regarding students without disabilities.

Gersten and Baker (2001) conducted a meta-analysis which included 13 studies with strategies for expressive writing for students with LD from grades one through nine. Overall the research found that all of the interventions for expressive writing had positive effects for this population. The dependent measures reported and calculated for weighted effect side were reported as: an aggregate score for overall instruction ($ES = 0.81$), qualitative holistic quality of writing sample ($ES = 0.67$), rubrics used to measure achievement ($ES = 0.98$), inclusion of elements of text structure ($ES = 1.11$), student understanding of the writing process ($ES = 0.64$), conventional instruction ($ES = 0.40$), and self-efficacy ($ES = 0.61$). In summary, although all of these interventions show promise for students with LD, instruction which includes the awareness of the elements

of text structure, the writing process, and use of rubrics for student feedback were most noteworthy for this study.

Extending the earlier meta-analysis of writing intervention research from Graham and Perin (2007a; 2007b), two recent meta-analyses included additional parameters regarding writing research for students with LD (Mason & Graham, 2008; Rogers & Graham, 2008). The meta-analysis by Mason and Graham (2008) included students with LD in regards to writing research with students in the fourth through twelfth grades. Group studies and -subject studies were included in the analysis. Their criteria also included experimental, quasi-experimental group studies and single-subject research designs. In addition researchers also contacted renowned investigators to ascertain their current research foci. This study identified 40 studies which met the analysis criteria. Results reported effect size and/or PND for each of the reported intervention categories. Results indicated that programs with an emphasis on strategy instruction were the most effective for students with LD. These strategies each showed effective results (a) strategic instruction model (SIMS) reported (PND = 83% - 100%, *ES* = 1.69), (b) cognitive strategy instruction for writing (CSIW; *ES* = 0.93), (c) interactive dialogues (*ES* = 2.51), and (d) self-regulated strategy development (SRSD; PND = 92% - 100%, *ES* = 0.72 - 1.32). Additional writing program instruction, including goal setting (*ES* = 0.76) and using computers for writing (*ES* = 0.79), were also effective.

This meta-analysis also utilized an 11 point quality indicator scale from the Graham and Perin (2007b) study. The researchers' assigned one point value for each of the following indicators met for each study in this analysis: participants adequately

described, participant selection adequately described, description of instructional setting adequately described, dependent measures quantified, dependent measures reliable, multiple baseline data points collected, multiple intervention points collected, treatment fully described, treatment fidelity established, testing procedures adequately described, and social validity established, and whether experimental control was established with at least three students in each study. This is noted due to the increased emphasis on research based interventions mandated by NCLB (2001). Of note, the strategy instruction studies with the highest quality indicators are those involving SRSD instruction with four or more studies (QI =8.87/11).

The second meta-analysis extending the work of Graham and Perin (2007a:1007b) was conducted by Rogers and Graham (2008). In this study, researchers included elementary through high school students with LD or who were identified as struggling writers. This research also included criteria inclusive of other educational settings to incorporate students attending regular public schools, private schools, alternative schools, summer programs, clinics, and residential centers. Finally this study only included single-subject research with the caveat that they established mechanisms for experimental control. This criterion resulted in the analysis of 88 studies.

The meta-analysis investigated strategies which included planning and drafting, editing, grammar, paragraph construction, word processing, reinforcement, pre-writing activities, instruction in sentence construction, goal setting and self-monitoring. They reported effectiveness using PND percentages. The most prevalent type of strategy instruction was planning and drafting which constituted 25 of the 88 studies. This

strategy reported high effect sizes across multiple areas of this intervention to include (a) structural elements included in essays (PND = 96%), (b) generalization to other genres (PND = 85%), (c) essay quality (PND = 99%), and (d) productivity (PND = 91%).

Additional strategy instruction with large effect sizes included paragraph construction (PND = 97%). Strategy instruction incorporating lessons with editing reported moderate effect sizes of (PND = 84%). Large effect sizes were also reported for other types of writing instruction including reinforcement (PND = 96%). Moderate effect sizes were reported with sentence construction (PND=86%) and grammar instruction (PND = 83%), goal setting (PND = 79%), word processing (70%). Smaller effect sizes were evidenced in pre-writing instruction (PND = 52%) and self-monitoring (PND = 51%). This meta-analysis reported similar findings to past analysis, indicating that across grade levels and setting, strategy instruction was both the most prevalent type of instruction as well as one of the most effective.

Strategy instruction was the focus of two additional meta-analyses on writing instruction. Graham (2006) conducted a meta-analysis to include group experimental, quasi-experimental and single subject designs. Single subject design studies were only included if they employed a multiple baseline design. Strategy instruction studies in writing were defined as those which incorporated a model for one or more of the processes of planning, drafting and revising. In addition, the strategy instruction had to be modeled, instructed over three or more days, and work toward student independence in the use of the strategy. Thirty-nine studies were included in this meta-analysis, with twenty utilizing group comparisons and the other nineteen single subject design.

The study reported that the overall effect size for strategy instruction was very high for the group comparisons and effective for the single subject designs (*ES* = 1.15; PND = 89%) for grade levels from early elementary through high school. The study also reported that this effect was high across writing genres and strategy taught. Lastly, the findings also indicated that all students, with and without disabilities, benefited from strategy instruction. Gains were also maintained over time after strategy instruction as students were able to generalize the strategy to additional writing assignments. Students were also able to maintain their skills over time.

The most prevalent strategy instruction was SRSD used in 45% of the group experiments and 68% of single subject studies. The analysis indicated that SRSD instruction had significantly higher effect sizes in group experimental studies than other approaches. However, in single subject research, there was no significance between the strategy types. The researchers were unable to compare maintenance scores in all of the single subject research studies as, not all of them, reported these results.

A meta-analysis was conducted by Graham and Harris (2003) which included 18 studies from 1985-2002 which used SRSD instruction for writing in students in grades two through eight. The results of the meta-analysis indicated that SRSD strategy instruction had a significant effect on the writing performance of students with LD and those who were classified as at-risk or struggling writers. It is evident through the efforts of these meta-analyses that strategy instruction in writing is the most effective tool for students with LD. Additional discussion regarding this meta-analysis will be discussed further in the strategy instruction component of the following section.

Strategy Instruction

       Strategy instruction in writing involves the direct and explicit teaching of a process which is implemented for student understanding and learning (Graham, 2006). One of the characteristics of strategy instruction is the progression from teacher modeling, to guided practice, and to student independence in the use of the strategy in the completion of written assignments. As noted in the previous meta-analyses, instruction strategies are the most effective methods for teaching students the writing process. More specifically, regarding struggling writers and students with disabilities, the SRSD instructional strategy has shown effective and positive results.

       Self regulated strategy development. A writing instructional approach researched and studied for over twenty years by Steve Graham and Karen Harris is self-regulated strategy development (SRSD). It combines strategy instruction with explicit instruction on self-regulation procedures. SRSD was developed to address concerns related to writing difficulties for students with and without disabilities (Graham & Harris, 2003).

       SRSD instruction has a research base with positive effects in providing students with disabilities the tools to become more effective writers. SRSD gives students strategies for planning, writing, revising, editing, and monitoring their writing. Additionally noted are increases in student self-efficacy and overall quality of writing (Graham, 2008; Graham & Harris, 2003).

       SRSD instruction consists of six stages of writing instruction (1) develop and activate background knowledge, (2) discuss it, (3) model it, (4) memorize it, (5) support

it, and (6) independent performance. Concurrently, four strategies for self-regulation are also taught. These include engaging in goal setting, self-instruction, self-monitoring and self-regulation of their writing. Students engage in learning the strategy through explicit instruction, modeling, and practice (Graham & Harris, 2003; Harris et al. 2002).

In their meta-analysis of SRSD research Graham and Harris (2003) looked at 18 studies utilizing SRSD strategy instruction from 1985-2002 with students in grades two through eight with LD. Their findings demonstrated that SRSD was highly effective for students with LD in writing ($ES = 1.14$), elements ($ES = 2.15$), story grammar ($ES = 3.52$), and length ($ES = 1.86$). Their research also indicated that components of SRSD which are related to self-regulation, such as goal setting and self-monitoring, also significantly impact the writing performance of students with LD.

Additional support for the SRSD strategy was reported in the research by Baker, Chard, Ketterlin-Geller Apichatabutra, and Doabler (2009). They demonstrated that the SRSD approach met the designated criteria for an evidence-based practice (Gersten et al., 2005; Horner et al., 2005). This is a critical component in light of the NCLB (2001) mandates regarding the use of evidence based practices in the classroom. Their findings recommend the use of SRSD in the instruction of students with disabilities.

Studies teaching students to write using SRSD instruction, both for persuasive writing and across writing genres are shown to be effective for students with learning disabilities (LD) and emotional and behavioral disorders (Cuenca-Sanchez, Mastropieri, Scruggs & Kidd, in press; De La Paz & Graham, 1997; De La Paz, 2005; Graham & Harris, 1989; Graham, Harris & Mason, 2005; Harris, Graham & Mason, 2006;

Mastropieri et al., 2009; Mastropieri et al., 2010; Mastropieri et al., 2012; Mason & Shriner, 2008). The main body of research focused on students with LD with recent research foci on students with EBD.

SRSD strategy and students with EBD. The use of SRSD as a focus for improving the writing skills of students with EBD in elementary and in middle school has been the focus of recently published studies (Cerar, 2012 dissertation; Cuenca-Sanchez et al., in press; Lane et al., 2008; Little et al., 2010; Mason, Kubina, Valasa, & Mong Cramer, 2010; Mason & Shriner, 2008; Mastropieri et al., 2009; Mastropieri et al., 2010; Mastropieri et al., 2012).

Research by Mason and Shriner (2008) was conducted with elementary school students in second through fifth grades with EBD who were given instruction on the SRSD strategy for persuasive writing POW+TREE. The mnemonic POW + TREE represents Pick an idea, Organize notes, Write and say more, plus Topic, Reasons, Explanations and Ending. This strategy allowed students to plan, organize, and manage their opinions and ideas. The results of this study indicated that the intervention was successful in helping students to improve performance on the number of parts in persuasive essays (PND = 100%).

Six elementary students at risk for EBD were participants in an SRSD study on story writing by Lane et al. (2008). In this study students received 13 one-on-one lessons with the teacher using SRSD approach. The findings indicated that all of the participants increased on number of essay parts at post-testing (PND = 100%). Research by Little et al. (2010) also included elementary students with EBD or at risk for EBD. In this study

researchers used the POW+TREE strategy with the school-wide positive behavior intervention system (PBiS) with students who demonstrated internalizing and externalizing behaviors. Positive results were reported with an increase in text elements, number of words, and holistic quality.

The impact of SRSD and writing for middle school students with EBD was the focus of follow up studies by Mason et al. (2010) and Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012). The study by Mastropieri et al. (2010) was a design study and included research with ten eighth graders with EBD in a county school serving students with severe EBD. These students were taught the POW+TREE strategy for writing persuasive essays. The results of this study indicated that subsequent to the SRSD instruction, all of the students showed improvement with the metrics of length, number of paragraphs, essay parts, transition words, and holistic quality of their essays. Gains were maintained as shown demonstrated with maintenance testing 12 weeks after instruction.

Studies by Mastropieri et al. (2009) and Mason et al (2010) investigated the use of the SRSD strategy with added focus on writing fluency with middle school students with EBD. The Mastropieri et al. (2009) study involved twelve eighth grade students with EBD in a county school for students with severe EBD. This study used the POW+TREE strategy with persuasive writing prompts. The second instructional phase included the fluency piece with a ten minute timed one paragraph essay. Essay scores demonstrated consistent gains from baseline scores in regard to number of words written, number of persuasive essay parts, number of paragraphs written, number of transition words used,

and overall holistic quality. The means and effect sizes across all students were very high (ES = 1.83). Following fluency instruction, students' scores declined, but were notably higher than their baseline scores. Students were also able to maintain scores which were above-baseline at maintenance testing. On task-behavior was also reported at (M = 72%), which though less than optimal, was an increase from the previous study.

Mastropieri et al. (2012) presented findings from a study which included twelve seventh and eighth grade students with EBD in a public middle school setting. This study demonstrated positive results with the SRSD strategy POW+TREE with the inclusion of counter- arguments to the persuasive essay task. As with previous studies, this study reported marked improvement in writing persuasive essays in regard to writing counterarguments, overall quality, number of words, sentences, essay elements, and transition words on post instruction, post fluency, and maintenance and generalization probes. These were substantiated by (PND = 100%) on student and instructional group for overall quality of essay and number of essay elements of students' performance. In addition, the students' post intervention essays demonstrated improvement over baseline measures on length, number of sentences, paragraphs, and transition words (PND = 100%). The study also found that fluency scores on pre-post standardized tests demonstrated a large effect size (ES =1.11). The overall results indicated that the SRSD instruction improved persuasive essay writing with counter-arguments for middle school students with EDB.

Subsequent research by Mason et al. (2010) used POW+TREE to teach five middle-school students with EBD a quick-write strategy. After an intervention period of

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six, 30-minute sessions, all of the students showed improvement in their ability to write persuasive essays within 10 minutes. Overall quality of responses showed an increase from baseline: post-instruction compared to baseline was moderate with (PND = 84%) and small with (PND = 60%) at maintenance.

In addition, a study by Cuenca-Sanchez et al. (in press) investigated the writing performance of middle school students with EBD using an experimental design. This study also investigated self-efficacy, self-regulation, and teachers as interveners. This study found that experimental student performance significantly increased after SRSD instruction across all phases from baseline when compared to the control group.

Lastly, two recent dissertation studies have been conducted with SRSD instruction and students with EBD (Cerar, 2012 dissertation; Mills, 2012 dissertation). In the study by Cerar, fluency and persuasive essay writing were the focus of the research with six middle school students. Preliminary results indicate improvements in fluency across all elements measured. The study by Mills (2012 dissertation) included an additional focus on instruction using peer revision strategies to ascertain whether or not students were receptive to and learned from peer revision opportunities during the persuasive essay writing process with SRSD instruction. This study involved 13 middle school students and preliminary results also indicate improvement in overall quality of student essays.

Synthesis. The previously outlined studies are summarized on Table 1. Their results suggest that SRSD instruction is effective in increasing the writing performance of students with EBD at both the elementary (three studies) and middle school (six studies)

levels. Overall findings were significant for SRSD instruction with the middle school

population across settings to include centers and general public schools. Additional

findings include (a) five of the studies included a measure for timed writing to measure

fluency (b) seven of the nine studies included the persuasive writing genre, (c) two of the

studies measured fluency, timed writings subsequent to untimed instruction, and (d) one

study incorporated the reverse demonstrating that timed writings improved after the

SRSD POW+TREE intervention. Students demonstrated an increase in word count,

sentences, paragraphs and overall quality measures in each of the middle school studies.

This synthesis establishes an overview of the current literature and research regarding

SRSD instruction and writing with students with EBD in elementary and middle school.

It also shows the need for additional areas of research within the construct of SRSD and

persuasive writing with this population of students.

Additional research is needed, in the use of SRSD strategies with the persuasive

writing genre which would address and support student writing across disciplines by

using content area prompts (Mason et. al, 2010). Also of note, is the lack of research on

the time that middle school students with EBD actually spend on planning and writing

prior to SRSD instruction with persuasive essay writing. Planning is one of the three

processes for writing (Hayes & Flowers, 1980). As an important aspect of the writing

process, educators need to know not only how students plan but how long they spend in

the planning stage as well as in the writing process. Are students able to integrate the

SRSD strategy and increase planning time before writing essays? The following sections

address the limited research in both content area and time planning and writing within the context of SRSD instruction for writing and students with EBD.

Table 1

SSR Research Studies on Writing with SRSD and Students with EBD

Author (Year)	Focus	Sample	Duration	Results
Mason & Shriner (2008)	SRSD Persuasive writing	6 second through fifth grade students with EBD	11-13, 30-minute individual sessions	Increase in the number of persuasive essay parts, total number of words, and number of transition words included in the essay; overall quality improved; maintenance and generalization scores varied across students
Lane et al. (2008)	SRSD with PBS; story writing	6 second grade students	10-15, 30-minute individual sessions	Increases in story elements, length, and quality; maintained gains over baseline at maintenance testing; favorable reports from teachers and students
Little et al. (2010)	SRSD with PBS; persuasive writing	13 second grade students	7-15, 30-minute individual sessions	Increase in the number of text structure elements, number of words, and overall quality from baseline to post-instruction; maintained gains over baseline at maintenance testing; no differences in performance for students with internalizing and externalizing behaviors
Mastropieri et al. (2010)	SRSD POW+TREE Persuasive writing	10 eighth grade students	50-55, 29-minute small group sessions	Increased in the length, number of essay parts, number of transition words, and overall quality of essays; increased fluency scores; maintained gains over baseline 12 weeks after post-testing

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Mastropieri et al. (2009)	SRSD POW+ TREE Fluency; persuasive writing	12 eighth grade students	55, 30-minute small group sessions	Increase in the length, number of paragraphs, number of essay parts, number of transition words, and holistic quality of essays following SRSD instruction; post-fluency instruction, students' scores decreased but were still significantly higher than baseline; maintained above-baseline scores at maintenance testing
Mason et al. (2010)	SRSD POW+ TREE Fluency	5 middle school students	5, 30-minute sessions ; 3, 10-minute individual	Improved essay quality; no change in total number of essay parts; decrease in total number of words; improved consistency in writing performance, which improved the overall quality of writing
Mastropieri et al. (2012)	SRSD POW+TREE Persuasive writing Counter-arguments Fluency	12 middle school students	35, 45 minute small group sessions	Improvement in writing persuasive essays in regard to writing counterarguments, overall quality, number of words, sentences, essay elements, and transition words on post instruction, post fluency, and maintenance and generalization probes
Mills (2012 dissertation study)	SRSD Persuasive writing POW+ TREE Counter-arguments Revision	13 middle school students	45 minute small group sessions	Increases in number of persuasive essay parts, total number of words, and number of transition words included in the essay. After revision instruction there was an improvement of quality for student essays across measures.
Cerar (2012, dissertation study)	Fluency, Persuasive writing	6 middle school students	55, 30 minute, small group sessions	Increased in the length, number of essay parts, number of transition words, and overall quality of essays; increased fluency scores

SRSD and Content Area in Middle School

With NCLB (2002) all students are to participate in high stakes assessments, including writing across genres. According to the 2007 NAEP report (Salahu-Din et al., 2008) writing across content areas is a primary emphasis with regard to constructed open ended writing on assessments in history, reading, civics, geography, foreign language, mathematics, science, and economics. Writing across content areas is also a recommendation by the NWC (2003) namely in the emphasis of additional opportunities to write during the school day and in multiple content areas. Minimally then, students should be given the opportunity to respond to writing prompts across multiple content areas throughout the school day.

Students today are required to write across the curriculum for assessments which are both formative and summative. Students are often tasked to write fluently for essay questions on assessments in the classroom and on standardized tests. A noted recommendation for future research is the inclusion of content area prompts to support students as they develop writing skills to meet the demands of writing across content areas (Mason et. al, 2010). To teach writing to students with EBD, a greater focus must be given to the research base which will enhance evidence-based instructional strategies for this population. It is further evident that research on writing strategies that enhance student performance on critical thinking skills in the persuasive writing genre utilizing content area prompts is imperative to the research base for educators of students with EBD.

There is limited research on content area prompts used in middle school writing

and students with disabilities. Notably, De La Paz, (2005) addressed content prompts in history with SRSD instruction with positive outcomes for students with and without disabilities. This study utilized content area prompts which reflected the state wide assessment content curriculum guides in combination with SRSD instruction to increase student writing competency on persuasive essays. The study by De La Paz (2005) involved 70 eighth grade students studying the history of westward expansion. The study had one group as a control and the second as the intervention group. Group composition was determined by the teaching staff to ensure equal levels of writers in each group, thus maintaining similar characteristics. Results reported by this study were encouraging as students who received the SRSD instruction with the content area prompts outperformed the control group. The students in the experimental group wrote longer responses with accurate historical facts than the control group with an effect size reported of ($ES = 1.36$) which is a large effect size and indicates a promising strategy. One limitation to this study was that the actual number of students with disabilities was relatively small given the population.

A recent paper by Mason, Benedek-Wood, and Valasa (2009) recommended content area instruction and SRSD, POW+TREE strategy to support writing performance of low performing students. If students are asked to write across content areas in classes and on statewide and national assessments, then it seems necessary to use instructional practices which also reflect these content areas. An area of need for future research with students with EDB and SRSD instruction on writing persuasive essays in content areas was also recommended by Mason et al. (2010).

Time on Planning and Writing with SRSD Instruction

After reviewing the previous research studies regarding SRSD instruction and students with EBD as summarized on Table 1, it was noted that none of the previous studies recorded the amount of time participants spent planning and writing their essays.

One study with three fifth grade students with LD included a measure for time spent writing and planning (Troia, Graham & Harris, 1999). These students were taught portions of the SRSD strategy for writing stories and essays. Scores from baseline increased as did time spent planning and writing. A recommendation from this study was to further investigate the impact of the SRSD strategy on time spent planning and writing. Another study with students with LD by MacArthur and Graham (1987) reported that students with LD do not spend very much time preparing before they write. These students often begin writing as soon as they are given a writing task with little or no planning or preparation. Notably, when students begin to write as soon as they receive an assignment, this activity does not allow adequate planning, which is an important technique for successful writers (Chalk, Hagan-Burke & Burke, 2005).

Planning is one of the major focal points for writing (Hayes & Flowers, 1980), and in SRSD instruction (Graham, 2006), where it is explicitly taught to students through the use of graphic organizers. It was anticipated that prior to starting the intervention, students would not spend any time planning their essay, however, once they have been exposed to the strategy and learned how to plan their essay, they will spend time planning their ideas prior to writing. In response to the reviewed SRSD studies on Table 1, the time spent planning and writing has not been addressed by the research on writing

performance and middle school students with EBD. Therefore, this study also proposes to investigate the amount of time students spend planning their essay prior to writing and their time engaged in the writing process.

Summary

The research regarding students with EBD reveals the impact of poor academic performance and life-long outcomes for this population. National studies indicate lower academic scores in the core competency areas of reading, writing, and math. An area of primary concern is literacy to include written expression. Additional research and evidence based practices are needed to support this population.

The research base for writing indicates that strategy instruction is the most effective instructional method to improve the writing performance of students with and without disabilities. The majority of strategy intervention research has been focused on students with LD. An emergent research base has been building with SRSD strategy intervention and students with EBD. However, few of these studies have included instruction which engages students in content area prompts for persuasive writing. Although a part of the national school reform agenda with standardized testing, teaching students with EBD to write from content area prompts has yet to be investigated. As a final note, the research regarding how much time students spend on planning and writing during SRSD instruction has not yet been addressed with middle school students with EBD. Understanding this structure of planning and writing may increase the ability of teachers to instruct students on effective strategies for writing both across the curriculum and during national high-stakes tests.

3. METHODS

This chapter describes the methods used in the research study to include the design of the study, participants, setting, dependent measures, materials, and procedures. Additionally, methods for ensuring fidelity of treatment and reliability of scoring are explained. The chapter concludes with a brief summary of the study.

Design

The design for this study was a single-subject, multiprobe, multiple baseline across participants design (Kennedy, 2005). This design was used to determine the effects of SRSD instruction using both generic and content area prompts on the persuasive writing of eight middle school students with emotional and behavioral disorders (EBD). A multiple baseline study was warranted because the skills that were taught to the students could not be reversed (Creswell, 2008). A multiple probe design was chosen as a variation of the multiple baseline design because data were collected periodically as opposed to continuously across settings, behaviors, or students (Kennedy, 2005).

For this design, baseline measures were administered to students a minimum of five times until their writing performance was stable. The control for this design was determined through the baseline data for each student. Intervention instruction was delivered in three small groups of two to three students each after an established baseline,

concurrently the other students remained in baseline conditions. Upon completion of the strategy instruction for the first group, the next group began instruction and remaining students continued with baseline. Subsequently each group proceeded with this sequence until all of the students received strategy instruction (Creswell, 2008).

Two phases of instruction occurred in this study. The first phase included instruction delivered to students regarding how to write persuasive essays using the self-regulated strategy development (SRSD) approach. When students demonstrated mastery of this process, five post-strategy essay prompts were administered.

The second instructional phase, SRSD + Content, focused on content area prompts to demonstrate student extension of the SRSD approach. Subsequent to this instruction, five additional post-instruction essay prompts were given. Additional dependent measures were also administered in tandem throughout the study. These measures included students' knowledge of the writing strategy POW+TREE, the amount of time spent planning versus writing and the social validity of the instruction.

Generalization was administered after completion of post-testing for Phase II. The students were given a writing prompt in their mathematics classrooms. Finally, maintenance of the learned writing skills was assessed four weeks after all post-testing for Phase II was completed. Maintenance included one generic and one content area writing prompt used to address a) maintenance of students' writing skills, b) the measurement of time spent planning versus writing for the prompts given and c) the strategy knowledge questions.

Setting

This study was conducted in a middle school in a large suburban area within the Mid-Atlantic region of the United States. The middle school student body was comprised of 919 seventh and eighth graders (49% female, 51% male). Additional demographic data regarding ethnicity included a student body which was primarily white (62.9%), followed by Asian or Pacific Islander (17.7%), Hispanic (10.3%), Other (4.6%), and Black (4.5%). Of these students 13.06% were eligible to receive free or reduced meals. Students with disabilities represented 13.7% of the school population.

Students with disabilities were served in the least restrictive environment with access to all educational settings in the school. Additionally, this school included more comprehensive services for students with emotional and behavioral disorders. Students had access to an on staff crisis intervention counselor, psychologist, and social worker. This level of service was considered additional intervention for students who require short and frequent breaks and coping strategies in order to access the general education curriculum.

The school also participated in a school wide positive behavior intervention and supports program (PBiS) which provided a basic structure for behavioral support regarding school identified tenets of responsibility, respect, and safety for all school activities. Students received cards when they demonstrated one or all of the PBiS behaviors. As a second tier intervention, students in the study participated in daily point sheets for targeted behaviors as deemed necessary by the special education and counseling team. Students in the EBD program also had access to an alternative setting

with crisis resource teachers, counselors, and psychology professionals. Students could self-refer or be referred by teachers or aides when circumstances necessitated the option for student safety and educational benefits.

Participants

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

Students. The student participants in this study included eight eighth graders with EBD. Seven of the eight students were male and one was female. The average age of the students was 13.4 (range 13 to 14). Six of the students (75%) were identified as Caucasian, one participant (12 ½ %) was African American, and one (12 ½%) was Asian. None of the students had limited English proficiency. Eligibility for special education services for the eight students included emotional disturbance ($n = 6$, 75%), and four of these six students (66 2/3%) had co-morbid disabilities. One of these students (25%) had ED and a specific learning disability (SLD), two students (50%) had ED and other health impairment (OHI), a documented medically due to attention deficit/hyperactivity disorder (ADHD). One of the four students (25%) with co-morbidity had a diagnosis of Autism. In addition, one of eight students (12 ½%) received ED services as students with OHI due to a rare genetic disorder with additional support due to hearing impairment (HI). One of the eight (12 ½%) students received ED services as a student with Autism. This student received additional hours of counseling services.

Selection Criteria. To be selected for participation in the study, a student must (a) have been identified by the school district as having an emotional and/or behavioral disability which allowed for designated hours for ED services on student IEPs and (b) have difficulty with written expression as demonstrated on performance criteria written in the IEP with service hours noted for additional support in the language arts classroom. In addition, access for the study was allocated through the special education department via either a support class, Personal Development, designated for academic and social and emotional support or a remediation class period, Time to Soar. The writing intervention was implemented by the researcher and assistants during these two class periods over a three month period.

Student performance on standardized educational and ability tests. Student scores regarding standardized tests were gathered from special education historical files which included recent eligibility statements, all IEP's and recent as well as historical ability test scores. Recent scores, indicated within the past five years were not available for all students. Students with current intellectual ability test scores ($n = 7$), five had taken the Wechsler Intelligence Scale for Children (4th ed., WISC IV; Wechsler, 2003) receiving an average full scale IQ (FSIQ) score of 95 (range 67 to 112, $SD = 16.68$). Two students took the Reynolds Intellectual Assessment Scales (RIAS; Reynolds & Kamphaus, 2003), one had a Composite Intelligence Index (CIX) score of 102 and the other received a standard score of 129. Five students (62.8%) had current scores on standardized educational tests which measured writing ability. Three students completed the Woodcock-Johnson III Tests of Achievement (W-J III; Woodcock, McGrew, &

Mather, 2001). The average score for Broad Written Language (BWL) was 107.33

(range =102-110, *SD* = 4.61). Two students completed the Kaufman Test of Educational

Achievement (2nd ed., KTEA-II; Kaufman & Kaufman, 2004), the first received a Written

Language Composite (WLC) score of 101 and the second received a WLC score of 110.

 To summarize, the reported scores indicate a group with wide-ranging intellectual

ability, with documented scores from the below average, low average, average, high

average, and superior ranges. Documentation regarding writing achievement indicated

student performance in the low, and the low average to average ranges.

 A synopsis of student characteristics as shown in Table 2, include age, grade,

gender, ethnicity, disability status, IEP behavior goals, scores on both norm-referenced

and state high-stakes writing test. The following section includes a brief description of

the student participants in the study.

Table 2
Student Characteristics

Student	Gender	Ethnicity	Age	Eligibility	Behavioral Goals	Test Scores
Adam	Male	African American	14.3	ED, SLD	Student will advocate for himself (ask questions, make a plan to get extra help, self refer to the counselor) in an appropriate and respectful manner, refraining from outbursts, when frustrated or confused with class content.	WISC IV (10/05): FSIQ = 95 W-J III (10/05): BWL = 89 Grade 5 writing: 373/fail
Bobby	Male	Caucasian	13.1	OHI, HI	Student will handle frustration in an appropriate way by requesting permission to leave the classroom to go to an alternative setting such as the crisis resource teacher to talk out feelings.	RIAS (1/09): CIX = 129 W-J III (12/08): BWL = 110 Grade 5 writing: 445/pass
Drew	Male	Caucasian	13.10	ED	When student feels overwhelmed with social situations he will recognize his feelings and use strategies that help to calm him and clear his thoughts. He will use strategies such as writing his feelings or thoughts in a journal.	WISC IV (4/09): FSIQ = 99 W-J III (5/09): BWL = 102 Grade 5 writing: 394/fail
Emily	Female	Caucasian	13.3	ED	Student will manage feelings of anxiety and frustration using positive coping strategies (calmly voicing concerns to teachers and seek out in school support staff).Student will attend school regularly.	WISC IV (10/09): FSIQ = 98 Grade 5 Writing: 418/pass
Matt	Male	Caucasian	14.7	OHI, ED	Student will advocate and use self-referrals to remove himself from potential conflicts. Use respectful language in the school environment. Complete class work and homework assignments.	RIAS (5/10): CIX = 102 W-J III (12/09): BWL = 110 Grade 5 writing: NA
Nate	Male	Caucasian	14.4	AUT,ED	Student will use replacement behaviors to support appropriate interactions with students and teachers. Verbally interact appropriately with peers and adults.	WISC IV (11/08): FSIQ = 99 5th Grade writing: 319/fail
Todd	Male	Caucasian	13.1	ED, OHI	Student will complete assignments and accept help on assignments. Will require no more than two prompts per class to attend to activity.	WISC IV (11/10): FSIQ=67 KTEA (11/10): WLC=78 5th Grade writing : NA
Wes	Male	Asian	14	AUT	Student will handle misunderstandings in an appropriate way requesting permission to leave the classroom to go to an alternative setting. Begin and complete classroom assignments with no more than one prompt.	WISC IV (1/11): FSIQ = 112 KTEA (12/10): WLC=101 5th Grade writing : NA

Note. AUT = Autism; ED = emotional disorder; LD = learning disability; OHI = other health impairment. WISC IV = Wechsler Intelligence Scale for Children, 4th ed.: FSIQ = Full-Scale IQ (Wechsler, 2003). W-J III = Woodcock-Johnson III Tests of Achievement: BWL = Broad Written Language (Woodcock, McGrew, & Mather, 2001). RIAS = Reynolds Intellectual Assessment Scales: CIX= Composite Intelligence Index (Reynolds & Kamphaus, 2003). KTEA-II = Kaufman Test of Educational Achievement, 2nd ed.: WLC = Written Language Composite (Kaufman & Kaufman, 2004).

Adam, age 14.3, African American male. Adam was identified as a student with ED due to externalizing problems with behaviors relating to aggression. Adam was also diagnosed with a specific learning disability due to processing deficits in auditory memory, visual motor integration, and auditory processing. Adam's IEP goals were for behavior, reading, writing, and mathematics. His writing goal included writing coherent essays supporting a main idea given writing prompt. According to progress reports he was making some progress toward that goal. Adam's behavior goal included self advocating and conducting himself with respectful behaviors with teachers and peers. Adam was easily frustrated or angered by other students during the study. On several occasions, he completed tasks in a separate, more isolated and quiet part of the room. Adam had a sense of duty in regard to the study, he wanted to be successful, to learn a new skill and on most days he was an eager participant. On off days, Adam would sulk and put his hood up or lay his head on the table during a lesson. With prompts, Adam was usually persuaded to attend to the lesson. He also enjoyed the verbal praise when he completed tasks.

Bobby, age 13.1, Caucasian male. Bobby was identified as a student with OHI due to CHARGE syndrome, a rare genetic disorder affecting physical growth and development. Due to bilateral hearing loss, he was also eligible under hearing impairment (HI) and wore an FM receiver to class, and the researchers wore a microphone. Bobby received ED hours and services in his IEP. Bobby's IEP goals related to behavior, study skills, adaptive physical education, communication, and hearing. He did not have a specific writing goal, but according to his special education

teacher in English class, he required prompts and had difficulty organizing his ideas for writing. Bobby's behavior goals included handling frustration and advocating by self-referral when he needed a place to calm down and re-group. He was also on a daily point sheet for classroom behaviors to include raising his hand appropriately, control of verbal outbursts, arriving to class in a timely manner, and appropriate interactions with peers. Bobby had several outbursts during the study when he had to wait his turn to speak, often forgetting the rules. When he was reminded he was known to self correct by hitting his chin with his fist repeatedly. This behavior was not uncommon when Bobby became frustrated during the study lessons. He is advanced academically but has difficulty showing his work without the outbursts. During the study, the researcher and assistant found that when engaged in the task at hand, Bobby had fewer outbursts during the writing portion of the study.

Drew, age 13.10, Caucasian male. Drew was identified as a student with emotional disabilities. Drew exhibited internalizing behaviors with high anxiety, stress and depression. It was noted on his IEP that Drew had difficulty initiating and maintaining peer relationships and has a diagnosis of depression. His IEP goals included support when he felt overwhelmed with a social situation. He had access to the school crisis resource specialist as well as the school psychologist when he felt overwhelmed or in need a break to re-group and continue with his day. His IEP also reported that he had difficulty completing tasks in English and Civics classes and required additional prompts and support to finish his written assignments. One of his accommodations for writing was extended time. Another part of his behavior goal was to try to journal his feelings.

Drew presented as a well mannered, kind and soft spoken young man during the study. He did self-refer on two occasions when the lesson was complete. His anxiety was evident in the beginning of the study however; as time went on he forged a relationship with another student in the study and stayed engaged in the writing process.

   Emily, age 13.3, Caucasian female. Emily was identified as a student with emotional disabilities. She demonstrated internalizing behaviors to include school anxiety and depression. She also had a history of self-mutilating behavior. Emily had access to alternative settings, the school psychologist, and crisis resource teacher at any time. She had a pass for her classroom teachers when she needed to leave. Emily had both behavior and writing goals in the IEP. Her behavior goals stated that she will follow classroom procedures and hand in her work in a timely manner. Another behavior goal stated that Emily would manage feelings of anxiety using positive coping strategies to include calmly voicing her concerns to teachers. Emily had a goal to address her school anxiety which read that she would attend school on a regular basis. Her IEP goal regarding written expression read that Emily would plan and compose a multi-paragraph composition each quarter in English class. Emily was often late to school or would leave before meeting for the study lessons. On the days that she was present, many days she would not participate verbally, but she did actively participate in the writing prompts. She was engaged in the writing process throughout the study.

   Matt, age 14.7, Caucasian male. Matt was a student who received special education services with eligibility as a student with other health impairment with a diagnosis of ADHD and as a student with emotional disabilities. His IEP goals related to

behavior, study skills, and self-regulation skills. Matt did not have a specific writing goal but was placed in a team-taught English class to access support regarding his inability to complete tasks or organize his notes for written assignments. According to his English teacher, Matt did not often attempt to plan, organize, or write when asked to do so as part of an assignment. Matt's organizational and self-regulation goals spoke to these issues with respect to keeping an organized binder, and completing class work and homework assignments with minimal prompts form teachers. Matt's behavior goal was to use the self-referral process appropriately to remove himself from potential conflicts. Matt had a documented history of aggravating inappropriate student interaction. Matt demonstrated moments of frenetic energy during the study with bouts of high activity and then days of withdrawn ambivalence.

Nate, age 14.4, Caucasian male. Nate was a student identified for services in special education as a student with Autism and emotional disabilities. Nate received all of his IEP hours under ED services. Nate had difficulty with interpersonal relationships and appropriate responses. Nate was involved in the personal development class. Part of Nate's IEP was a behavior intervention plan. This plan included more intense support for Nate's emotional disabilities. Nate would often speak to dolphins or other marine life while walking down the hall. To support Nate, he had access to all of the ED resources to include the crisis resource teacher, psychologist, special education administrator, and school counselor as well as an alternative setting at any point during the school day as deemed necessary by Nate or his teachers. Nate also had several academic goals to include math and written expression. Nate's writing goal stated that he would, with

increasing independence, write a paper with a main idea, and support which stayed on topic for his English class each quarter. In addition, Nate's behavior goals included the use of replacement behaviors to support appropriate interactions with students and teachers as well as, verbally interact appropriately with peers and adults. During the study, Nate made dolphin noises only occasionally, and the other students tolerated his outbursts for the most part. The researcher would ask Nate to get a drink of water or to write in an area away from the other students but within range of the teacher and lessons. Nate seemed to enjoy the writing process, but he did require continued prompts and praise to complete tasks at times.

Todd, age 13.1, Caucasian male. Todd receives special education services as a student with emotional disabilities and as a student with OHI due to ADHD. His emotional disability was based on externalizing behaviors of anger and aggression. He had a medical diagnosis of ADHD and was un-medicated during the study. Todd has a low range IQ but he has high adaptive and social skills. His IEP goals support him academically and emotionally with goals for behavior, math, reading, and writing. His writing goal stated that Todd will write with correct sentence structure, a paragraph with main ideas, and supporting sentences each quarter in his English class. Todd's behavior goal was written to address class and homework completion of assignments with minimal prompts from his teachers. Todd had difficulty staying on task and completing assignments for the writing study. One of his accommodations was to write and then have a scribe write the sentences legibly. Another accommodation that worked well for Todd during the study was the ability to take frequent breaks for water, bathroom or just

to regroup while working in class. Todd was always polite to teachers but would often provoke or try to provoke his peers during lessons. Todd responded well to verbal praise and attention.

Wes, age 14, Asian male. Wes received ED services as a student with Autism. He had ED support in all of his core classes and was part of the Personal Development class. Wes's IEP goals include behavior and social skills goals. He did not have a specific writing goal. However, he received support with writing in a team-taught English class. It was noted from his English teacher that Wes was an avid reader but did not always want to write or complete assignments. It was also noted that Wes had difficulty getting started and maintaining good work habits in his classes. Wes's behavior goal addressed his difficulty with social skills and his misunderstanding of student interactions. Wes was to access an alternative setting and counselors as needed. In addition, Wes' goals included remaining on task and requiring minimal prompts to complete his work. Noted on his IEP was the concern of teachers and staff regarding Wes' anger and paranoia regarding other student behavior. Wes required many prompts during the study. He was not videotaped due to his paranoia although audio tape was allowable. Wes became more compliant as the study continued and he was able to complete the study with minimal setbacks.

Research staff. The research for this study was conducted by the researcher as primary investigator and two instructional assistants (IA), Jane and Karen. All instructors/assistants were female and Caucasian with an average of 9.33 years of classroom experience with students with emotional disabilities (range = 8-10.5 years).

The researcher has a master's degree in Special Education and a teaching license in LD/ED. Jane and Karen both have bachelor degrees. The primary investigator had experience with SRSD instruction and held training session before instruction began. Jane was trained as an instructor, Karen as an observer, and both were trained on data scoring procedures.

Materials

  Student materials. For the SRSD instruction, the students were given several materials to assist them with the persuasive writing lessons. The materials included the POW+TREE graphic and organizers which have been adapted from Harris et al (2008) *Powerful Writing Strategies for All Students*. The lessons were modified to reflect previous research on SRSD instruction by Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012). Students in the study had individual binders for the following materials.

  Student contract. Students were given an informal contract which indicated a commitment to learn the POW+TREE strategy for writing persuasive essays. Teachers also signed the contracts to demonstrate their support to student learning and success with the strategy (see Appendix A).

  POW + TREE chart. The persuasive writing strategy was taught by using the chart with the picture of a tree and the acronym POW+TREE, in which P = Pick my idea; O = Organize my notes, W = Write and say more, and T = Topic sentence- tell the reader what you believe, R = Reasons (3 or more including at least one counter reasons), E =

Explanations for each reason and counter reason, and E= Ending and examine (see Appendix B).

