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THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT
INSTRUCTION ON ARGUMENT WRITING SKILLS OF ADOLESCENTS WITH
MILD DISABILITIES

By

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B.A., 1991, Western Kentucky University
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A Dissertation
Submitted to the Faculty of the
College of Education and Human Development of the University of Louisville
In Partial Fulfillment of the Requirements
For the Degree of

Doctor of Philosophy in
Curriculum and Instruction

Department of Teaching and Learning, Special Education
University of Louisville
Louisville, Kentucky

May 2020

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A Dissertation Approved on

March 27, 2020

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Lori Norton-Meier

Jeremy Todd Whitney

DEDICATION

This dissertation is dedicated to my parents, whose guidance and presence I continue to feel in my life. I am forever thankful you were mine.

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There are times in life when a simple expression of gratitude does not seem to be enough. Reflecting on my time at the University of Louisville and all who have contributed to this milestone is certainly one of those times. However, in her poem, “Continue,” Maya Angelou reminds us of gratitude’s place, “...let gratitude be the pillow upon which you kneel to say your nightly prayer.” As a first-generation college graduate, the magnitude of this educational opportunity is not lost on me and has held a significant place in my prayers over the last seven years; I am indeed thankful.

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ABSTRACT

THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT
INSTRUCTION ON ARGUMENT WRITING SKILLS OF ADOLESCENTS WITH
MILD DISABILITIES

Stacy Crawford Bewley

March 27, 2020

Recent data from the National Center for Education Statistics (2012) indicates that a large majority of students with disabilities continue to perform at basic proficiency or below in the area of writing, which has serious implications for post-secondary academic endeavors and successful transition into the workforce (US Department of Labor, 2014; Bureau of Labor Statistics, 2017). Therefore, it is imperative to identify and implement effective writing interventions for this population of students. Self-Regulated Strategy Development (SRSD) has been widely researched in elementary and middle school settings, but much less research has been conducted with high school students. The purpose of this study was to examine the impact of SRSD on the argument writing of three high school students with mild disabilities using a multiple baseline research design in a secondary setting. Results of this research extend the existing body of evidence related to writing interventions for secondary students with disabilities who intend to pursue post-secondary education and inform possible directions for postsecondary writing interventions for students with disabilities.

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CHAPTER ONE

INTRODUCTION

The ability to communicate in writing is essential in both academic and non-academic settings. Students who do not demonstrate proficiency in writing often perform below their peers in terms of overall academic achievement (Taft & Mason, 2011). For students with mild disabilities such as learning disabilities (LD), high functioning autism (HFA), and attention deficit hyperactivity disorder (ADHD), this performance gap results in an increased risk for academic failure. According to a 2013 meta-analysis which examined descriptive studies comparing the writing of students with learning disabilities to that of their typically functioning peers, students with learning disabilities were lacking in every examined area of writing, including overall quality, organization, sentence output, fluency, conventions, genre elements, vocabulary and motivation. The meta-analysis found that, compared to their peers, students with learning disabilities tend to feel less confident about writing, are less knowledgeable about writing, and are less likely to engage in planning the writing process (Graham, et al., 2017). Deficits in writing have the potential to impact performance in postsecondary and workplace settings and result in students' decreased capability to write for specific audiences and purposes (Hoover, et al., 2012). Therefore, if writing performance is to be improved, effective interventions for teachers to employ in the area of writing are needed. Specific areas of difficulty for students with disabilities include the planning, organizing, and executing of their writing

for the purpose of communicating their understanding of concepts (Hayes & Flower, 1980; Harris, et al., 2003). One possible reason students with disabilities experience difficulty with written expression is that students lose the resources of body language and tone of voice when faced with the task of converting their thoughts from speech to text (Olson, 2006). Students with disabilities who struggle with writing are frequently unable to persuade, explain, and relate their own personal experiences or develop ideas effectively in writing, and are often not aware of their abilities or weaknesses in the area of writing, with tendencies to overestimate their writing performance (Harris, et al., 2003). According to recent data from the National Center for Education Statistics (2012), 95% of students with disabilities continue to perform at basic proficiency level or below in writing.