Graphic organizer TREE. The TREE graphic organizer was adapted from Mastropieri et al. (2009; Mastropieri et al., 2010). The adaptation included space for students to write and then refute the counter reasons. The graphic organizer allows for structure of the essay as students complete the TREE mnemonic with spaces for students to write a topic sentence (the T in TREE); three or more reasons (R), explanations for each reason (E), one or more counter reason, explanations for the counter reason(s), space to refute the counter reason; and an ending/conclusion statement (the last E in TREE). Additional spaces were provided for transition words next to each reason, counter reason, refutation and ending to prompt students to include transition words to create smooth segues while writing (see Appendix C).

Transition words chart. Students were given a worksheet with a chart of transition word examples used to allow the reader to follow the essay transitions regarding reasons, counter reasons, and conclusion sentences. There were spaces for additional transition words allowing each student to cultivate and use their own transition words as well (see Appendix D).

Examples of persuasive essays. During lessons for both phases, examples of persuasive essays were used to illustrate final product examples and to allow students the opportunity to read and identify the parts of a persuasive essay. The examples used were from previous studies by Mastropieri et al. (2009; Mastropieri et al., 2010; see Appendix E).

Generic writing prompts for persuasive essays. During baseline, first phase of instruction, collaboration and independent writing students wrote essays in response to a variety of writing prompts on generic topics. Basic generic persuasive essay prompts were used for the strategy instruction based on prompts used in previous research by Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012). All prompts were judged to be comparable in difficulty with the potential to also generate a high level of interest from participants. Two writing prompts for each essay were presented for student selection before writing (see Appendix F).

Content specific, Civics, persuasive writing prompts. During the second phase of instruction, students received SRSD lessons within civics content. Civics content prompts were developed by the researcher and vetted by experts in middle school civics based on the curricular content in the enhanced scope and sequence, and curriculum framework documents provided by the Virginia Department of Education (VDOE; 2008; 2011) for their statewide end-of-year high stakes test the Standards of Learning (SOL). Students were given the choice of two content area prompts to write persuasive essays using the SRSD strategy based on and selected from state curricular guidelines for standard CE3e and CE4 a-g (see Appendices G;H).

Generalization and Maintenance Prompts. Students were given a generalization prompt in math content after completion of Phase II post-testing. The prompt for generalization was given in student math classrooms as a warm up exercise. Maintenance prompts were given a month following Post-testing for Phase II. Two maintenance prompts were given. The first was a generic SRSD prompt like those

written for post-testing after Phase I and the second prompt was written in the same format as those from the SRSD + Content post-testing Phase II (see Appendix I).

Self-statement sheet. Students were given a self-statement sheet as part of the first instructional phase. This worksheet was designed to help students think about positive statements they could say to themselves while writing. The sheet allows students to write positive self-statements while planning, writing, and examining their work. This sheet was used in previous SRSD studies (see Mason & Shriner, 2008; Mastropieri et al. 2009; Mastropieri et al., 2010; see Appendix J).

Student essay graphs. This worksheet was introduced to students during the instructional phase and allowed for self-reflection and monitoring of written essays. The components of this graph worksheet include checklists for overall performance, essay parts, paragraphs and transition words (see Appendix K).

Teacher materials. Teachers were provided with a binder that included a student attendance sheet, an overall outline for the study dates, a sheet to note make up lessons, SRSD and Content lessons, fidelity checklists, student handout materials, paper, highlighters and pencils. Teachers were also given a video camera, tripod, and classrooms with electronic overhead devices. Specifics regarding lesson plans and fidelity of treatment follow.

Lesson plans. Included in each of the teacher binders were scripted lessons for the SRSD phase one and SRSD + Content lessons for phase two. The binder had a section for each lesson with student materials following the lesson pages. All pages were encased in plastic protectors which were easily accessible to the teachers. Lesson text

was color coded for easily identifiable aspects of each lesson. Black text was used for lessons, blue text for student/teacher dialogue, and red text for important reminders. An agenda and list of needed materials was also provided on the lesson sheet (see Appendices L; M).

Fidelity of treatment sheets. Fidelity of treatment sheets were used to assist teachers with the training and with lessons. Teachers became familiar with the main objectives for each lesson to help to ensure fidelity of treatment. The sheets also allowed for monitoring of lessons and additional notes regarding lesson completion or noted stopping points (see Appendix N).

Student reinforcers. Reinforcers were provided to teachers for students during the study to promote and encourage positive completion and good behavior. Tangible reinforcers included small candies, pencils, pens, erasers, and memo-pads. Also used were intangible reinforcers such as challenger passes for students to go to the library, gym or computer lab during remediation time at the end of the day. In addition, students were able to earn tickets toward an end of study event.

Observer materials. These included fidelity of treatment checklists, as noted in the previous section, used to allow a trained observer to monitor fidelity of treatment for the videotaped lessons for Groups 1-3 for both phases of instruction. The fidelity of treatment checklists were used in previous SRSD strategy studies by Mastropieri et al. (2010). The fidelity of treatment checklists for the SRSD + Content instruction were developed for the present study.

Scorer materials. The trained scorers were given materials to include scoring conventions for each student essay from baseline through maintenance. These conventions included scoring for number of essay parts, sentences, words, paragraphs, transition words, and for an overall essay holistic score (see Appendices O; P).

Dependent Measures and Scoring

This section describes the dependent measures that were used during the study to assess students' writing skills, knowledge of the writing intervention, and time spent planning and writing. As a final measure, interviews with students were conducted to obtain information about the utility and helpfulness of the writing strategy in regards to generic prompts, content area prompts, and planning.

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

Total words. Student essays were analyzed via the computer using a total word count feature. Total words used were tabulated for each essay written.

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

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

Number of transition words. The total number of transition words used for each essay was counted. Transition words may include: my first reason, second reason, additional reasons, and my final reason (see Appendix D).

Number of persuasive essay parts. The number of persuasive essay parts to include a topic sentence, reasons, explanations and endings were each awarded one point each.

Holistic quality score. The holistic quality score for an essay was tabulated using the holistic score rubric. This holistic rubric has been used in other SRSD studies (Mason & Shriner, 2008; Mastropieri et al., 2009; Mastropieri et al., 2012). The rubric was used to evaluate each essay with a score from zero to ten, given that ten was the highest score possible (See Appendix P). For example an essay with a score of zero (no persuasive

essay parts given) to a ten (all parts were given to include topic sentence, more than three reasons to include up to two counter-reasons, at least three explanations and an ending).

Strategy Knowledge Probe. The strategy probe assessed student understanding of the components of a good essay. This probe was administered at baseline, during instruction, post SRSD instruction, post SRSD + Content instruction, and at maintenance. To assess student knowledge regarding the writing strategy students were given a strategy probe regarding their knowledge of the parts of a good persuasive essay. This probe was administered both verbally and as a warm up writing exercise by the teachers to ascertain whether or not the students had learned the essay parts. The instructor asked each student to name the parts of a good persuasive essay either verbally or on a piece of paper. Students could earn a maximum of twelve points. The order of their responses did not make a difference in the scoring as long as they listed all of the parts of a persuasive essay. Responses were scored as follows. A general score was awarded as one point each of the following parts when correctly identified by the student; (1) pick your idea, (2) organize your notes (3) write and say more(4) topic sentence, (5) reasons, (6) three or more reasons (7) explanations, and (8) ending sentence. Four additional points, for a maximum score of 12 would be indicated by additional student responses which included (9) examine, (10) counter reasons (11) one or more counter reason, and (12) transition words (see Appendix Q).

Planning and Writing Probe. This probe was administered four times throughout the study at baseline, post-SRSD instruction, post SRSD + Content instruction, and maintenance. Teachers timed students from video using counters to note

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how much time each student spent planning an essay and how much time they spent on the actual writing process. A written rubric was used to identify and operationalize what planning and writing tasks looked like for this study. The probe was designed by the researcher and observers and scorers were trained before the study began. Planning was indicated by: (a) student engagement with a graphic organizer or notes on writing, (b) the student use of pre-writing strategies, or (c) when the student was visibly "thinking" before writing either aloud or silently. Time spent writing was identified as: (a)student was engaged in writing persuasive essays, (b) student actively used writing instruments paper and pencil to write, (c) the student was revising and editing after the writing process began or (c) short pauses of less than one minute to regroup or "think" while composing (see Appendix R). Total time spent planning and total time spent writing were tabulated for each student for the four probes administered.

Social validity interviews. To address social validity, students were interviewed to allow for feedback regarding the writing instruction. Students were interviewed using the PSU/GMU protocol used in previous SRSD studies by Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012). The interviews were given at the end of the posttesting for SRSD + Content. The protocol was modified by the researcher to add one question regarding time spent planning and writing Sample questions included, "How has the POW+TREE strategy helped you become a better writer?" "If you were the teacher, what would you change about the POW+TREE lessons?" and "How did your time spent planning and writing change?" (see Appendix S). Student interview responses

were audio taped and transcribed. The interviews were then coded for emergent themes across participants.

Reliability

To assess inter-rater reliability on student essays, scores were measured to validate the number of persuasive essay elements, the number of written words, and holistic quality of writing for baseline, each post-intervention phase, maintenance, and generalization. The researcher trained the scorers prior to the study and met with the scorers after each phase to discuss scores and resolve any conflicting scores. Each essay was scored independently using the rubrics discussed. Upon completion of each phase, the researcher and two additional scorers met to discuss each score and resolve any disagreements in scoring. To facilitate the process, a scoring chart was used for discussion (see Appendix O). Following baseline, the scorers had (90%) agreement and after discussion, discrepancies were resolved and the reliability between scorers was (100%). At the SRSD post-testing phase, initial agreement on scores was (92%) and after meeting and discussing the scores, (100%) agreement was achieved. For the second posttesting phase for SRSD+ Content, the initial agreement was (96%) with discussion following this phase of scoring which reconciled to (100%) agreement. The final essays from maintenance and generalization had an initial agreement of (96%) with discussion following scoring to address the concerns and reconcile to a (100%) agreement on the essay scores regarding generalization and maintenance essays.

Fidelity of Treatment

Fidelity of treatment regarding lesson delivery for each of the three groups in the study was assessed using the fidelity of treatment checklists and the video tapes of lesson and all testing phases of the study. Each of the videotapes was reviewed by the researcher and two trained observer/scorers using the fidelity of treatment checklists for each lesson times three groups for a total of 27 videotapes. The 27 videos comprised lessons 1-6 of the SRSD strategy instruction and lessons 1-3 of the SRSD + Content instruction. The reviews were conducted independently and the scorers met with the researcher after each phase to discuss the checklists and to allow for calculation of inter-rater agreement regarding the fidelity of treatment checklists for each video.

Twenty-seven total videos with lessons 1-6 of the SRSD intervention and lessons 1-3 of SRSD + Content lessons and to ensure fidelity of treatment for each phase of pre and post-testing, and maintenance an additional 17 videos per group (51 total) were viewed by the researcher and two trained assistants.

To evaluate whether the instruction was implemented as intended, fidelity of treatment checklists for the lesson plans were used. The items monitored were (a) consistency with implementing intervention for the appropriate amount of time and (b) consistency with implementing intervention using SRSD and SRSD + Content scripted lessons.

Observers were trained to use the fidelity of treatment checklists to assess whether or not the instruction and its implementation were delivered as intended for both instructional phases of the study (see Appendix N). The researcher and two observers viewed the lessons independently and the fidelity of treatment checklists were completed

and delivered to the researcher. The checklists were compared to calculate the

percentage of agreement. The fidelity of treatment analysis indicated that instruction to

the three groups was delivered with a high degree of fidelity ($M = 98$; range 96%-100%).

Examination of the fidelity of treatment checklists indicated an initial inter-rater

agreement of 98%. Minor disagreements were discussed and a final agreement of

(100%) was achieved. The fidelity of treatment analysis indicated that instruction to the

three groups was delivered with a high degree of fidelity.

Procedures

Human Subject Review Board (HSRB) approval from the school district and

George Mason University were secured through an on-going, multi-year grant. The

researcher obtained parental consent and student assent prior to the implementation of the

study. In addition, the research assistants' signed consent forms were also obtained

before the study began (see Appendix T).

The intervention study was conducted over a 14 week period from October to

January. Prior to the actual intervention with students, the researcher met with and

trained the two assistants. Students were administered a total of five baseline measures in

three groups of two to three students each over a two week period. Student instruction

for both phases across the three groups comprised a total of 21 calendar days. Students

were administered five posttest measures following each of the two instructional phases.

Student interviews were completed following posttesting and a generalization measure

was completed via student mathematics classrooms. Thirty-three calendar days

following each group's post-testing, two maintenance essays were administered.

Procedures and timelines for each phase of the study to include training, instruction, testing and scoring are described in detail in the following section. The study was completed through post-testing of Phase II and generalization in 36 school days, with maintenance testing completed 33-34 calendar days later.

Staff Training. The researcher prepared materials and conducted two training periods. One training period was comprised of two, three hour meetings, and was used to familiarize the other instructor and assistant with all of the materials for the study. The researcher provided binders with all lessons, student materials and descriptions of dependent measures and scoring protocols. Videotaping of lessons and operation of equipment was also included in the training sessions. Jane was trained as an instructor for one group and Karen was trained as an observer for all three groups, and both completed training on data collection and scoring procedures. In addition, the researcher and assistants trained to collect fidelity of treatment data.

The first training sessions familiarized all of the instructors with resources, timelines, and materials. The team of three practiced lesson delivery and discussed all lessons prior to beginning the study. This training was completed during two, three hour training periods. The research team also met twice each week, for approximately 30 minutes each, over the course of the study to discuss progress and concerns for the project. Components of the SRSD model were taught to include the instructional phases of the SRSD strategy which include; (a) develop background knowledge, (b) discuss it, (c) model it, (d) memorize it, (e) support it, and (f) perform it. Following SRSD training, the SRSD+ Content lessons were discussed and practiced as well.

The second training sessions were conducted over two days, spanning two and a half hours each, and included practice with student questioning with the strategy knowledge probe, essay scoring conventions, and the time planning and writing probe. Discussion regarding the strategy knowledge probe included the option for students to answer individually with either a verbal or informal written response. This data was collected at each phase of the study. Researchers and assistants then spent time scoring practice essays using the conventions for the dependent measures to include number of words, paragraphs, sentences and transition words as well as persuasive essay parts and the holistic quality scoring (see Appendices O;P). The research team continued to discuss these components until they reached 95% agreement on the essays scored. Training for time spent planning and writing was done using the rubric. Time spent planning and writing included discussion of what each of these components looked like as students wrote during each scored phase of the study. Lastly, training for fidelity of treatment was done using the lesson plans and by reviewing the checklists for items which must be included in each lesson (see Appendix N). These checklists were used to review all videotaped lessons in the study to check for fidelity of treatment across groups.

Communication was also facilitated through frequent emails and/or the weekly face to face meetings used to discuss student progress through the phases, any concerns, questions or issues occurred during the intervention study. Researchers and instructors also kept daily reflection notes to document their perceptions from each lesson in all phases of instruction and testing.

Researchers and instructors were trained for a total of 11 hours before the intervention began, the researcher and assistants also spent approximately one hour each week for a total of 14 hours in collaborative meetings to discuss progress and address concerns. In addition, the team met after each posttesting phase to compare scores for essays written and affirm inter-rater reliability. This will be further discussed in the scoring procedures section following the procedures for intervention instruction.

Student group selection. The special education English teachers, the crisis resource specialist, and the special education department chair all gave input regarding student grouping due to the previous histories between some of the students. This was done to ensure cooperative groups for instruction and to facilitate positive classroom interactions. Two groups, with three students each, were chosen from a seventh period personal development class. This class had been selected for participation in the study based on both ED designation and academic difficulties prior to the beginning of the school year by the special education administrator. Group 1 was comprised of Adam, Nate, and Wes with instruction by the researcher. Group 2 included Bobby, Matt, and Todd with instruction by Jane. The third group was based on input from the above special education team and student availability during the thirty-five minute school remediation period at the end of the school day. The two students who participated in Group 3 were Emily and Drew, with instruction by the researcher.

After the groups were selected, they all began the pre-testing phase which included staggered groups with (a) a minimum of five completed baseline essays, (b) three strategy knowledge questioning probes, and (c) one planning and writing probe per

student. Baseline prompts were given to each group until stabilization of the baseline was reached. Groups then entered the instruction phases in a staggered fashion. Group 1 began the SRSD instructional phase while the remaining two groups remained in the baseline condition. Group 2 started SRSD instruction four days after Group 1. Subsequently, Group 3 began instruction two days after Group 2.

All testing and instruction occurred during two different 30-40 minute class periods during the school day. During one class period, the researcher was the instructor for Group 1 while Jane was the instructor for Group 2. This period was used for the personal development (PD) class for students when not participating in the study. The researcher used a classroom across the hall to conduct the study with Group 1 during instruction and testing phases. Jane used the PD classroom for instruction and testing with Group 2. Both classrooms had similar materials with desks in rows, blackboards, and projectors as well as a teacher desk. Group 3 received instruction and testing in several classrooms, most often in one classroom which was not in use during the school remediation period. The classroom had a similar composition to the classrooms used by Groups 1 and 2. In each classroom, students sat at desks while the teacher taught from the front of the room. All groups had access to the crisis resource specialist; however no one used this resource during the course of the lessons or testing phases.

Student groups progressed with the staggered schedule through SRSD Intervention Phase I for five lessons, five post-test essays and administration of the strategy knowledge probe and a planning and writing probe. Following these measures, the second phase of instruction began with three SRSD + Content lessons, followed by

five post-test essays, and the administration of the strategy knowledge probe, and the

planning and writing probe. The student social validity interviews were conducted

following the Phase II testing. A generalization prompt was given in the students' math

classroom. Maintenance occurred four weeks after the completion of Phase II post-

testing. Maintenance included one generic essay prompt and one content area essay

prompt as well as strategy knowledge probe and planning and writing probe. See Table

3 for the timeline of the study phases. A detailed description of each of these phases

follows.

Table 3

Research Study Outline

Date/Day	Group 1 **Adam, Nate, Wes** **Instructor-researcher** **1:30-2:20 pm**	Group 2 **Bobby, Matt, Todd** **Instructor - Jane** **1:30-2:20 pm**	Group 3 **Emily and Drew** **Instructor -researcher** **2:20-2:55 pm**
October 20 **Day 1**	Baseline Pre-test 1 Strategy probe	Baseline Pre-test 1 Strategy probe	Baseline Pre-test 1 Strategy Probe
October 21 **Day 2**	Baseline pretest 2		
October 24 **Day 3**	Baseline pre-test 3 Strategy Probe Timed probe	Baseline pretest 2	
October 25 **Day 4**	Baseline pretest 4		Baseline pre-test 2
October 26 **Day 5`**	Baseline pre-test 5 Strategy probe	Baseline pre-test 3 Strategy probe Timed probe	
October 27 **Day 6`**	Instruction Lesson 1	Baseline pre-test 4	Baseline pre-test 3 Strategy probe Timed probe
October 28 **Day 7**	Instruction Lesson 2 Strategy probe		
October 31 **Day 8**		Baseline pretest 5 Strategy probe	Baseline pretest 4
November 1 **Day 9**	Instruction Lesson 3 Strategy Probe		
November 2 **Day 10**	Instruction Lesson 4	Instruction Lesson 1	Baseline pre-test 5 Strategy Probe
November 3 **Day 11**	Instruction Lesson 5 Strategy Probe	Instruction Lesson 2 Strategy probe	Instruction Lesson 1
November 4 **Day 12**	Instruction Lesson 5B	Instruction Lesson 3 Strategy Probe	(absent)
School holiday **11/7-8**			
November 9 **Day 13**	Instruction Lesson 6	Instruction Lesson 4	(absent)
November 10 **Day 14**	Post SRSD 1	Instruction Lesson 5 Strategy Probe	(absent)
November 11 **Day 15**	Post SRSD 2 Strategy probe	Instruction Lesson 5 B	Instruction Lesson 2 Strategy probe
November 14 **Day 16**	Post SRSD 3 Timed probe	Instruction Lesson 6	Instruction Lesson 3 Strategy Probe
November 15 **Day 17**	Post SRSD 4	Post SRSD 1	Instruction Lesson 4
November 16 **Day 18**	Post SRSD 5	Post SRSD 2 Strategy probe	Instruction Lesson 5 Strategy probe

November 17 **Day 19**	Instruction Content 1	Post SRSD 3 Timed Probe	Instruction Lesson 6
November 18 **Day 20**	Instruction Content 2	Post SRSD 4	Post SRSD 1
November 21 **Day 21**	Instruction Content 3	Post SRSD 5	Post SRSD 2 Strategy probe
November 22 **Day 22** **Thanksgiving**			Post SRSD 3 Timed probe
November 28 **Day 23**	Post Content 1	Instruction Content 1	Post SRSD 4
November 29 **Day 24**	Post Content 2 Strategy Probe	Instruction Content 2	Post SRSD 5
November 30 **Day 25**	Post Content 3 Timed Probe	Instruction Content 3	Content Lesson 1 LUNCH pd 11:15-11:45
December 1 **Day 26**	Post Content 4	Post Content 1	(absent)
December 2 **Day 27**	Post Content 5	Post Content 2 Strategy Probe	(absent)
December 5 **Day 28**	Post Interviews	Post Content 3 Timed Probe	Content Lesson 2
December 6 **Day 29**		Post Content 4	Content Lesson 3
December 7 **Day 30**		Post Content 5	(absent)
December 8 **Day 31**		Post Interviews	Post Content 1
December 9 **Day 32**			Post Content 2 Strategy probe
December 12 **Day 33**			Post Content 3 Timed probe
December 13 **Day 34**			Post Content 4
December 14 **Day 35**			Post content 5
December 15 **Day 36**	Math classroom warm up prompt	Math classroom Warm-up prompts	Math classroom Warm-up prompts Interviews
January 4 **33 days from post G1**	Maintenance 1 SRSD Timed probe Strategy probe		
January 5	Maintenance 2 Content		
January 9 **33 days from post G2**		Maintenance 1 SRSD Timed Probe Strategy Probe	
January 10		Maintenance 2 Content	
January 17 **34 day from post G3**			Maintenance 1 SRSD Strategy Probe Timed Probe
January 18			Maintenance 2 SRSD + Content

Baseline testing phase. On day one all students began with baseline testing. This included essay prompts (see Appendix F) and strategy knowledge probe. Students received additional essay prompts until a stable baseline was reached. To determine baseline stability, the measure for the number of essay parts was used. For stability to be reached at least three student essays had to have a range of essay parts no greater than three. Baseline essay prompts were given until the student essays satisfied this requirement. All but one student met this requirement within five essay prompts.

Students' essays were hand written. Todd had an accommodation for the use of an Alpha Smart or written transcription with a scribe. He chose to use the transcription process after each essay was hand written because he did not want to be different from all of the other students. After essays were written, they were then typed into the computer using a word processor program for ease of scoring. Upon request, all of the students were permitted use of a dictionary. All of the transcribed essays were kept in secure computer files and coded with the student pseudonym and group number.

In addition, the strategy knowledge probe was asked three times during baseline to assess any student pre-knowledge of the parts of a good persuasive essay. The third baseline measure for all students was also video recorded. This was done to give researchers a base measure for time spent planning and time spent writing for each student. One student in Group 1 could not be videotaped, thus live coding was done during this student's third baseline essay. Two observers noted the time that this student planned and wrote using the previously trained probe for time spent planning and writing and a stopwatch. After the observation, the times were compared and were within

seconds of each other. After discussing the observations, 100% agreement was reached regarding the time spent on each activity.

Self-regulated strategy development (SRSD) instructional phase I. Students in this study were instructed using the SRSD strategy of POW+TREE for writing persuasive essays. This instruction utilized the six stages of SRSD instruction, outlined by Harris et al. (2008) in *Powerful Writing Strategies for All Students*. The lessons used were those modified in previous SRSD studies by Mastropieri et al (2010). In this study the six stages were incorporated into five lessons with several lessons requiring additional practice for mastery. Groups 1 and 2 completed the lessons during seven, 40-50 minute instructional time periods. Group 3 completed the lessons during six 30-40 minute time periods. Lessons were outlined in the teacher materials section (see Appendix L).

Lesson one. In this first lesson, teachers and students discussed what makes a good persuasive essay. The teachers and students filled out the writing contract to demonstrate their commitment to learning how to write good persuasive essays (see Appendix A). Next, the students were shown the POW+TREE mnemonic and given a graphic representation of a tree and the words represented by the mnemonic. Instructors went through each part with the students as they followed with the picture (see Appendix B). The first part, **POW,** stands for **P**ick my idea, **O**rganize my notes, **W**rite and say more. The word **TREE** represents the four parts of a persuasive essay: **T**opic, **R**easons and counter reasons, **E**xplanations, and **E**nding. Following this part of the instruction, students were then given a sample essay.

The students practiced finding all of the components of TREE in a sample essay. Teachers also gave a graphic organizer to the students with the POW+TREE mnemonic (see Appendix C). Teachers and students filled in the POW+TREE graphic organizer with information from the essay. This activity allowed students to use the mnemonic and the graphic organizer to learn about the parts of a persuasive essay by identifying the topic sentence, giving three or more reasons supporting the chosen topic, writing explanations for these reasons, and creating a summation or ending sentence. The teachers ended the first lesson reiterating the POW+TREE information by helping students practice and memorize the mnemonic.

Lesson two. Students continued to discuss the parts of a good essay in lesson two. Students were asked to repeat what they remembered about the POW+TREE mnemonic from lesson one. The session also incorporated a discussion and worksheet handout about transition words and where they are used in a persuasive essay (see Appendix D). This lesson then introduced counter reasons and what good writers do to refute counter reasons. Students worked together with the teacher to identify the essay parts as well as the newly introduced counter reasons and transition words on the POW+TREE graphic organizer using another sample essay for analysis.

Lesson three. This lesson continued the discussion of the writing strategy, reviewed the parts and the transition word sheets from the previous lesson. The teacher also introduced the self-statement sheet and modeled the importance of positive statements to help her think through the writing process (see Appendix). Students were then directed to create positive self-statements that they could use before, during, and

after writing. Next the teacher introduced a new way to monitor the writing process by filling in a graph. This worksheet provided students with a way to check the parts of an essay and monitor their progress. The teacher and students reviewed the previous day's essays and charted them on the graph at the end of the lesson. They then discussed goals for the next lesson's essay.

Lesson four. Teachers modeled how to write a good persuasive essay during lesson three. The teachers talked her thoughts out loud while following all of the steps in POW—**P**ick my idea, **O**rganize my notes, **W**rite and say more etc. The teacher and students used the self-statement sheet as the teacher modeled the importance of positive statements to help her think through the writing process (see Appendix J). The students and teacher also used the graph introduced in Lesson three to chart the essay as well as make goals for the next essay. Using the teacher modeled essay, students filled out the sheet, checking off each element on the self-monitoring chart (see Appendix K).

Lesson five. In this lesson, the teacher and students worked together to write an essay with diminishing teacher support. Using all of the previously learned elements of the instruction, they collaborated on an essay. The teacher and students used the graphic organizer, the self-statement chart, and the self-monitoring graph to check the essay when they were done.

Lesson five B. Lesson five was repeated using another essay prompt with very little teacher support. This was done to ascertain readiness for the independent writing in Lesson six. Lesson five B was completed by all three groups and students wrote essays

with no more than two prompts from the teacher. When students completed their essays, they were asked to go over their essay and graph their progress.

Lesson six. The goal for the final lesson was for students to practice writing a persuasive essay on their own. Using only plain paper, students were encouraged to create the graphic organizer from memory and use this to plan and write their essays. When students finished, they graphed their progress using the self-monitoring graph. All three groups completed Lesson 6 independently and were then ready for pos-testing of Phase I.

Additional measures used during SRSD instruction. Additional measures were administered throughout the SRSD instructional phase. Students were given the strategy knowledge measure (see Appendix Q). This measure asked students to relay the parts of a good persuasive essay either verbally or in writing. This question was asked at the beginning of the class period before lessons two, three and five. This was done to demonstrate student knowledge of the strategy as the lessons progressed.

Posttesting Phase I SRSD. After students completed the SRSD lessons, they were given five persuasive essay prompts as a posttest measure each on a different day. Each prompt contained two essay topics, and students selected one of the topics for their essay (see Appendix F). As during baseline testing, students were also administered a strategy knowledge probe (before lesson 2) and the time spent planning and writing probe (with post-testing on day 3). Essays were then scored for number of words, number of sentences, number of paragraph parts, transition words used and a holistic score will be given.

SRSD + Content instruction phase II. This phase of instruction was intended to supplement student understanding and extend the use of the SRSD Phase I instruction with the inclusion of content area prompts based on civics lessons from the school. All students received civics instruction during their eighth grade year. The course utilized the county curriculum pacing guide and state based standards as best practices for the school (VDOE, 2008; 2011). Civics teachers provided the researcher with the curriculum map and guide for this content area. All of the teachers in this discipline planned lessons and used common assessments to ensure consistency of instruction across classroom settings.

Students received civics instruction during the first six weeks of the school year which were incorporated into the content prompt lessons (see Appendices G: M) with the standard CE 3e and CE 4a-g which state

The student will demonstrate knowledge of citizenship and the rights, duties, and responsibilities of citizens by evaluating how civic and social duties address community needs and serve the public good and the student will demonstrate knowledge of personal character traits that facilitate thoughtful and effective participation in civic life by (a)practicing trustworthiness and honesty, (b)practicing courtesy and respect for the rights of others, (c)practicing responsibility, accountability, and self-reliance, (d) practicing respect for the law, (e)practicing patriotism (f) practicing decision making, and (g) practicing service to the school and/or local community. (VDOE, 2008 p.10-11).

SRSD + Content lessons were designed to reinforce the SRSD skills from phase one while using current content materials. The lessons also included knowledge needed for end-of-year, high-stakes testing administered at the school to all eighth graders (VDOE, 2011). After the SRSD Phase I post-testing, this next phase of instruction will begin. Use of Civics content area prompts was intended to expand student understanding and knowledge of the SRSD strategy that they obtained during Phase I of instruction.

Lesson one. This lesson focused on reviewing the parts of a good persuasive essay using a written example of a civics essay. Students were given an essay which had been cut into parts. Students used these puzzle pieces to re-create the "Students should volunteer" essay (see Appendix M) using the POW+TREE graphic organizer to guide them. The teacher and students discussed the essay and the responsibilities of a good citizen which was based on Civics standard CE 3e. Instructors led the discussion for Ce3, the essential knowledge section regarding ways in which citizens could participate in community service. Students used the graph and checked the essay that they had put together to see if it contained all of the parts of a good persuasive essay.

Lesson two. This lesson focused on guided practice with the SRSD strategy using a civics writing situation and writing topic prompt for CE 4a; the demonstration of personal character traits that facilitate thoughtful and effective participation of civic life by practicing trustworthiness and honesty. Instructors reviewed the essential knowledge and led a discussion on this standard. Students, with minimal teacher guidance, were then asked to use their graphic organizer to write an essay from a short civics writing

situation with two writing prompts. Students wrote essays and then checked using their chart graphs when completed.

Lesson three. This lesson focused on independent performance of the SRSD strategy with civics content prompts based on Civics standard CE 4. Students were asked to create their own graphic organizer from memory. A teacher led discussion regarding the traits of citizenship with regard to service to the school or community. They were then given a content area prompt reflecting a short writing situation based on the standard. The writing situation was given to the students and they were asked to choose from two writing prompts. Students wrote independently and graphed their essay on their own.

Post-testing phase II. Completion of SRSD + Content instruction Phase II entailed the administration of five posttest essay prompts used to assess student writing performance with a content prompt related to CE 3e or CE4 a-g. Students were given a short writing situation based on the Civics standard, and they were asked to choose one of two prompts to write their essay. The five essay prompts were given over five different days. Essays were scored for number of words, number of sentences, number of paragraph parts, transition words used, and quality. In addition, students completed a strategy knowledge probe before the second day of post-testing for Phase II. Teachers also administered the time planning and writing probe during posttesting day three.

The student social validity interviews were also given after all of the essays were completed for Phase II. These interview questions (see Appendix S) were those from previous SRSD studies with George Mason University and Penn State University (Mason

& Shriner, 2008; Mastropieri et al. 2010). The interviews were conducted by the

researcher one-on-one with each student and were audio taped. Interviews were then

transcribed to assess common themes across participants in the study.

      Maintenance and generalization. A generalization prompt was given

independently in the students' math classrooms after the completion of Phase II.

Generalization was done in math classrooms and administered as a "warm up" activity

for all students. The researcher coordinated this effort with the math department chair.

The chair and math teachers agreed to give the prompt in their classrooms on December

15, 2011. The individual math teachers were given the writing prompt (see Appendix I)

and asked to give it as an opening assignment. All of the eighth grade math teachers

participated as the students for this study were in various math classrooms. To ensure

anonymity of the participants, teachers gave the prompt to the entire class. After the

prompt was given, students wrote until essays were completed. The teachers reported

that this took no more than 20 minutes. The teachers gave the researcher all of their class

essays. The researcher pulled the participant essays and copied them; she then returned

all of the class essays to the teachers. Generalization essays were then assessed in the

same manner as posttest essays from each phase.

      Maintenance testing occurred four weeks (33 calendar days for Groups 1 and 3,

34 days for Group 3) after the completion of Phase II posttesting for each group.

Maintenance prompts were administered over a two day period. Maintenance included

asking the students to write given one generic essay prompt on day one of testing. The

second day included a Civics CE 4 a-g content area essay prompt (see Appendix I). The

strategy knowledge probe and the planning and writing probe were also given at maintenance testing day one.

Summary

This single subject, multiple baseline, multiple probe design study, included eight, eighth grade, students with EBD, who were also struggling writers. Permissions were collected prior to the beginning of the study from the University, school system, school, researchers, parents and students. The study included four phases: (1) baseline, (2) SRSD instruction in persuasive writing, (3) SRSD + Content instruction and (4) generalization and maintenance. Students were grouped into three groups of two to three students each. The study was conducted over a period of 36 school days and maintenance testing followed four weeks after each group completed the phase II posttesting. Dependent measures included student essays, which were scored on a number of variables, including length, text structure elements, and overall quality. Students were also assessed on their knowledge of the SRSD strategy, their views, and understanding of the SRSD strategy and the amount of time spent on planning and writing.

4. RESULTS

This chapter presents the results of research study on the effectiveness of Self-regulated Strategy Development (SRSD) writing instruction on the writing performance of middle school students with EBD using a multiple baseline multiple probe design. The instruction was delivered in two phases, phase one taught persuasive essays, phase two taught students to write persuasive essays using civics content. Students were tested at baseline, post phase I, post phase II and following a four week interval to assess maintenance and generalization. In addition, the study examined the time students spent planning and writing persuasive essays across phases. Students were also interviewed post instruction to see whether they had learned the strategies and whether they enjoyed instruction and strategy use. To examine the effects of this instruction, the following research questions were examined:

1. Does SRSD instruction for persuasive writing increase the quality, length, parts and organization of persuasive essays for students with EBD?

2. Can the SRSD model of instruction for the POW+TREE persuasive writing strategy, used successfully in previous research with students with learning disabilities, and EBD, be replicated to include civics content for middle school students with EBD?

3. Once students learn the POW + TREE strategy, can they generalize the use of this strategy to other academic areas?

4. Does the time used to plan and write persuasive essays change after the SRSD instructional phases?

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

Fidelity of Treatment

Fidelity of treatment regarding lesson delivery for each of the three groups in the study was assessed using the fidelity of treatment checklists and the video tapes of both lesson and all testing phases of the study. Each of the videotapes was reviewed by the researcher and two trained observer/scorers using the fidelity of treatment checklists for each lesson times three groups for a total of 27 videotapes. The 27 videos comprised lessons one through six of the SRSD strategy instruction and lessons one through three of the SRSD + Content instruction.

To evaluate whether the instruction was implemented as intended, fidelity of treatment checklists for the lesson plans were used. The items monitored were (a) consistency with implementing intervention for the appropriate amount of time, and (b) consistency with implementing intervention using SRSD and SRSD + Content scripted lessons.

Observers were trained to use the fidelity of treatment checklists to assess whether or not the instruction and its implementation were delivered as intended for both instructional phases of the study (see Appendix N). The researcher and two observers viewed the lessons independently and the fidelity of treatment checklists were completed and delivered to the researcher. The checklists were compared to calculate the percentage of agreement. The fidelity of treatment analysis indicated that instruction to the three groups was delivered with a high degree of fidelity ($M = 98$; range 96% to 100%). The fidelity of treatment analysis indicated that instruction to the three groups was delivered with a high degree of fidelity.

Essay Writing Performance

Student writing performance measures were evaluated for each essay written at baseline, post-SRSD, post SRSD + Content, generalization, and maintenance. Included in the evaluation were scores for total number of words, sentences, paragraphs, transition words, and essay parts. Essay quality was then evaluated using the rubric for holistic quality.

Overall essay quality was determined through the use of a holistic rubric comprised of a scale from zero to ten with clear grading guidelines. An essay receiving a

score of ten would have met the following criteria: (a) topic sentence, (b) three or more reasons with explanations, (c) A clear and coherent sequence of writing including more than one counter argument, (d) an ending sentence, and (e) an overall logical essay.

To iterate the scoring procedure methods, each essay was scored by three independent scorers. Scorers discussed disagreement after scoring each phase until they met resolution. After discrepancies were cleared, the reliability between scorers was reconciled to 100% agreement across all phases.

Results are presented via testing phase by overall results, instructional group and individual student performance. Descriptive statistics and nonparametric test results are presented in Table 4 for each scored element regarding student writing performance measures. Graphic representations are then displayed by performance measure in Figures 1-6.

Baseline. Students were administered a minimum of five baseline prompts in pre-determined groups based on input from the school psychologist, special education English teachers and the crisis resource counselor. These specialists were cognizant of student histories and academic performance. Their recommendations were followed to ensure cooperative groups for instruction and to facilitate positive classroom interactions. Students in group one ($n = 3$) included Adam, Nate and Wes. Group two ($n = 3$) was comprised of Bobby, Matt and Todd. Group 3 ($n = 2$) included Drew and Emily. Five baseline measures were administered to comply with the high quality standards of single subject research (see Horner, et al., 2005).

Students were provided with lined paper and pencils and were presented with the choice of two generic persuasive essay baseline prompts. Students were asked to choose one prompt and write. All students within each group received baseline prompts until stability was reached for each student. Scores considered for baseline stability included scores for holistic quality, number of essay parts and number of words as illustrated by Figures 1, 2 and 3. All students completed five baseline prompts which were administered at staggered intervals by group. Testing was completed over 15 class periods in a period of 10 school days.

Overall baseline essay performance descriptive statistics are presented in Table 4. Data presented indicated relatively low scores across participants on all measures of essay performance. At baseline ($N = 8$) students obtained a mean of 38.65 ($SD = 27.23$) for total number of words (range 8 to 104). The baseline scores for total number of sentences had a mean of 2.63 ($SD = 1.74$) ranging from 1 to 8 for this measure. For total number of paragraphs at baseline, students obtained a mean score of 0.50 ($SD = 0.60$) ranging from 0 to 2 for this measure. The students obtained a mean score of 1.50 ($SD = .94$) for total number of transition words (range 0 to 4). For total essay parts, students obtained a mean of 1.87 ($SD = .58$) ranging from 1 to 3 in total essay parts. Holistic quality scores at baseline were low as indicated by a mean of 1.48 ($SD = .49$) ranging from 1 to 3 in quality scores. Overall performance at baseline indicated relatively low performances in terms of level, trend, and variability across participants on all measures of essay performance. Following are group and individual descriptions of performance

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measures at baseline. See Figures 1-6 for illustrated results for groups 1-3 and individual

student data for visual analysis results.

Table 4

Descriptive Data on Essay Performance

	Baseline Mean (*SD*) (*N*=8)	Post SRSD Intervention Mean (*SD*) (*N*=8)	Post SRSD + Content Intervention Mean (*SD*) (*N*=8)	Generalization Mean (*SD*) (*N*=8)	Maintenance SRSD Mean (*SD*) (*N*=8)	Maintenance SRSD + Content Mean (*SD*) (*N*=8)
Total Words	38.65(27.23)	128.65(30.72)[a] $ES = 2.93$[b]	141.10(29.98)[a] $ES > 3$[b]	133.88(52.35)[a] $ES = 1.82$[b]	118.75(32.49)[a] $ES = 2.47$[b]	134.13(46.88)[a] $ES = 2.04$[b]
Total Sentences	2.63(1.74)	10.20(2.36)[a] $ES > 3$[b]	11.48(3.28)[a] $ES = 2.70$[b]	10.63(4.37)[a] $ES = 1.83$[b]	9.88(3.04)[a] $ES = 2.38$[b]	11.88(3.72)[a] $ES = 2.49$[b]
Total Paragraphs	0.50(.60)	2.45(.60)[a] $ES > 3$[b]	2.85(.74)[a] $ES > 3$[b]	2.63(.74)[a] $ES = 2.89$[b]	2.63(1.06)[a] $ES = 2.01$[b]	2.88(.83)[a] $ES = 3.87$[b]
Total Transition Words	1.50(.94)	6.15(1.15)[a] $ES > 3$[b]	5.88(.76)[a] $ES > 3$[b]	5.75(1.04)[a] $ES > 3$[b]	5.50(1.20)[a] $ES > 3$[b]	6.25(.71)[a] $ES > 3$[b]
Total Essay Parts	1.87(.58)	10.87(2.08)[a] $ES > 3$[b]	12.17(2.20)[a] $ES > 3$[b]	12.12(1.81)[a] $ES > 3$[b]	11.13(1.55)[a] $ES > 3$[b]	11.13(1.46)[a] $ES > 3$[b]
Holistic Quality Scores	1.48(.49)	8.23(.84)[a] $ES > 3$[b]	9.10(.63)[a] $ES > 3$[b]	9.25(.88)[a] $ES > 3$[b]	8.50(1.60)[a] $ES > 3$[b]	8.75(1.28)[a] $ES > 3$[b]

Note: [a] Significantly greater than baseline, $p < .01$, according to Wilcoxon Matched-Pairs, Signed Ranks Test.
[b]Effect Sizes (*ES*) were calculated using all relevant post measure standard deviations. Effect sizes are not entirely comparable to group ES.