Statement of the Problem

Students with mild disabilities are likely to experience academic difficulties both in high school and in postsecondary settings. Data from the National Assessment of Educational Progress suggests that students with disabilities perform significantly lower on writing tasks than their typically functioning peers in the eighth and twelfth grades (USDOE, 2011). Additionally, compared with other graduates, high school graduates with disabilities earn fewer credits and lower grade point averages (USDOE, 2009). In terms of successful transitions into adulthood, it is significant that students with mild disabilities are less likely than their typically functioning peers to live independently or maintain employment. Data from a national longitudinal study of the post-secondary outcomes of high school students with disabilities indicate the likelihood of economic self-sufficiency for this population is not promising. Four to six years post high school,

more than 80% of students with disabilities earn \$25,000 or less each year. Given a forty-hour work week, students with disabilities earn an average of \$3.80 less per hour than their typically functioning peers, resulting in an earnings discrepancy of approximately \$600 per month (Lipscomb, et al., 2017; Stanford, et al., 2011; USDOE, 2003). Students with disabilities are also less likely to complete postsecondary training, resulting in lifelong negative consequences including underemployment (Heiman & Precel, 2003; Richman, 2013). As adults, these students also tend to be less involved in their communities and have higher rates of incarceration than their counterparts (Lane, et al., 2006; Newman, et al., 2009; Stanford, et al., 2011).

Transition Readiness and Outcomes for Students with Disabilities

As a nation, we are more than forty years past the first high school graduations which included students with disabilities who were given access to public education through the Individuals with Disabilities Education Act (IDEA) with the passage of Public Law 94-142. However, in terms of post-secondary outcomes and overall life satisfaction, there is still much progress to be made (Rabren, et al., 2013). Students with disabilities continue to have less desirable outcomes and are less likely to pursue postsecondary education opportunities than their peers without disabilities (Newman, et al., 2009). The US Department of Education (USDOE, 2014) reports that, in 2006, while 34% of young adults with disabilities who enrolled as full-time freshmen in 4-year universities finished a bachelor's degree within six years, 57% of their typically functioning peers did the same. Evidence indicates that students with disabilities who do persist to graduation share common characteristics: resiliency, determination, and

resourcefulness in compensating for learning weaknesses (National Council on Disability, 2003).

Employment statistics also reveal disparities, with 73.5% of people without disabilities aged 16 to 64 being employed, compared with only 29.3% of people with disabilities (Bureau of Labor Statistics, 2017). The National Commission on Writing (NCW) for America's Families, Schools, and Colleges, surveyed a number of business leaders, who reported that writing skills are a factor in hiring and promoting employees. Additionally, NCW asserts that students who cannot communicate in writing may limit themselves to "low-skill, low-wage, hourly employment" (NCW, 2004). Since the work demands of both white and blue-collar jobs most often require some form of writing, students who are poor writers, a population which includes many students with disabilities (Graham, et al., 1991), have diminished capacity to thrive in the workplace and to fully participate in their communities (Graham & Harris, 2013; Huber, et al., 2016).

Teacher Practices in Writing Instruction

While the implementation of the *Common Core State Standards* (CCSS, 2010) has resulted in higher expectations of student writing across content areas, the results from a series of surveys (Cutler & Graham, 2008; Gilbert & Graham, 2010; Kiuahara, et al., 2009) designed to collect data on typical classroom writing instruction and expectations across the nation indicated that students are most often not engaged in meaningful writing tasks on any grade level, even in English classes. In spite of these findings, upon review of the CCSS, researchers are optimistic that the increased rigor of the standards and emphasis on writing may, in fact, result in greater achievement of