Group one. This group was given baseline prompts each day for five successive sessions. During baseline they were asked to choose a prompt from two available options and write an essay based on their selected prompt. Students did not plan before commencing to write their responses using paper and pencil. Students were also seated in separate areas of the classroom to accommodate individual behaviors. Following are the individual performance results for the baseline essays for group one. Baseline scores analyzed to determine stability levels before instructional phase illustrated in Figures 1-3, included number of words per essay, number of essay parts, and holistic quality scores. See Figures 1-6 for visual analysis of baseline results by essay performance measures for group one.

Adam baseline performance. Adam completed five baseline essays. At baseline the measures used to determine stability levels for Adam included number of words per essay, number of essay parts and holistic quality. His baseline performance was noted as consistently low. For number of words, Adam had a mean score of 34.4 with a range of 18 to 36, demonstrating a stable trend. His average for number of essay parts was 2 representing a stable slope with no variability. Adam's holistic quality scores demonstrated an average score of 1 also representing a stable slope with no variability. Adam's other performance scores included total number of sentences with a mean of 2.2 and a range of 2 to 3 sentences per essay. For number of paragraphs his average was 0.2 with a range of 0 to 1. For number of transition words, Adam had an average score of 1.2 with a range of 1 to 2. The analysis indicated consistently low performance in level, trend, and variability across essay elements at baseline.

Nate baseline performance. Nate completed five baseline essays. At baseline the measures used to determine stability levels for Nate included number of words per essay, number of essay parts and holistic quality. His baseline performance was noted as consistently low. For number of words, Nate had a mean score of 30.4 with a range of 25 to 42. His average for number of essay parts was 2 with a range of 1 to 3 representing both low performance in trend and variability. Nate's holistic quality scores demonstrated an average score of 1.2 representing both low performance in trend and variability. Nate's other performance scores included total number of sentences with a mean of 2 and a range of 1 to 3 sentences per essay. For number of paragraphs his average was 0.2 with a range of 0 to 1. For number of transition words, Nate had an average score of 0.4 with a range of 0 to 1. Visual analysis indicated consistently low performance in level, trend, and variability across essay elements at baseline.

Wes baseline performance. Wes completed five baseline essays. At baseline the measures used to determine stability levels for Wes included number of words per essay, number of essay parts and holistic quality. His baseline performance was noted as consistently low. For number of words, Wes had a mean score of 36.8 with a range of 17 to 50, with the last three data points indicating a stable trend. His average for number of essay parts was 1.4 with a range of 1 to 2 representing both low performance in trend and variability. Wes' holistic quality scores demonstrated an average score of 1.4 with a range of 1 to 2, representing both low performance in trend and variability. Wes's other performance scores included total number of sentences with a mean of 2 and a range of 1 to 3 sentences per essay. For number of paragraphs his average was 0.4 with a range of 0

to 1. For number of transition words, Wes had an average score of 1.4 with a range of 1 to 2. Visual analysis indicated consistently low performance in level, trend, and variability across essay elements at baseline.

Group two. This group was given baseline prompts over a period of 8 school days. During baseline students were asked to write an essay from a choice of two available prompts. Students notably did not plan before beginning to write their responses using paper and pencil. Students in this group were also seated in separate areas of the classroom to accommodate individual behaviors. Following are the individual performance results for the baseline essays for group two. Baseline scores analyzed to determine stability levels before the instructional phase shown in Figures 1-3, included number of words per essay, number of essay parts, and holistic quality scores. See Figures 1-6 for baseline visual analysis results by essay performance measures for group two.

Bobby baseline performance. Bobby completed five baseline essays over the course of 8 days. At baseline the measures used to determine stability levels for Bobby included number of words per essay, number of essay parts and holistic quality. His baseline performance was noted as consistently low. For number of words, Bobby had a mean score of 90.2 with a range of 80 to 104, with data points indicating minimal variability. His average for number of essay parts was 2.6 with a range of 2 to 3 representing both low performance in trend and variability. Bobby's holistic quality scores demonstrated an average score of 2.4 with a range of 1 to 3, representing both low performance in trend and variability. Bobby's other performance scores included total

number of sentences with a mean of 6.6 and a range of 4 to 8 sentences per essay. For number of paragraphs his average was 1.8 with a range of 1 to 2. For number of transition words, Bobby had an average score of 3.4 with a range of 3 to 4. The visual analysis indicated consistently low performance in level, trend, and variability across essay elements at baseline.

Matt baseline performance. Matt completed five baseline essays over an 8 day period. At baseline the measures used to determine stability levels for Matt included number of words per essay, number of essay parts, and holistic quality. His baseline performance was noted as consistently low. For number of words, Matt had a mean score of 13.8 with a range of 18 to 22, indicating a low positive trend and low variability. His average for number of essay parts was 1 with a consistent score of 1 for all five essays representing flat performance in level, trend and variability. Matt's holistic quality scores demonstrated an average score of 1 with all essays receiving a score of 1 for essay parts thus representing both flat performance in level, trend and variability. Matt's other performance scores included total number of sentences with a mean of 1 with all five essays having only one sentence each. Matt scored a 0 for all five essays regarding paragraphs per essay. For number of transition words, Matt had a consistent score of 1 transition word used for each essay. The visual analysis indicated consistently low performance in level, no trend, and minimal variability across essay elements at baseline.

Todd baseline performance. Todd completed five baseline essays over the course of 8 days. At baseline the measures used to determine stability levels for Todd included number of words per essay, number of essay parts, and holistic quality. His baseline

performance was noted as consistently low. For number of words, Todd had a mean score of 23.8 with a range of 15 to 35, with data points indicating a stable trend. His average for number of essay parts was 1.2 with a range of 1 to 2 representing both low performance in trend and variability. Todd's holistic quality scores demonstrated an average score of 1.4 with a range of 1 to 2, representing both low performance in trend and variability. Todd's other performance scores included total number of sentences with a mean of 1.8 and a range of 1 to 4 sentences per essay. For number of paragraphs his average was 0.2 with a range of 0 to 1. For number of transition words, Todd had an average score of 1.6 with a range of 0 to 3. The visual analysis indicated consistently low performance in level, stable trend, and minimal variability across essay elements at baseline.

Group three. This group was given baseline prompts over a period of 11 school days. During baseline they were asked to choose a prompt from two available options and write an essay in response to the prompt selected. Students in this group did not plan before commencing to write their responses. Following are the individual performance results for the baseline essays for group three. To determine baseline stability before the instructional phase began see Figures 1-3, for number of words per essay, number of essay parts, and holistic quality scores. See Figures 1-6 for visual analysis results of baseline essays by performance measures for group three.

Drew baseline performance. Drew completed five baseline essays over the course of 8 days. At baseline the measures used to determine stability levels for Drew included number of words per essay, number of essay parts, and holistic quality. His

baseline performance was noted as consistently low. For number of words, Drew had a

mean score of 53.3 with a range of 42 to 67, with data points indicating a stable trend.

His average for number of essay parts was 2.6 with a range of 2 to 3 representing both

low performance in trend and variability. Drew's holistic quality scores consistently

demonstrated a level score of 2 across all essays in baseline, representing flat

performance in trend and variability. Drew's other performance scores included total

number of sentences with a mean of 3.4 and a range of 3 to 5 sentences per essay. For

number of paragraphs all five essays had a consistent score of 1paragraph. For number of

transition words, Drew had an average score of 2.2 with a range of 2 to 3. The analysis

indicated consistently low performance in level, stable trend, and minimal variability

across essay elements at baseline.

Emily baseline performance. Emily completed five baseline essays over the

course of 8 days. At baseline the measures used to determine stability levels for Emily

included number of words per essay, number of essay parts, and holistic quality. Her

baseline performance was noted as consistently low. For number of words, Emily had a

mean score of 34.2 with a range of 24 to 43, with data points indicating a stable trend.

Her average for number of essay parts was 2 with consistent scores of 2 for all essays,

representing a flat performance in trend and variability. Emily's holistic quality scores

demonstrated an average score of 1.4 with a range of 1 to 2, representing both low

performance in trend and variability. Emily's other performance scores included total

number of sentences with a consistent score of 2 for all essays. For number of

paragraphs her average was .02 with a range of 0 to 1. For number of transition words,

Emily had an average score of 0.8 with a range of 0 to 1. The visual analysis indicated consistently low performance in level, stable trend, and low variability across essay elements at baseline.

Knowledge of essay parts at baseline. During baseline, instructional intervention and posttesting phases, students were asked to name the parts of a persuasive essay to include responses such as topic sentence, reasons 3 or more, explanations and ending. Each response elicited a point toward scores of 0 to 12. This was done to observe how well students were progressing toward learning the parts of a persuasive essay. The results for this measure are shown in Figure 2. At baseline, students' were given the probe on days one, three, and five. Overall, students obtained an average score of 0.13 ranging from 0 to 1, indicating low performance for all students at baseline for knowledge of the parts of a persuasive essay. Individual student scores included Adam, Nate, Wes, Matt, Todd, Drew and Emily all with ($M = 0$, no range), and Bobby ($M = 1$, no range).

Baseline summary. Using visual analysis, the baseline performance was stable and indicated low performance for level, trend, and variability. Stable baseline measures allowed for the staggered continuation of the study to intervention instruction and posttesting phases. Student performance and analysis on posttesting measures follow.

Figure 1.

Number of words per essay. This figure illustrates the total number of words written in each essay by individual students in Groups 1-3 of the study.
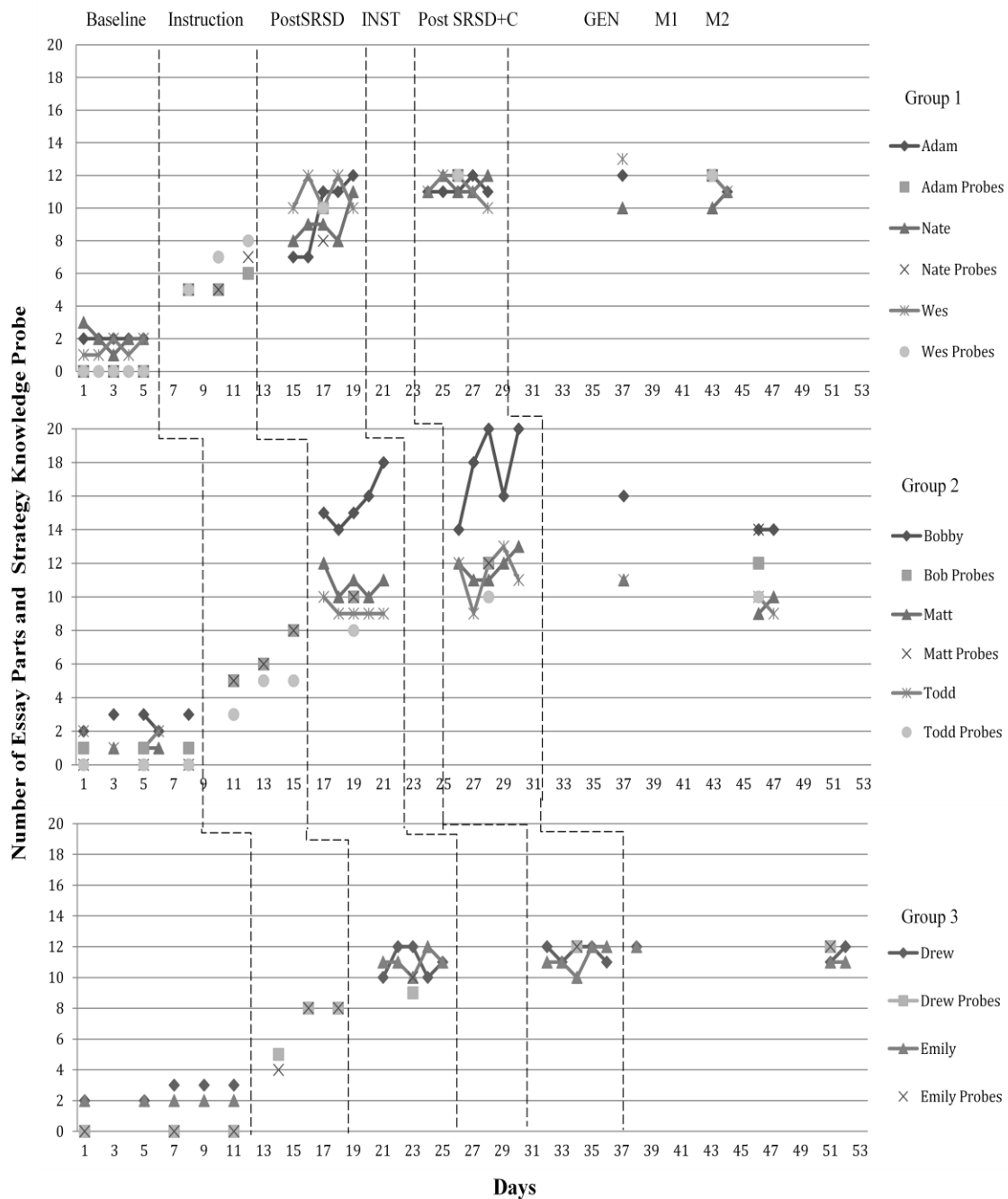
Figure 2.

Number of essay parts per essay and strategy knowledge probe. This figure illustrates the total number of essay parts in each essay by individual students in Groups 1-3 of the study. Additional data regarding the strategy knowledge probe responses are also illustrated in the graph by individual students in Groups 1-3.

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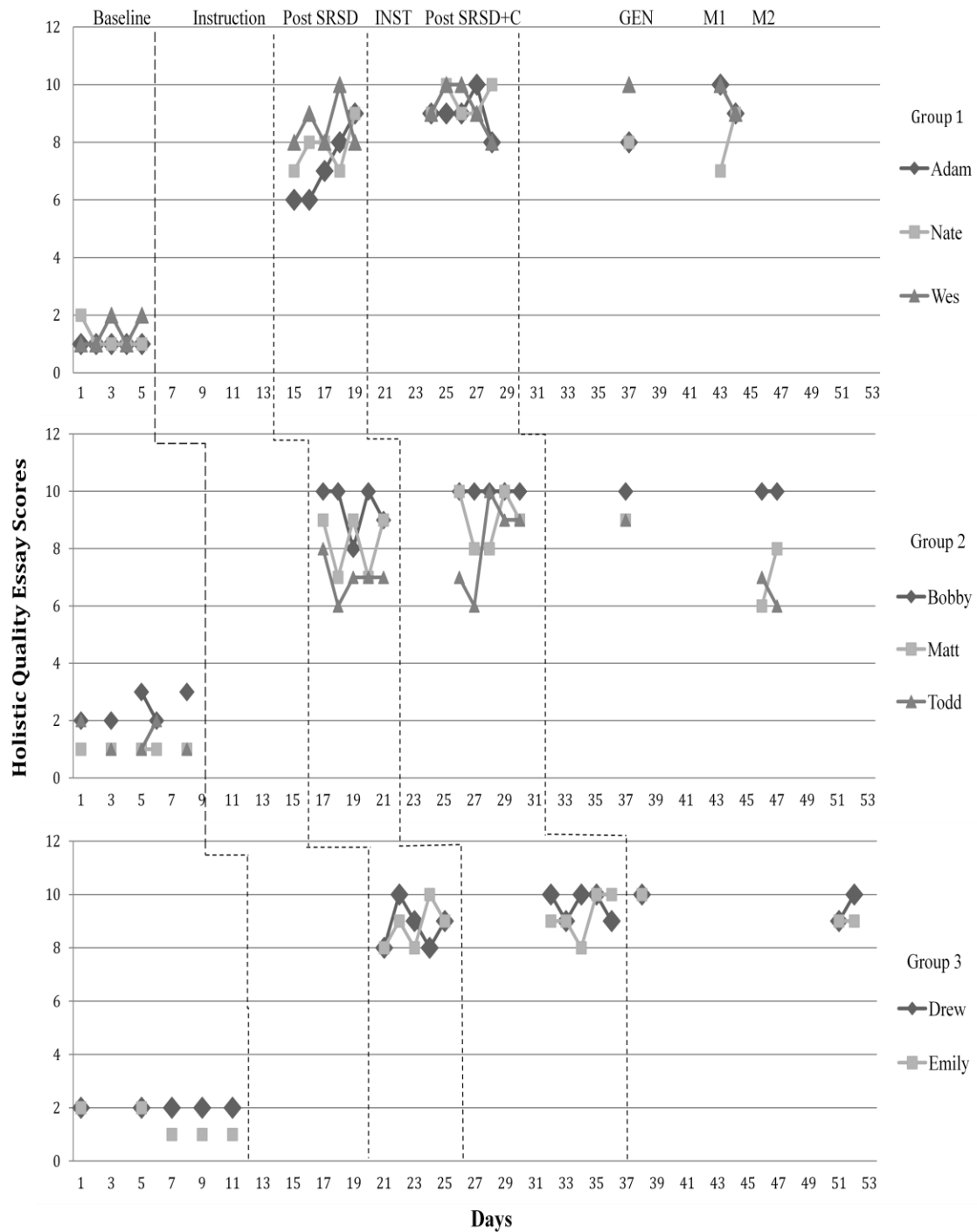
Figure 3.

 Essay holistic quality scores. This figure illustrates the holistic essay score for each essay by individual students in Groups 1-3 of the study.

Figure 4.

Number of sentences per essay. This figure illustrates the total number of sentences in each essay by individual students in Groups 1-3 of the study.

Figure5.

Number of paragraphs per essay. This figure illustrates the total number of paragraphs in each essay by individual students in Groups 1-3 of the study.
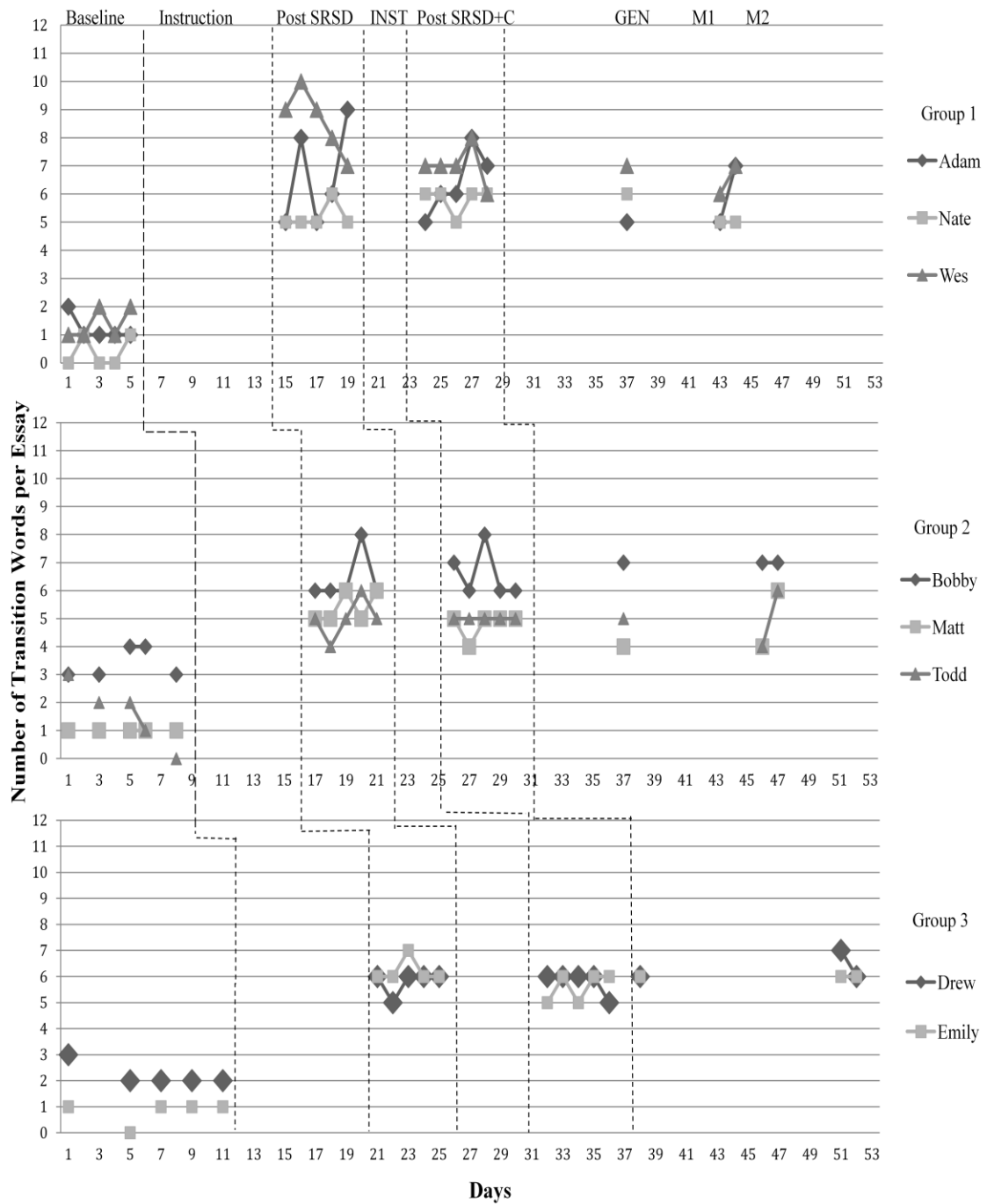
Figure 6.

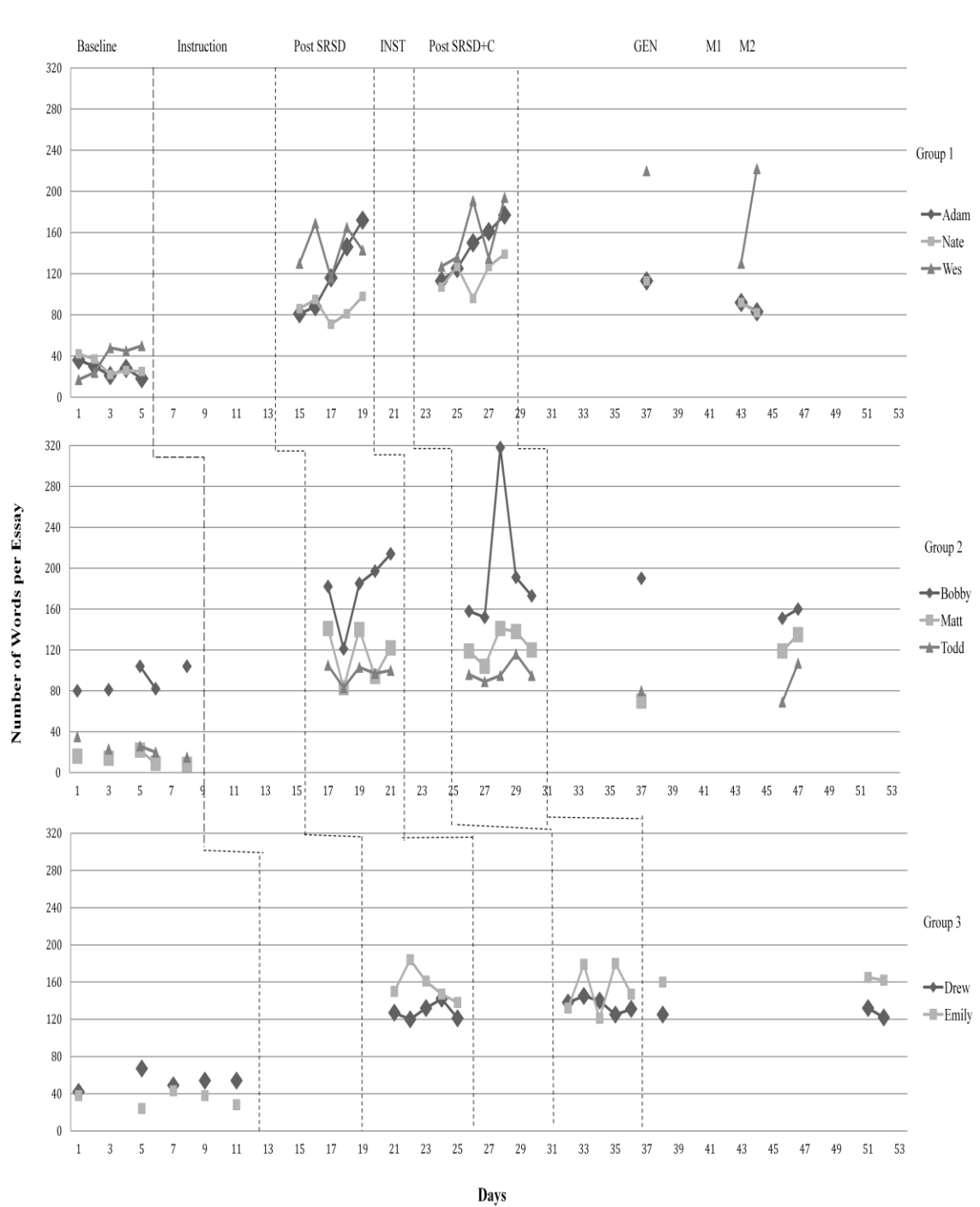*Number of transition words per essay. This figure illustrates the total number of transition words written in each essay by individual students in Groups 1-3 of the study.*
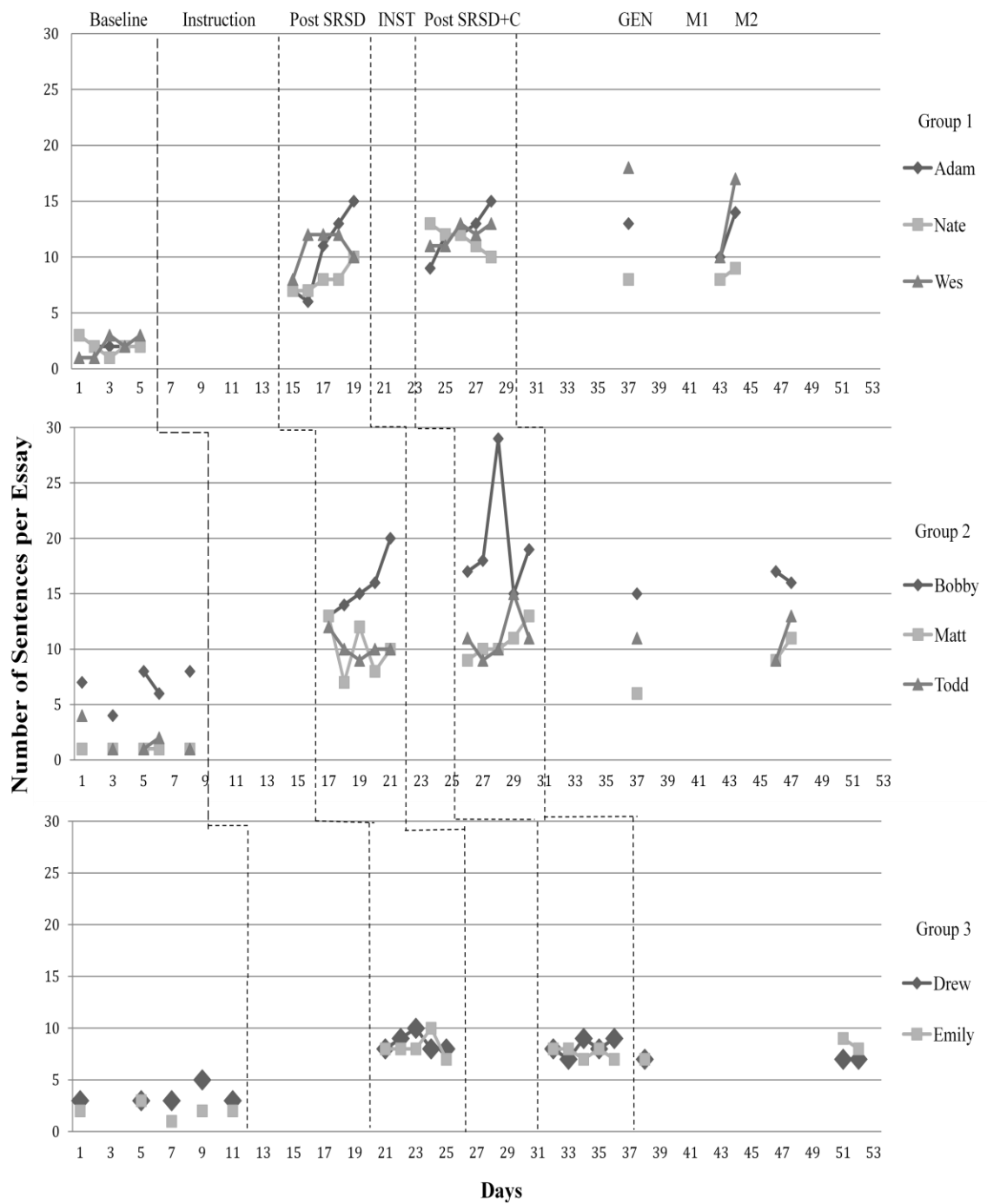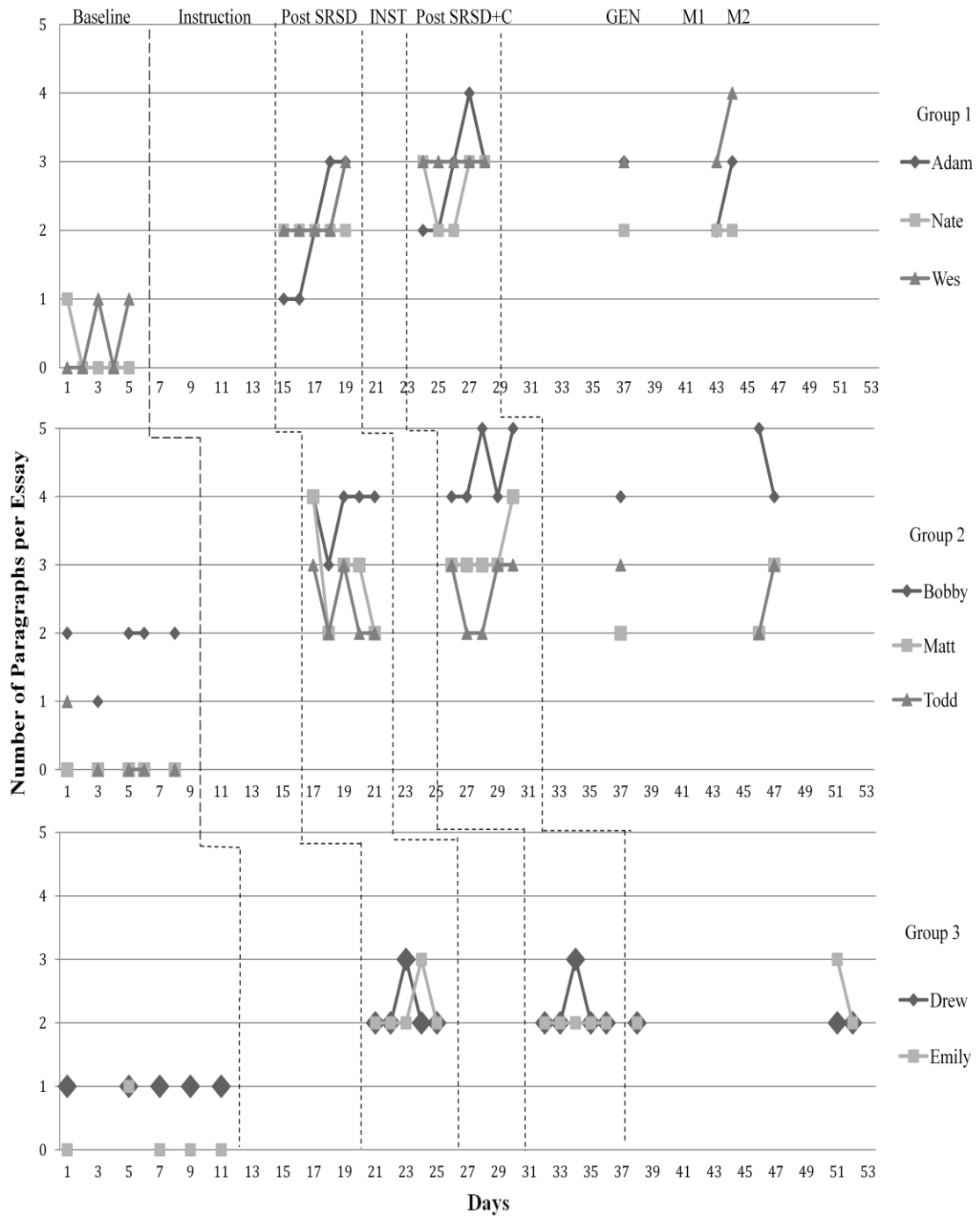
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Overall post SRSD intervention essay performance. Student performance after phase I, SRSD intervention, showed substantial improvement in all areas of writing performance from baseline through post SRSD. Visual analysis between these two phases indicated high levels and trends from baseline to post SRSD thus demonstrating a rapid immediacy of effect across all essay performance measures. In addition this analysis also found 100% PND across all scored measures from baseline.

All students received SRSD instruction in their respective groups over a period of three weeks. SRSD instruction included 6 lessons administered by group over a period of 6-8 days per instructional group. Groups received a total of 970 minutes of instruction over 21 class periods within 13 school days of the study. Upon completion of the SRSD lessons, students were administered five posttest essays over an average period of 5 days per group. Student post SRSD testing included their choice of two essay prompts, lined paper and pencils. Students were then asked to write essays based on their prompt choice. All students demonstrated substantial improvement evidenced by essays which were longer, included more essay parts, and had higher quality scores from baseline. All students also increased their use of transition words, wrote more sentences and paragraphs, and increased their knowledge of the parts of a persuasive essay as demonstrated in Table 4 and in Figures 1-6.

Overall post SRSD essay performance descriptive statistics are presented in Table 4. Data presented indicated significant gains across participants in all measures of essay performance. At post SRSD ($N = 8$) students obtained a mean of 128.65 ($SD = 30.72$) for total number of words (range 81 to 214). The post SRSD scores for total number of

sentences had a mean of 10.20 (*SD* = 2.36) ranging from 7 to 20 for this measure. For total number of paragraphs at post SRSD, students obtained a mean score of 2.45 (*SD* = 0.60) and (range 1to 4). The students obtained a mean score of 6.15 (*SD* = 1.15) for total number of transition words ranging from 5 to 10 words per essay. For total essay parts, students obtained a mean of 10.87 (*SD* = 2.08) ranging from 7 to 18 in total essay parts. Holistic quality scores at post SRSD showed substantial gains as indicated by a mean of 8.23 (*SD* = .84) with (range 6 to 10). Overall post SRSD performance from baseline indicated mean scores across all students which were large and statistically significant as shown in Table 4 (all *p's* < .01) according to Wilcoxon Matched-Pairs, Signed Ranks tests.

In the following sections, group and individual descriptions of performance measures at post SRSD will be addressed. See Figures 1-6 for illustrated results visual analysis of groups 1-3 and individual student data.

Group one. This group was the first to receive the SRSD instructional lessons on days 6 through 13 of the study. They successfully completed lessons 1 through 6 of the SRSD POW+TREE strategy for writing persuasive essays. After intervention, students were asked to write essays with prompts that were similar to those at baseline. Students were given writing supplies to include lined paper and pencils. Students in group one were administered post SRSD writing prompts on days 14 to 18 of the study. Students were then asked to write an essay from a selection of two prompt choices. Students completed five post SRSD essays over the course of five school days. Students created their own graphic organizers based on the POW+TREE organizer that they had used

during instruction. They each spent time planning their essays before writing. The overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated (100%) PND for all group members from baseline to post SRSD across all performance measures.

Also notable, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence of student performance resultant in longer essays with a higher overall quality. For example for number of words from baseline to post SRSD percent of increase reports were high for group one, Adam (34.4 to 120.6, 250%), Nate (30.4 to 86.2, 183%) and Wes (36.8 to 144.6, 293%). For overall quality, the percent of increase data illustrates the following gains for group one; Adam (1 to 7.2, 620%), Nate (1.2 to 7.8, 550%) and Wes (1.4 to 8.6, 514%). Following are the individual performance results for the post SRSD essays for group one, Adam, Nate and Wes. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group one.

Adam post SRSD intervention performance. Adam completed five post SRSD essays over the course of five days. Adam spent time planning and creating a graphic organizer before writing each essay. Adam demonstrated significant gains in his scores from baseline across all essay measures. Adam's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 34.4 to 120.6 (250%) and in mean holistic scores from (1 to 7.2, 620%). Between baseline and post SRSD phases Adam demonstrated a rapid immediacy of effect

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

Within phase descriptive statistics and visual analysis for post SRSD essays demonstrated the following results. For number of words, Adam obtained a mean score of 120.6 with a range of 81 to 172, with data points indicating a positive slope with a high upward trend and low variability. His average for number of essay parts was 9.6 with a range of 7 to 12 representing a positive slope with a high upward trend and low variability. Adam's holistic quality scores demonstrated an average score of 7.2 with a range of 6 to 9, representing a positive slope, high trend and low variability. Adam's other performance scores included total number of sentences with a mean of 10.4 and a range of 7 to 15 sentences per essay. For number of paragraphs his average was 2 with a range of 1 to 3. Both measures for sentences and paragraphs also indicated a positive slope, high upward trend and low variability. For number of transition words, Adam had an average score of 6.6 with a range of 5 to 9 demonstrating a positive slope with moderate trend and low variability.

In summary, Adam's within phase performance for all measures demonstrated positive slopes with moderate to high trends and low variability. The between phase visual analysis indicated consistently significant gains in performance from baseline to post SRSD and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Nate post SRSD intervention performance. Nate completed five post SRSD essays over the course of five days with group one. Nate spent time planning and

creating a graphic organizer before writing each essay. Nate made significant improvement in his scores from baseline across all essay measures. Nate's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 30.4 to 86.2 (183%) and in mean holistic scores from (1.2to 7.8, 550%). Between baseline and post SRSD phases Nate demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between all baseline and post SRSD scores.

The within phase descriptive statistics and visual analysis for post SRSD essays demonstrated the following results. For number of words, Nate obtained a mean score of 86.2 with a range of 71 to 98, with data points indicating a positive slope with a low upward trend and low variability. Nate's percent of increase for number of words was significant with an increase of 30.4 to 86.2 or 184% from baseline. His average for number of essay parts was 9 with a range of 8 to 11 representing a positive slope with a moderate upward trend and low variability. Nate's holistic quality scores demonstrated an average score of 7.8 with a range of 7 to 9, representing a positive slope, moderate upward trend and low variability. Nate's other performance scores included total number of sentences with a mean of 8 and a range of 7 to 10 sentences per essay also demonstrating a positive slope with moderate trend and low variability. For number of paragraphs his average was 2. All essays had a consistent score of 2 indicating zero or flat slope, no trend and no variability. For number of transition words, Nate had an

average score of 5.2 with a range of 5 to 6 demonstrating a positive slope with a low upward trend and low variability.

In summary Nate's within phase changes for holistic quality, number of words, essay parts, sentences, and transition words all showed positive slopes, low to moderate upward trends and low variability. His number of paragraphs scores indicated a flat slope, no trend and no variability. Overall significance is noted with between phase visual analysis which indicated consistently significant gains in performance from baseline to post SRSD and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Wes post SRSD intervention performance. Wes completed five post SRSD essays with group one over the course of five days. Wes spent time planning and creating a graphic organizer before writing each essay. Wes improved significantly in his scores from baseline across all essay measures. Wes' percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 36.8 to 144.6, (293%) and in mean holistic scores from 1.4 to 8.6 (514%). Between baseline and post SRSD phases Wes demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between all baseline and post SRSD scores.

Within phase descriptive statistics and visual analysis for post SRSD essays demonstrated the following results. Within phase, Wes's performance was inconsistent as demonstrated by cyclical variability on measures for number of words, essay parts and holistic score. For number of words, Wes obtained a mean score of 144.6 with a range of

116 to 169, with data points indicating a positive slope with a low upward trend and cyclical pattern with high variability. Wes' percent of increase for number of words was significant and the highest for group one, with an increase of 36.8 to 144.6 (293%) from baseline. His average for number of essay parts was 10.8 with a range of 10 to 12 again representing a flat slope with a no trend and cyclical variability. Wes' holistic quality scores demonstrated an average score of 8.6 with a range of 8 to 10, a positive slope, low upward trend and cyclical variability. Cyclical variability was demonstrated because Wes' scores went up and down in a consistent pattern. Wes' other performance scores included total number of sentences with a mean of 10.8 and a range of 8 to 10 sentences per essay. For number of paragraphs his average was 2.2 with a range of 2 to 3. For number of transition words, Wes had an average score of 8.6 with a range of 7 to 10. Measures for number of sentences, paragraphs and transition words indicated positive slopes, low upward trend and low variability.

In summary, Wes' within phase data for holistic quality, number of words, sentences, paragraphs and transition words all showed positive slopes, low to moderate upward trends and low or cyclical variability. For number of essay parts, he demonstrated higher scores than baseline however; he was not as consistent with these scores and demonstrated a flat slope, no trends with cyclical variability. Overall significance is noted with between phase visual analysis which indicated consistently significant gains in performance from baseline to post SRSD and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Group two. This group received the SRSD instructional lessons on days 10 through 16 of the study. They successfully completed lessons 1 through 6 of the SRSD POW+TREE strategy for writing persuasive essays. After instructional intervention, students were then asked to write essays with prompts that were similar to those at baseline. Students in group two were administered post SRSD writing prompts on days 17 to 21 of the study. Students were given supplies for writing which included lined paper and pencils. They were then asked to write an essay from a choice of two prompts. Students completed five post SRSD essays in a period of five school days. Each student, in group two, spent some time planning their essays before writing. They also created their own graphic organizers based on the POW+TREE organizer that they had used during instruction. When the performance of the group was compared to baseline, the levels and trends were high demonstrating a rapid immediacy of effect. The visual analysis also demonstrated (100%) PND for all group members from baseline to post SRSD across all performance measures.

Also notable, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence of student performance resultant in longer essays with a higher overall quality. For example for number of words from baseline to post SRSD percent of increase scores were high for group two, Bobby (90.2 to 179.8, 99%), Matt (13.8 to 116, 741%) and Todd (23.8 to 97.6, 310%). For overall quality, the percent of increase data illustrates the following gains for group one; Bobby (2.4 to 9.4, 292%), Matt (1 to 8.2, 720%) and Todd (1.4 to 7, 400%). Following are the individual performance results for the post SRSD essays for group two, Bobby,

Matt and Todd. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group two.

   Bobby post SRSD intervention performance. Bobby completed five post SRSD essays over the course of five school days with group two. Bobby used time to plan and created a graphic organizer before writing each essay. Bobby demonstrated significant improvement from baseline in all of his scores across all essay measures. His percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 90.2 to 179.8 (99%) and in mean holistic scores from (2.4 to 9.4, 292%). Between baseline and post SRSD phases Bobby demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. Between phases visual analysis also indicated (100%) PND between all baseline and post SRSD scores.

   Within phase descriptive statistics and visual analysis for post SRSD essays demonstrated the following results. For number of words, Bobby obtained a mean score of 179.8 with a range of 121 to 214, with data points indicating a positive slope with a moderate upward trend and low variability. His average for number of essay parts was 15.6 with a range of 14 to 18 representing a positive slope with a high upward trend and low variability. Bobby's holistic quality scores demonstrated an average score of 9.4 with a range of 8 to 10, with a negative slope, low downward trend and low variability. Bobby's other performance scores included total number of sentences with a mean of 15.4 and a range of 13 to 20 sentences per essay also demonstrating a positive slope with moderate trend and low variability. For number of paragraphs his average was 3.8 with a

range of 3 to 4. Bobby had an average score of 6.4 for number of transition words with a range of 6 to 8. Bobby's within phase changes for number of paragraphs and transition words demonstrated positive slopes with low upward trends and low variability.

In summary, Bobby's within phase changes for number of words, essay parts, sentences, paragraphs and number of transition words all showed positive slopes, low to moderate upward trends and low variability. For holistic quality, he demonstrated higher scores than baseline however; he was not as consistent with these scores and demonstrated negative slopes, low trends with low variability. For between phase the visual analysis , however, indicated consistently significant gains in performance from baseline to post SRSD and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Matt post SRSD intervention performance. Matt completed five post SRSD essays over the course of five school days with group two. Matt spent time planning and creating a graphic organizer before writing each essay. Matt demonstrated significant improvement in his scores from baseline across all essay measures. Matt's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 13.8 to 116 (741%) and in mean holistic scores from (1 to 8.2, 720%). Between baseline and post SRSD phases Matt demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between all baseline and post SRSD scores.

Within phase descriptive statistics and visual analysis for post SRSD essays demonstrated the following results. Matt's within phase changes for essay measures, though significantly improved from baseline, and showed a student with inconsistent patterns across measures. Matt obtained a mean score of 86.2 with a range of 71 to 98, with data points indicating a negative slope with a low downward trend and low variability. Matt's performance within phase was higher than at baseline however, his scores demonstrate a strong start with inconsistent or lower scores on subsequent essays. His average for number of essay parts was 10.8 with a range of 10 to 12 representing a negative slope with a low downward trend and low variability. Matt's holistic quality scores demonstrated an average score of 8.2 with a range of 7 to 9, representing a flat slope, no trend and low variability. Matt's other performance scores included total number of sentences with a mean of 10 and a range of 7 to 13 sentences per essay slope with a negative slope, low downward trend and cyclical variability. Cyclical variability was demonstrated because Matt's scores went up and down in a consistent pattern. For number of paragraphs his average was 2.8 with a range of 2 to 4, which showed a negative slope with low downward trend and moderate variability. For number of transition words, Matt had an average score of 5.4 with a range of 5 to 6 demonstrating a positive slope with a moderate upward trend and low variability.

In summary, Matt's within phase changes for number of words, essay parts, sentences, and paragraphs all showed negative slopes, low downward trends and low variability. For holistic quality, he demonstrated higher scores than baseline however; he was not as consistent with these scores and demonstrated flat slopes, no trends with low

variability. Whereas the within phase scores for transition words did show a positive

slope with moderate trend and low variability. Between phase the visual analysis,

however, indicated consistently significant gains in performance from baseline to post

SRSD and (100%) PND for number of words, sentences, paragraphs, transition words,

essay parts and holistic quality.

Todd post SRSD intervention performance. Todd completed five post SRSD

essays over during five school days with group two. Todd spent time planning and

creating his own POW+TREE graphic organizer before writing each essay. Todd made

significant gains in his scores from baseline. Todd's percent of increase for mean

number of words and holistic quality were also significant with an increase in mean

number of words from 23.8 to 97.6, (310%) and in mean holistic scores from (1.4 to 7,

400%). Between baseline and post SRSD phases Todd demonstrated a rapid immediacy

of effect as noted by high levels and upward trends for all measures. The between phase

visual analysis also indicated (100%) PND between all baseline and post SRSD scores.

Within phase descriptive statistics and visual analysis for post SRSD essays

demonstrated the following results. For number of words, Todd obtained a mean score of

128.4 with a range of 83 to 105, with data points indicating a positive slope with a low

upward trend and low variability. His average for number of essay parts was 9.2 with a

range of 9 to 10 representing a positive slope with a low upward trend and low

variability. Todd's holistic quality scores demonstrated an average score of 7 with a

range of 6 to 8, representing a negative slope, low trend and low variability. Todd's other

performance scores included total number of sentences with a mean of 10.2 and a range

of 9 to 12 sentences per essay demonstrating a negative slope with low trend and low variability. For number of paragraphs his average was 2.4 with a range of 2 to 3 with a negative slope, moderate trend and cyclical variability. For number of transition words, Todd had an average score of 5 with a range of 4 to 6 demonstrating a positive slope with a low upward trend and low variability.

In summary, Todd's within phase changes for number of words, number of essay parts, and number of transition words all showed positive slopes, low trends and low variability. For holistic quality, number of sentences and paragraphs he demonstrated higher scores than baseline however, he was not as consistent with these scores and demonstrated negative slopes, low trends with low variability. For between phases the visual analysis, however, indicated consistently significant gains in performance from baseline to post SRSD and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Group three. Students in group three received the SRSD instructional lessons for 7 days within days 11and 19 of the study. They also successfully completed lessons 1 through 6 of the SRSD POW+TREE strategy for writing persuasive essays. After they completed the intervention, they were asked to write essays from generic prompts that were similar to those given at baseline. Students in group three were administered post SRSD writing prompts on days 20 to 24 of the study. Students were supplied with lined paper and pencils. They were then instructed to write an essay from a selection of two prompt choices. Students completed the five post SRSD essays over the course of five school days. Both students created their own graphic organizers based on the

POW+TREE organizer used during instruction. They then spent time planning their essays before beginning to write. Overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated (100%) PND for all group members from baseline to post SRSD across all performance measures.

Also notable, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence of student performance resultant in longer essays with a higher overall quality. For example for number of words from baseline to post SRSD percent of increase scores were high for group three, Drew (53.2 to 128.4, 141%), and Emily (34.2 to 156, 356%). For overall quality, the percent of increase data illustrates the following gains for group one; Drew (2 to 8.8, 340%), and Emily (1.4 to 8.8, 529%).

Individual performance results for the post SRSD essays for group three, Drew and Emily, follow. Figures 1-6 were used in the visual analysis of between and within phase essay performance measures for group three.

Drew post SRSD intervention performance. Drew completed five post SRSD essays over the course of five days with group three. Drew spent time planning and creating a graphic organizer before writing each essay. Drew made significant gains in his scores from baseline. Drew's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 53.2 to 128.4 (141%) and in mean holistic scores from (2to 8.8, 340%). Between baseline and post SRSD phases Drew demonstrated a rapid immediacy of effect as noted by high

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levels and upward trends for all measures. The between phase visual analysis also indicated (100%) PND between all baseline and post SRSD scores.

Within phase descriptive statistics and visual analysis for post SRSD essays demonstrated the following results. For number of words, Drew obtained a mean score of 128.4 with a range of 120 to 142, with data points indicating a positive slope with a low upward trend and low variability. His average for number of essay parts was 11 with a range of 10 to 12 representing a flat slope with no trend and low variability. Drew's holistic quality scores demonstrated an average score of 8.8 with a range of 8 to 10, representing a flat slope, no trend and low variability. Drew's other performance scores included total number of sentences with a mean of 8.6 and a range of 8 to 10 sentences per essay. Both number of sentences and paragraphs demonstrate a flat slope with no trend and low variability. For number of paragraphs his average was 2.2 with a range 2 to 3. Both number of sentences and paragraphs demonstrate a flat slope with no trend and low variability. For number of transition words, Drew had an average score of 5.8 with a range of 5 to 6 demonstrating a positive slope with a low upward trend and low variability.

In review, Drew's within phase changes for number of essay parts, holistic quality, number of sentences and paragraphs words all showed consistently high performance from baseline. For number of words and transition words, he demonstrated positive slopes, low trends and low variability. For between phase the visual analysis indicated consistently significant gains in performance from baseline to post SRSD and

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(100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Emily post SRSD intervention performance. Emily completed five post SRSD essays over the course of five school days with group three. Emily spent time planning and creating a graphic organizer based on POW+TREE before writing each essay. Emily made significant gains in her scores from baseline. Emily's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 34.2 to 156, (356%) and in mean holistic scores from (1.4 to 8.8, 529%). Between baseline and post SRSD phases Emily demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between baseline and post SRSD phases.

Within phase descriptive statistics and visual analysis for post SRSD essays demonstrated the following results. For number of words, Emily obtained a mean score of 156 with a range of 138 to 184, with data points indicating a positive slope with a moderate upward trend and low variability. Her average for number of essay parts was 11 with a range of 11 to 12 representing a positive slope with a low upward trend and low variability. Emily's holistic quality scores demonstrated an average score of 8.8 with a range of 8 to 10, representing a positive slope, low upward trend and low variability. Emily's other performance scores included total number of sentences with a mean of 8.2 and a range of 7 to 10 sentences per essay demonstrating a flat slope with no trend and low variability. For number of paragraphs her average was 2.2 with a range 2 to 3. For these two measures the data indicate flat slopes, no trends and low variability. For

number of transition words, Emily had an average score of 6.2 with a range of 6 to 7 demonstrating a positive slope with a low upward trend and low variability.

In summary, Emily's within phase changes for number of words, number of essay parts, holistic quality, and number of transition words all showed positive slopes, low to moderate trends and low variability. For number of sentences and paragraphs she demonstrated flat slopes with no trends and low variability. For between phase the visual analysis indicated consistently significant gains in performance from baseline to post SRSD and (100%) PND, for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Knowledge of essay parts at post SRSD intervention. During days two, three, and five of SRSD strategy instruction phase students were administered the strategy knowledge probes. Like the baseline probes, students were asked to name the parts of a persuasive essay.

All student scores indicated a positive slope with moderate trend and low variability from baseline. Between phase analysis also indicated (100%) PND for all students across the knowledge probe measure, see Figure 2. Student composite score descriptive statistics are illustrated in Table 5. The students improved their strategy knowledge as demonstrated by an increase from baseline ($M = 0.13$, $SD = 0.35$) to scores of ($M = 5.87$, SD $= 0.87$) for the instruction phase. A significant increase in strategy knowledge probe scores was noted ($p < .01$) as per the Wilcoxon Matched-Pairs, Signed Ranks Test. Individual student means from instruction probes were Adam ($M = 5.3$, range 5 to 6), Nate ($M = 5.7$, range 5 to 7), Wes ($M = 6.7$, range 5 to 8), Bobby ($M = 6.3$,

range 5 to 8), Matt (*M* = 6.3, range 5 to 8), Todd (*M* = 4.3, range 3 to 5), Drew (*M* = 7,

range 5 to 8) and Emily (*M* = 5.3, range 4 to 8).

All students were also administered one strategy knowledge probe during day two

of post SRSD testing. This was given to students on the third day of the post SRSD

phase. Notably as demonstrated in Table 5, overall student mean scores increased

significantly from baseline through post SRSD intervention testing (M = 9.13, SD =

0.99) with the range 8 to 10.

Table 5

Knowledge of Parts of a Persuasive Essay from Strategy Probes

	Baseline Mean (*SD*) (*N*=8)	SRSD Instruction Mean (*SD*) (*N*=8)	Post SRSD Intervention Mean (*SD*) (*N*=8)	Post SRSD + Content Intervention Mean (*SD*) (*N*=8)	Maintenance SRSD + Content Mean (*SD*) (*N*=8)
Essay Parts Probe Responses	0.13(.35)	5.87(.87)[a] $ES > 3$[b]	9.13(.99)[a] $ES > 3$[b]	11.80(.71)[a] $ES > 3$[b]	11.80(.71)[a] $ES > 3$[b]

Note: [a] Significantly greater than baseline, *p* < .01, according to Wilcoxon Matched-Pairs, Signed Ranks Test. [b] Effect sizes were calculated using all relevant post measure standard deviations due to apparent floor effect in baseline measure. Effect sizes are not entirely comparable to group ES.

Overall post SRSD + Content intervention essay performance. Student

performance after the SRSD + Content intervention showed sustained and substantial

improvement in all areas of writing performance from baseline to post SRSD + Content.

Visual analysis between these two phases indicated high levels and trends from baseline

to post SRSD + Content thus demonstrating a rapid immediacy of effect across all essay

performance measures. Further evidence of performance between phase results included (100%) PND across all measures from baseline.

All students received SRSD + Content instruction by over a two week period. SRSD + Content instruction included 3 lessons administered by group over a period of 3 to 6 days per instructional group. Groups received a total of 330 minutes of instruction over 9 class periods within 8 school days of the study. This phase of instruction was intended to supplement student understanding and extend the use of the SRSD Phase I instruction with the inclusion of content area prompts based on Civics lessons from the state based standards used in the school.

Completion of SRSD + Content instruction entailed the administration of five post-test essay prompts used to assess student writing performance with a content prompt related to CE 3e or CE4 a-g. Students were given lined paper, pencils and a short writing situation based on the Civics standard. They were then asked to choose one of two prompts to write their post SRSD + Content essays. Five post SRSD + Content area essay prompts were given to each group over five school days. Essays were scored for number of words, number of sentences, number of paragraph parts, transition words used and holistic quality.

All students again demonstrated substantial improvement evidenced by essays which were longer, included more essay parts, and had higher quality scores from baseline. All students also increased their use of transition words, wrote more sentences and paragraphs, and increased their knowledge of the parts of a persuasive essay as demonstrated in Table 4 and in Figures 1-6.

Overall post SRSD + Content essay performance descriptive statistics are presented in Table 4. Data presented indicated significant gains across participants in all measures of essay performance. At post SRSD + Content ($N = 8$) students obtained a mean of 141.10 ($SD = 29.98$) for total number of words (range 89 to 318). The post SRSD + Content scores for total number of sentences mean of 11.48 ($SD = 3.28$) ranging from 7 to 29 for this measure. For total number of paragraphs at post SRSD + Content, students obtained a mean score of 2.85 ($SD = 0.74$) and (range 2 to 5). The students obtained a mean score of 5.88 ($SD = 0.76$) for total number of transition words ranging from 4 to 8 words per essay. For total essay parts, students obtained a mean of 12.17 ($SD = 2.20$) ranging from 9 to 20, in total essay parts. Holistic quality scores at post SRSD + Content also showed substantial gains as indicated by a mean of 9.10 ($SD = 0.63$) with (range 6 to 10). Overall post SRSD + Content performance from baseline indicated mean scores across all students which were statistically significant as shown by all (p's $< .01$) according to Wilcoxon Matched-Pairs, Signed Ranks tests.

In the following sections, group and individual descriptions of performance measures at post SRSD + Content will be addressed. See Figures 1-6 for illustrated results visual analysis of groups 1-3 and individual student data.

Group one. This group was the first to receive the SRSD + Content instructional lessons on days 19 through 21 of the study. They successfully completed lessons 1 through 3 of the SRSD + Content strategy for writing persuasive essays in the content area of Civics. Students were given writing supplies to include lined paper and pencils. Students in group one were administered post SRSD + Content writing prompts on days

23 to 27 of the study. Students were instructed to choose and write an essay from a selection of two prompt choices. Students completed five post SRSD + Content essays over the course of five school days. Each student created their own graphic organizers based on the POW+TREE organizer that they had used during both instruction phases. All three students spent time planning their essays before writing. The overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated (100%) PND for all group members from baseline to post SRSD + Content across all performance measures.

In addition, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence of improved student performance with SRSD and content area instruction which resulted in longer essays with a higher overall quality. For example, for number of words from baseline to post SRSD + Content percent of increase reports were high for group one, Adam (34.4 to 145.2, 322%), Nate (30.4 to 119.2, 292%) and Wes (36.8 to 156.6, 326%). For overall quality, the percent of increase data illustrates the following gains for group one; Adam (1 to 9, 800%), Nate (1.2 to 9.4, 683%) and Wes (1.4 to 9.2, 557%). Following are the individual performance results for the post SRSD + Content essays for group one, Adam, Nate and Wes. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group one.

Adam post SRSD + Content intervention performance. Adam completed five post SRSD + Content essays over the course of five days. Adam spent time planning and creating a graphic organizer before writing each essay. Adam demonstrated significant

gains in his scores from baseline across all essay measures. Adam's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 34.4 to 145.2 (322%) and in mean holistic scores from (1 to 9, 800%). Between baseline and post SRSD + Content phases, Adam demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between all baseline and post SRSD + Content scores.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. For number of words, Adam obtained a mean score of 145.2 with a range of 113 to 177, with data points indicating a positive slope with a moderate upward trend and low variability. His average for number of essay parts was 11.2 with a range of 11 to 12 representing a positive slope with a low upward trend and low variability. Adam's holistic quality scores demonstrated an average score of 9 with a range of 8 to 10, representing a negative slope, low trend and low variability. Adam's other performance scores included total number of sentences with a mean of 12.2 and a range of 9 to 15 sentences per essay. For number of paragraphs, his average was 2.8 with a range of 2 to 4. Both measures for sentences and paragraphs also indicated a positive slope, moderate upward trend and low variability. For number of transition words, Adam had an average score of 6.4 with a range of 5 to 8 also demonstrating a positive slope with moderate trend and low variability.

In summary, Adam's overall within phase performance for all measures, except holistic quality, demonstrated overall positive slopes with low to high trends and low

variability. The between phase visual analysis indicated consistently significant gains in performance from baseline to post SRSD + Content and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Nate post SRSD + Content intervention performance. Nate completed five post SRSD + Content essays over the course of five days with group one. Nate spent time planning and creating a graphic organizer before writing each essay. Nate made significant improvement in his scores from baseline across all essay measures. Nate's percent of increase for mean number of words and holistic quality were also significant with an increase of 30.4 to 119.2 (292%) for mean number of words and an increase of 1.2 to 9.4 (693%) for mean holistic scores. Between baseline and post SRSD + Content phases, Nate demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between all baseline and post SRSD + Content scores.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. For number of words, Nate obtained a mean score of 119.2 with a range of 96 to 139, with data points indicating a positive slope with a low trend and low variability. His average for number of essay parts was 11.4 with a range of 10 to 12 representing a positive slope with a low upward trend and low variability. Nate's holistic quality scores demonstrated an average score of 9.4 with a range of 9 to 10, representing a positive slope, low upward trend and low variability. Nate's other performance scores included total number of sentences with a mean of 11.6 and a range of 10 to 13 sentences per essay, demonstrating a negative slope with low

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trend and low variability. For number of paragraphs, his average was 2.6 with a range of 2 to 3 indicating a positive slope with a low upward trend and low variability. For number of transition words, Nate had an average score of 5.8 with a range of 5 to 6 demonstrating a positive slope with a zero or flat slope, no trend and no variability.

In summary, Nate's within phase changes for holistic quality, number of words, essay parts, and paragraphs all showed positive slopes, low upward trends and low variability. His number of transition words scores indicated a flat slope; no trend and no variability and number sentences had a slightly negative slope, low trend and low variability. Overall significance is noted with between phase visual analysis which indicated consistently significant gains in performance from baseline to post SRSD + Content, and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Wes post SRSD + Content intervention performance. Wes completed five post SRSD + Content essays with group one over the course of five days. Wes spent time planning and creating a graphic organizer before writing each essay. Wes improved significantly in his scores from baseline across all essay measures. Wes' percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 36.8 to 156.6 (326%) and in mean holistic scores from (1.4 to 9.2, 557%). Between baseline and post SRSD + Content phases, Wes demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between all baseline and post SRSD + Content scores.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. Within phase, Wes' performance was again inconsistent as demonstrated by mixed trends and some cyclical variability. For number of words, Wes obtained a mean score of 156.6 with a range of 127 to 194, with data points indicating a positive slope with a low upward trend and cyclical pattern with high variability. His average for number of essay parts was 11.2 with a range of 10 to 12, representing a negative slope with low downward trend and low variability. Wes' holistic quality scores demonstrated an average score of 9.2 with a range of 9 to 10, a negative slope, low trend and low variability. Wes' other performance scores included total number of sentences with a mean of 12 and a range of 11 to 13 sentences per essay demonstrating a positive slope, low trend and low variability. For number of paragraphs, his score for all essays was a 3, flat slope, no trend and no variability. For number of transition words, Wes had an average score of 9.2 with a range of 8 to 10 illustrating a positive slope with low upward trend and low variability.

In summary, Wes' within phase data for number of words, sentences, and transition words all showed positive slopes, low upward trends and low or cyclical variability. For number of essay parts and holistic quality, he demonstrated higher scores than baseline however; he was not as consistent with these scores and demonstrated negative slopes, low trends with low variability. For paragraphs, Wes demonstrated consistent scores with no slope, trend or variability. Overall significance is noted with between phase visual analyses which indicated consistently significant gains in

performance from baseline to post SRSD + Content, and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Group two. This group received the SRSD instructional lessons on days 23 through 25 of the study. They successfully completed lessons 1 through 3 of the SRSD + Content strategy instruction for writing persuasive essays in the content area of Civics. Students were given writing supplies to include lined paper and pencils. Students in group two were given post SRSD + Content writing prompts on days 26 to 30 of the study. Students were asked to choose and write an essay from a selection of two prompt choices. All of the students completed five post SRSD + Content essays over the course of five school days. The student s spent time planning their essays before writing, using self-created graphic organizers mimicking the POW+TREE organizers used in both stages of instruction. Essays were then scored. When the performance of the group was compared to baseline, the levels and trends were high demonstrating a rapid immediacy of effect. The visual analysis also demonstrated (100%) PND for all group members from baseline to post SRSD + Content across all performance measures.

Additionally, percent of increase data for individual student means for number of words and overall quality were analyzed, giving further evidence of improved student performance with SRSD and content area instruction which resulted in longer essays with a higher overall quality. For example, for number of words from baseline to post SRSD + Content percent of increase reports were high for group two, Bobby (90.2 to 198.4, 120%), Matt (13.8 to 124.4, 801%) and Todd (23.8 to 98.2, 313%). For overall quality, the percent of increase data illustrates the following gains for group one; Bobby (2.4 to

10, 317%), Matt (1 to 8.2, 720%) and Todd (1.4 to 8.2, 486%). Following are the individual performance results for the post SRSD essays for group two, Bobby, Matt and Todd. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group two.

Bobby post SRSD + Content intervention performance. Bobby completed five post SRSD + Content essays over the course of five school days with group two. Bobby used time to plan and created a graphic organizer before writing each essay. Bobby demonstrated significant improvement over baseline in all of his scores across all essay measures. Bobby's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 90.2 to 198.4 (120%) and in mean holistic scores from (2.4 to 10, 317%). Between baseline and post SRSD + Content phases, Bobby demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. Between phase visual analysis also indicated (100%) PND between all baseline and post SRSD + Content scores.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. For number of words, Bobby obtained a mean score of 198.4 with a range of 152 to 319, with data points indicating a positive slope with a low upward trend and low variability. His average for number of essay parts was 17.6 with a range of 14 to 20 representing a positive slope with a low upward trend and low variability. Bobby's holistic quality scores demonstrated the highest score possible across all essays with scores of 10, demonstrating mastery. He reached the highest scores consistently, demonstrating no slope, trend or variability of scores. Bobby's other

performance scores included total number of sentences with a mean of 18.4 and a range of 13 to 29 sentences per essay demonstrating a negative slope with low trend and moderate variability. For number of paragraphs his average was 4.4 with a range of 4 to 5, showing a positive slope, low trend and low variability. Bobby had an average score of 6.6 for number of transition words with a range of 6 to 8 indicating a negative slope with low trend and low variability.

In summary, Bobby's within phase changes for number of words, essay parts, and paragraphs all showed positive slopes, low upward trends and low to moderate variability. For number of sentences and transition words, he demonstrated negative slopes with low trend and variability. For holistic quality, he demonstrated mastery with perfect scores across all essays. For between phase the visual analysis, however, indicated consistently significant gains in performance from baseline to post SRSD + Content, and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Matt post SRSD + Content *intervention performance.* Matt completed five post SRSD + Content essays over the course of five school days with group two. Matt spent time planning and creating a graphic organizer before writing each essay. Matt demonstrated significant improvement in his scores from baseline across all essay measures. Matt's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 13.8 to 124.4 (801%) and in mean holistic scores from (1 to 8.4, 720%). Between baseline and post SRSD + Content phases Matt demonstrated a rapid immediacy of effect as noted by high levels

and upward trends for all measures. The visual analysis also indicated (100%) PND between all baseline and post SRSD + Content scores.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. For number of words Matt obtained a mean score of 124.4 with a range of 104 to 141, with data points indicating a positive slope with a low trend and low variability. His average for number of essay parts was 10.8 with a range of 10 to 12 representing a positive slope with a low trend and low variability. Matt's holistic quality scores demonstrated an average score of 8.2 with a range of 7 to 10, representing a flat slope, no trend and low variability. Matt's other performance scores included total number of sentences with a mean of 10.6 and a range of 9 to 13 sentences per essay. For number of paragraphs his average was 3.2 with a range of 3 to 4, and for number of transition words, Matt had an average score of 4.8 with a range of 4 to 5. These three measures all demonstrated positive slopes with a low upward trends and low variability.

In summary, Matt's within phase changes for number of words, essay parts, sentences, paragraphs and transition words all showed positive slopes with low upward trends and low variability. For holistic quality, the data indicated a flat slope, no trend with low variability. Between phase the visual analysis indicated consistently significant gains in performance from baseline to post SRSD + Content, and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Todd post SRSD + Content intervention performance. Todd completed five post SRSD + Content essays over during five school days with group two. Todd also spent time planning and creating his own graphic organizer before writing each essay. Todd made significant gains in his scores from baseline. Todd's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 23.8 to 98.2 (313%) and in mean holistic scores from (1.8 to 8.2, 486%). Between baseline and post SRSD + Content phases Todd demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The between phase visual analysis also indicated (100%) PND between all baseline and post SRSD + Content scores.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. For number of words, Todd obtained a mean score of 98.2 with a range of 95 to 116, with data points indicating a positive slope with a low upward trend and low variability. His average for number of essay parts was 11.4 with a range of 9 to 13 representing a positive slope with a low upward trend and low variability. Todd's holistic quality scores demonstrated an average score of 8.2 with a range of 6 to 10, representing a positive slope, low trend and low variability. Todd's other performance scores included total number of sentences with a mean of 11.2 and a range of 9 to 15 sentences per essay demonstrating a positive slope with low trend and low variability. For number of paragraphs his average was 2.6 with a range of 2 to 3 with a positive slope, low trend and low variability. For number of transition words, Todd had

an average and consistent score of 5, demonstrating a flat slope with no trend and no variability.

In summary, Todd's within phase changes for number of words, number of essay parts, sentences and paragraphs all showed positive slopes, low trends and low variability. For number of transition words, Todd demonstrated consistent scores across all essays. Between phase visual analysis again indicated consistently significant gains in performance from baseline to post SRSD + Content and (100%) PND across all measures.

Group three. The students in this group three received the SRSD + Content instructional lessons for 3 days within days 25and 29 of the study. They successfully completed lessons 1 through 3 of the SRSD + Content strategy instruction for writing persuasive essays in the content area of Civics. Students in group three were administered the post SRSD + Content writing prompts on days 31 to 35 of the study. Students were supplied with lined paper and pencils. They were then instructed to choose a prompt and write an essay from a selection of two prompt choices. Both students completed the five post SRSD + Content essays over the course of five school days. Each student created their own graphic organizers based on the SRSD POW+TREE organizer used during both instructional phases. They both spent time planning their essays before beginning to write. Overall group performance compared to baseline was high regarding levels and trends, demonstrating a rapid immediacy of effect. The visual analysis also demonstrated (100%) PND for all group members from baseline to post SRSD + Content across all performance measures.

Also notable, percent of increase data for individual student means for number of words and overall quality were analyzed, giving further evidence of improved student performance with SRSD and content area instruction, which resulted in longer essays with a higher overall quality. For example, for number of words from baseline to post SRSD + Content percent of increase reports were high for group three, Drew (53.2 to 135, 154%), and Emily (34.2 to 151.8, 344%). For overall quality, the percent of increase data illustrates the following gains for group one; Drew (2 to 9.6, 380%), and Emily (1.4 to 9.2, 557%).

Individual performance results for the post SRSD + Content essays for group three, Drew and Emily, follow. Figures 1-6 were used in the visual analysis of between and within phase essay performance measures for group three.

Drew post SRSD + Content intervention performance. Drew completed five post SRSD + Content essays over the course of five days with group three. Drew spent time planning and creating a graphic organizer before writing each essay. Drew made significant gains in his scores from baseline. Drew's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 53.2 to 135 (154%) and in mean holistic scores from (2 to 9.6, 380%). Between baseline and post SRSD + Content phases Drew demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The between phase visual analysis also indicated (100%) PND between all baseline and post SRSD + Content scores.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. For number of words, Drew obtained a mean score of 135 with a range of 121 to 145, with data points indicating a positive slope with a low upward trend and low variability. His average for number of essay parts was 11.6 with a range of 11 to 12 representing a negative slope with low trend and low variability. Drew's holistic quality scores demonstrated an average score of 9.6 with a range of 9 to 10, representing a negative slope, low trend and low variability. Drew's other performance scores included total number of sentences with a mean of 8.2 and a range of 7 to 9 sentences per essay represented by a positive slope, low trend and low variability. For number of paragraphs his average was 2.2 with a range 2 to 3, with no slope, no trend and low variability. For number of transition words, Drew had an average score of 5.8 with a range of 5 to 6 demonstrating a negative slope with a low trend and low variability.

In review, Drew's within phase changes for number of words, and number of sentences essay parts demonstrated positive slopes, low trends and low variability. For number of essay parts, transition word and holistic quality, Drew showed negative slopes, low trends and low variability. For number of paragraphs, he demonstrated a flat slope, no trend and low variability. For between phase, the visual analysis indicated consistently significant gains in performance from baseline to post SRSD + Content essay measures.

Emily post SRSD + Content intervention performance. Emily completed five post SRSD+ CONTENT essays over the course of five school days with group three. Emily

spent time planning and creating a graphic organizer based on POW+TREE before writing each essay. Emily made significant gains in her scores from baseline. Emily's percent of increase for mean number of words and holistic quality were also significant with an increase in mean number of words from 34.2 to 151.8 (344%) and in mean holistic scores from (1.4 to 9.2, 557%). Between baseline and post SRSD + Content phases, Emily demonstrated a rapid immediacy of effect as noted by high levels and upward trends for all measures. The visual analysis also indicated (100%) PND between baseline and post SRSD + Content phases.

Within phase descriptive statistics and visual analysis for post SRSD + Content essays demonstrated the following results. For number of words, Emily obtained a mean score of 151.8 with a range of 121 to 180, with data points indicating a negative lope with a moderate trend and cyclical variability. Her average for number of essay parts was 11.2 with a range of 10 to 12, representing a positive slope with a low upward trend and low variability. Emily's holistic quality scores demonstrated an average score of 9.2 with a range of 8 to 10, representing a positive slope, low upward trend and low variability. Emily's other performance scores included total number of sentences with a mean of 7.6 and a range of 7 to 8 sentences per essay demonstrating a negative slope with low trend and low variability. For number of paragraphs, her scores were all a 2, indicating no slope, no trend and no variability. For number of transition words, Emily had an average score of 5.6 with a range of 5 to 6, demonstrating a positive slope with a low upward trend and low variability.

In summary, Emily's within phase changes for number of words, number of essay parts, sentences, holistic quality, and number of transition words all showed positive slopes, low to trends and low variability. For number paragraphs she demonstrated flat slopes with no trends and low variability. For between phase the visual analysis indicated consistently significant gains in performance from baseline to post SRSD + Content, and (100%) PND for number of words, sentences, paragraphs, transition words, essay parts and holistic quality.

Knowledge of essay parts at post SRSD + Content intervention. A strategy knowledge probe was administered on day two of post SRSD + Content testing. Like the previous probes, students were asked to name the parts of a persuasive essay. All student scores indicate a positive slope with high trends and low variability from baseline. Between phase analysis also indicated (100%) PND for all students across the knowledge probe measure from baseline, see Figure 2. Student composite score descriptive statistics are illustrated in Table 5. The students improved their strategy knowledge, as demonstrated by an increase from baseline with scores of ($M = 11.80$, $SD = 0.71$) with a range of 10 to 12, for the post SRSD + Content phase. A significant increase in the baseline to post SRSD + Content strategy knowledge probe scores was again noted ($p <$ .01), as per the Wilcoxon Matched-Pairs, Signed Ranks Test.

Overall maintenance essay performance. Students were administered two maintenance essay prompts four weeks after their groups completed both post intervention phases. The maintenance prompts included one with post SRSD type essay prompt choices, maintenance one (M1), and one with post SRSD + Content writing

prompt choices, maintenance two (M2). The maintenance essays were written over two

consecutive school days. Students were asked given lined paper and pencils. On the first

day of maintenance testing, students were presented with the choice of two generic SRSD

persuasive essay prompts. On the second day of maintenance testing, students were

given a writing situation and the choice of two writing prompts. On both occasions,

students were asked to choose one prompt and write an essay. All students completed

both maintenance essays.

Maintenance results, presented in Table 4, indicated continued use of the

interventions with varying performances between post SRSD and post SRSD + Content

phases. However, student means indicated high performance levels and trends when

compared to baseline and mean scores across all students were statistically significant as

shown in Table 4 (all p's < .01) according to Wilcoxon Matched-Pairs, Signed Ranks

tests. Visual analysis also indicated (100%) PND from baseline for all essay measures at

both maintenance testing phases.

Overall SRSD maintenance performance. The first maintenance essays were

written by students on the first day of maintenance testing. These occurred

approximately four weeks after all posttesting was completed and were then staggered by

group over days 44 through 53 of the study. Students were given the choice of two

SRSD writing prompts similar to those administered at baseline and post SRSD testing.

As demonstrated in Table 4, overall student performance was mixed when compared to

post SRSD scores with decreases in mean score in number of words, sentences, transition

words and holistic quality, and increases in mean scores for number of paragraphs and

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total essay parts. However, when compared to baseline, student mean scores across all students were statistically significant at SRSD maintenance as reported by (all p's < .01) according to Wilcoxon Matched-Pairs, Signed Ranks tests.

Descriptive data from Table 4 shows that student means for number of words written declined slightly ($M = 118.75$, $SD = 32.49$) from post SRSD essay means ($M = 128.65$, $SD = 30.72$). However, student performance means were substantially higher than at baseline ($M = 38.65$, $SD = 27.23$). For number of sentences mean scores also declined slightly ($M = 9.88$, $SD = 3.04$) from post SRSD ($M = 10.20$, $SD = 2.36$) but increased from baseline ($M = 2.63$, $SD = 1.74$). Data for number of paragraphs demonstrated an increase in mean scores ($M = 2.63$, $SD = 1.06$) from post SRSD (M 2.45, $SD = 0.60$) as well as from baseline ($M = 0.50$, $SD = (0.60)$.

The mean for number of transition words declined at SRSD maintenance ($M = 5.50$, $SD = 1.20$) from post SRSD means ($M = 6.15$, $SD = 1.15$), however, they increased from baseline ($M= 1.50$, $SD = 0.94$). Total essay parts increased ($M = 11.13$, $SD = 1.55$) from post SRSD mean scores ($M = 10.87$, $SD = 2.08$), and demonstrated increased means from baseline ($M = 1.87$, $SD = 0.58$). For holistic quality, mean scores declined slightly ($M = 8.50$, $SD = 1.60$) from post SRSD ($M = 8.23$, $SD = 0.84$), and increased significantly from baselines (M 1.48, $SD = 0.49$).

In the following sections, group and individual descriptions of performance measures SRSD maintenance will be addressed. See Figures 1-6 for illustrated results used for visual analysis of groups 1-3 and individual student data.

Group one. This group was administered the SRSD maintenance probe on day 44 of the study. Students were given writing supplies to include lined paper and pencils. Students were then instructed to choose and write an essay from a selection of two prompt choices. Students completed the essay in within one 45 minute class period. It was noted that the students again created their own graphic organizers based on the POW+TREE organizer that they had used during instruction phases. All three student spent time planning their essays before writing. The between phase visual analysis demonstrated (100%) PND for all group members from baseline to SRSD maintenance across all performance measures.

In addition, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence that student's maintained increases from baseline. However; percent of increase values from post SRSD instruction to SRSD maintenance essay scoring results were more variable. For example, for number of words from baseline to SRSD maintenance percent of increase reports were high for group one, Adam (34.4 to 92, 167%), Nate (30.4 to 92, 203%) and Wes (36.8 to 130, 253%). Whereas the percent increases/decreases from post SRSD to SRSD maintenance were reported as a decrease for Adam (120.6 to 92,- 24%), an increase for Nate (86.2 to 92, 7%) and a decrease for Wes (144.6 to 130, - 10%).

For overall quality from baseline to SRSD maintenance, the percent of increase data illustrates the following gains for group one; Adam (1 to 10, 900%), Nate (1.2 to 7, 483%) and Wes (1.4 to 10, 614%). Again, the results for post SRSD and SRSD maintenance scores are mixed. For holistic quality percent increase/decrease from post

SRSD to SRSD maintenance, Adam increased his mean scores (7.2 to 10, 39%) and Nate's scores decreased (7.8 to 7, -10%), Wes' mean scores increased (8.6 to 10, 16%).

Following are the individual performance results for the SRSD maintenance essays for group one, Adam, Nate and Wes. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group one.

Adam SRSD maintenance performance. Adam's performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Adam's SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (34.4 to 92), number of sentences (2.2 to 14), paragraphs (0.2 to 2), number of transition words (1.2 to 5), essay parts (2 to 12) and holistic quality (1 to 10). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD maintenance for number of words and holistic quality. Adam increased his scores by the following percentages; number of words (34.4 to 92, 167%) and holistic quality (1 to 10, 900%).

In the comparison to post SRSD performance, Adam's SRSD maintenance scores were mixed as noted by the following percent changes between phases. Adam's percent change for number of words from post SRSD and SRSD maintenance decreased (120.6 to 92, - 24%) and for holistic quality his score increased (7.2 to 10, 39%). Additional

performance measures between post SRSD and post SRSD maintenance indicated an increase for essay parts (9.6 to 12), a decrease for number of sentences (10.4 to 10), and transition words (6.6 to 5), and no change for number of paragraphs (2 to 2).

Overall SRSD maintenance data indicated that Adam continued to report significant increases from baseline to maintenance across all measures. Although Adam maintained a positive trend from baseline, his SRSD maintenance scores in regard to post SRSD scores were mixed as noted by increases in number of essay parts and holistic quality, decreases in number of words, sentences and transitions words and no change for number of paragraphs.

Nate SRSD maintenance performance. Nate's performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Nate's SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (30.4 to 92), number of sentences (2 to 8), paragraphs (0.2 to 2), number of transition words (0.4 to 5), essay parts (2 to 10) and holistic quality (1.2 to 7). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant gains in percent of increase data from baseline to SRSD maintenance for number of words and holistic quality. Nate increased his scores by the following percentages; number of words (30.4 to 92, 203%) and holistic quality (1.2 to 7, 483%).