students with LD to master critical writing skills, moving away from teaching writing as an isolated experience and toward seeing written expression as an integral part of curriculum across content areas (Graham & Harris, 2013). Gage, et al. (2012) examined the similarities between students historically categorized as having high-incidence disabilities including learning disabilities and students who make up the “other” eligibility category, comprised of students with high-functioning autism, attention deficit hyperactivity disorder, and speech and language impairment. Results of the study, which compared data related to academic performance, behavior, and cognitive ability indicate that there are no significant differences across disability categories in terms of academic performance. This finding provides evidence that if students across disability categories receive evidence-based instruction in the area of writing, their post-instruction results will be similar.

Research gap

While much research has been conducted examining the effectiveness of various writing interventions with elementary and middle school students, the body of existing research for older adolescents is markedly less prevalent. However, the academic writing demands placed on students entering secondary and post-secondary education settings continue to increase in rigor, and students with disabilities are not prepared to meet these challenges, as evidenced by the gaps in performance when compared to typically functioning peers. Students with disabilities are less likely to graduate high school, attain fewer high school credits, and score below their peers on standard measures of achievement such as state accountability tests (Harr-Robins, et al., 2012; USDOE, 2009). Often citing failing grades as the reason for not completing degree requirements at 4-year

universities, students with disabilities fail to consider the widening gap in wage earning potential between obtaining a high school diploma and finishing a bachelor's degree. The potential negative impacts of the decision to drop out could be lifelong (Bureau of Labor Statistics, 2017; Newman, et al., 2009; Stanford, et al., 2011; Ray, 2019).

Writing is a critical component of academic success and is directly connected to other literacy standards developed within the CCSS. The skills involved in argument writing first appear in elementary standards and become progressively more sophisticated with grade advancement. Grade 1 CCSS writing standards require students to write an opinion piece in which they form an opinion, provide support, and construct a closing statement. The writing skills and standards for opinion writing are closely connected to the anchor reading skills of identifying reasons given in text and making inferences. By 6th grade, the CCSS require students to present an argument with a claim, counterclaim, supporting evidence, and linking words to provide smooth transitions between ideas (National Governors Association, 2010). Because variations of argument writing comprise the majority of academic writing, students who have the ability to articulate a position on an issue, identify and use strong supporting evidence, understand the issue from another perspective, and communicate the entirety in writing are exceedingly more likely to meet sophisticated writing challenges successfully (Verlaan, et al., 2014). The skills required to effectively express and defend an argument are embedded in the persuasive genre identified by CCSS. However, although these skills are critical, only a small number of research studies have examined interventions for high school and post-secondary students with disabilities specifically designed to improve persuasive or argument writing (Chalk, et al., 2005; Ennis & Jolivette, 2014; Ennis, et al., 2015;

Hoover, et al., 2012; Kiuahara, et al., 2012; Mason, et al., 2013;). With the increased academic demands in the area of writing, there is a need for more research to inform instructional practices in order to better prepare students with disabilities for successful post-secondary transitions.

Purpose of Study/Research Questions

The purpose of this study was to examine the use of Self-Regulated Strategy Development (SRSD) on the writing performance of high school students with mild disabilities. The study examined the impact of SRSD instruction on the writing performance, specifically in the area of argument writing for high school students with mild disabilities who plan to pursue post-secondary education. Research shows strong evidence that a Model-Practice-Reflect cycle, which is embedded in SRSD, is beneficial for writers (USDOE, 2016). For the intervention phase of this inquiry, SRSD instruction will be employed with mnemonics specific to writing: STOP, AIMS, and DARE. STOP is used to focus the writer's attention on the planning process, while AIMS serves to guide students to write a strong introduction in essays. Finally, DARE is utilized to prompt the writer to include specific elements in argument essays. The strategies and procedures employed will be more thoroughly discussed in the methods chapter. The ability to effectively communicate a stance is a critical skill for success in high school and beyond. While there is a limited research base for SRSD intervention with adolescents, there has only been one other study to specifically include college-seeking students with disabilities (Ray, et al., 2019).

The study will examine the following research questions:

- (1) Does instruction in Self-Regulated Strategy Development (SRSD STOP + AIMS + DARE) increase the number of argument elements present in student writing?
- (2) Does instruction in SRSD (STOP + AIMS + DARE) result in an increased score in overall quality of writing as measured by a holistic rubric?
- (3) Does instruction in SRSD (STOP + AIMS + DARE) increase the total number of words produced by students when presented with an argument writing prompt?
- (4) Does SRSD instruction increase the self-efficacy of students with regard to writing?

CHAPTER TWO

LITERATURE REVIEW

In 2003, the National Commission on Writing (NCW) recommended that teachers incorporate more writing opportunities into the school day (NCW, 2003). However, in spite of the growing need to prepare students to be competitive in the workplace and in post-secondary education, schools have not adequately responded to this recommendation (Kiuahara, et al., 2008). There are likely a number of contributing factors, including increased pressure on teachers and students to perform well on standardized assessments which often do not contain a writing component, teachers' lack of preparation in the area of writing instruction, the amount of time necessary for students to engage in meaningful writing, and for teachers to provide specific feedback (NCW, 2003; Kiuahara, et al., 2008). In a survey of high school teachers, Kiuahara, et al. (2008) asked questions related to writing within the classrooms. The survey responses indicated that sustained writing tasks are seldom assigned, even in the context of English classes, and are markedly less prevalent in other content areas. While teachers recognize that writing is a critical skill, most science and social studies teachers reported that they did not require students to write even a minimum of a paragraph one time per week. Furthermore, the majority of the teachers surveyed had not taken coursework related to writing instruction and did not feel equipped to teach writing to their students. Survey responses suggest that regular writing assignments are not varied in length or purpose (Kiuahara, et al., 2008). The long-

term implications are serious, with regard to postsecondary education. The College and Career Readiness Anchor Standards, embedded within CCSS (National Governors Association, 2010), include writing argument claims, formulating reasoning, and providing evidence. *Framework for Success in Postsecondary Writing* (2012) adds that postsecondary students should have command of writing mechanics as well as the ability to articulate and analyze arguments. In addition, students should demonstrate competence in writing for a variety of audiences and purposes. The NCW found connections between the ability to write well and the opportunity for career advancement in salaried positions (NCW, 2003). In today's society, people are expected to communicate in writing in their personal and professional lives. This includes communicating in writing through email, text messaging, and handwritten correspondence. However, half of high school graduates are not prepared for the writing demands in college (Achieve, Inc., 2005), and American companies spend billions of dollars annually on remedial writing for their employees (NCW, 2004).

Theoretical Framework

To effectively impact learners, we must first understand learning. Theorists such as Vygotsky, Dewey, Piaget, and Rogers have articulated structures of learning including those focused on behavior, individual processes, and self-actualization. The theoretical framework for this study is a combination of the research and theories of the early theorists and influences from contemporary research. Behaviorism proponents subscribe to the view of learners as passive, responding to stimuli and conditioned by punishments and reinforcers. Cognitivism beliefs became more prevalent in the 1960s, focusing on the mental activities of learners as they process received information into meaningful

outcomes (Leonard, 2002). Meichenbaum combined these schools of thought in his cognitive behavior theory, which is significant to the development of SRSD (Graham & Harris, 1996; Meichenbaum, 1977;). Another theory of learning, constructivism, was advanced by Dewey, Piaget, and Vygotsky. The constructivist theory supports the learners' active role in learning, and recognizes that, when presented with information, individuals draw from their own background knowledge to construct meaning. The basis of the humanist theory is the view of learning as active and assert that the processes of self-actualization and reaching individual potential are paramount (Leonard, 2002). In developing their writing process model, Hayes and Flower drew key elements of cognitivism and constructivism, with background knowledge, collaborative learning, and goal-setting components (Hayes & Flower, 1980).