In the comparison to post SRSD performance, Nate's SRSD maintenance scores were mixed as noted by the following percent changes between phases. Nate's percent change for number of words from post SRSD and SRSD maintenance increased (86.2 to 92, 7%), and for holistic quality his score decreased (7.8 to 7, 10%). Additional performance measures between post SRSD and post SRSD maintenance indicated an increase for essay parts (9 to 10), a decrease in transition words (5.2 to 5), and no change for number of sentences (8 to 8) and paragraphs (2 to 2).

Overall SRSD maintenance data indicated that Nate continued to report significant increases from baseline to maintenance across all measures. Although Nate maintained a positive trend from baseline, his SRSD maintenance scores in regard to post SRSD scores were mixed as noted by increases in number of essay parts and words, decreases in holistic quality, and transitions words and no change for number of sentences or paragraphs.

Wes SRSD maintenance performance. Wes' performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Wes' SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (36.8 to 130), number of sentences (2 to 10), paragraphs (0.4 to 3), number of transition words (1.4 to 6), essay parts (1.4 to 12) and holistic quality (1.4 to 10). These scores indicated

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significant increases from baseline as noted on Figures 1-6. Also reported are the

significant gains in percent of increase data from baseline to SRSD maintenance for

number of words and holistic quality. Wes increased his scores by the following

percentages; number of words (36.8 to 130, 253%) and holistic quality (1.4 to 10, 614%).

In the comparison to post SRSD performance, Wes's SRSD maintenance scores

were mixed as noted by the following percent changes between phases. Wes' percent

change for number of words from post SRSD and SRSD maintenance decreased (144.6 to

130,- 10%) and for holistic quality his score increased (8.6 to 10, 16%). Additional

performance measures between post SRSD and post SRSD maintenance indicated an

increase for essay parts (10.8 to 12), and paragraphs (2.2 to 3), and a decrease in

sentences (10.8 to 10) and transition words (8.6 to 6).

Overall SRSD maintenance data indicated that Wes continued to report significant

increases from baseline to maintenance across all measures. Although Wes maintained a

positive trend from baseline, his SRSD maintenance scores in regard to post SRSD scores

were mixed as noted by increases in holistic score, essay parts and number of paragraphs,

and decreases in number of words, transitions words and sentences.

Group two. This group was administered the SRSD maintenance probe on day 47

of the study. Students were given writing supplies to include lined paper and pencils.

Students were then instructed to choose and write an essay from a selection of two

prompt choices. Students completed the essay in within one 45 minute class period.

Students again created their own graphic organizers based on the POW+TREE organizer

that they had used during the instructional phases. All three student spent time planning

their essays before writing. The between phase visual analysis demonstrated (100%) PND for all group members from baseline to SRSD maintenance across all performance measures.

The percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence that student's maintained increases from baseline, however; percent of increase values from post SRSD instruction to SRSD maintenance essay scoring results were more variable. For example, for number of words from baseline to SRSD maintenance percent of increase reports were remained high for group two, Bobby (90.2 to151, 67%), Matt (13.8 to 119, 762%) and Todd (23.8 to 69, 190%). Whereas the percent increases/decreases from post SRSD to SRSD maintenance were reported as an decrease for Bobby (179.8 to 151,- 16%), an increase for Matt (116 to 119,3 %) and a decrease for Todd (97.6 to 69, - 29%).

For overall quality from baseline to SRSD maintenance, the percent of increase data illustrates the following gains for group two; Bobby (2.4 to 10, 317%), Matt (1 to 6, 500%) and Todd (1.4 to 7, 400%). The results for post SRSD and SRSD maintenance scores regarding percent increase/decrease for holistic quality were also mixed with group 2. For holistic quality percent increase from post SRSD to SRSD maintenance, Bobby increased his mean scores (9.4 to 10, 6%) and Matt's scores decreased (8.2 to 6, - 27%), Todd's mean scores didn't change (7 to 7, 0%).

Following are the individual performance results for the SRSD maintenance essays for group two, Bobby, Matt and Todd. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group two.

Bobby SRSD maintenance performance. Bobby's performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Bobby's SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (90.2 to 151), number of sentences (6.6 to 17), paragraphs (1.8 to 5), number of transition words (3.4 to 7), essay parts (2.6 to 14) and holistic quality (2.4 to 10). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD maintenance for number of words and holistic quality. Bobby increased his scores by the following percentages; number of words (90.2 to 151, 67%) and holistic quality (2.4 to 10, 317%).

In the comparison to post SRSD performance, Bobby's SRSD maintenance scores were mixed as noted by the following percent changes between phases. Bobby's percent change for number of words from post SRSD and SRSD maintenance decreased (179.8 to 151, - 16%) and holistic quality increased (9.4 to 10, 6%). Additional performance measures between post SRSD and post SRSD maintenance indicated an increase for sentences (15.4 to 17), paragraphs (3.8 to 5), and transition words (6.4 to 7), and a decrease for number of essay parts (15.6 to 14).

Overall SRSD maintenance data indicated that Bobby continued to report significant increases from baseline to maintenance across all measures. Although Bobby

maintained a positive trend from baseline, his SRSD maintenance scores in regard to post SRSD scores were mixed as noted by increases in holistic quality, number sentences, paragraphs and transition words, and decreases in number of essay parts and number of words.

Matt SRSD maintenance performance. Matt's performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Matt's SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (13.8 to 119), number of sentences (1 to 9), paragraphs (0 to 2), number of transition words (1 to 4), essay parts (1 to 9) and holistic quality (1 to 6). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD maintenance for number of words and holistic quality. Matt increased his scores by the following percentages; number of words (13.8 to 119, 762%) and holistic quality (1 to 6, 500%).

In the comparison to post SRSD performance, Matt's SRSD maintenance scores decreased as noted by the following percent changes between phases. Matt's percent change for number of words from post SRSD and SRSD maintenance increased (116 to 119, 3%) and for holistic quality his score decreased (8.2 to 6, -27%). Additional performance measures between post SRSD and post SRSD maintenance indicated a

decrease for essay parts (11.8 to 9), number of sentences (10 to 9), transition words (5 to 4), and paragraphs (2.8 to 2).

Overall SRSD maintenance data indicated that Matt continued to report significant increases from baseline to maintenance across all measures. Although Matt maintained a positive trend from baseline, his SRSD maintenance scores in regard to post SRSD scores declined across all measures except for number of words.

Todd SRSD maintenance performance. Todd's performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Todd's SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (23.8 to 69), number of sentences (1.8 to 9), paragraphs (0.2 to 2), number of transition words (1.6 to 4), essay parts (1.4 to 10) and holistic quality (1.4 to 7). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD maintenance for number of words and holistic quality. Todd increased his scores by the following percentages; number of words (23.8 to 69, 190%) and holistic quality (1.4 to 7, 400%).

In the comparison to post SRSD performance, Todd's SRSD maintenance scores were mixed as noted by the following percent changes between phases. Todd's percent change for number of words from post SRSD and SRSD maintenance decreased (97.6 to

69, - 29%) and for holistic quality his score went unchanged (7 to 7, 0%). Additional

performance measures between post SRSD and post SRSD maintenance indicated an

increase for essay parts (9.2 to 10), and a decrease for number of sentences (10.2 to 9),

transition words (5 to 4), and paragraphs (2.4 to 2).

Overall SRSD maintenance data indicated that Todd continued to report

significant increases from baseline to maintenance across all measures. Although Todd

maintained a positive trend from baseline, his SRSD maintenance scores in regard to post

SRSD scores were mixed as noted by increases in number of essay parts, and decreases in

number of words, sentences and transition word and paragraphs, with no change for

holistic quality.

Group three. This group was administered the SRSD maintenance probe on day

51 of the study. Both students were given writing supplies to include lined paper and

pencils. They were then instructed to choose and write an essay from a selection of two

prompt choices. Students completed the essay in within one class period. It was noted

that the students again created their own graphic organizers based on the POW+TREE

organizer that they had used during instruction phases. Both students spent time planning

their essays before writing. The between phase visual analysis demonstrated (100%)

PND for all group members from baseline to SRSD maintenance across all performance

measures.

The percent of increase data for individual student means for number of words

and overall quality were also analyzed giving further evidence that student's maintained

increases from baseline phase and post SRSD phase to SRSD maintenance. For example,

for number of words from baseline to SRSD maintenance percent of increase reports were high for group three, Drew (53.2 to 132, 148%), and Emily (34.2 to 165, 382%). Both students also had percent increases from post SRSD to SRSD maintenance which were, Drew (128.4 to 132, 3%), and Emily (156 to 165, 6%).

For overall quality from baseline to SRSD maintenance, the percent of increase data illustrates the following gains for group three; Drew (2 to 8.8, 450%), and Emily (1.4 to 9, 543%). The results for post SRSD and SRSD maintenance scores demonstrated percent increases for both students. For holistic quality percent increase from post SRSD to SRSD maintenance, Drew's mean scores were (8.8 to 9, 2%) and Emily's scores were (8.8 to9, 2%).

Following are the individual performance results for the SRSD maintenance essays for group three, Drew and Emily. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group three.

Drew SRSD maintenance performance. Drew's performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Drew's SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (53.2 to 132), number of sentences (3.4 to 7), paragraphs (1 to 2), number of transition words (2.2 to 7), essay parts (2.6 to 11), and holistic quality (2 to 9). These scores indicated significant

increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD maintenance for number of words and holistic quality. Drew increased his scores by the following percentages; number of words (53.2 to 132, 148%) and holistic quality (2 to 9, 350%).

In the comparison to post SRSD performance, Drew's SRSD maintenance scores were mixed as noted by the following percent changes between phases. Drew's percent change for number of words from post SRSD and SRSD maintenance increased (128.4 to 132, 3%) and for holistic quality his score increased (8.8 to 9, 2%). Additional performance measures between post SRSD and post SRSD maintenance indicated an increase for transition words (5.8 to 7), a decrease for number of sentences (8.6 to 7), paragraphs (2.2 to 2), and no change for number of essay parts (11 to 11).

Overall SRSD maintenance data indicated that Drew continued to report significant increases from baseline to maintenance across all measures. Although Drew maintained a positive trend from baseline, his SRSD maintenance scores in regard to post SRSD scores were mixed as noted by increases in number of words, transition words and holistic quality, and decreases in number of paragraphs, sentences and no change for number of essay parts.

Emily SRSD maintenance performance. Emily's performance for the SRSD maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD maintenance. Her SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

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Emily's SRSD maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (34.2 to 165), number of sentences (2 to 9), paragraphs (0.2 to 3), number of transition words (0.8 to 6), essay parts (2 to 11), and holistic quality (1.4 to 9). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD maintenance for number of words and holistic quality. Emily increased his scores by the following percentages; number of words (34.2 to 165, 382%) and holistic quality (1.4 to 9, 543%).

In the comparison to post SRSD performance, Emily's SRSD maintenance scores were mixed as noted by the following percent changes between phases. Emily's percent change for number of words from post SRSD and SRSD maintenance increased (156 to 165, 6%) and for holistic quality his score increased (8.8 to 9, 2%). Additional performance measures between post SRSD and post SRSD maintenance indicated an increase for paragraphs (2.2 to 3), and sentences (8.2 to 9), a decrease in transition words (6.2 to 6), and no change in number of essay parts (11 to 11).

Overall SRSD maintenance data indicated that Emily continued to report significant increases from baseline to maintenance across all measures. Although Emily maintained a positive trend from baseline, her SRSD maintenance scores in regard to post SRSD scores were mixed as noted by increases in number of words, sentences, paragraphs and holistic quality, decreases in transitions words and no change for number of essay parts.

Overall SRSD + Content maintenance performance. The second maintenance essays were written by students' day two of maintenance testing. These occurred approximately four weeks after all posttesting was completed and were then staggered by group over days 44 through 53 of the study. Students were asked to write an essay given a writing situation similar to post SRSD + Content testing. They were given the choice of two writing prompts like those administered at baseline and post SRSD + Content phases. As demonstrated in Table 4, overall student performance was mixed when compared to post SRSD scores with decreases in mean score in number of words, paragraphs, total essay parts and holistic quality, and increases in mean scores for number of sentences and transition words. However, when compared to baseline, student mean scores across all students were statistically significant at SRSD maintenance as reported by (all *p's* < .01) according to Wilcoxon Matched-Pairs, Signed Ranks tests.

Descriptive data from Table 4 shows that student means for number of words written declined slightly (*M* = 134.13, *SD* = 46.88) from post SRSD + Content essay means (*M* = 141.10, *SD* = 29.98). However, student performance means were higher than at baseline (*M* = 38.65, *SD* = 27.23). For number of sentences mean scores increased slightly (*M* = 11.88, *SD* = 3.72) from post SRSD + Content (*M* = 11.48, *SD* = 3.28) and increased significantly from baseline (*M* = 2.63, *SD* = 1.74). Data for number of paragraphs demonstrated a very slight decrease in mean scores (*M* = 2.88, *SD* = 0.83) from post SRSD + Content (*M* = 2.85, *SD* = 0.74) as well as from baseline (*M* = 0.50, *SD* = (0.60).

The mean score for number of transition words increased at SRSD + Content maintenance (*M* = 6.25, *SD* = 0.71) from post SRSD + Content means (*M* = 5.88, *SD* = 0.76), however, they increased from baseline (*M*= 1.50, *SD* = 0.94). Total essay parts decreased (*M* = 11.13, *SD* = 1.46) from post SRSD + Content mean scores (*M* = 12.17, *SD* = 2.20) and demonstrated increased means from baseline (*M* = 1.87, *SD* = 0.58). For holistic quality mean scores declined (*M* = 8.75, *SD* = 1.28) from post SRSD + Content (*M* = 9.10, *SD* = 0.63) and increased significantly from baseline (*M* 1.48, *SD* = 0.49).

In the following sections, group and individual descriptions of performance measures SRSD + Content maintenance will be addressed. See Figures 1-6 for illustrated results used for visual analysis of groups 1-3 and individual student data.

Group one. This group was administered the SRSD + Content maintenance probe on day 45 of the study. Students were given writing supplies to include lined paper and pencils. Students were then instructed to choose and write an essay from a selection of two prompt choices. Students completed the essay in within one 45 minute class period. It was noted that the students again created their own graphic organizers based on the POW+TREE organizer that they had used during instruction phases. All three student spent time planning their essays before writing. The between phase visual analysis demonstrated (100%) PND for all group members from baseline to SRSD + Content maintenance across all performance measures.

In addition, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence that student's maintained increases from baseline, however; percent of increase values from post SRSD

+ Content instruction to SRSD + Content maintenance essay scoring results were more variable. For example, for number of words from baseline to SRSD + Content maintenance percent of increase reports were high for group one, Adam (34.4 to 83, 141%), Nate (30.4 to 82, 122%) and Wes (36.8 to 222, 503%). Whereas the percent increases/decreases from post SRSD + Content to SRSD + Content maintenance were reported as a decrease for Adam (145.2 to 83,- 43%), a decrease for Nate (119.2 to 82, - 31%), and an increase for Wes (156.6 to 222, 42%).

For overall quality from baseline to SRSD + Content maintenance, the percent of increase data illustrates the following gains for group one; Adam (1 to 9, 800%), Nate (1.2 to 9, 866%), and Wes (1.4 to 9, 844%). Again, the results for post SRSD + Content and SRSD + Content maintenance scores are mixed. For holistic quality percent increase/decrease from post SRSD + Content to SRSD + Content maintenance, Adam scores were unchanged (9 to 9, 0%) and Nate's scores decreased (9.4 to 9, - 4%), Wes' scores also decreased (9.2t o 9, - 2%).

Following are the individual performance results for the SRSD + Content maintenance essays for group one, Adam, Nate, and Wes. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group one.

Adam SRSD + Content maintenance performance. Adam's performance for the SRSD + Content maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content

maintenance. His SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Adam's SRSD + Content maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (34.4 to 82), number of sentences (2.2 to 14), paragraphs (0.2 to 3), number of transition words (1.2 to 7), essay parts (2 to 11), and holistic quality (1 to 9). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD + Content maintenance for number of words and holistic quality. Adam increased his scores by the following percentages; number of words (34.4 to 83, 141%) and holistic quality (1 to 9, 800%).

In the comparison to post SRSD + Content performance, Adam's SRSD + Content maintenance scores were mixed as noted by the following percent changes between phases. Adam's percent change for number of words from post SRSD + Content and SRSD + Content maintenance decreased (120.6 to 83, - 43%) and for holistic quality his score was maintained (9 to 9, 0%). Additional performance measures between post SRSD + Content and post SRSD + Content maintenance indicated an increase for essay parts (9.6 to 11), number of sentences (12.2 to 14), and transition words (6.4 to 7), and no change for number of paragraphs (3 to 3).

Overall SRSD + Content maintenance data indicated that Adam continued to report significant increases from baseline to maintenance across all measures. Although Adam maintained a positive trend from baseline, his SRSD + Content maintenance scores in regard to post SRSD + Content scores were mixed as noted by increases in number of

essay parts and holistic quality, sentences and transitions words, decrease in number of words and no change for number of paragraphs.

Nate SRSD + Content maintenance performance. Nate's performance for the SRSD + Content maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content maintenance. His SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Nate's SRSD + Content maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (30.4 to 82), number of sentences (2 to 9), paragraphs (0.2 to 2), number of transition words (0.4 to 5), essay parts (2 to 11), and holistic quality (1.2 to 9). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant gains in percent of increase data from baseline to SRSD + Content maintenance for number of words and holistic quality. Nate increased his scores by the following percentages; number of words (30.4 to 82, 122%) and holistic quality (1.2 to 9, 866%).

In the comparison to post SRSD + Content performance, Nate's SRSD + Content maintenance scores decreased as noted by the following percent changes between phases. Nate's percent change for number of words from post SRSD + Content and SRSD + Content maintenance decreased (19.2 to 82, - 31%) and for holistic quality his score decreased (9.4 to 9, - 4%). Additional performance measures between post SRSD +

Content and post SRSD + Content maintenance indicated slight decreases for essay parts (11.4 to 11), transition words (5.8 to 5), sentences (11.6 to 9) and paragraphs (2.6 to 2).

Overall SRSD + Content maintenance data indicated that Nate continued to report significant increases from baseline to maintenance across all measures. Although Nate maintained a positive trend from baseline, his SRSD + Content maintenance scores in regard to post SRSD + Content scores decreased in number of essay parts, words, transitions words, sentences, paragraphs and holistic quality.

Wes SRSD + Content maintenance performance. Wes' performance for the SRSD + Content maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content maintenance. His SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Wes' SRSD + Content maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (36.8 to 222), number of sentences (2 to 17), paragraphs (0.4 to 4), number of transition words (1.4 to 7), essay parts (1.4 to 11), and holistic quality (1.4 to 9). These scores indicated significant increases from baseline, as noted on Figures 1-6. Also reported are the significant gains in percent of increase data from baseline to SRSD + Content maintenance for number of words and holistic quality. Wes increased his scores by the following percentages; number of words (36.8 to 222, 503%) and holistic quality (1.4 to 9, 844%).

In the comparison to post SRSD + Content performance, Wes's SRSD + Content maintenance scores were mixed, as noted by the following percent changes between phases. Wes' percent change for number of words from post SRSD + Content and SRSD + Content maintenance increased (144.6 to 222, 42%) and for holistic quality his score decreased (9.2 to 9, - 2%). Additional performance measures between post SRSD + Content and post SRSD + Content + Content maintenance indicated an increase for sentences (12 to 17) and paragraphs (3 to 4), and a decrease in essay parts (11.2 to 11), while number of transition words remained unchanged (7 to 7).

Overall SRSD + Content maintenance data indicated that Wes continued to report significant increases from baseline to maintenance across all measures. Although Wes maintained a positive trend from baseline, his SRSD + Content maintenance scores in regard to post SRSD + Content scores were mixed as noted by increases in number of words, paragraphs and words, with decreases in holistic quality and number of essay parts, and not change in the number of transition words used.

Group two. This group was administered the SRSD + Content maintenance probe on day 48 of the study. Students were again given writing supplies to include lined paper and pencils. Students were instructed to choose and write an essay from a selection of two prompt choices. Students completed the essay in within one 45 minute class period. Students again created their own graphic organizers based on the POW+TREE organizer that they had used during the instructional phases. All three student spent time planning their essays before writing. The between phase visual analysis demonstrated (100%)

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PND for all group members from baseline to SRSD + Content maintenance across all performance measures.

The percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence that student's maintained increases from baseline, however; percent of increase values from post SRSD + Content + Content instruction to SRSD + Content maintenance essay scoring results were more variable. For example, for number of words from baseline to SRSD + Content maintenance percent of increase reports were remained high for group two, Bobby (90.2 to160, 77%), Matt (13.8 to 135, 878%), and Todd (23.8 to 107, 351%). Whereas the percent increases/decreases from post SRSD + Content + Content to SRSD + Content maintenance were reported as a decrease for Bobby (198.4 to 160, - 19%), an increase for Matt (124.4 to 135,9 %), and an increase for Todd (98.2 to 107, 9%).

For overall quality from baseline to SRSD + Content maintenance, the percent of increase data illustrates the following gains for group two; Bobby (2.4 to 10, 317%), Matt (1 to 8, 700%), and Todd (1.4 to 6, 329%). The results for post SRSD + Content + Content and SRSD + Content maintenance scores regarding percent increase/decrease for holistic quality were also mixed with group 2. For holistic quality percent increase from post SRSD + Content + Content to SRSD + Content maintenance, Bobby maintained his mean scores (10 to 10, 0%) and Matt's scores decreased (8.2 to 8, -2%), Todd's scores decreased (8.2 to 6, - 27%).

Following are the individual performance results for the SRSD + Content maintenance essays for group two, Bobby, Matt and Todd. Figures 1-6 were used in the

visual analysis of between phase and within phase essay performance measures for group two.

Bobby SRSD + Content maintenance performance. Bobby's performance for the SRSD + Content maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content maintenance. His SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Bobby's SRSD + Content maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (90.2 to 160), number of sentences (6.6 to 16), paragraphs (1.8 to 4), number of transition words (3.4 to 7), essay parts (2.6 to 14), and holistic quality (2.4 to 10). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD + Content maintenance for number of words and holistic quality. Bobby increased his scores by the following percentages; number of words (90.2 to 160, 77%) and holistic quality (2.4 to 10, 317%).

In the comparison to post SRSD + Content performance, Bobby's SRSD + Content maintenance scores were mixed as noted by the following percent changes between phases. Bobby's percent change for number of words from post SRSD + Content and SRSD + Content maintenance decreased (198.4 to 160, - 19%) and holistic quality of perfect scores was maintained (10 to 10, 0%). Additional performance measures between post SRSD + Content and post SRSD + Content + Content

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maintenance indicated an increase for transition words (6.6 to 7), and a decrease for number of essay parts (17.6 to 14), sentences (18.4 to 16), and paragraphs (4.4 to 4).

Overall SRSD + Content maintenance data indicated that Bobby continued to report significant increases from baseline to maintenance across all measures. Although Bobby maintained a positive trend from baseline, his SRSD + Content maintenance scores in regard to post SRSD + Content scores were mixed as noted by increases in transition words, and decreases in number sentences, paragraphs and essay parts, and with no change to perfect holistic scores.

Matt SRSD + Content maintenance performance. Matt's performance for the SRSD + Content maintenance was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content maintenance. His SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Matt's SRSD + Content maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (13.8 to 135), number of sentences (1 to 11), paragraphs (0 to 3), number of transition words (1 to 6), essay parts (1 to 11.8), and holistic quality (1 to 8). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD + Content maintenance for number of words and holistic quality. Matt increased his scores by the following percentages; number of words (124.4 to 135, 9%) and holistic quality (1 to 8, 700%).

In the comparison to post SRSD + Content performance, Matt's SRSD + Content maintenance scores decreased as noted by the following percent changes between phases. Matt's percent change for number of words from post SRSD + Content and SRSD + Content maintenance increased (124.4 to 135, 9%) and for holistic quality his score decreased (8.2 to 8, -2%). Additional performance measures between post SRSD + Content and post SRSD + Content + Content maintenance indicated an increase in number of sentences (10.6 to 11), and transition words (4.8 to 6), with a decrease for essay parts (11.8 to 10), and paragraphs (3.2 to 3).

Overall SRSD + Content maintenance data indicated that Matt continued to report significant increases from baseline to maintenance across all measures. Although Matt maintained a positive trend from baseline, his SRSD + Content maintenance scores in regard to post SRSD + Content scores he increased for number of words, sentences and transition words, and decreased for holistic quality, essay parts and paragraphs.

Todd SRSD + Content maintenance performance. Todd's performance for the SRSD + Content maintenance was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content maintenance. His SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Todd's SRSD + Content maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (23.8 to107), number of sentences (1.8 to 13), paragraphs (0.2 to 3), number of transition words (1.6 to 6), essay parts (1.4 to 9), and holistic quality (1.4 to 6). These scores indicated

significant increases from baseline as noted on Figures 1-6. Also reported are the

significant percent of increase data from baseline to SRSD + Content maintenance for

number of words and holistic quality. Todd increased his scores by the following

percentages; number of words (23.8 to 107, 351%) and holistic quality (1.4 to 6, 329%).

In the comparison to post SRSD + Content performance, Todd's SRSD + Content

maintenance scores were mixed as noted by the following percent changes between

phases. Todd's percent change for number of words from post SRSD + Content and

SRSD + Content maintenance decreased (98.2 to 107, 9%) and declined for holistic

quality (8.2 to 6, - 27%). Additional performance measures between post SRSD +

Content and post SRSD + Content + Content maintenance indicated an increase for

number of sentences (11.2 to 13), transition words (5 to 6) and paragraphs (2.6 to 3), and

a decrease for number of for essay parts (11.4 to 9).

Overall SRSD + Content maintenance data indicated that Todd continued to

report significant increases from baseline to maintenance across all measures. Although

Todd maintained a positive trend from baseline, his SRSD + Content maintenance scores

in regard to post SRSD + Content scores were mixed as noted by increases in number of

words, sentences, paragraphs and transition words, and decreases in holistic quality, and

essay parts .

Group three. This group was administered the SRSD + Content maintenance

probe on day 52 of the study. Both students were given writing supplies to include lined

paper and pencils. They were then instructed to choose and write an essay from a

selection of two prompt choices. Students completed the essay in within one class

period. It was noted that the students again created their own graphic organizers based on the POW+TREE organizer that they had used during instruction phases. Both students spent time planning their essays before writing. The between phase visual analysis demonstrated (100%) PND for all group members from baseline to SRSD + Content maintenance across all performance measures.

The percent of increase data for individual student means for number of words and overall quality were also analyzed, giving further evidence that student's maintained increases from baseline. However; percent of increase values from post SRSD + Content + Content instruction to SRSD + Content maintenance essay scoring results were more variable. For example, for number of words from baseline to SRSD + Content maintenance percent of increase reports were high for group three, Drew (53.2 to 122, 129%) and Emily (34.2 to 162, 374%). Students had mixed results regarding percent increases/decreases from post SRSD + Content + Content to SRSD + Content maintenance; Drew (135 to 122, - 10%) and Emily (151.8 to 162, 7%).

For overall quality from baseline to SRSD + Content maintenance, the percent of increase data illustrates the following gains for group three; Drew (2 to 10, 400%), and Emily (1.4 to 9, 543%). The results for post SRSD + Content + Content and SRSD + Content maintenance scores demonstrated percent increases for both students. For holistic quality percent increase/decrease from post SRSD + Content + Content to SRSD + Content maintenance, Drew's scores were (9.6 to 10, 4%) and Emily's scores were (9.2 to9, - 2%).

Following are the individual performance results for the SRSD + Content maintenance essays for group three, Drew and Emily. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group one.

Drew SRSD + Content maintenance performance. Drew's performance for the SRSD + Content maintenance was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content maintenance. His SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Drew's SRSD + Content maintenance reported scores increased significantly from baseline, as noted by moderate to high trends and (100%) PND for number of words (53.2 to 122), number of sentences (3.4 to 7), paragraphs (1 to 2), number of transition words (2.2 to 6), essay parts (2.6 to 12), and holistic quality (2 to 10). These scores indicated significant increases from baseline, as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD + Content maintenance for number of words and holistic quality. Drew increased his scores by the following percentages; number of words (53.2 to 122, 129%) and holistic quality (2 to 10, 400%).

In the comparison to post SRSD + Content performance, Drew's SRSD + Content maintenance scores were mixed as noted by the following percent changes between phases. Drew's percent change for number of words from post SRSD + Content and SRSD + Content maintenance decreased (135 to 122, -3%) and for holistic quality his score increased (9.6 to 10, 4%). Additional performance measures between post SRSD + Content and post SRSD + Content + Content maintenance indicated an increase for essay

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parts (11.6 to 12), transition words (5.8 to 6), paragraphs (2.6 to 3), and a decrease for number of sentences (8.2 to 7).

Overall SRSD + Content maintenance data indicated that Drew continued to report significant increases from baseline to maintenance across all measures. Although Drew maintained a positive trend from baseline, his SRSD + Content maintenance scores in regard to post SRSD + Content scores were mixed as noted by increases in, holistic quality, number of essay parts, transition words and paragraphs and decreases in number of words and sentences.

Emily SRSD + Content maintenance performance. Emily's performance for the SRSD + Content maintenance was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to SRSD + Content maintenance. Her SRSD + Content maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Emily's SRSD + Content maintenance reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (34.2 to 162), number of sentences (2 to 8), paragraphs (0.2 to 2), number of transition words (0.8 to 6), essay parts (2 to 11), and holistic quality (1.4 to 9). These scores indicated significant increases from baseline, as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to SRSD + Content maintenance for number of words and holistic quality. Emily increased his scores by the following percentages; number of words (34.2 to 162, 374%) and holistic quality (1.4 to 9, 543%).

In the comparison to post SRSD + Content performance, Emily's SRSD + Content maintenance scores were mixed as noted by the following percent changes between phases. Emily's percent change for number of words from post SRSD + Content and SRSD + Content maintenance increased (151.8 to 162, 7%), and for holistic quality his score decreased slightly (9.2 to 9, -2%). Additional performance measures between post SRSD + Content and post SRSD + Content + Content maintenance indicated an increase for and sentences (8.2 to 9) and transition words (5.6 to 6), with a decrease in essay parts (11 to 11), and no change in number of paragraphs (2 to 2).

Overall SRSD + Content maintenance data indicated that Emily continued to report significant increases from baseline to maintenance across all measures. Although Emily maintained a positive trend from baseline, her SRSD + Content maintenance scores in regard to post SRSD + Content scores were mixed as noted by increases in number of words, sentences, and transition words, decreases in holistic quality, and no change for number of paragraphs.

Knowledge of essay parts at maintenance. A strategy knowledge probe was administered on day one of maintenance testing to ascertain if students had maintained gains in strategy knowledge from baseline. Like the previous probes, students were asked to name the parts of a persuasive essay and scored with a scale of 0 to 12. All student scores indicated a positive slope with high trends and low variability from baseline. Between phase analysis also indicated (100%) PND for all students across the knowledge probe measure from baseline, see Figure 2. Student composite score descriptive statistics are illustrated in Table 5. The students improved their strategy

knowledge as demonstrated by an increase from baseline with scores of ($M = 11.80$, $SD =$ 0.71) with a range of 10 to 12 for the maintenance phase. A significant increase in strategy knowledge probe scores from baseline was again noted ($p < .01$) as per the Wilcoxon Matched-Pairs, Signed Ranks Test.

Also noted on Table 5 the stability of scores from the previous strategy knowledge probe scores was maintained. There was no difference from the mean scores from the previous probe administered at post SRSD + Content as demonstrated by equal mean scores of ($M = 11.80$, $SD = 0.71$) for the probes from post SRSD + Content to maintenance. Student scores remained consistent with all students reporting a 12, except Todd who scored a 10 on both measures.

Overall generalization essay performance. To ascertain generalization of the SRSD POW + TREE intervention, a generalization probe was given in all of the students' math classrooms on day 36 of the study. Teachers were given the prompt to use as a warm up in their math classrooms that day. Students were given lined paper and pencils and asked to write a persuasive essay on the use of the mnemonic for order of operations, parenthesis, exponents, multiplication or division and addition or subtraction (PEMDAS). Student essays were then collected by the researcher for scoring using the same procedures as baseline. The generalization mean scores were then compared to baseline and post SRSD mean scores. As noted in Table 4, when compared to baseline, student mean scores across all students were statistically significant at generalization as reported by (all $p's < .01$) according to Wilcoxon Matched-Pairs, Signed Ranks tests.

The descriptive statistics from Table 4 demonstrated that student means for number of words written increased ($M = 133.88$, $SD = 52.35$) from generalization to post SRSD essay means ($M = 128.65$, $SD = 30.72$). Student performance means were also higher than at baseline ($M = 38.65$, $SD = 27.23$). For number of sentences mean scores increased slightly ($M = 10.63$, $SD = 4.37$) from post SRSD ($M = 10.20$, $SD = 2.36$) and increased from baseline ($M = 2.63$, $SD = 1.74$). Data for number of paragraphs demonstrated an increase in mean scores ($M = 2.63$, $SD = 0.74$) from post SRSD ($M = 2.45$, $SD = 0.60$) as well as from baseline ($M = 0.50$, $SD = (0.60)$).

The mean for number of transition words decreased at generalization ($M = 5.75$, $SD = 1.04$) from post SRSD means ($M = 6.15$, $SD = 1.15$), however, they increased from baseline ($M= 1.50$, $SD = 0.94$). Total essay parts increased ($M = 12.12$, $SD = 1.81$) from post SRSD mean scores ($M = 10.87$, $SD = 2.08$) and demonstrated increased means from baseline ($M = 1.87$, $SD = 0.58$). For holistic quality mean scores increased ($M = 9.25$, $SD = 0.88$) from post SRSD ($M = 8.23$, $SD = 0.84$) and increased significantly from baselines ($M = 1.48$, $SD = 0.49$).

Following are group and individual descriptions of performance measures at baseline. See Figures 1-6 for illustrated results for groups 1-3 and individual student data for visual analysis results.

Group one. Students in this group were administered the probe on day 36 of the study. Students were given writing supplies by the teachers to include lined paper and pencils. Students were then instructed to write a persuasive essay as a math warm up. Essays were collected and scored across all essay performance measures. The between

phase visual analysis demonstrated (100%) PND for all group members from baseline to generalization across all performance measures.

In addition, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence that student's maintained increases from baseline, however; percent of increase values from post SRSD to generalization essay scoring results were more variable. For example, for number of words from baseline to generalization percent of increase reports were high for group one, Adam (34.4 to 113, 228%), Nate (30.4 to 113, 227%), and Wes (36.8 to 220, 498%). Whereas the percent increases/decreases from post SRSD to generalization were reported as a decrease for Adam (120.6 to 113,- 6%), an increase for Nate (86.2 to 113, 31%) ,and Wes (144.6 to 220, 42%).

For overall quality from baseline to generalization, the percent of increase data illustrates the following gains for group one; Adam (1 to 8, 700%), Nate (1.2 to 8, 567%) and Wes (1.4 to 10, 614%). All three students in group one also demonstrated percent increases for holistic quality from post SRSD to generalization as evidenced by Adam's scores (7.2 to 8, 11%), Nate's scores (7.8 to 8, 3%), and Wes' scores (8.6 to 10, 16%).

Following are the individual performance results for the generalization essays for group one, Adam, Nate, and Wes. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group one.

Adam generalization essay performance. Adam's performance at generalization was significant as demonstrated by between phase changes with moderate to high trends

across measures from baseline to SRSD maintenance. His SRSD maintenance scores also demonstrated (100%) PND from baseline across all measures of essay performance.

At generalization Adam's reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (34.4 to 113), number of sentences (2.2 to 13), paragraphs (0.2 to 3), number of transition words (1.2 to 5), essay parts (2 to 12), and holistic quality (1 to 8). These scores indicated significant increases from baseline, as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to generalization for number of words and holistic quality. Adam increased his scores by the following percentages; number of words (34.4 to 113, 228%) and holistic quality (1 to 8, 700%).

In the comparison to post SRSD performance, Adam's generalization scores were mixed, as noted by the following percent changes between phases. Adam's percent change for number of words from post SRSD and generalization decreased (120.6 to 113, - 6%) and for holistic quality his score was unchanged (9 to 9, 0%). Additional performance measures between post SRSD and generalization indicated an increase for essay parts (9.6 to 12), number of sentences (10.4 to 13), and paragraphs (2 to 3), with a decrease in transition words (6.6 to 5).

Overall generalization data indicated that Adam continued to report significant increases from baseline to generalization across all measures as noted with (100%) PND. Although Adam maintained a positive trend from baseline, his generalization scores in regard to post SRSD scores were mixed as noted by increases in number of essay parts,

sentences and paragraphs, with decreases in number of words, and transition words, and no change for number of holistic quality paragraphs.

Nate generalization essay performance. Nate's performance at generalization was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to generalization. His generalization scores also demonstrated (100%) PND from baseline across all measures of essay performance.

At generalization Nate's reported scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (30.4 to 113), number of sentences (2 to 8), paragraphs (0.2 to 2), number of transition words (0.4 to 6), essay parts (2 to 10), and holistic quality (1.2 to 8). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant gains in percent of increase data from baseline to generalization for number of words and holistic quality. Nate increased his scores by the following percentages; number of words (30.4 to 113, 272%) and holistic quality (1.2 to 8, 567%).

In the comparison to post SRSD performance, Nate's generalization scores were mixed as noted by the following percent changes between phases. Nate's percent change for number of words from post SRSD and generalization increased (86.2 to 113, 31%) and for holistic quality his score increased (7.8 to 8, 3%). Additional performance measures between post SRSD and post generalization indicated an increase for essay parts (9 to 10), transition words (5.2 to 6), and no change for number of sentences (8 to 8) and paragraphs (2 to 2).

Overall generalization data indicated that Nate continued to report significant increases from baseline to generalization across all measures with (100%) PND reported. Although Nate maintained a positive trend from baseline, his generalization scores in regard to post SRSD scores were mixed as noted by increases in holistic quality, number of essay parts, words and transition words, and no change for number of sentences or paragraphs.

Wes generalization essay performance. Wes' performance at generalization was significant as demonstrated by between phase changes with moderate to high trends across measures from baseline to generalization. His generalization scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Generalization reported scores for Wes increased significantly from baseline as noted by moderate to high trends and (100%) PND, for number of words (36.8 to 220), number of sentences (2 to 18), paragraphs (0.4 to 3), number of transition words (1.4 to 7), essay parts (1.4 to 13), and holistic quality (1.4 to 10). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant gains in percent of increase data from baseline to generalization for number of words and holistic quality. Wes increased his scores by the following percentages; number of words (36.8 to 220, 498%) and holistic quality (1.4 to 10, 614%).

In the comparison to post SRSD performance, Wes's generalization scores were mixed as noted by the following percent changes between phases. Wes' percent change for number of words from post SRSD and generalization increased (144.6 to 220, 498%) and for holistic quality his score increased (8.6 to 10, 16%). Additional performance

measures between post SRSD and post generalization indicated an increase for essay

parts (10.8 to 13), and paragraphs (2.2 to 3), sentences (10.8 to 18), and a decrease in

transition words (8.6 to 7).

Overall generalization data indicated that Wes continued to report significant

increases from baseline to generalization across all measures with (100%) PND.

Although Wes maintained a positive trend from baseline, his generalization scores in

regard to post SRSD scores were mixed as noted by increases in holistic score, essay

parts and number of paragraphs, words, and sentences, and a decrease in transition words.

Group two. These students were also administered the generalization probe on

day 36 of the study. Students were given writing supplies from their teachers to include

lined paper and pencils. Students were then instructed to write a persuasive essay as a

math warm up. Essays were collected and scored across all essay performance measures.

The between phase visual analysis demonstrated (100%) PND for all group members

from baseline to generalization across all performance measures.

The percent of increase data for individual student means for number of words

and overall quality were analyzed giving further evidence that student's maintained

increases from baseline. However; percent of increase values from post SRSD to

generalization essay scoring results were more variable. For example, for number of

words from baseline to generalization percent of increase reports were remained high for

group two, Bobby (90.2 to190, 110%), Matt (13.8 to 70, 407%), and Todd (23.8 to 80,

236%). Whereas the percent increases/decreases from post SRSD to generalization were

reported as an increase for Bobby (179.8 to 190, 6%), a decrease for Matt (116 to 70, -40%), and a decrease for Todd (97.6 to 80, - 18%).

For overall quality from baseline to generalization, the percent of increase data illustrates the following gains for group two; Bobby (2.4 to 10, 317%), Matt (1 to 9, 800%) and Todd (1.4 to 9, 543%). The results for post SRSD and generalization scores regarding percent increase/decrease for holistic quality were also mixed with group two. For holistic quality percent increase/decrease from post SRSD to generalization, Bobby maintained perfect scores in both phases (10 to 10, 0%) and Matt's scores increased (8.2 to 9, 10%), Todd's mean scores also increased (7 to 9, 29%).

Following are the individual performance results for the generalization essays for group two, Bobby, Matt and Todd. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group two.

Bobby generalization performance. Bobby's performance at generalization was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to generalization. His generalization scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Bobby's generalization essay reported scores increased significantly from baseline, as noted by moderate to high trends and (100%) PND for number of words (90.2 to 190), number of sentences (6.6 to 15), paragraphs (1.8 to 4), number of transition words (3.4 to 7), essay parts (2.6 to 16), and holistic quality (2.4 to 10). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to generalization for number of

words and holistic quality. Bobby increased his scores by the following percentages; number of words (90.2 to 190, 110%) and holistic quality (2.4 to 10, 317%).

In the comparison to post SRSD performance, Bobby's generalization scores were mixed, as noted by the following percent changes between phases. Bobby's percent change for number of words from post SRSD and generalization increased (179.8 to 190, 6%) and holistic quality increased (9.4 to 10, 6%). Additional performance measures between post SRSD and post generalization indicated an increase for essay parts (15.6 to 16), paragraphs (3.8 to 4), and transition words (6.4 to 7), and a decrease for number of sentences (15.4 to 15).

Overall generalization data indicated that Bobby continued to report significant increases from baseline to generalization with (100%) PND across all measures. Although Bobby maintained a positive trend from baseline, his generalization scores in regard to post SRSD scores were mixed as noted by, increases in holistic quality, essay parts, number of words, paragraphs and transition words, with a decrease in number of sentences.

Matt generalization performance.   Matt's performance at generalization was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to generalization. His generalization scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Matt's reported generalization scores increased significantly from baseline, as noted by moderate to high trends and (100%) PND, for number of words (13.8 to 70), number of sentences (1 to 6), paragraphs (0 to 2), number of transition words (1 to 4),

essay parts (1 to 11), and holistic quality (1 to 9). These scores indicated significant increases from baseline, as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to generalization for number of words and holistic quality. Matt increased his scores by the following percentages; number of words (13.8 to 70, 407%), and holistic quality (1 to 9, 800%).

In the comparison to post SRSD performance, Matt's generalization scores decreased as noted by the following percent changes between phases. Matt's percent change for number of words from post SRSD and generalization decreased (116 to 70, -40%) and for holistic quality his score increased (8.2 to 9, 10%). Additional performance measures between post SRSD and post generalization indicated an increase for essay parts (10.8 to 11), and decreases for number of sentences (10 to 6), and paragraphs (2.8 to 2), with no change for number of transition words (5 to 5).

Overall generalization data indicated that Matt continued to report significant increases from baseline to generalization with (100%) PND across all measures. Although Matt maintained a positive trend from baseline, his generalization scores in regard to post SRSD scores increased for essay parts, and holistic quality, and decreased for number of words, sentences and paragraphs, with no change in number of transition words.

Todd generalization performance. Todd's performance at generalization was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to generalization. His generalization scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Todd's reported generalization scores increased significantly from baseline, as noted by moderate to high trends and (100%) PND for number of words (23.8 to 80), number of sentences (1.8 to 11), paragraphs (0.2 to 3), number of transition words (1.6 to 5), essay parts (1.4 to 11), and holistic quality (1.4 to 9). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to generalization for number of words and holistic quality. Todd increased his scores by the following percentages; number of words (23.8 to 80, 236%) and holistic quality (1.4 to 9, 543%).

In the comparison to post SRSD performance, Todd's generalization scores were mixed, as noted by the following percent changes between phases. Todd's percent change for number of words from post SRSD and generalization decreased (97.6 to 90, -18%), and for holistic quality his score increased (7 to 9, 29%). Additional performance measures between post SRSD and post generalization indicated an increase for essay parts (9.2 to 11), sentences (10.2 to 11), and paragraphs (2.4 to 3), with no change in number of transition words (5 to 5).

Overall generalization data indicated that Todd continued to report significant increases from baseline to generalization across all measures. Although Todd maintained a positive trend from baseline, his generalization scores in regard to post SRSD scores were mixed as noted by increases in number of essay parts, sentences, transition words, paragraphs and holistic quality, and decreases in number of word, with no change for transition words.

Group three. Generalization probes were administered on day 36 of the study using a math content probe. Students were given paper and pencils from their teachers. Essays were then collected and scored for essay performance using the metrics from all other phases. The between phase visual analysis demonstrated (100%) PND for all group members from baseline to generalization across all performance measures.

Notably, percent of increase data for individual student means for number of words and overall quality were analyzed giving further evidence that student's maintained increases from baseline. However; percent of increase values from post SRSD instruction to generalization essay scoring results were more variable. For example, for number of words from baseline to generalization percent of increase reports were high for group three, Drew (53.2 to 125, 135%), and Emily (34.2 to 160, 368%). From post SRSD to generalization Drew reported a percent decrease in number of words (135 to 125, - 3%). Emily posted a percent increase from post SRSD to generalization, (151.8 to 160, 3%).

For overall quality from baseline to generalization, the percent of increase data illustrates the following gains for group three; Drew (2 to 10, 400%), and Emily (1.4 to 10, 614%). The results for post SRSD and generalization scores demonstrated percent increases for both students. For holistic quality, the percent increase from post SRSD to generalization for Drew (8.8 to 10, 14%) and Emily (8.8 to 10, 14%) increased.

Following are the individual performance results for the generalization essays for group three, Drew and Emily. Figures 1-6 were used in the visual analysis of between phase and within phase essay performance measures for group three.

Drew generalization performance. Drew's performance at generalization was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to generalization. His generalization scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Drew's reported generalization scores increased significantly from baseline as noted by moderate to high trends and (100%) PND for number of words (53.2 to 125), number of sentences (3.4 to 7), paragraphs (1 to 2), number of transition words (2.2 to 6), essay parts (2.6 to 12), and holistic quality (2 to 10). These scores indicated significant increases from baseline, as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to generalization for number of words and holistic quality. Drew increased his scores by the following percentages; number of s words (53.2 to 125, 135%) and holistic quality (2 to 10, 400%).

In the comparison to post SRSD performance, Drew's generalization scores were mixed as noted by the following percent changes between phases. Drew's percent change for number of words from post SRSD and generalization decreased (128.4 to 125, -3%), and for holistic quality his score increased (8.8 to 10, 14%). Additional performance measures between post SRSD and post generalization indicated an increase for number of essay parts (11 to 12), and transition words (5.8 to 6), with a decrease for number of sentences (8.6 to 7), and paragraphs (2.2 to 2).

Overall generalization data indicated that Drew continued to report significant increases from baseline to generalization with (100%) PND across all measures. Although Drew maintained a positive trend from baseline, his generalization scores in

regard to post SRSD scores were mixed as noted by increases in number of words, essay parts, transition words and holistic quality, and decreases in number of words, paragraphs, and sentences.

Emily generalization performance. Emily's performance at generalization was significant, as demonstrated by between phase changes with moderate to high trends across measures from baseline to generalization. Her generalization scores also demonstrated (100%) PND from baseline across all measures of essay performance.

Emily's reported generalization scores increased significantly from baseline, as noted by moderate to high trends and (100%) PND for number of words (34.2 to 160), number of sentences (2 to 7), paragraphs (0.2 to 2), number of transition words (0.8 to 6), essay parts (2 to 12), and holistic quality (1.4 to 10). These scores indicated significant increases from baseline as noted on Figures 1-6. Also reported are the significant percent of increase data from baseline to generalization for number of words and holistic quality. Emily increased his scores by the following percentages; number of words (34.2 to 160, 368%) and holistic quality (1.4 to 10, 614%).

In the comparison to post SRSD performance, Emily's generalization scores were mixed, as noted by the following percent changes between phases. Emily's percent change for number of words from post SRSD and generalization increased (156 to 160, 3%), and for holistic quality his score increased (8.8 to 10, 14%). Additional performance measures between post SRSD and post generalization indicated an increase for number of essay parts (11 to 12), and decreases in paragraphs (2.2 to 2), and sentences (8.2 to 7), a decrease in transition words (6.2 to 60).

Overall generalization data indicated that Emily continued to report significant increases from baseline to generalization with (100%) PND across all measures. Although Emily maintained a positive trend from baseline, her generalization scores in regard to post SRSD scores were mixed as noted by increases in number of words, holistic quality and number of essay parts, with slight decreases in sentences, paragraphs and transitions words.

Essay writing samples. The following section illustrates the performance of a one student from the study demonstrating essay writing samples from baseline, post SRSD + Content, post SRSD + Content + Content, maintenance and generalization. The student's performance is representative of the overall performance of students in the study. The essays demonstrate the increase in scores for student performance in overall length, organization and quality.

Essay writing samples from baseline to post SRSD + Content. The quantitative data presented is further enhanced by the following sample of one student's essays from baseline to post SRSD + Content intervention instruction. The writing sample shown in Table 6 demonstrates the student's noticeable growth in essay length, sentences, and paragraphs, number of transition words, number of essay parts, organization, and overall quality. This sample is similar to the changes observed in all student essays from baseline through post SRSD + Content.

Table 6

Baseline and Post SRSD Writing Samples of a Stronger Performing Student

Representative baseline essay prompt. "Should students your age be allowed to have a TV in their room?"

13-year-olds shouldn't be allowed to have a TV in their room. The TV might make students feel a need to rush on their homework if they see it. Students may also be tempted to do their homework while watching TV, or watch TV without doing their homework at all.

Representative Post SRSD intervention essay prompt. "Should kids under age 15 have a Facebook page?"

        I think kids under age 15 should have a Facebook page. To begin, you can socialize more. Most middle and high schools limit social time to a mere thirty minutes at lunch. The more social time you have, the more friends you can have. The more friends you have, the better your life will be.

        Next, friends can't talk to others and ignore your face. Facebook allows teens to talk to lots of friends at once. The only time teens see each other's faces is when they are looking at friends profiles. Some kids don't put their own face on their profile picture.

        Hence, nobody can overhear personal conversations. Teens can limit profile viewing to only them and their friends/ family. This way nobody can spill the beans about an embarrassing conversation. Nobody can gossip or be gossiped in others / their faces.

        In contrast, a lot of teens are addicted to Facebook. This may be one cause of obesity. Facebook also affects school performance.   Yet, Facebook is a great way to communicate and socialize without being interrupted or overheard. Teens can socialize with friends without disrupting class. Teens can also chat with family without disrupting their sibling's homework or their parent's phone conversations.

        In short all of these are the reasons, teens under fifteen, should have a Facebook page.

Writing sample post SRSD + Content + Content. The quantitative data presented is also demonstrated by the sample of one student's essays from the post SRSD + Content + Content phase. The writing sample shown in Table 7 demonstrates the student's successful use of the SRSD and POWTREE strategy in a standards based Civics content area. The sample also demonstrates a sustained growth from baseline to include measures of essay length, sentences, and paragraphs, number of transition words, number of essay parts, organization and overall quality. Results are similar to other students in the study.

Table 7

Post SRSD + Content Intervention Writing Sample of a Stronger Performing Student

Representative Post SRSD + Content writing situation and essay prompt.
*Writing Situation Civics Standard CE3***: Many schools require all students to perform some type of community service such as working in nursing homes, hospitals or schools.**
Prompt: **Persuade the reader that students should or should not be required to perform community service.**

I believe that students should be required to perform community service. First, your reputation would be better because people would see you and know that you are a responsible person that they can trust. Second, it is not a duty but you could be responsible and help in your free time so you won't be bored. You can get credit too for civics class which is good too.

Third it is always a good thing to help people because they might not have the things you have. However, some people might think that students are too young. But it would be ok if you have adult supervision.

I believe that students should be required to perform community service because you would be responsible, you would be helping people and it's for civics.

Writing samples maintenance and generalization. The essays portrayed in Tables 8 are indicative of one student's maintenance essay performance four weeks post intervention. The writing sample shown in Table 9 demonstrates the same student's successful use of the SRSD and POWTREE strategy in a generalization essay written on day 36 of the study in the student's math class. These samples demonstrate the growth from baseline to include increased measures of essay length, sentences, and paragraphs, number of transition words, number of essay parts, organization and overall quality. Results are similar to the differences observed for the other students in the study.

Table 8

Maintenance SRSD and SRSD + Content Writing Samples of a Stronger Performing Student

Representative maintenance (M1) SRSD essay prompt. "Is it better to talk to a friend by texting or by talking on the phone?"

      I believe it is better to text friends than to call them. First, text messages are easier to understand. Some kids may be hearing impaired. This decreases their ability to understand voices.

      Also, nobody would overhear you. You can send private texts without having to worry about people overhearing you. This enables a wider variety of conversation topics, You can also erase bad messages.

      Lastly, you can attach files to text messages. This can help you get your point across more. Kids can also have records of their convos.

      However, text messages are limited to 160 characters counting spaces and new lines. This can make it harder to communicate without annoying pauses. Yet it can all be more efficient to text with friends.

      You can have everyone understanding you and keep records of convos. It also allows more topics. To conclude, it is better to text friends than to call them.

Representative maintenance (M2) SRSD + Content *Writing Situation*: **Some people have said that the schools in the United States are not as good as the schools in other countries because students do not spend enough time in school. Your school district is trying to decide whether to have students go to school on Saturday mornings in order to have more time to learn.** *Prompt* : **Write an essay to persuade your principal that school should or should not be on Saturday mornings.**

I believe that we should not go to school on Saturdays. First, people like me need more sleep because what a lot of adults don't realize is no matter how much sleep we get, we are always going to be tired at 6 am. Second, more free time is needed for most people because I know a lot of kids who do more than two sports and most of them are on Saturday.

      Third, with seven hours of school every day except Saturday and Sunday a lot of us are tired and if you add Saturday to a school day, there are going to be people who are mad and overwhelmed. Some people might think we need more school time and that's why some people might agree to go to school on Saturdays.

      However, you can't learn if you are too tired to even focus on work. I think teachers might agree. I believe we should not go to school on Saturday.

Table 9

Generalization Writing Sample of a Stronger Performing Student

Representative generalization essay prompt. "Persuade your friend to follow the steps for order of operations, or PEMDAS (parenthesis, exponents, multiplication/division, addition/subtraction), when solving a math problem."

I believe it is important to use PEMDAS in math problems.   It is important because with it, it will help you. What I mean is that it will make it easier to remember the order of operation. It is important because first of all it is like training wheels. It's like training wheels in that way where you first just saying it under your breath. Then your brain at one point it just clicks and you just do it instantly. Second of all if you get lost in a problem PEMDAS will help. It will help by taking you through the problem until you get back on track.

Some more reasons is third of all it is simply a good trick to know. My final reason is that it will show you the way. Not only that it is funny to say, "Please excuse my dear aunt Sally."

Though on the other hand it might sound geeky. Which could lead to you gitting bullied. However some people (I don't know why) might not want to learn it.

It is a good method because it will help make math problems easier. So to say it is a good method to learn. It is a good method because of all these reasons.   That is why it is a good reason.

Time Planning and Writing

During baseline, post SRSD, post SRSD + Content and SRSD Maintenance phases, one time planning and writing probe was administered per phase for each student. Videotaped sessions were reviewed and coded by all three researchers and research assistants. Previous training on videos from non probed days were used to operationalize student time spent planning and writing. The researchers viewed each video for the actual time probes for each student and phase of the study. Inter-rater agreement, after discussion, reached 100% consensus on the time spent on planning and writing for all of the students. Overall, the students' demonstrated significant increases in both planning and writing after both strategy instruction phases. Results for the time spent planning and writing follow.

Baseline student planning and writing. Baseline probes for time spent planning and writing were conducted on day three of baseline testing for all three groups. Group one probes were administered on day three, group two on day five and group three on day seven of the study. Videotapes sessions were reviewed and results indicated that students spent no time planning their essays. All students began writing immediately as evidenced by results given in minutes in Table 10. The descriptive data for baseline demonstrated student mean scores ($M = 00:00$, $SD = 00:00$) for time spent planning and ($M = 03:05$, $SD = 02:10$) with a range of 01:12 to 07:32 for time spent on writing persuasive essays. Additional reports include the percentage of total time spent by students at baseline was (0%) for planning and (100%) for writing.

Table 10

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

	Baseline Mean (*SD*) (N=8)	Post SRSD Intervention Mean (*SD*) (N=8)	Post SRSD+CONTENT Intervention Mean (*SD*) (N=8)	Maintenance SRSD Mean (*SD*) (N=8)
Total Time Planning	00:00(00:00)	06:38(02:27)[a] $ES = 2.81$[b]	08:39(01:45)[a] $ES > 3$[b]	06:31(01:26)[a] $ES > 3$[b]
Total Time Writing	03:05(02:10)	14:35(05:48)[a] $ES = 2.06$[b]	12:16(05:21)[a] $ES = 1.75$[b]	11:50(04:05)[a] $ES = 2.08$[b]

Note: [a] Significantly greater than baseline, $p < .01$, according to Wilcoxon Matched-Pairs, Signed Ranks Test. [b] Effect sizes were calculated using all relevant post measure standards deviations due to apparent floor effect in baseline measure. Effect sizes are not entirely comparable to group ES.

Post SRSD student planning and writing. Post SRSD probes, for time spent planning and writing, were conducted on the third day of post SRSD testing for all three groups. Group one's probe was administered on day 16 of the study, group two on day 19 and group three on day 22. Student time spent planning increased significantly over baseline as indicated by the data in Table 10 and further visual analysis in Figure 7. All students increased their time spent planning and writing essays. The descriptive data for post SRSD demonstrated student mean scores (*M* = 06:38, *SD* = 02:27) for time spent planning with a range (02:41 to 11:10) and (*M* = 14:35, *SD* = 05:48) with a range of 08:42 to 24:25 for time spent on writing persuasive essays. Additional reports include the percentage of total time spent by students at post SRSD was (31%) for planning and (69%) for writing. These indicated substantive growth in student time spent planning and writing after the SRSD POW+TREE strategy instruction.
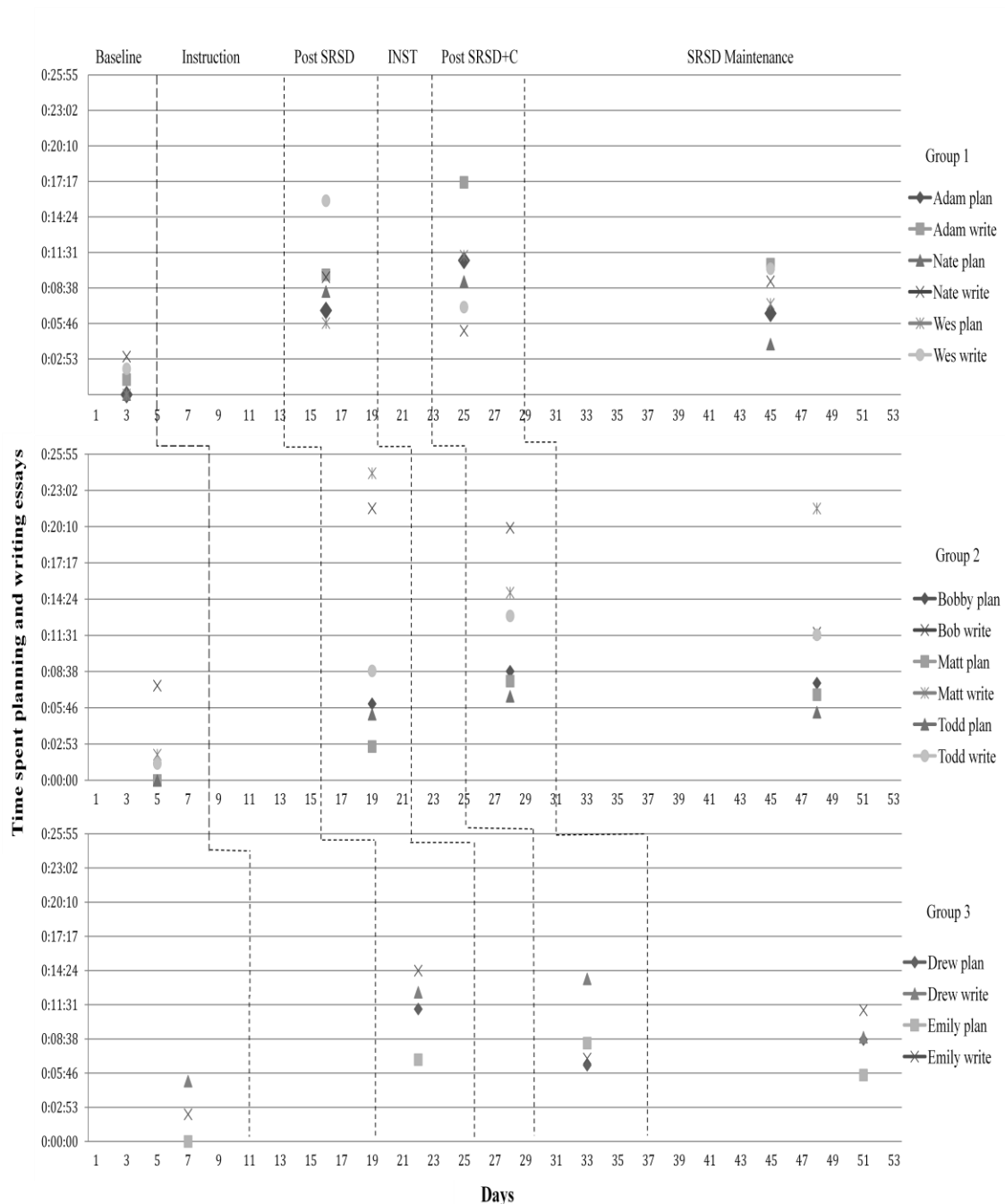
Figure 7.

Time spent planning and writing student essays. Data presented by group and student in minutes:seconds

Individual student performance is illustrated in Figure 7. The between phase visual analysis of the time probe data indicated a rapid immediacy of effect for baseline as shown through positive slopes and high trends. In addition, in reviewing percent of non overlapping data from baseline to post SRSD, all students demonstrated (100%) PND for both time planning and time writing.

Post SRSD + Content student planning and writing. Post SRSD + Content probes, for time spent planning and writing, were conducted on the third day of post SRSD + Content testing for all three groups. Group one's probe was administered on day 25 of the study, group two on day 28 and group three on day 33. Student time spent planning increased significantly over baseline as indicated by the data in Table 10 and further visual analysis in Figure 7. All students increased their time spent planning and writing essays. The descriptive data for post SRSD + Content demonstrated student mean scores ($M = 08:39$, $SD = 01:45$) for time spent planning with a range of 06:26 to 11:16 and ($M = 12:16$, $SD = 05:21$) with a range of 07:00 to 20:04 for time spent on writing persuasive essays. Additional reports include the percentage of total time spent by students at post SRSD + Content was (44%) for planning and (56%) for writing. These indicated substantive growth in student time spent planning and writing after the SRSD + Content strategy instruction.

Individual student performance is illustrated in Figure 7. Between phase visual analysis of the time probe data indicated a rapid immediacy of effect from baseline as shown through positive slopes and high trends. In addition, in review of the percent of

non overlapping data from baseline to post SRSD + Content, all students demonstrated (100%) PND for both time planning and time writing.

SRSD Maintenance student planning and writing. SRSD maintenance probes, for time spent planning and writing, were conducted on the first day of maintenance testing for all three groups. Group one's probe was administered on day 44 of the study, group two on day 48 and group three on day 52. Student time spent planning increased significantly over baseline as indicated by the data in Table 10 and further visual analysis in Figure 7.

The descriptive data for SRSD maintenance demonstrated student mean scores ($M = 06:31$, $SD = 01:26$) for time spent planning with a range (04:05 to 08:35) and ($M = 11:50$, $SD = 04:05$) with a range (08:47 to 21:36) for time spent on writing persuasive essays. Additional reports include the percentage of total time spent by students at SRSD maintenance was (36%) for planning and (64%) for writing. These indicated that substantive growth was sustained in student time spent planning and writing at SRSD maintenance.

Although students' continued to demonstrate gains in time spent planning and writing through maintenance, their times declined slightly from post SRSD. This was evidenced by a slight decrease in mean scores from post SRSD in both time spent planning and writing.

Individual student performance is illustrated in Figure 7. Between phase visual analysis of the time probe data indicated a rapid immediacy of effect from baseline as shown through positive slopes and high trends. In addition, in review of the percent of

non overlapping data from baseline to SRSD maintenance, all students demonstrated (100%) PND for both measures of time planning and time writing.

In review, the results from the time probes across all phases indicated an increase in the amount of time students' planned and wrote persuasive essay. The substantial change in the amount of time spent planning and writing further acknowledges the impact of both SRSD and SRSD + Content instructional phases on student planning and writing. In the following section, student interview data will be reviewed to include student comments regarding the time spent planning and writing their persuasive essays.

Social Validity Student Interviews

After posttesting, all of the students ($N = 8$) were interviewed to gather information about their strategy knowledge and their views of the intervention. Students completed individual interviews with the researcher after completion of the post SRSD + Content testing phase. Student interviews for group one took place on the 28th day of the study, for group two on the 31st day and group three on the 36th day of the study. Students were audio taped and the tapes were then transcribed and reviewed by the researcher. The research assistant reviewed the transcription for 100% accuracy before the researcher reviewed each transcription to ascertain common responses.

All of the students were able to recall the SRSD strategy POW+TREE components used in writing a persuasive essay. Each student proceeded to relay the words represented by the mnemonic POW+TREE with 100% accuracy in the responses. Students were then asked to draw the POW+TREE graphic organizer. Each student was also able to draw the graphic organizer from memory with almost 100% accuracy.

Students were then asked a series of questions written to allow students to express their views and opinions on their experience with the strategy. Comments from some of the students are illustrated in Table 11 and include answers to questions pertaining to what they liked most about the strategy and whether it has helped them to become better writers.

Table 11

Student Interview Comments after the Study Regarding the Writing Strategy

What did you like most about the POW + TREE strategy?
" I like that it was easy to use and to remember." (Adam)
" I learned how to organize my notes and to write more using the notes." (Bobby)
" Probably the fact that I got to learn something new and it wasn't just one of those that you have to learn that really doesn't really help you out that much, but this actually does really help you write better." (Mitch)
" It keeps me organized and I can use it in any subject." (Emily)
"It really helped me write better and it could also help me to write better essays in English." (Drew)
"I liked the transition words, you just write them down and they help you write you essay." (Wes)
"I liked that it was easy to remember and the planning." (Nate)
Has the strategy POW+ TREE helped you to become a better writer?
"I get to organize the notes, I know exactly where to write them and I can do that. I am a better writer." (Adam)
"It has helped me like picking ideas, organizing and writing it down really. And how to start it all, with sentences, explaining and the conclusion." (Wes)
"Now I am quick, before it took me a long time!" (Bobby)
"Yeah it actually does work. I was in one of my classes we were supposed to write an essay and I actually got a really good grade using this." (Matt)
"I plan now before I start to write my essays." (Todd)
"Yes, it makes my writing and essays much more organized. I used it today in English. I use POW+TREE now to write." (Drew)

Each of the eight students expressed positive comments and remarks when asked their opinions about the SRSD strategy POW+TREE instruction, all students also noted that it helped them to become better writers. Student responses to what they liked most about the strategy included three responses stating ease of use, "*It is easy to use and to remember*" (Adam). Other responses included *(n = 2)* who liked the transition words, and *(n = 2)* students expressed that organization was their favorite and one student focused on the ability to use the strategy in other classes. When asked whether the strategy had helped them to become a better all students expressed that it had helped them write, as illustrated by comments in Table 11.

When asked if they thought POW+TREE could help other students, *(n = 2)* responded that it would help others organize their writing *(n = 3)* responded that it would help because it was easy to remember. "*I think it could help other students because it is a pretty basic and easy to remember strategy*" (Matt). The rest *(n = 3)* stated that it would help other students plan their essays better.

Responses to what students might add or change about the strategy were consistent in that *(n = 7)* that they wouldn't add anything. One student said that they would add even more examples. As for changing the strategy, again *(n = 7)* responded that would not change anything. *"I don't know that I would change anything. It was pretty good"* (Drew). When asked whether they had used the POW+TREE strategy in other classes, one student responded that they had not whereas seven students responded that they had used it in classes such as English *(n = 4)*, Civics (*n = 2)*, and health *(n = 1)*. *"Yes, I used in English. It helped me write a great essay about Halloween. It was much*

better than before POW+TREE" (Bobby). As an aside, unsolicited, two Civics teachers came to the researcher to express how excited they were that two of the students in the study were writing good essay responses on tests for the first time this school year.

Students were also asked if they used counter arguments in their writing and if they thought that these types of arguments were important. All students responded that they now used counter arguments in their writing. Their responses were similar regarding the importance of using counter arguments in their writing. *"I think counter arguments are important because they show people's views that are not just yours. It's also meant to help you back up your opinion. I use them to show the contrary side of the argument when I write"* (Matt). Another response *"I use them to counterattack, so my ideas are stronger"* (Wes).

The final question asked students whether they thought that their time spent planning and writing had changed since learning the POW+TREE strategy. Responses were unanimous in that all students felt that they now spent more time planning and writing since the strategy instruction. *"Well, I spent more time planning and writing better because I learned this strategy. Before I spent time in front of the computer and just started to write or I wouldn't write at all"* (Matt). Another comment, *"I spent more time on both after I learned POW+TREE, I had a plan."* (Drew).

Overall, student responses indicated that students felt that learning the SRSD strategy POW+TREE and SRSD + Content instruction was a positive, worthwhile endeavor. The students expressed their excitement with their progress and the improvements that they saw in their writing after learning the strategy.

Summary

The analyses on all measures assessed in this study suggest that all of the students significantly improved their writing performance. Students wrote longer essays with logical sequences increasing their overall performance writing persuasive essays. Students were also able to use the strategy within the Civics content area as demonstrated again by increased overall performance measures. In addition, students further demonstrated their understanding of the strategy by their increase in responses to the strategy knowledge probe. Significant increases in planning and writing time were also noted in the study results. Finally student interviews provided insight and corroboration to the quantitative data. The following chapter provides a thorough discussion of major findings from the study.

5. DISCUSSION

The purpose of this study was to examine the effects of SRSD instruction with the POW+TREE strategy on the writing performance of middle school students with EBD. Eight, eighth grade students with EBD participated in the multiple baseline multiple probes design study (Kennedy, 2005). Student writing performance was evaluated at baseline, post SRSD, post SRSD + Content, maintenance, and generalization. The findings from this study indicated that students made significant gains from baseline in all written performance measures with persuasive essays, content specific persuasive essays, maintenance, and generalization essays. Students reported positive responses regarding their knowledge and implementation of the strategy. Students also significantly increased their time spent planning and writing from baseline across all phases. The discussion of major findings, educational implications, limitations, and recommendations for future research are addressed in the chapter.

Major Findings

The present study was intended to replicate and extend the previous SRSD research studies conducted with students with EBD in the middle school setting (Mastropieri et al., 2009; Mastropieri et al., 2010; Mastropieri et al., 2012). The current study extended the research in several ways. In this study SRSD instruction was modified by incorporating civic content area instruction with the SRSD strategy

POW+TREE. This was done to examine if, after learning the SRSD strategy with generic persuasive essay prompts, students would also use the strategy with successful outcomes using civics content area prompts. A second extension to the SRSD research was accomplished through the investigation into the amount of time students spent on planning and writing after instruction. The intent was to evaluate these changes to further quantify the impact of strategy instruction on student writing performance by investigating this aspect of student behavior.

Overall findings indicated that (a) all students made significant gains from baseline across all phases in number of words, sentences, paragraphs, transition words, essay parts and overall holistic quality, (b) students were able to utilize the SRSD strategy to significantly improve their writing performance in the content area of civics, (c) student performance at maintenance and generalization was higher than baseline but slightly lower than performance from both post treatment phases, (d) student planning and writing times increased significantly from baseline across all phases, (e) student attitudes and perceptions regarding use of the strategy were positive following strategy intervention, and (f) intervention instruction time was efficient due to implementation by school teachers and staff.

Writing Performance

This study investigated student writing performance at baseline, post SRSD, post SRSD + Content, maintenance and generalization. Essays were scored using six measures; number of words, sentences, paragraphs, transition words, parts of a persuasive

essay, and holistic quality. The major findings from these measures by phase are discussed further in the following sections.

Post SRSD intervention performance. All students at post SRSD testing experienced significant gains from baseline in the six elements assessed regarding writing performance. This study's findings support previous SRSD research conducted with middle school students, with and without EBD, regarding the effectiveness of the SRSD strategy and the improvement of student writing performance. These studies, (Mason et al., 2010, Mastropieri et al., 2009; Mastropieri et al., 2010; Mastropieri et al., 2012) conducted with students with EBD all found that SRSD was an effective strategy that improved the length, essay parts and overall quality of persuasive essays written by middle school students with EBD.

Two studies (Mastropieri et al., 2009; Mastropieri et al., 2012) are most similar to the current study with regard to a multiple baseline design, with eighth grade middle school students with EBD who received SRSD lesson instruction in a small setting. Mastropieri et al. (2009) included a multiple baseline, multiple probe study and SRSD instruction and fluency with twelve, eighth grade, middle school students with severe EBD in a small instructional setting in a public day school. The Mastropieri et al. (2012) study included a multiple baseline, multiple probe study and SRSD instruction with twelve, seventh and eighth grade, middle school students with EBD in small instructional settings in a public school.

The findings of the current study are further supported by the similar gains in student achievement in all elements of writing performance as reported by both

Mastropieri et al. (2009; Mastropieri et al., 2012) studies. Percent increases were calculated from reported total mean scores from baseline to post SRSD intervention from the Mastropieri et.al (2009; Mastropieri et al., 2012) studies and compared to the current study findings (see Table 12). The current study reported gains in six measures with percent increases of (233%) for number of words, (288%) for number of sentences, (390)% for number of paragraphs, (310%) for number of transition words, (481%) for number of essay parts, and (456%) for holistic quality. The Mastropieri et al. (2009) study reported overall gains in five measures with percent increases of (394%) for number of words, (741%) for number of paragraphs, (471%) for number of transition words, (198%) for number of essay parts, and (153%) for holistic quality.

The Mastropieri et al. (2012) study reported overall gains in six measures with percent increases of (237)%for number of words, (269%) for number of sentences, (437)% for number of paragraphs, (822%) for number of transition words, (219%) for number of essay parts, and (159%) for holistic quality. Notably, all performance measure mean scores demonstrated significant increases from baseline to post SRSD testing. These results further support the effectiveness of the intervention of SRSD instruction regarding student scores across all measures.

Another study by Mastropieri et al. (2010) also investigated writing performance across multiple measures and reported significant gains in student performance (see Table 12). This design study investigated the writing performance of 10 students with severe EBD subsequent to SRSD instruction. This study reported overall gains in five measures with percent increases of (179%) for number of words, (312%) for number of

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paragraphs, (589%) for number of transition words, (95%) for number of essay parts, and

(70%) for holistic quality.

Table 12

Study comparisons for percent of increase based on overall student means from baseline to post SRSD testing

Study			Post SRSD Number Paragraphs	Measures Transition Words	Essay Parts	Holistic Quality
	Number Words	Number Sentences				
Mastropieri et al. 2009 (N = 12)	394%	NA	741%	471%	198%	153%
Mastropieri et al. 2010 (N = 10)	179%	NA	312%	589%	95%	70%
Mastropieri et al. 2012 (N = 12)	237%	269%	437%	822%	219%	159%
Hauth Dissertation (N = 8)	233%	288%	390%	310%	481%	456%

The percent increase data contains some notable difference between studies. The

differences from the current study may be explained by differences reported for the

amount of instruction time needed for these students to master the elements of persuasive

writing, student characteristics in terms of level of EBD services, and differences in the

type of instructional staff.

In the Mastropieri et al. (2009) studies instruction was delivered four days a week

in sessions that were 30 minutes each. There were 55 total sessions or 29 hours of

instruction where students received an average of 43.3 days of instruction. Students were also characterized as requiring more intensive EBD services noted by their placement in a public day school for students with EBD. Student behaviors were reported to have impacted student instructional time as students were often absent due to attendance issues which included meetings with counselors, crisis resource counselors, and teachers.

For the Mastropieri et al. (2010), individuals received instruction four days per week, for 29 minute sessions. Total instructional time was reported as 55 sessions or 26.6 hours of instruction with individual students receiving a mean of 42.2 total days of instruction. As with the previous study, students were notably missing from instructional sessions due to suspensions and their need for meetings with counselors, crisis resource counselors, and teachers. Students in this study also attended a more restrictive public day school for students with EBD. These two studies required longer instructional periods than the current study and Mastropieri (2012). Indicating a lengthier intervention period was needed for students with more significant emotional and behavior needs.

The Mastropieri (2012) study however, reported intervention instructional time as 35 days with an average of 15.4 sessions of instruction. This was similar to the current study in terms of instructional time. The second phase of instruction was completed within 3 sessions for this study. Students in this study attended a public school with an embedded support program for students with EBD. Student attendance rates were higher due to a lesser need for intensive EBD services.

The current study reported a total of 20 days with an average of 6.7 sessions per group and a mean of 5.4 hours of instruction within the first instructional phase, SRSD

intervention. The second instructional phase, SRSD + Content, took place over 9 additional days with an average of 3 sessions per group and a mean of 2.25 hours of instruction. In addition, the findings from this study demonstrated fewer hours needed for student mastery of the strategy. The Mastropieri (2012) and the current study are more representative of instructional time available for writing instruction in a traditional English classroom. Thus the positive results from these studies may be more readily applicable and integrated into a traditional classroom. This may also be due to the fact that both the current study and the Mastropieri (2012) studies had students with less significant emotional and behavioral concerns.

Another explanation for differences in amount of time for instruction as reported by these four studies may be due to the type of instructor. The Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012) studies instructional delivery was with graduate research assistants. The current study, however, employed educators who worked in the building. The shortened time for instruction may also be explained by the instructors' familiarity with the students and school environment. These results are similar to the study findings by Cuenca-Sanchez et al. (in press). This experimental design study investigated teachers as interveners using the SRSD strategy intervention with middle school students with EBD. This study reported that decreased instructional time may be due to teacher familiarity and the subsequent decrease in student off task behaviors. It must also be noted that the Cuenca-Sanchez et al. (in press) study results are different in that this was an experimental group design and not a single subject design which may have also affected the findings. Further research might investigate these

relationships, design types, and SRSD instructional time, and their effects on student writing performance on persuasive essays.

The current study replicated the SRSD strategy intervention research of Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012) indicating significant results in teaching students with EBD to use the SRSD, POW+TREE strategy to write persuasive essays. The current study's results differ from the Mastropieri studies in the several ways. The current study extended the investigation of SRSD strategy instruction by adding a second instructional phase using SRSD lessons to teach students to write persuasive essays with civics content. The following section discusses the findings from this study's results regarding student performance with the second instructional phase and the use of the SRSD strategy with civics content.

Post SRSD + Content intervention performance. The current study extended SRSD instruction using lessons in the content area of civics to investigative student use of the SRSD writing strategy in this content area. Students were administered three additional lessons with an average of 2.25 hours of instruction ranging from 2 to 2.75 following SRSD posttesting. This instruction incorporated standards based civics content with the SRSD lesson format. Following instruction, students were given a civics writing situation and the choice of two prompts to write persuasive essays. A total of five essays were administered in the post SRSD + Content phase. Student performance was scored for total number of words, sentences, paragraphs, transition words, essay parts and holistic quality. All students at post SRSD + Content testing experienced significant gains from baseline in the six elements assessed regarding writing performance. Percent

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increases from baseline means demonstrated increases in number of words (265%),

sentences (337%), paragraphs (470%), transition words (292%), essay parts (550%), and

holistic quality (514%).

The research base for the inclusion of content area in conjunction with the SRSD

strategy for writing persuasive essays which regarding students with disabilities is very

limited. One comparable study (De la Paz, 2005) incorporated an experimental design

with history content, and the SRSD strategy, to teach students with and without

disabilities to write persuasive essays. In this study, of the 132 students, 70 were in the

experimental group and of these students one was a student with multiple disabilities and

11 were identified as students with LD. The students were instructed on SRSD writing

strategy with history content and scored for two measures similar to the current study,

essay length in words and a quality score regarding persuasive essays. Results indicated

that all of the students with disabilities scored below their nondisabled peers, however

comparative mean score data indicated that they performed better than at baseline. The

percent increase for mean length was (67%) and for mean persuasive quality was (52%).

The results from the De la Paz (2005) study support the need for additional studies on

strategy instruction embedded with content.

The current study results are different in many ways. The current study employed

a single subject, multiple baseline, multiple probe design, student characteristics included

students with EBD and a civics content area was used. This study was the first to

demonstrate positive results using civics content with the SRSD strategy instruction with

students with EBD. Results indicated that students successfully used the SRSD strategy with content area instruction.

Though promising results, they are addressed with caution as additional studies using content area embedded with SRSD instruction should be conducted with this population. Although a part of the national school reform agenda with standardized testing, teaching students with EBD to write from content area prompts has yet to be fully investigated. Students with EBD are required to participate with their disabled and nondisabled peers in national, standards based, high stakes assessments (NCLB, 2001). As national assessment standards include student writing components across genres and topics, additional research is needed to support strategies that are effective with this population.

Generalization performance. In the current study, a generalization prompt was administered to students through their math classrooms as a warm up activity on day 36. This was done to ascertain whether students could transfer their persuasive writing skills knowledge in math classes. Math was selected due to a school wide initiative to increase writing in all core subjects at the school. Similar to two previous SRSD studies (Mastropieri et al., 2010; Mastropieri et al., 2012) student essay scores demonstrated significant increases from baseline. Similar to maintenance measures, not all of the six writing elements sustained the scores from post SRSD testing to generalization.

In the current study percent increases in the mean scores from baseline to generalization were for number of words (246%), sentence (304%), paragraphs (426%), transition words (283%), essay parts (548%), and holistic quality (525%). Student

performance at generalization was slightly lower in only one area from post SRSD testing

as evidenced by overall mean differences of (-6%) for transition words The five other

measures however, were maintained or increased slightly from post SRSD testing with

percent increases in number of words (4%), sentences (4%), paragraphs (3%), essay parts

(11%), and holistic quality (12%). In reporting findings for generalization phase, it is

evident that students' scores from baseline demonstrated significant gains, with minor

differences in scores from post SRSD and SRSD maintenance phases. These results are

similar to results reported by Mastropieri et al. (2012) in that those students maintained

gains from baseline but showed mixed results from post SRSD to generalization.

Similarities and differences from the current study and those conducted by

Mastropieri et al. (2012) are evidenced by the percent increase and decrease data from

baseline to generalization phases in Table 13. Differences from the current study in data

may also be attributed to conditions listed earlier regarding length of instruction, student

characteristics regarding attendance and teachers as interveners.

Table 13

Study comparisons for percent of increase from baseline to SRSD generalization based on overall student means

Study	Generalization Measures					
	Words	Sentences	Paragraphs	Transition words	Essay parts	Quality
Mastropieri et al. 2012* (N = 12)	203%	247%	398%	778%	219%	173%
Hauth Dissertation (N = 8)	246%	304%	426%	283%	548%	525%

Previous SRSD studies have also reported that generalization scores tend to decrease however they remain higher than baseline measures (Mastropieri et al., 2009; Mastropieri et al., 2010; Mastropieri et al., 2012; Mason et al., 2010). The findings from the current study are supported by these studies however; students did demonstrate the ability to generalize their knowledge in five out of six writing measures from posttesting. This may be due to the setting and timing of the generalization measure. In the current study, generalization probes were administered in a week after SRSD posttesting and given in the students' math classrooms. Further investigation is needed to ascertain whether or not setting and timing of the generalization probe has an effect on student writing performance on generalization measures. Generalization to content areas had not been addressed as an additional instructional phase as part of the total SRSD instruction.

Post SRSD Maintenance performance. In the current study, SRSD maintenance was assessed 20 school days, or four weeks after the completion of both

SRSD instructional phases. Students were given the choice of two writing prompts and asked to write a persuasive essay. Overall performance measures maintained significant gains from baseline for all students at SRSD maintenance. Percent increases in the mean scores from baseline to maintenance were for number of words (207%), sentence (276%), paragraphs (426%), transition words (267%), essay parts (495%), and holistic quality (474%). Student performance at SRSD maintenance was slightly lower in three areas from post SRSD testing as evidenced by overall mean differences of (-7%) for number of words, (-3%) sentences, and (– 11%) transition words Other measures however were maintained or increased slightly from post SRSD testing with percent increases in number of paragraphs (3%), essay parts (2%), and holistic quality (3%). In reporting findings for SRSD maintenance phase, it is evident that students' scores from baseline demonstrated significant gains with minor differences in scores from post SRSD and SRSD maintenance phases. Previous SRSD studies have reported similar results at maintenance (Mastropieri et al., 2010; Mastropieri et al., 2012). The studies reported by Mastropieri et al. (2010; Mastropieri et al., 2012) demonstrated that students maintained their gains from baseline but showed mixed results from post SRSD intervention and maintenance.

Similarities and differences from the current study and those conducted by Mastropieri et al. (2010; Mastropieri et al., 2012) are evidenced by the percent increase and decrease data from baseline to maintenance phases in Table 14.

Table 14

Study comparisons for percent of increase from baseline to SRSD maintenance testing based on overall student means

Study	Words	SRSD Sentences	Maintenance Paragraphs	Measures Transition words	Essay parts	Quality
Mastropieri et al. 2010 (N = 10)	110%	NA	195%	133%	67%	46%
Mastropieri et al. 2012* (N = 12)	203%	252%	353%	767%	227%	175%
Hauth Dissertation (N = 8)	207%	276%	426%	267%	495%	474%

Differences from the current study in data may also be attributed to conditions listed earlier regarding length of instruction, student characteristics regarding attendance and teachers as interveners.

The Mastropieri et al. (2010; Mastropieri et al., 2012) studies include significant percent increases from baseline to maintenance across all measures. These findings are similar to the current study also include the slight decrease in some measures from post SRSD testing and maintenance which both Mastropieri studies identified in their findings. The lower measures from post SRSD testing suggest that students with EBD may need more instruction or booster sessions to maintain consistent performance levels. Future studies may investigate this further by increasing the periodic review of writing instruction throughout the school year.

Post SRSD + Content Maintenance performance. The current study also reported positive findings for SRSD + Content for maintenance. No other studies have reported maintenance findings for content area essays written with SRSD instruction. The current study demonstrated that students who completed the SRSD + Content instruction, maintained significant results from baseline. SRSD + Content maintenance measures were conducted 21 school days post SRSD + Content testing for all students. Students were asked to choose from two prompts and to write a persuasive essay from a civics content writing situation. Results were similar to the maintenance results for SRSD maintenance testing. Percent increases from baseline means demonstrated increases in number of words (247%), sentences (352%), paragraphs (476%), transition words (317%), essay parts (495%), and holistic quality (491%).

Also noted are the similarities from the first phase performance at post SRSD and SRSD maintenance, and the performance from post SRSD + Content and SRSD + Content maintenance measures. At SRSD + Content maintenance, students maintained significant scores from baseline, but experienced mixed results from post SRSD + Content essay measures as indicated by decreases in; number of words (-5%), essay parts (- 9%) and holistic quality (-4%) and increases in number of sentences (3%), paragraphs (1%), transition words (6%).

The inclusion of maintenance results in the SRSD + Content venue further indicated student success with the incorporation of content area and SRSD strategy instruction. Similar to recommendations for previous maintenance measures, students may need additional instruction on an intermittent basis throughout the writing

curriculum during the school year. Again, the author notes with caution that further studies incorporating content area instruction with the SRSD strategy for writing persuasive essays is needed.

Knowledge of Persuasive Essay Parts

Students were administered persuasive essay knowledge probes during each phase of the study to include baseline, SRSD instruction, post SRSD, post SRSD + Content, and SRSD maintenance. This was done to examine student knowledge of the parts of a persuasive essay. Successful recall of the parts of a persuasive essay included student listing of topic sentence, reasons, counter reasons, explanations and ending. The results from this measure at both posttest phases and maintenance indicated that students had learned the parts of a persuasive essay and maintained that knowledge through maintenance probes. This finding replicates previous study findings in that students' demonstrated growth in identifying persuasive essay parts after learning the POW+TREE strategy during both instructional phases. Studies by Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012) also demonstrated significant results in that at the conclusion of intervention, all students were able to successfully identify all parts of the persuasive essay.

Time Planning and Writing

Previous research has demonstrated the importance of strategy instruction in either planning or revising improves students' writing performance. (De La Paz & Graham, 2002). Although the acknowledgement has been made regarding the importance of planning time and student writing, limited research has been conducted on

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the amount of time students spend on planning and writing after SRSD strategy

instruction for persuasive essays. One study, by Troia, Graham and Harris (1999)

reported the time spent on planning and writing in a study with three, fifth grade students

with LD. This study incorporated the SRSD strategy to teach students to write in

multiple genres, including persuasive essays. The results from this study indicated that

planning and writing time increased from baseline as did the quality scores for persuasive

essays. There were significant changes in the students' planning behavior following

instruction, and all three students used the strategy to write essays during the posttesting

and maintenance phases of the study. It is noted that similar to the current study, students

spent almost no time on planning at baseline, and results were not reported in minutes.

For essays at posttesting, students increased their planning time means from ($M = 0$) at

baseline to ($M = 65.03$, $SD = 71.04$) and their writing time means by ($M = 10:36$, $SD =$

4.39) and ($M = 41.10$, $SD = 40.17$). Students' maintenance scores also demonstrated

increases for planning from baseline. Maintenance scores also increased for planning

time but decreased in writing time from posttesting.

The current study differed from the Troia, Graham and Harris (1999) study in that

it supported SRSD and SRSD + Content instruction for persuasive essay writing with

middle school students with EBD. The current study extended the limited research in this

area by investigating how much time students spend on planning and writing after both

SRSD instruction and SRSD + Content instruction. The researcher conducting

videotaped time probes across multiple phases of the study. Students with EBD were

videotaped during day three of baseline, post SRSD, post SRSD + Content and the first

day of SRSD maintenance. The researcher found significant increases in the amount of planning and writing time for all students across all phases from baseline. Findings are presented in the following sections.

Planning time results. Student planning time increased significantly from baseline across all phases. Student planning increased from baseline ($M = 0$) to post SRSD ($M = 6:38$, $SD = 2:27$). Increases in planning time from post SRSD + Content were also significant, demonstrating a ($M = 8:39$, $SD = 1:45$) indicating large gains in planning time. Maintenance increases from baseline were also significant with ($M = 6:31$, $SD = 1:26$) demonstrating the students' ability to maintain their increase in planning time. As reported in previous sections, essay scores for the six scored components also increased significantly across all phases from baseline.

Writing time results. Student writing time also increased significantly from baseline across all phases. Baseline mean for writing time was ($M = 3:05$, $SD = 2:10$). Students' demonstrated a (373%) increase regarding writing time at post SRSD ($M = 14:35$, $SD = 5:48$) from baseline writing means. Increases from post SRSD + Content were also significant demonstrated by (298%) percent increase from baseline. Time spent writing also increased (284%) from baseline to maintenance. Also noted in the previous sections are the significant percent increases in all essay scoring measures across phases.

The study states, with caution, the findings of a functional relationship between the increases in planning and writing time and the increases in overall scores for students with EBD. Additional research in this area is needed to further demonstrate the

importance of planning and writing time increases and the writing performance of students with EBD with both generic and content specific writing prompts. Understanding this structure of increased planning and writing time may increase the ability of teachers to instruct students on effective strategies for writing both across the curriculum and on high stakes assessments.

Social Validity Student Interviews

Students were interviewed at the conclusion of the instructional phases. Findings from students' social validity interviews demonstrated that the students learned the strategy by their accurate recall of the POW+TREE mnemonic. All of the students were also able to draw an example of the POW+TREE graphic organizer that they had learned during instructional phases. All of the students reported that they had learned the strategy and that they felt that they were better writers after intervention. They stated that the strategy was useful because it was "easy to remember" and implement when writing persuasive essays. In addition students found that the strategy helped them to become "better writers," and expressed responses similar to "I plan now before I start to write my essays." All of the students felt that other students would also benefit from learning the strategy. Seven students also reported that they had used the strategy outside of the study in classes such as English, health and civics. These findings are similar to those reported by students in studies by Mastropieri et al. (2009; Mastropieri et al., 2010; Mastropieri et al., 2012) and Mason et al. (2010).

Educational Implications

There are educational implications to be considered based on the findings of this study. The results from this study in combination with previous studies purport a strong need for SRSD strategy instruction for students with EBD. Students with EBD benefit from specific writing instruction when incorporated with self regulatory skills.

In conjunction, content area instruction should be embedded with SRSD instruction for students with EBD. Generalization of the SRSD skill set to content area writing supports student knowledge and application of the SRSD strategy across disciplines. Both SRSD and the inclusion of content specific instruction could have additional implications for student performance on high stakes testing.

Results indicated that once students learned the SRSD strategy with both the generic and content area instruction their time spent planning and writing significantly increased. This has implications for education in that teachers may need to allocate adequate time for student planning and writing into their lessons.

The overall results of this study add to the existing body of research on SRSD writing strategy instruction for middle school students with EBD. Additional significant results regarding use of the writing strategy within the civics content area as well as the investigation into the amount of time students use to plan and write their essays establishes a need for additional research in this area.

Evidence based practice. Critical to the research base is the inclusion of evidence based practices for this population. The current SRSD study was designed to address the quality indicator criteria used to establish an evidence based practice in single subject research as outlined by Horner et al. (2005). The current study meets the

essential quality criteria of an evidence based practice in the following ways; (a) a thorough description of participants and setting was reported, (b) dependent variables were detailed, valid, quantifiable, measured repeatedly, and reliable via inter-observer agreement, (c) thorough description of the independent variable with high measurement of fidelity of implementation were reported, (d) baseline conditions were described and baseline phase was stable before intervention, (e) the design provided five demonstrations of experimental effect at five different points in time, multiple baseline with multiple probe design, (f) external validity was addressed with experimental effects which were replicated across participants, and (g) social validity was addressed as noted by the importance of interventions for this population of student.

The current study taken together with previous ED SRSD studies begins to meet the evidence based practice criteria for single subject research as outlined by Horner et al. (2005). The current criteria designates that the practice must (a) be supported with a minimum of five studies which have a combined number of participants of at least 20, (b) published in peer reviewed journals, and (c) conducted by three different researchers across at least three geographic locations.

Limitations

There are several limitations to the current study. To begin, the sample size of the current study is relatively small. However, the sample size for a single subject study with such a small population is considered sufficient. Additional replication is needed with students with EBD to increase the external validity.

Another limitation to this study is the lack of research in SRSD content area instruction and investigation into planning and writing time for students with EBD. This study was limited to three additional days of writing instruction within the content area of civics. Additional studies are needed to address the inclusion of strategy instruction embedded in content area classroom instruction. Therefore this study requires replication in order to support the current study findings.

The instruction in the study was limited to SRSD instruction and students with EBD. Additional strategies or combinations of strategies that include writing mechanics such as spelling, grammar, capitalization, punctuation and revision are needed to expand the knowledge base on what works for students with EBD. This population needs more instruction on all aspects of writing to demonstrate comparable results with their nondisabled peers. To achieve successful results on educational assessments, which are graded on aspects of structure and mechanics, additional studies are needed with students with EBD which incorporate these elements.

Furthermore, this research did not collect data concerning student performance on high stakes year end writing assessments. This data would be beneficial for teachers, administrators, and researchers to know the effects of the SRSD writing strategy on the writing performance of students with EBD on high stakes tests.

Recommendations for Future Research

Future research may address the limitations of the current study. Replication and extension of this study with a larger population would be beneficial to the research base on academic writing instruction for students with EBD. In addition future studies should

incorporate SRSD in conjunction with content area instruction across disciplines such as civics, science, and history to encourage student mastery and application in multiple subject areas.

Future research may also investigate other writing behaviors such as revision, sentence structure, grammar, and punctuation while implementing the SRSD strategy writing instruction. Students with EBD must be taught using effective strategies which address both the structural and mechanical aspects of writing essays across genres. Additional strategy research investigating and incorporating these topics are needed to address student assessments at all levels. This is also extremely relevant based on the need for competent writing skills needed by students with EBD throughout their academic careers and beyond.

Finally additional research is warranted in the area of student performance on high stakes writing assessments. Researchers should study the effects of the SRSD writing strategy on the writing performance of students with EBD on year-end high stakes assessments.

Conclusions

As stated previously, the intent of this study was to replicate and extend previous SRSD research for middle school students with EBD (Mastropieri et al. 2009, 2010, 2012). The study extensions included the investigation of content area instruction with SRSD (De la Paz, 2005) and students with EBD. In addition, the current study extended research by tabulating the time spent planning and writing persuasive essays for this population (Troia, Graham & Harris, 1999). As discussed, findings of this study

indicated improved student writing performance for persuasive writing for middle school students with EBD. The results of the study add to the research base with supported evidence of writing performance for students with EBD embedded with content area instruction. In addition, findings concerning students' increased time spent planning and writing demonstrate a connection with learning a specific strategy skill. These findings add to the growing body of research needed to adequately address the diverse needs of students with EBD.

Writing to Persuade Learning Contract

Student _____ Date: _____

Teacher _____

Target Completion Date: _____

Goal: _____

_____

_____

How to meet this goal: _____

_____

_____

_____

Signatures: Student _____

Teacher _____

....

_____

has successfully completed instruction on _____

and agrees to use it in _____

_____

Date: _____ Student: _____

Teacher: _____

Topic sentence
Reasons (*3* or more)
Counter Reasons (1 or more)
Explain reasons

Ending and Examine

POW+TREE

T **TOPIC** Sentence
What do I believe?

| |
| |

TW **R** **REASONS** -3 or more
Why do I believe this?
Will my readers believe this?   **E** **EXPLANATIONS**
Say more about each reason.
What details will persuade my reader?

	CR COUNTER REASONS -1 or more. What would my audience think? How can I argue his/her believe?	**E EXPLANATIONS** Say more about why you refute their belief. What details will persuade my reader?

E **ENDING**
What do I want my reader to remember?

| **TW for ending** _____ |
| |

Transition Words

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	Conversely	On the contrary
Yet	Instead	On the other hand	
_____	_____	_____	

Words you can use to conclude your essay

In conclusion	In short	On the whole
To summarize	In general	In sum
_____	_____	_____

Skateboards at the Mall

I think teenagers should be allowed to use skateboards at shopping malls. There are three reasons why I believe this. First, teenagers who use skateboards get places faster. Some malls like Tyson's Corner are really big and it takes a long time to walk from one end to the other. Second, shopping malls provide a lot of opportunities to practice tricks. The long railings and ramps are perfect for practicing jumps and slides. Finally, shopping malls are safer than streets. Skateboarders don't have to worry about getting hit by a car. Yet, some people might think that skateboarders could hit shoppers at the mall. Skateboarders could hurt shoppers. However, it would be safer to skateboard at the mall than in busy streets. In conclusion, teenagers should be allowed to use skateboards in shopping malls.

Keep Skateboarders Out of the Mall!

I do not think teenagers should be allowed to use their skateboards at shopping malls. There are three reasons why I believe this. First, someone could get hurt because there is not enough space to skateboard. Malls are not built to handle skateboarders. Second, someone could run into and hurt someone shopping. Shoppers are paying more attention to the stores than to kids doing tricks. Third, shopping malls do not allow skateboards on their property. Skateboarders could get kicked out of the mall or get a fine. However, some people might think that skateboarding at the mall is safer than skateboarding in the street. Skateboarding at a mall is safer than skateboarding in a busy street. Nevertheless, the mall is for shopping, not for skateboarding. In conclusion, teenagers should not be allowed to use skateboards at shopping malls.

Baseline

Directions for Prompts

Give each student a piece of blank lined paper and a pencil and copies of paper containing the two prompts.
Say: "*Please write your name and date on the top of the paper.*"

Then say: "*Please listen carefully as I read the prompts.*" Read prompts out loud to the students. "*Please write an essay response to one of the prompts on your paper.*" Read the prompts out loud again to the students.

When the students are finished writing, collect all pencils and papers. They may not make corrections at this time. Be sure to make notes of words that you may have difficulty reading in later transcription.

Essay Prompts:

Day 1: with knowledge probe
Is it better to live in the city or the country?
Should students your age have a set bedtime?
Day 2:
Should students your age be allowed to have a TV in their room?
Should pets like dogs or cats be inside or outside animals?
Day 3: with knowledge probe
          with timed planning/writing probe
Should there be a homework limit for middle school age students?

Should schools start later in the morning for students your age?
Day 4:
Is it better to have a bird or a fish as a pet?
Should parents restrict what type of music you listen to?
Day 5: with knowledge probe
Should the age for obtaining a drivers license be raised from 16 to 17?
Should classes or schools be separated by girls and boys?

Direction for Strategy Knowledge Probe (days 2, 3,5)

Pull students one by one to an area out of ear shot of other students to administer probe. Then ask student orally the parts probe as they turn in their essay: "What are the parts of a good persuasive essay?"

After a minute, if they have not responded, say to the student, "It is ok if you do not know."

Post-test Essay Prompts Phase I – SRSD POW+TREE

PROMPTS

Directions for each day, instructor please read:

Instructor: Pass out pencils, lined paper and prompts page, read:

"Today we are writing an essay by ourselves. Please use the paper you have been given, write your name and today's date at the top of the page. There is no time limit for this essay. Listen while I read the prompts out loud. Please pick one and begin writing."

POST SRSD DAY 1

Would you rather receive a $30 gift card as a gift or receive a sweater as a present?

Which would you rather have to take pictures with: a digital camera, or a disposable camera?

POST SRSD DAY 2

- **Should students your age be allowed to go to the home professional sports (i.e., Redskins, Wizards, Nationals, Capitals, and etc.) games alone?**

- **Should students be able to buy food from vending machines in school?**

POST SRSD DAY 3

- **Should students your age have to do chores at home?**

- **Should people have to finish college before they can play professional sports?**

POST SRSD DAY 4

- **Should students your age have a summer job?**

- **Should school limit the types of foods that students can eat?**

POST SRSD DAY 5

- **Persuade your mom/dad that you are old enough to stay at home alone.**

- **Should kids under age 15 have a Facebook page?**

Example Day 1 Baseline – Student Sheet

Name_____
　　　　Date_____

Please write an essay response to one of the following questions in the space below.

Is it better to live in the city or the country?

Should students your age have a set bedtime?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

STANDARD CE.3e

The student will demonstrate knowledge of citizenship and the rights, duties, and responsibilities of citizens by

e)   evaluating how civic and social duties address community needs and serve the public good.

Essential Understandings	Essential Questions	Essential Knowledge	Essential Skills
A democratic society requires the active participation of its citizens.	In what ways do citizens participate in community service?	**Ways for citizens to participate in community service** • Volunteer to support democratic institutions (e.g., League of Women Voters). • Express concern about the welfare of the community as a whole (e.g., as related to environment, public health and safety, education). • Help to make the community a good place to work and live (e.g., by becoming involved with public service organizations, tutoring, volunteering in nursing homes).	Identify a problem, weigh the expected costs and benefits and possible consequences of proposed solutions, and recommend solutions, using a decision-making model. (CE.1f)

STANDARD CE.4a, b, c, d, e, f, g

The student will demonstrate knowledge of personal character traits that facilitate thoughtful and effective participation in civic life by
a) **practicing trustworthiness and honesty;**
b) **practicing courtesy and respect for the rights of others;**
c) **practicing responsibility, accountability, and self-reliance;**
d) **practicing respect for the law;**
e) **practicing patriotism;**
f) **practicing decision making;**
g) **practicing service to the school and/or local community.**

Essential Understandings	Essential Questions	Essential Knowledge	Essential Skills
Thoughtful and effective participation in civic life depends upon the exercise of good citizenship.	How do individuals demonstrate thoughtful and effective participation in civic life?	**Personal traits of good citizens** • Trustworthiness and honesty • Courtesy and respect for the rights of others • Responsibility, accountability, and self-reliance • Respect for the law • Patriotism • Participation in the school and/or local community • Participation in elections as an informed voter Effective participation in civic life can include • formulating questions • analyzing information from a variety of sources • expressing a position • devising and implementing a plan	Formulate an informed, carefully reasoned position on a community issue. (CE.1g)

POST SRSD + Content Essay Prompts
Instructor: please pass out pencils, lined paper and prompt and read aloud the following statement. "Today we are writing an essay by ourselves. Please use the paper you have been given, write your name and today's date at the top of the page. There is no time limit for this essay. Listen while I read the prompts out loud. Please pick one and begin writing."

Day 1 *Writing Situation Civics Standard CE3*: Many schools require all students to perform some type of community service such as working in nursing homes, hospitals or schools.

Prompt 1: Persuade the reader that students should or should not be required to perform community service.

Prompt 2: Persuade your friend to volunteer with you at the local elementary school recycling event.

Day 2 *Writing Situation Civics Standard CE4:* In some countries, students are responsible for the basic daily cleaning of their school buildings. Fifteen minutes are set aside each day for all students to sweep, dust, and clean their classrooms and corridors.

Prompt 1: Think about how you would feel if students were responsible for cleaning your school. Do you agree or disagree that American schools should adopt this policy?

Prompt 2: Persuade your friend to stay after school and clean up around the grounds of the school building.

Day 3 *Writing Situation Civics Standard CE3*: Current research suggests that because teenagers have different sleep patterns they would benefit from beginning the school day at a later time. Suppose your Board of Education has proposed that all high school schedules begin at 9:30 a.m. and end at 4:30 p.m.

Prompt 1: Do you agree or disagree that this later schedule would be beneficial? Write an essay in which you persuade the Board of Education to agree with your opinion.

Prompt 2: Your principal has decided to change the schedule so that first period is Falcon Time or study hall to help student wake up and start their day. Write an essay persuading other students to support or not support this decision.

Day 4 *Writing Situation Civics Standard CE4 :* The state department of education has provided funding for an experimental online school. All the classes will take place on the Internet, using email, online chat, and the world wide web. The students taking classes at this new online school will never meet each other face-to-face. They will only interact online with each other and with their teachers.

Prompt 1: Write an essay persuading the state department of education to support/not support this type of school.

Prompt 2: Write an essay persuading the principal to have on-line classes for either the first half of the day or the second half of the day.

Day 5 *Writing Situation Civics Standard CE4:* Assume that you have a friend and classmate who always wants to be in your group or to work with you on a project, but then does little of the work. The person is nice enough and smart enough to do it, but somehow the results are always the same. You end up doing most of the work and that person gets the same grade as do you.

Prompt 1: Write a persuasive essay to convince your friend to carry his or her share of the work.

Prompt 2: Write a persuasive essay to the teacher asking that the group project be graded individually.

Generalization – Math warm up – posted using a Smartboard or ELMO
Instructor: **Today we are writing an essay for our math warm-up. Please use the paper you have been given, write your name and today's date at the top of the page. There is no time limit for this essay. Listen while I read the prompt out loud.**

Persuade your friend to follow the steps for order of operations, or PEMDAS (parenthesis, exponents, multiplication/division, addition/subtraction), when solving a math problem.
Maintenance: SRSD Prompt
Instructor:
Today we are writing an essay by ourselves. Please use the paper you have been given, write your name and today's date at the top of the page. There is no time limit for this essay. Listen while I read the prompts out loud. Please pick one and begin writing.
- **Should freshmen in high school be allowed to go off campus for lunch?**

- **Is it better to talk to a friend by texting or talking on the phone?**

Maintenance: SRSD+ CONTENT Prompt
Instructor: **Today we are writing an essay by ourselves. Please use the paper you have been given, write your name and today's date at the top of the page. There is no time limit for this essay. Listen while I read the prompts out loud. Please pick one and begin writing.**

- *Writing Situation*: **Some people have said that the schools in the United States are not as good as the schools in other countries because students do not spend enough time in school. Your school district is trying to decide whether to have students go to school on Saturday mornings in order to have more time to learn.**

   Prompt 1: **Write an essay to persuade your principal that school should or should not be on Saturday mornings.**
   Prompt 2: **Write an essay to persuade your teacher that you do or do not need to attend Saturday Morning School.**
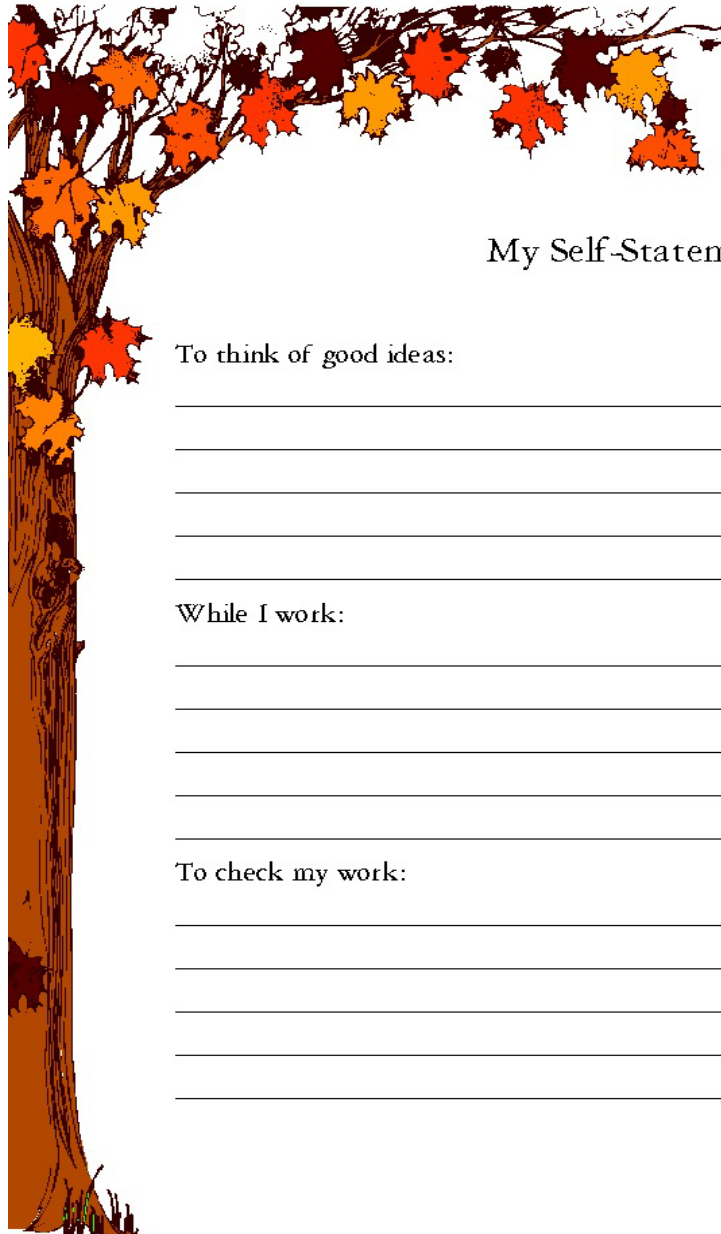
My Self-Statements

To think of good ideas:

_____
_____
_____
_____

While I work:

_____
_____
_____
_____

To check my work:

_____
_____
_____
_____

Student Name: _____POW+TREE Record Sheet

Use this sheet to track how you did and what you complete each day. Look at the example on the first column. Rate how well you did today - ☺ ☺ ☹

Date	10/										
Rate your performance today.	☺ 3										
Completed Graphic Organizer	✔										
Wrote Topic	✔										
Wrote Reasons	✔										
Wrote Explanations	✔										
Wrote Counter Reason & Explanation	✔										
Wrote Refute to Counter Reason	✔										
Wrote Ending	✔										
Number of Transition Words	5										
Examined Essay (Had all 10 parts)	✔										
Used Self Statements	✔										

Fidelity of Treatment Lesson 1 POW+TREE	
_____I. The teacher discussed the **agenda/goals for the day and classroom expectations** Today's agenda is: Discuss what it means to persuade Complete contracts Discuss the writing strategy Examine a persuasive essay **_____ II. The students and teacher discussed what it means to persuade.** **_____ III. Students & Teacher completed contracts.** **_____ IV. Teacher described and discussed POW** 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 another writing strategy, POW becomes more powerful. **_____ V**. **Teacher discussed what makes writing to persuade powerful-** "Who knows what makes a good persuasive essay?"	Observer:_____ Instructor: Group 1 2 3 Lesson started on:_____ Was the lesson completed in one session? Y*ES* or NO If NO, please indicate where the lesson stopped Section: _____ Date lesson resumed:_____ Continued @ Section:_____ Date Completed:_____ # of lesson components completed successfully_____ # components covered each today _____ Comments:

_____ a. 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 is and has an ending.

Can use an example to illustrate (e.g., Should pets be inside or outside the house?)

_____ **VI**. **Teacher introduced TREE and discussed how TREE relates to a living tree**

T   is for topic sentence. The topic sentence is like the <u>trunk</u> – it strong and the core that every part of the tree is connected to.

R   is for reason 3 or more and at least one counter reason. The reasons and counter reasons are like the roots. Reasons provide support for the trunk. The more roots (reasons) a tree has the sturdier the trunk will be. However when you add a counter reason or another person's perspective your essay will be even stronger.

E   is for explanation. Every reasons/counter reason needs an explanation, so the reader knows what you mean. The explanations are like the <u>earth.</u> The earth's dirt provides rich nutritious that the roots can grab on to. Like the earth explanations will nourish your reasons and make them more persuasive.

E   is for ending and examine. The ending is the tree you see. It is the impression you are leaving your reader with, and what you want them to remember.

_____**VII. Teacher asked students parts of POW+TREE.**

Give students a copy of the mnemonic POW+TREE chart.

READ AND EXAMINE PERSUASIVE ESSAY

____**VIII.** Teacher briefly introduced THE GRAPHIC organizer to help organize essay parts. **Lay out a TREE GRAPHIC ORGANIZER. Point out the TREE Reminder at the top, and review what it stands for.**

____ **IX. Students and teachers read persuasive essay.** Should students be allowed to skateboard at the mall? _____FOR _____Against (mark which was used)

_____The teacher gave each student a copy of the first opinion essay. SHOULD STUDENTS BE ALLOWED TO SKATEBOARD AT THE MALL? '

_____While students identified essay parts; the teacher modeled writing each part in the appropriate space on the graphic organizer.

_____ The teacher briefly introduced the term "transition word" during this discussion.

_____ **X. Lesson Wrap up- Check off agenda**

Lesson 2 POW+TREE	Materials
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. Discuss the goals for the day	Agenda POW+TREE chart POW+TREE GO (several copies) Transition word chart Copies of the following essays:

	uniforms and year round school
Today's goals and agenda are to: Practice POW+TREE Discuss T.W and discuss the GO Learn about counter reasons Analyze essay A. **Discuss POW+TREE- "Yesterday we talked about persuasive essays. Do you remember what writing to persuade means? We also learned a strategy that will help us write persuasive essays- Do you remember the trick?"** **Review orally (mnemonic)** POW+TREE 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 b/c you are supporting what you believe. However, your persuasive essay would be even more POWERFUL when you use a counter argument. When you recognize that other people might have other points of view. We will talk more about this later. B. **Practice transition words.** Yesterday we talked about transition words. Each time you find a reason why or a counter reason, transition words are used to show that a reason or counter reason has been given. There are different types of transition words. Show them 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. C. **Graphic Organizer (GO).** Yesterday we use the graphic organizer to identify the parts of the essay. 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. D. **Discuss 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?"** **"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 b/c the reader is going to see you as the kind of person who considers other peoples point of view before arguing one. Why do you think is**	Pencils, color pencils

important to consider other peoples points of view?"

" Let's see some examples."

Use the GO to brainstorm with the students the reasons and counter reasons. Make sure to ask the following questions when discussing counter reasons:

"Which animal do you believe would be a better pet a cat or a dog?"

What do I believe:_____ (fill in the G.O in note format with the topic, reasons and explanations. Make sure to also write transition words).

Ex: Dogs like to play, can do tricks, are excited to see you

Who might have a different opinion than mine?_____ (encourage students to think about others peoples perspectives.

Some people might have a different opinion than yours and that is fine. For instance some people might think cats are better pets because they are cleaner, independent, and quieter. 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. While discussing the counter reasons make sure to fill in the GO including the TW

TW	Counter reason- cats are better	Explanation	Refute it- Turn back
Some people might think	Cleaner Independent quieter	They use a litter box They can be left alone for longer periods of time	But dogs can be trained to go in one area But dogs give you more love and affection
		They do not make that much noise	But dogs provide safety. Alert when there is an intruder

REPEAT THE SAME EXCERCISE WITH OTHER PROMPTS:

1. **"Should screen time be limited?"** Agree (hard on the eyes, not

get homework finished, not using imagination)

TW	Counter reason- not be limited (kids)	Explanation	Refute it- Turn back
Some people might think	Need to relax

Builds relations | Work hard all day

Something for friends to do together | There are many other things to relax

Go play outside and get fresh air |

2. **"Should students be required to read two hours a day?"**
Disagree (already have too much homework, read all day at school, wouldn't leave time for extra activities)

TW	Counter reason- parents might agree	Explanation	Refute it- Turn back
Some people might think	Increase vocabulary	A way to learn new words is through reading	There are other ways to increase voc like using computer games

Identify and label parts in essays
"Now let's practice identifying counter reasons in these essays. We will do one together and then you will do the other one alone."

Essay 1: uniforms- Together (instructor/student)- label parts on essay

Essay 2: year round school (more independently)- label parts on essay

Lesson wrap up- Check off agenda

Lesson 3 POW+TREE	
Purpose: Memorize POW & TREE; Develop Self-statements: Model, and Introduce Student Record Sheet	Materials:

Objectives: The students will orally state the parts and meaning of parts for POW + TREE. The students will review paper from yesterday using POW + TREE. The students will develop and record self-statements to use throughout the writing process. Review the goals for the day _____ Today's goals and agenda are to: Review POW+TREE Self-record sheet Discuss self-statements **Review POW +TREE-**Test to see if the students remember POW and TREE: do it out loud to save time. It is essential that the students memorize this. If a student is having trouble with this, spend a few minutes practicing it. Tell the students you practice this every day until learned. Introduce Student Record Sheet: "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." _____ I. Give each student a copy of the Student Record Sheet. Note the number of parts in the essay. Use at end of class for the essay. **___II. Explain goal** - to write better persuasive essays. Remind the students that good persuasive essays tell the reader what you believe, give at least three reasons why, give an explanation for each reason, and have an ending sentence. Also, persuasive essays are not only fun for me to write and for others to read but they make sense. **___III**. The class goal is to have all of the parts and "better" parts the next time we write a persuasive essay. **Introduce the self-statements sheet:** "One other thing good writers do is talk to themselves in positive ways. Why do you think it is important to talk to yourself in positive ways?" Think about a time when you were playing a sport or cheering for your favorite team. What are some things you say to yourself or to the team you want to win? Give students a chance to give their input .Write their answers on the board. You should use these positive statements when you write as well. How can we change these statements for when we are writing? Write their translated self statements beside their sports self statements. Since you are learning to become good writers, it is important for you to talk to yourself in a positive way. Today we are going to think of things you can say to yourself and practice them. (NOTE- Modeling of self-statement will be provided on lesson 3) This is just an introduction for students to be aware of the self-statements) **"So before we start, we need to use self-statements. Which self-statement should we use?" Explain to the students the things you say to yourself when you want to think of good reasons and explanations, and things you say to yourself when finishing an essay".**	1. Agenda 2. POW + TREE mnemonic charts, GO chart, handouts, 3. Transition words 4. Paper examples School rules, 5. Student record sheet 6. Paper, pencils, and folders 7. Writing pad

Lesson Wrap up- check off agenda	

Lesson 4- POW+TREE	Materials
Purpose: Modeling the entire process for writing a persuasive essay. **Objectives:** The students will orally say the mnemonic for POW + TREE and state what each letter stands for. The students will attend to the teacher's modeling lesson. The students will locate essay parts in a previously written essay. The students will write self-statements for the POW + TREE writing strategy. ____**A. Discuss the goals for the day** ____ Today's goals and agenda are to: Review POW+TREE, transition words, self-statements Observe the teacher model how to write an essay Write your own self-statements Graph the essay _____**B. Briefly review POW+TREE, transition words, and self-statements** **C. Model the Strategy- "Today 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 used to talk to myself in positive ways."** ____ **I**. Pick my Idea • Lay out a copy of the TREE GRAPHIC ORGANIZER. Then explain: "Remember that the first letter in **POW is P - pick my idea**. Today we are going to practice how to write a good opinion essay - review what that means if necessary. To do this we have to be creative, we have to think free." • Read aloud the practice prompt: **"EMAIL vs. SNAILMAIL"** Explain to the students' things that you say to yourself when you want to think of good essay ideas or parts. Be sure to say all of these examples: **"I have to let my mind be free." "Take my time, a good idea will come to me." "Think of new, fun ideas."** Review: **"The things you say to yourself help you to work."** Note that it's not always necessary to think out loud, you can think these in your head. ___**II**. Organize my Notes • The second letter in POW is O- ORGANIZE my NOT*ES*. Tell the students that today you are going to write an opinion essay today with their help – Say, "I will use POW + TREE to help me. I will use this page to make my notes and organize my notes; you will do this too the next time you write an essay." Briefly review - point at - the parts of a	Materials: 1. POW + TREE mnemonic charts, GO chart, handouts, 2. Transition words chart 3. Self-statement chart 4. Paragraph checklist 5. Student record sheet poster and handouts 6. Paper, pencils, and folders 7. Writing pad,

good essay on the graphic. Review - what should my goal be? To write better opinion essays. Remind them that good opinion essays tell the reader what you believe, give at least three reasons why, give an explanation for each reason , provide at least one counter reason with an explanation and refute the 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.

- Model the entire process for organizing your Notes **by completing the entire GO.** Use problem definition, planning, transition words, self-evaluation, and self-statements as you go. Follow the steps and statements below, filling in, ad lib statements where indicated. Ask the students to help you with ideas and the writing, but be sure you are in charge of the process:

  ___**"First, what do I believe - what do I want to tell the reader I believe?"** (Now - talk out and fill in notes for Topic Sentence). **"I believe email is better than snail mail" "Good idea!"**

  ____**"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.)

  ____**"Hmmm, my essay would be even stronger if I think about other points of view. For example in this case: Who would disagree with me? Who might think snail mail is better than email? I know my grandmother! She might think snail mail is better b/c it is more practical and convenient for her to use regular mail b/c she doesn't have access to a computer. Well, that is a good reason; however these days there are many public places that have access to computers."**

TW	Counter reason- snail mail is better Grandmother	Explanation	Refute it- Turn back
Some people might think	More practical and convenient	No access to a computer	But these days many public places have access to computers

_____After generating notes for all essay parts say – **"Now I can look back at my notes and see if I can add more notes for my essay parts"** (actually do this - model it - use coping statements). **"I can also look for ideas for good word**

choice or million dollar words" (do this).

___**III**. Write and Say More

E. Say, **"Now I can do W in POW - write and say more. I will use the notes in the GO to help me write my essay. I can write my opinion essay and think of more good ideas or million dollar words as I write."** (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."** Then pause and think, then write out the sentence.

I believe email is better than snail mail. There are three reasons why I believe this. First Email is faster, second you can send attachments instantly, and third you save money.

___"**Good. Now I have to restate each reason I came up 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.

First, email is faster than snail mail. When you send an email the other persons receives the email within minutes. You don't have to wait the couple of days it takes to receive a letter.

__Fabulous, I am on a roll! What comes next? My second reason. I will start with my TW and then write a reason and explanation.

Next, in an email you can send attachments instantly. For example you can send pictures, documents, and even music and you don't have to wait for the other people to receive it. Also you don't have to pay extra to send these attachments.

____ Good I am doing an excellent job. Now for my third reason and explanation. Again I will start with a TW, my reason, and explanation.
In addition, you save money by using email. You don't have to spend money on gas driving to the post office. Also, you don't have to buy envelopes and stamps.

____ Excellent I am doing an excellent job. 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? I know-- my grandmother! She might think snail mail is better. I will begin with a TW for showing the opposite view and then I will state what other's position might be and then provide an explanation for that position.

On the contrary, some people might think snail mail is better than email because some people don't have access to a computer at home. (Good I wrote the counter reason and explained it, now I have to turn back and provide reasons to refute other people position) However, nowadays there are many public places like libraries where people can have access to computers.

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_____ Wow, I am almost done! Now I will write my ending or summary of the three reasons you have given. Restate your topic statement or belief and follow with the summary of your three reasons. Wrap it up!
 	
In conclusion, I believe email is better than snail mail. It is faster, you save money and it is more practical. People should use email!
 	
_____Review by asking, **"Have I shown the reader all my reasons with explanations or examples?" Do I have all the parts?**
 	
D. Self-Statements
 	
____**I**. **Ask the students if they can remember**:
     1) things you said to yourself to get started?
     2) things you said while you worked,
     3) things you said to yourself when you finished.
     Jot their ideas on the self-statement chart.
 	
___**II**. Ask the 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." – be sure 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).
   - 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.
 	
Graph the Essay
__**I**. Model how to graph this essay on the Student Record Sheet. Ask students,
     "Does this essay have at least 10 parts?"
 	
Lesson wrap-up check off agenda	

Lesson 5 POW+TREE-REPEAT THIS L*ESS*ON AS NEC*ESS*ARY LOOK AT THE PROMPT LIST BELOW	
Purpose: Guided practice **Objectives:** The students will orally state the mnemonic for POW + TREE and what each letter stands for. The students will collaboratively write an opinion essay with the teacher. The students will identify orally parts of the essay that is written. Review goals for the day Review POW+TREE	Materials: 1. POW + TREE mnemonic charts, GO chart, handouts, 2. Transition words chart 3. Paragraph checklist

Write an essay Graph the essay and use self-statements Review POW+TREE. Can do verbally as a class, with partners, or have students write it on a piece of paper. Collaborative Writing – Support It. "Today you are going to write an essay by yourself, with my help. You would use all the material we have been using and I am sure you will do great! Remember to use self-statements to help you gain confidence in you writing!!! You will do great!" _____**I**. Give each student a blank GRAPHIC ORGANIZER and ask each student to get out their transition word chart, SELF-STATEMENTS SHEET. Put out practice prompt: [Library vs. Bookstore] Although all students are writing about the same topic, they should all come up with their own ideas for topic, reasons, counter reasons explanations, and ending, and write their own essays. This time let the students lead as much as possible, but prompt and help as much as needed. Go through each of the following processes - students can share and use the same ideas, but each student should write an opinion essay using their own notes: ____**II**. Say, "Remember that the first letter in POW is P - pick my idea." Refer students to their self-statements for creativity or thinking free. Help each student decide what they believe and start to think of good reasons why. ___**III**. **Guide students through the GO-** Say, "The second letter in POW is O- ORGANIZE my NOT*ES*. I will use TREE 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 persuasive essays. "Good persuasive essays tell the reader what you believe, give at least three good reasons why, have a counter reason, give an explanation for each reason and CR, and have an ending. Also, good persuasive essays are fun for me to write and for others to read, and make sense." After students have generated notes for all essay parts say – "remember to look back at my notes and see if I can add more notes for my essay parts" - help them actually do this. Remind them also to look for more ideas for good word choice or million dollar words - help them do this. **GIVE EACH STUDENT THE WRIITNG PROMPT, A GO, AND GUIDE THEM THROUGH WRITING THE ESSAY** Help students as much as they need to do this, but try to let them do as much as they can alone. Encourage them to use other self-statements of their choice while they write. If students do not finish writing today, they can continue at the next lesson. ___**IV**. **Guide students through writing the essay-** Say, "The last letter in POW is W - write and say more." Encourage and remind the students to start by saying "What is it I have to do here? I have to write a good essay - a good essay has all the parts and makes sense." I can write my essay and think of	4. Self-statement chart 5. Prompt " Library vs. Bookstore" <u>**see list of prompts below for repeating this lesson**</u> 6. Student record sheet 7. Paper, pencils, and folders

more good ideas or million dollar words as I write."

Discussion Before writing the essay

_____When writing it is important you remember the order of the paragraphs .Your essay should begin with the topic sentence and mentioning the reasons. Use transition words. This is why we have the paragraph checklist. You can have it by your side to help you write your essay. **Briefly discuss the checklist**

_____Discuss how to write counter reasons. " Writing counter reasons is as easy as 1, 2, 3"
For example: I believe the bookstore is better
Think who might have a different opinion than mine?
Introduce the CR with a transition word and write what would other's people position might be and explain it.
Refute their reason. Write a TW and provide reasons to refute other people's position.

C. Graph the Essay and self-statements

____**I**. When finished, have each student graph their essay. Ask each student to determine if their essay has at least 10 parts. Let them fill in the graph. Reinforce them for reaching 10 or more. Ask student which self-statements they used.

Lesson wrap-up: Review agenda

List of other prompt choices for repeating this lesson: GO IN THIS EXACT ORDER

Lesson 5a: Should there be a homework limit for middle school age students? Or Should you take public transportation or drive to school or work?'

Lesson 5b: Should students be allowed to use vending machines on the campus all day long? Or Should classes or school be separated by girls and boys?

Lesson 5c: Should students your age be allowed to carry their cell phones in class? Or Should students your age be required to do volunteer work over the summer?

# Lesson 6- Independent performance	
Purpose: Independent performance / Wean off supportive materials **Objectives:** The student will draw an organizer and will write an opinion essay with at least 10 essay parts. **A.** Goals for the day: POW+TREE review POW+TREE reminder Draw your own GO	Materials: 1. Prompts of choice 2. Student record sheet 3. Paper, pencils, and folders

Write essay independently
Record sheet

B. Verbally review POW+TREE. Ask, "What are the parts of a good persuasive essay?"

C. Wean off Graphic Organizer

_____**I**. Give students a blank piece of paper and ask them to draw the graphic organizer. After they are finished, compare their graphic organizer to the POW+TREE graphic organizer. Discuss which parts they included and which parts were missing.

____**II**. Explain to the students that they won't usually have a TREE reminder page with them when they have to write opinion essays, so they can make their own notes on blank paper. 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.

___**III**. Ask student to brainstorm as many transition words as possible in two or three minutes. Compare their lists to the transition word chart.

Writing – Wean off Support (If students did well writing essays during lesson 5, they may not need as much whole-group guidance throughout lesson 7. Each teacher should determine how much guidance students need, and how much they can do independently).

___**I**. Ask each student to get out their self-statements list. Put out 2 practice prompts. Each student can select one to write about. This time, let the students lead as much as possible, but prompt and help as much as needed. Students can make notes on the paper they wrote the reminders on. Go through each of the following processes - students can share ideas, but each student should write their own story using their own notes:

____**II**. Say, "Remember that the first letter in POW is P - Pick my Idea. Refer students to their self-statements for creativity or thinking free. Help each student decide what they believe and start to think of good reasons why.

___**III**. Say, "The second letter in POW is O- ORGANIZE my NOT*ES*. **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 opinion essays tell the reader what you believe, give at least three good reasons why, give an explanation for each reason and have an ending sentence. Also, good opinion essays are fun for me to write and for others to read, and make sense." After students have generated notes for all essay parts say - remember

to look back at the notes and see if I can add more notes for my essay parts - help them actually do this. Remind them also to look for more ideas for good word choice or million dollar words - help them do this. __**IV**. The last letter in POW is W - Write and Say More. Encourage and remind them to start by saying, "What is it I have to do here? I have to write a good essay - a good essay has all the parts and makes sense. I can write my essay and think of more good ideas or million dollar words as I write." Help students as much as they need to do this, but try to let them do as much as they can alone. If parts can be improved, or better word choice can be used, do make suggestions. Encourage them to use other self-statements of their choice while they write. __**V**. Have each student graph their essay. Ask each student to determine if their essay has at least 8 parts. Let them fill in the graph. Reinforce them for reaching 8 or more. Lesson wrap-up- review agenda Lesson prompts **Lesson 6a:** Should there be consequences for not completing your school work? Or Should students be allowed to chew gum during school? **Lesson 6b:** Should students be responsible for being prepared for classes on a daily basis (i.e. bringing pencil, paper, and books)? Or Should you be required to wear a gym uniform?	

Lesson 1 SRSD + Content CE-3 evaluating how civic and social duties address community needs and serve the public good	
Purpose: Learning to use strategy with content specific Civics lessons **Objectives:** The students will review the **POW & TREE** strategy. The students and teacher will review parts of a persuasive paper and teacher will use the graphic organizer demonstrate the parts of a persuasive paper related to Civics CE.3e. Students will use the graphic organizer to identify the parts of a persuasive paper based on Civics prompts provided. Discuss the goals for the day _____Today's goals and agenda are to: Talk about using POW+TREE in other lessons Review Civics lessons CE 3e - evaluating how civic and social duties address community needs and serve the public good Identify parts of an essay –Puzzle Complete a GO with the puzzle pieces _____ Briefly Review POW+TREE, Transition Words and counter reasons _____Talk to students about the lesson today. It is similar to what they have done but now we will talk about specific content relating to Civics lessons. _____Open the discussion regarding the Civics content. Ask the students what the following statement means. What do good citizens do to help the community? **In what ways do citizens participate in community service?** Allow students to brainstorm and discuss. Possible areas include: helping at a library, police station, school, community center. (The standard reads) **The student will demonstrate knowledge of citizenship and the rights, duties, and responsibilities of citizens by e) evaluating how civic and social duties address community needs and serve the public good.** **Ways for citizens to participate in community service** • Volunteer to support democratic institutions (e.g., League of Women Voters). • Express concern about the welfare of the community as a whole (e.g., as related to environment, public health and safety, education). **Help to make the community a good place to work and live (e.g., by**	Materials: 1. Agenda 2. POW + TREE mnemonic charts, 3. CE3e essential learning chart 4. School volunteer essays, 5. Paper, pencils, and folders 6. Writing pad

becoming involved with public service organizations, tutoring, volunteering in nursing homes). **Talk about the importance of being able to communicate these ideas with persuasive essays. Introduce activity.** Identify parts of a civics essay- POW TREE Puzzle Game **Writing Situation: The local food bank is looking for volunteers. The school has been asked to help and has given permission for this service learning project.** **_____ Students my age should be allowed to volunteer at a soup kitchen.** **Brief Description-**Students will put together a puzzle that will form a complete persuasive essay. As students match pieces to complete puzzles made by the teacher, remind students of the parts of good persuasive essay while discussing the Civics content. Students should back fill the graphic organizer from the essay. **Materials Needed :** Cut out sentences from a completed persuasive essay and color coded with markers. _____ Review parts written on graphic organizer as a group **Lesson Wrap Up-** Being a good citizen means serving in the community. CHECK OFF AGENDA	

Lesson 2 SRSD + Content Guided Practice Lesson CE 4 a **The student will demonstrate knowledge of personal character traits that facilitate thoughtful and effective participation in civic life by** **a) practicing trustworthiness and honesty;**	

Purpose: Guided practice
 	
Objectives: The students will collaboratively write a civics essay with the teacher. The students will identify orally parts of the essay that is written.
 	
Review goals for the day
Review POW+TREE
Lesson read and discuss CE 4-a The student will demonstrate knowledge of personal character traits that facilitate thoughtful and effective participation in civic life by
practicing trustworthiness and honesty; give examples from CE 4 state information and brainstorm with students.
Write an essay on a civics topic
	Materials:
	  8. POW + TREE charts
	  9. Self-statement chart
	  10. Prompt:
	
	The school newspaper is having a party after school, you are not on the committee but you were invited by mistake do you go,

	why or why not?
Graph the essay Review POW+TREE. Can do verbally as a class, with partners, or have students write it on a piece of paper. _____I. Discuss the Civics Lesson: Ask students… **How do individuals demonstrate thoughtful and effective participation in civic life? These characteristics include…brainstorm and help students with the Civics lesson by discussing these… Personal traits of good citizens** • **Trustworthiness and honesty** • **Courtesy and respect for the rights of others** • **Responsibility, accountability, and self-reliance** • **Respect for the law** • **Patriotism** • **Participation in the school and/or local community** Collaborative Writing – Support It. Today you are going to write an essay yourself on the characteristics of good citizenship trait of honesty, with my help. You should use all the material we have been using and I am sure you will do great! _____**I**. Give each student a blank GRAPHIC ORGANIZER and ask each student to use their **transition word chart**. Hand out the practice prompt sheet Committee Party or Not? **Although all students are writing about the same topic, they should all come up with their own ideas for topic, reasons, counter reasons explanations, and ending, and write their own essays.** This time let the students lead as much as possible, but prompt and help as much as needed. Go through each of the following processes - students can share and use the same ideas, but each student should write a persuasive essay using their own notes. ____**II**. **Remember we will use POW+TREE to help us.** ___**III**. **Guide students through the GO-** Help students as much as they need to do this, but try to let them do as much as they can alone. ___IV. Guide students through writing the essay-	11. Student record sheet 12. Paper, pencils, and folders

Discussion Before writing the essay

_____Your essay should begin with the topic sentence, followed by your reasons and explanations, and ending. Don't forget to use transition words.

_____Discuss counter reasons. Writing counter reasons is as easy as 1, 2, 3.
For example: I believe that I should tell the truth….
Think who might have a different opinion than yours?

E. Graph the Essay

_____**I**. When finished, have each student graph their essay.

Lesson wrap-up: Review agenda

Lesson 3- SRSD + Content with Independent performance using CE 4 – g • **Practicing service to the school and/or local community.**	
Purpose: Independent performance / Wean off supportive materials **Objectives:** The student will draw an organizer and will write an opinion essay with at least 10 essay parts on the Civics topic of courtesy and respect for others. **D.** Goals for the day: POW+TREE Overview of VA CE-4 part of being a good citizen of the school is by practicing service to the school and/or local community Draw your own GO Write essay independently Record sheet **E.** Verbally review POW+TREE. Ask, "What are the parts of a good persuasive essay?" **F. Create their own Graphic Organizer** _____**I**. Give students a blank piece of paper and ask them to draw the graphic organizer. After they are finished, compare their graphic organizer to the POW+TREE graphic organizer. 　　　　POW 　　　　TREE	Materials: 　4. Overview of CE 4 standard sheet 　5. Prompts of choice 　6. Student record sheet 　7. Paper, pencils, and folders

Then make a space on the paper for notes for each part.

- ____**II.** Ask students to share some transition words and remind them to include counter reasons in their essays.
- __**III**. **.** Practicing service to the school and/or local community discussion and brainstorm what this looks like. What it involves and why it might be important as a citizen. Ask: "How do individuals demonstrate thoughtful and effective participation in civic life?"Use the VA CE-4g handout as a guide if needed.
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Writing – Wean off Support (If students did well writing essays during lesson 2, they may not need as much whole-group guidance throughout lesson 3. Each teacher should determine how much guidance students need, and how much they can do independently).

___**I**. Prompts. Each student can select one to write about. This time, let the students lead as much as possible, but prompt and help as much as needed. Students can make notes on the paper they wrote the reminders on. Go through each of the following processes - students can share ideas, but each student should write their own story using their own notes:

____Help students as much as they need to do this, but try to let them do as much as they can alone. If parts can be improved, or better word choice can be used, do make suggestions. Encourage them.

__**V**. Have each student graph their essay when done.

Lesson wrap-up- review agenda

- Lesson prompts on practicing service to the school and/or local community discussion and brainstorm what this looks like. What it involves and why it might be important as a citizen.

Writing Situation:
The outside of the school is looking really bad with overgrown bushes and leaves and lots of litter to include paper and old cans. The principal has asked that students help with the problem of litter and overgrown plants on school grounds.

Choose one of the following prompts for your persuasive essay:

Persuade your friends to create a garden club or a club to clean up the school grounds after school.

Convince students, teachers and parents to help to pick up litter and keep the school grounds clean?

Fidelity of Treatment **Lesson 1 POW+TREE**	

_____**I. The teacher discussed the agenda/goals for the day and classroom expectations**
Today's agenda is:
Discuss what it means to persuade
Complete contracts
Discuss the writing strategy
Examine a persuasive essay
 	
_____ II. The students and teacher discussed what it means to persuade.
 	
_____ III. Students & Teacher completed contracts.
 	
_____ IV. Teacher described and discussed POW
 	
   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 another writing strategy, POW becomes more powerful.
 	
_____ V. **Teacher discussed what makes writing to persuade powerful-** "Who knows what makes a good persuasive essay?"
	Observer:_____
	
	Instructor:
	
	Group 1 2 3
	
	Lesson started on:_____
	
	Was the lesson completed in one session? Y*ES* or NO
	
	If NO, please indicate where the lesson stopped
	
	Section: _____
	
	Date lesson resumed:_____
	
	Continued @ Section:_____
	
	Date Completed:_____
	
	# of lesson components completed successfully_____
	
	# components covered each today
	_____
	
	Comments:

_____ a. 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 is and has an ending.

Can use an example to illustrate (e.g., Should pets be inside or outside the house?)

_____ **VI**. **Teacher introduced TREE and discussed how TREE relates to a living tree**

T   is for topic sentence. The topic sentence is like the <u>trunk</u> – it strong and the core that every part of the tree is connected to.

R   is for reason 3 or more and at least one counter reason. The reasons and counter reasons are like the roots. Reasons provide support for the trunk. The more roots (reasons) a tree has the sturdier the trunk will be. However when you add a counter reason or another person's perspective your essay will be even stronger.

E   is for explanation. Every reasons/counter reason needs an explanation, so the reader knows what you mean. The explanations are like the <u>earth.</u> The earth's dirt provides rich nutritious that the roots can grab on to. Like the earth explanations will nourish your reasons and make them more persuasive.

E   is for ending and examine. The ending is the tree you see. It is the impression you are leaving your reader with, and what you want them to remember.

_____ **VII. Teacher asked students parts of POW+TREE.**

Give students a copy of the mnemonic POW+TREE chart.

READ AND EXAMINE PERSUASIVE ESSAY

____**VIII.** Teacher briefly introduced THE GRAPHIC organizer to help organize essay parts. **Lay out a TREE GRAPHIC ORGANIZER. Point out the TREE Reminder at the top, and review what it stands for.**

____ **IX. Students and teachers read persuasive essay.** Should students be allowed to skateboard at the mall? _____FOR _____Against (mark which was used)

_____The teacher gave each student a copy of the first opinion essay. SHOULD STUDENTS BE ALLOWED TO SKATEBOARD AT THE MALL? '

_____While students identified essay parts; the teacher modeled writing each part in the appropriate space on the graphic organizer.

_____ The teacher briefly introduced the term "transition word" during this discussion.

_____ **X. Lesson Wrap up- Check off agenda**

Fidelity of Treatment **Lesson 2 POW+TREE**	
___**I. Teacher discussed the goals for the day** Today's agenda is:	Observer:_____ Instructor:

Practice POW+TREE
Discuss T.W and GO
Learn about counter reasons
Examine essay
 	
____**II. Teacher discussed POW+TREE-**
 	
   ____"Do you remember what writing to persuade means?" Do you remember the trick?"
 	
   ____ **Orally reviewed the mnemonic** POW+TREE
 	
____ **III. Teacher discussed transition words, introduced chart and asked students to think of more TW.**
 	
____ **IV. Teacher reviewed the Graphic Organizer (GO) parts**
 	
____ **V.** Teacher briefly introduced the counter argument while discussing writing persuasive essays.
 	
____ **VI. Teacher discussed the definition of a counter-reason**
 	
____ **VII. Teacher used GO to discuss how to think about counter reasons. (Teacher has to complete the following three examples. One organizer per example)**
 	
   _____Example 1: Which animal do you believe would be a better pet a cat or a dog?
 	
   _____Example 2: Should screen time be limited?
 	
____**VIII. Students will identify and label parts in essays**
 	
   _____ Essay 1: uniforms- Together
	Group 1 2 3
	
	Lesson started on:_____
	
	Was the lesson completed in one session? Y*ES* or NO
	
	If NO, please indicate where the lesson stopped
	
	Section: _____
	
	Date lesson resumed:_____
	
	Continued @ Section:_____
	
	Date Completed:_____
	
	# of lesson components completed successfully_____
	
	# components covered each today
	_____
	
	Comments:

(instructor/student) teacher fills in GO _____ Essay 2: year round school (independently with student filling in GO) review parts together _____**IX. Lesson wrap up- Check off agenda**	

Fidelity of Treatment **Lesson 3 POW+TREE**	
____ **I. Teacher reviewed the agenda for the day** ____ **II. Teacher verbally reviewed POW +TREE** ____ **III. Teacher introduced Student Record Sheet: "**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." ____ **IV.** Teacher gave each student a copy of the Student Record Sheet and guided students to fill in the sheet for the essay students worked on the day before: **Year round schools.** Noted the number of parts in the essay. ____**V. Teacher** reminded students that good persuasive essays tell the reader what you believe, give at least three reasons and one counter reason, give an explanation for each reason and CR, and have an ending.	Observer:_____ Instructor: Group 1 2 3 Lesson started on:_____ Was the lesson completed in one session? Y*ES* or NO If NO, please indicate where the lesson stopped Section: _____ Date lesson resumed:_____ Continued @ Section: _____ Date Completed: _____ # of lesson components completed successfully_____ # components covered each today _____ Comments:

____**VI**. Teacher reminded the goal is to have all of the parts and "better" parts the next time they write a persuasive essay. ____**VII. Teacher introduced the self-statements and discuss self-statements with students** ____**VIII. Lesson Wrap up- check off agenda**	
Fidelity of treatment **Lesson 4 POW+TREE**	
____A. Discussed the agenda for the day _____B. Briefly orally reviewed POW+TREE, transition words, and self-statements ____Teacher modeled the strategy Model the Strategy- "Today 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 used to talk to myself in positive ways. - Read aloud the practice prompt: "Is it better to use EMAIL or SNAILMAIL?" ____ I. Pick my Idea - Lay out a copy of the TREE graphic organizer. Then explain: "Remember that the first letter in POW is P - pick my idea. Let my mind be free. ___II. Organize my Notes _____The second letter in POW is O- ORGANIZE my NOT*ES*. I will use POW + TREE to help me. I will use this page to make my notes and organize my notes; you will do this too the next time you write an essay. _____The teacher modeled the entire process for organizing my notes by completing the entire GO. Teacher used problem definition,	Observer:_____ Instructor: Group 1 2 3 Lesson started on:_____ Was the lesson completed in one session? Y*ES* or NO If NO, please indicate where the lesson stopped Section: _____ Date lesson resumed:_____ Continued @ Section: _____ Date Completed: _____ # of lesson components completed successfully_____ # components covered each today _____

planning, transition words, self-evaluation, and self-statements. Teacher asked the students to help with ideas and the writing, but teacher was in charge of the process: Dialogue: ___"First, what do I believe - what do I want to tell the reader I believe?" (Now - talk out and fill in notes for Topic Sentence). I believe email is better than snail mail "Good! ____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 and explanations not in full sentences - use coping statements at least twice.) ____Hmmm, my essay would be even stronger if I think about other points of view. For example in this case: Who would disagree with me? Who might think snail mail is better than email? I know my grandmother! She might think snail mail is better b/c it is more practical and convenient for her to use regular mail b/c she doesn't have access to a computer. Well, that is a good reason; however these days there are many public places that have access to computers. _____After generating notes for all essay parts say – "Now I can look back at my notes and see if I can add more notes for my essay parts" (actually do this - model it - use coping statements). "I can also look for ideas for good word choice or million dollar words" (do this). III. Write and Say More _____Now I can do W in POW - write and say more. As I write my persuasive essay, I can think of more ideas or million dollar words as I write. Now - talk yourself through writing the essay; the students can help. Use a clean piece of paper and print. Start by saying,	Comments:

___ How shall I start? I need to tell the reader what I believe, I need a topic sentence. Then pause and think, then write out the sentence.	
I believe email is better than snail mail. ___Good. Now I need my first reason followed by the explanation. Remember to start sentence with a TW, then I will write my reason. To support my reason I will give an explanation or example to support this reason. First, email is faster than snail mail. When you send an email the other persons receives the email within minutes. (Optional sentence) You don't have to wait the couple of days it takes to receive a letter. ____ Fabulous, I'm on a roll. What is it that comes next? I need my second reason followed by the explanation. Again I need to start with a TW, then my reason and explanation. Next, in an email you can send attachments instantly. For example you can send pictures, documents, and even music and you don't have to wait for the other people to receive it. ____ Good I am doing an excellent job. Now for my third reason and explanation. Again I will start with a TW, my reason, and explanation. In addition, you save money by using email. You don't have to spend money to buy envelopes and stamps. ____ Excellent I am doing an excellent job. I wrote my three reasons and explained each of them. Now, I better think about the counter argument. What was the counter reason that I came up with again! Again begin with a TW for showing the opposite view and then what other's position is and then provide an explanation for that position. On the contrary, some people might think snail mail is better than email because some people don't have access to a computer at home. (Good I wrote the counter reason and explained it, now I have to turn back and provide reasons to refute other people	

position) However, nowadays there are many public places like libraries where people can have access to computers. _____ Wow, I'm almost done! Now, I will write my ending or summary. Restate your topic statement and belief and follow with the summary of your three reasons. Wrap it up! In conclusion, I believe email is better than snail mail because it is faster, you save money and it is more practical. People should use email! _____ Review by asking, "Have I shown the reader all my reasons with explanations or examples?" Do I have all the parts? D. Self-Statements ____I. Teacher asked students if they can remember: 1) Things she said to herself to get started ___II. Teacher asked students to write some things they could say to themselves on their individual self-statement sheet, using the chart as a reference. Graph the Essay ____I. The teacher modeled how to fill out Student Record Sheet with this essay. ____Lesson wrap-up check of agenda	
Fidelity of Treatment **Lesson 5 POW+TREE** REPEAT THIS L*ES*SON AS NEC*ES*SARY LOOK AT THE PROMPT LIST BELOW	
___I. Reviewed agenda for the day ___II. Review POW+TREE. Can do verbally as a class, with partners, or have students write	Observer:_____ Instructor: Group 1 2 3

it on a piece of paper. _____III. Teacher gave each student a blank graphic organizer and ask each student to get out their transition word chart, self-statements sheet. Practice prompt: _____ Although all students are writing about the same topic, they should all come up with their own ideas for topic, reasons, counter reasons explanations, and ending, and write their own essays. This time let the students lead as much as possible, but prompt and help as much as needed. Go through each of the following processes - students can share and use the same ideas, but each student should write an opinion essay using their own notes: _____ STUDENTS WROTE THEIR _ES_SAYS _____VII. When finished writing, the teacher had each student record their essay on their record sheet. Ask each student to determine if their essay has at least 10 parts. Reinforce them for reaching 10 or more. Ask student which self-statements they used. _____VIII. Lesson wrap-up: Review agenda Lesson 5a: Should students your age be allowed to carry their cell phones in class? Or Should students your age be required to do volunteer work over the summer? Lesson 5b: Should students be allowed to use vending machines on the campus all day long? Or Should you take public transportation or drive to school or work?	Lesson started on:_____ Was the lesson completed in one session? Y_ES_ or NO If NO, please indicate where the lesson stopped Section: _____ Date lesson resumed:_____ Continued @ Section:_____ Date Completed:_____ # of lesson components completed successfully_____ # components covered each today _____ Comments:

Fidelity of Treatment **Lesson 6- Independent performance** ____I. Reviewed agenda for the day: ___II. Verbally review POW+TREE. Ask, "What are the parts of a good persuasive essay?" **Wean off Graphic Organizer** ____**III**. Gave students a blank piece of paper and ask them to draw the graphic organizer. After they are finished, compared their graphic organizer to the POW+TREE graphic organizer. ____**IV**. Explained 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. ___**V** Asked student to brainstorm as many transition words as possible in two or three minutes. Compared their lists to the transition word chart. **Writing – Wean off** ___**VI**. Asked each student to get out their self-statements list. Put out practice prompts. Each student can select one to write about. This time, let the students plan and write essay, but only help as needed. Students can make notes on the paper they wrote the reminders on. Monitor students as they do through the POW+TREE process. ____**VII**. Teacher helps students as need through POW to plan and write their essays. ____ **VIII**. Each student graphed their essay. Ask each student to determine if their	Observer:_____ Instructor: Group 1 2 3 Lesson started on:_____ Was the lesson completed in one session? Y*ES* or NO If NO, please indicate where the lesson stopped Section: _____ Date lesson resumed:_____ Continued @ Section:_____ Date Completed:_____ # of lesson components completed successfully_____ # components covered each today _____ Comments:

essay had at least 10 parts. Let them fill in the graph. Reinforce them for reaching 8 or more. **____ IX. Lesson wrap-up- review agenda** Lesson prompts **Lesson 6a:** Should there be consequences for not completing your school work? Or Should students be allowed to chew gum during school? **Lesson 6b:** Should students be responsible for being prepared for classes on a daily basis (i.e. bringing pencil, paper, and books)? Or Should you be required to wear a gym uniform?	

Fidelity of treatment **Lesson 1 SRSD + Content Modeling**	
Purpose: Learning to use strategy with content specific Civics lessons **Objectives:** The students will review the **POW & TREE** strategy. The students and teacher will review parts of a persuasive paper and teacher will use the graphic organizer demonstrate the parts of a persuasive paper related to Civics CE.3e. Students will use the graphic organizer to identify the parts of a persuasive paper based on Civics prompts provided. Discuss the goals for the day _____Today's goals and agenda are to: Talk about using POW+TREE in other lessons Review Civics lessons CE 3e - evaluating how civic and social duties address community needs and serve the public good Identify parts of an essay –Puzzle Complete a GO with the puzzle pieces ____ Briefly Review POW+TREE, Transition	Observer:_____ Instructor: Group 1 2 3 Lesson started on:_____ Was the lesson completed in one session? Y*ES* or NO If NO, please indicate where the lesson stopped Section: _____ Date lesson resumed:_____ Continued @ Section: _____ Date Completed: _____

Words and counter reasons ____Talk to students about the lesson today. It is similar to what they have done but now we will talk about specific content relating to Civics lessons. ____Open the discussion regarding the Civics content. Ask the students what the following statement means. What do good citizens do to help the community? **In what ways do citizens participate in community service?** Allow students to brainstorm and discuss. Possible areas include: helping at a library, police station, school, community center. (The standard reads) **The student will demonstrate knowledge of citizenship and the rights, duties, and responsibilities of citizens by e) evaluating how civic and social duties address community needs and serve the public good.** **Ways for citizens to participate in community service** • Volunteer to support democratic institutions (e.g., League of Women Voters). • Express concern about the welfare of the community as a whole (e.g., as related to environment, public health and safety, education). **Help to make the community a good place to work and live (e.g., by becoming involved with public service organizations, tutoring, volunteering in nursing homes).** **Talk about the importance of being able to communicate these ideas with persuasive essays. Introduce activity.** Identify parts of a civics essay- POW TREE Puzzle Game ____ **Students my age should be allowed to volunteer at a soup kitchen.** **Brief Description-**Students will put together a puzzle that will form a complete persuasive essay. As students match pieces to complete puzzles made by the teacher, remind students of the parts of good persuasive essay while discussing the Civics content. Students should	# of lesson components completed successfully_____ # components covered each today _____ Comments:

back fill the graphic organizer from the essay.	
Materials Needed	
Cut out sentences from a completed persuasive essay and color coded with markers.	
_____ Review parts written on graphic organizer as a group	
Lesson Wrap Up- Being a good citizen means serving in the community.	
CHECK OFF AGENDA	

Lesson 2 SRSD + Content Guided Practice Lesson FIDELITY	
Purpose: Guided practice	Observer:_____
Objectives: The students will collaboratively write a civics essay with the teacher. The students will identify orally parts of the essay that is written.	Instructor:
	Group 1 2 3
Review goals for the day Review POW+TREE Lesson read and discuss CE 4-a The student will demonstrate knowledge of personal character traits that facilitate thoughtful and effective participation in civic life by practicing trustworthiness and honesty; give examples from CE 4 state information and brainstorm with students. Write an essay on a civics topic Graph the essay	Lesson started on:_____
	Was the lesson completed in one session? Y*ES* or NO
	If NO, please indicate where the lesson stopped
	Section: _____
Review POW+TREE. Can do verbally as a class, with partners, or have students write it on a piece of paper.	Date lesson resumed:_____
	Continued @ Section:_____
_____I. Discuss the Civics Lesson: Ask students… **How do individuals demonstrate**	Date Completed:_____

thoughtful and effective participation in civic life? These characteristics include…brainstorm and help students with the Civics lesson by discussing these… **Personal traits of good citizens** • **Trustworthiness and honesty** • **Courtesy and respect for the rights of others** • **Responsibility, accountability, and self-reliance** • **Respect for the law** • **Patriotism** • **Participation in the school and/or local community** Collaborative Writing – Support It. Today you are going to write an essay yourself on the characteristics of good citizenship trait of honesty, with my help. You should use all the material we have been using and I am sure you will do great! **I**. Give each student a blank GRAPHIC ORGANIZER and ask each student to use their **transition word chart**. Hand out the practice prompt sheet Committee Party or Tell the Truth? Help students as much as they need to do this, but try to let them do as much as they can alone. ___IV. Guide students through writing the essay-_____Discuss counter reasons. Writing counter reasons is as easy as 1, 2, 3. For example: I believe that I should tell the truth…. Think who might have a different opinion than yours? Lesson wrap-up: Review agenda	# of lesson components completed successfully_____ # components covered each today _____ Comments:

Fidelity of Treatment **SRSD + Content Lesson 3 - Independent performance**	
____I. Reviewed agenda for the day: ___II. Verbally review POW+TREE. Ask, "What are the parts of a good persuasive essay?" ____III. Review again the Civics content CE 4 - Courtesy and respect for the rights of others **Wean off Graphic Organizer** ____**III**. Gave students a blank piece of paper and ask them to draw the graphic organizer. After they are finished, compared their graphic organizer to the POW+TREE graphic organizer. ____**IV**. Explained 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. ___**V** Asked student to brainstorm as many transition words as possible in two or three minutes. Compared their lists to the transition word chart. **Writing – Wean off** ____**VII**. Teacher helps students as need through POW to plan and write their essays. ____ **IX. Lesson wrap-up- review agenda**	Observer:_____ Instructor: Group 1 2 3 Lesson started on:_____ Was the lesson completed in one session? Y*ES* or NO If NO, please indicate where the lesson stopped Section: _____ Date lesson resumed:_____ Date Completed:_____ # of lesson components completed successfully_____ # components covered each today _____ Comments:

Data Collection Sheets for Scorers

Please circle one: SRSD   SRSD+ CONTENT   Maintenance/Gen

Student Name: _____

Evaluated by_____

Esssay #	1	2	3	4	5
TOTAL WORDS	_____	_____	_____	_____	_____
SENTENC*ES*	_____	_____	_____	_____	_____
PARAGRAPHS	_____	_____	_____	_____	_____
# TRANSITION WORDS	_____	_____	_____	_____	_____
# PERS. *ES*SAY PARTS	_____	_____	_____	_____	_____
HOLISTIC QUALITY					
SCORE	_____	_____	_____	_____	_____

Knowledge Probes   Time Probes planning/writing

Post SRSD   _____   Post SRSD _____   /_____

Post SRSD + Content_____   Post SRSD + Content_____/_____

Maintenance   _____   Maintenance _____/_____

Holistic Scoring Rubric

Score of 10. Persuasive essay includes topic sentence, more than three reasons with at least three explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer's argument. Writer uses more than one counter argument/point in the essay.

Score of 9. Persuasive essay includes topic sentence, more than three reasons, at least 3 explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer's argument. Writer uses 1 counter argument/point in the essay.

Score of 8. Persuasive essay includes topic sentence, more than three reasons, at least 2 explanations, and an ending sentence. Essay is written in a logical sequence that strengthens the writer's argument.

Score of 7. Persuasive essay includes topic sentence, three reasons with at least two explanations, and ending sentence. Essay is written in a logical sequence that strengthens the writer's argument.

Score of 6. Persuasive essay includes topic sentence, three reasons with at least 1 explanation, and ending sentence. Essay's sequence is weak, therefore limiting the writer's argument.

Score of 5. Persuasive essay includes topic sentence, three reasons, and ending sentence.

Score of 4. Persuasive essay includes four of the following parts: topic sentence,

reasons, and ending sentence.

Score of 3. Persuasive essay includes three of the following parts: topic sentence,

reasons, and ending sentence.

Score of 2. Persuasive essay includes two of the following parts: topic sentence, reasons,

and ending sentence.

Score of 1. Persuasive essay includes one of the following parts: topic sentence, reason,

and ending sentence.

Score of 0. No essay parts.

Strategy Knowledge Probe

Probe Scoring Convention: Give a point for each of the following items told.

General Score: Possible total of 8 pts.

Pick your idea

Organize your notes

Write and say more

Topic sentence

Reasons

3 or more reasons

Explanations or explain

Ending

Specific Score: Possible total of 12 pts.

Same as above plus

Examine

Counter reason –

1 or more counter reason

Transitions words

APPENDIX R

Student Time on Task Chart for Planning and Writing Observations

Student # ____Conducted by:_____   Date:_____

PHASE: circle one   Baseline   Post-SRSD   Post-Content   Maintenance

Operational Definitions:

Time Spent Planning Includes –

      1. Student engagement with a graphic organizer or notes on writing

      2. Student is using pre-writing strategies

      3. Student is visibly "thinking" before writing either aloud or silently

Time Spent Writing Includes

      1. Student engagement in writing persuasive essays

      2. Student uses writing instruments paper pencil/wood processor

      3. Student may be revising and editing after the process begins

      4. Short pauses < 1 minute to regroup or " think" while composing

TIME PLANNING:	TIME WRITING:
Start:_____	Start:_____
Stop: _____	Stop:_____
Start:_____	Start:_____
Stop:_____	Stop:_____
Start:_____	Start:_____
Stop:_____	Stop:_____
Start:_____	Start:_____
TOTAL: _____	TOTAL: _____

APPENDIX S

Social Validity Questionnaire (combo- GMU/PSU)

Directions: Tell students you are going to ask them some questions about what they learned about writing.

1. GMU #1: Tell me the writing strategy that you learned to use. (looking for POW+TREE and what each step means Be sure to prompt here with "can you tell me more" to ensure you obtain all student knows about the strategy -- remember we are also looking for counter arguments here now, too)

2. GMU#2: Draw a picture of the graphic organizer we used (ask student to label the parts or you write in labels if the GO is unclear)

3. GMU#3 What did you like most about this strategy?

4. PSU#1 Has using the POW+TREE strategy helped you become a better writer? How?

5. PSU #2 What did you learned when working with your writing teacher?

6. PSU#3. How do you think POW+TREE could help other students?

7. PSU#4. If you were the teacher, would you add anything to help students learn to write?

8. PSU#5 If you were the teacher, what would you change in the POW+TREE lessons? Why?

9. PSU#6. From the POW+TREE lessons, what things have most helped you become a better writer?

10. GMU#5 Have you used POW+TREE in any other classes? If yes, ask, what other classes or assignments and how has it helped? (e.g., What class or classes? How did you do on those assignments? Better or worse than before?)

11. GMU#6 Tell me how you have used counter arguments in your writing. Why are counter arguments important?

12. Tell me how much time you spent on planning and writing when you first started and has that changed since you learned about POW+TREE?

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CURRICULUM VITAE

Clara Hauth earned a Bachelor of Arts degree in Telecommunications from the Pennsylvania State University in 1985 and a Master of Education degree in Special Education from George Mason University in 2007.

Within the field of special education, Ms. Hauth's education and work experiences have been diverse. She began her career in 2003 as a special education teacher working with students with disabilities in Fairfax, Virginia where she continues to teach middle school mathematics. She participates in professional development opportunities within the county and state, corroborating with state officials on standards based assessments for students with disabilities.

In 2007 she was awarded the George Mason University, College of Education and Human Development Graduate School of Education, Achievement Award and The Virginia Department of Education 2007, Teachers of Promise Institute Award. In 2008 she was a recipient of the Special Education Doctoral Leadership Cohort Program Fellowship under the leadership of Dr. Margo Mastropieri and Dr. Thomas Scruggs with funding from US Department of Education, Office of Special Education Programs Grant # H325D070008.

Ms. Hauth participated in graduate research activities related to the GMU-PSU Writing Project Grant (R324A070199-07) from the U.S. Department of Education. The grant's focus was to study writing instruction for adolescents with emotional and behavioral disorders (EBD). This grant was awarded to PSU with a subcontract to GMU with leadership from by Dr. Mastropieri.

While finishing her doctoral degree, Ms. Hauth continues to work as a teacher with Fairfax County Public Schools and as an adjunct instructor for the College of Education and Human Development at George Mason University.