The conceptual model of this study is grounded in the theoretical foundations of Meichenbaum (1977) and Hayes & Flower (1980). Meichenbaum's cognitive behavioral theory and Hayes and Flower's writing process model predicated Graham & Harris' (1996) concept of SRSD as a writing intervention. Meichenbaum's theory includes elements of self-regulation, modeling, goal setting, and dialogue, which are key components of SRSD instruction (Graham & Harris, 1996; Meichenbaum, 1977;). Hayes and Flower's (1980) model of the writing process incorporates background knowledge and previous learning along with goal setting and monitoring, which are clearly significant in SRSD. Hayes (2006) asserts the benefits in using frameworks to build understanding of complex tasks, processes and relationships. Specifically, frameworks help with memory, providing a common language, acquiring and organizing knowledge, embodying empirical predictions, and providing the basis of a research program.

Applying frameworks to the writing process enhances students' understanding of the work as a whole, as well as individual tasks.

The *Conceptual Model for Evaluating the Effects of SRSD on Argument Writing Skills of College-Seeking Adolescents with Disabilities* (Figure 2-1) illustrates the relationship between students with mild disabilities, SRSD, and post-secondary outcomes. In terms of written expression, every student is influenced by personal experiences, previous learning about writing, and teacher influence. In a report of over 900 meta-analyses, Hattie (2012) ranked 150 potential influences on achievement by effect size. The average effect size for the ranked influences was .40, to which Hattie refers as the 'hinge point,' suggesting that influences with effect sizes larger than .40 are more likely to result in greater student achievement than the ranked influences with effect sizes smaller than .40. Home environment, prior achievement, and teacher clarity are all reported in the upper third of the ranked influences, with effect sizes greater than 0.50. Numerous components of the SRSD model, including direct instruction, concept mapping, student expectations, and goals were reported in Hattie's work with effect sizes greater than 0.50. These findings are encouraging when considering what appropriate writing interventions and teaching strategies should be used for students with disabilities. SRSD has been effective in improving the writing performance of elementary and middle school students in regular and special education settings (WWC, 2017; Kaldenberg, et al. 2016). While the research base for implementing SRSD with older students is growing, the existing results are promising for improving writing, as reported the practice guide *Teaching Secondary Students to Write Effectively* (WWC, 2016) as statistically significant ($p < .05$) with a large effect size of .83. Reports from a survey administered by

ACT, Inc. to high school teachers and instructors of typical first year college courses indicated that argument writing is important for success in high school and college. The teachers and instructors surveyed agreed on four of their highest five ratings, with three of those four directly related to argument writing: developing logical arguments and supporting them with valid evidence, writing an argumentative or persuasive essay, and analyzing an issue or problem (Patterson & Duer, 2006).

Figure 2-1

Conceptual Model for Evaluating the Effects of SRSD on Argument Writing Skills of Adolescents with Disabilities.

Review of the Literature

Literature Search and Inclusion Criterion

While written communication is a critical skill in order to be successful in classrooms, workplaces, and personal lives, research specifically centered on writing interventions for students with mild disabilities is limited when compared to research in other content areas for the same population. To develop a better understanding of the current and seminal research pertaining to writing interventions for secondary and post-secondary students with mild disabilities, a review of the literature was conducted. A systematic review of relevant literature was completed using the Educational Resources Information Center (ERIC), EBSCOhost, and PsychINFO, using a Boolean search method and a combination of the following descriptors: *secondary, high school, post-secondary, learning disabilit*, emotional/behavior disabilit*, writing, strategies, direct instruction, and interventions*. An ancestral search for selected articles was also completed.

Criteria for inclusion required that selected studies: (1) be published in a peer-reviewed journal; (2) include students in high school (grades 9-12) or postsecondary settings in the United States; (3) include participants with mild disabilities; and (4) include baseline and intervention data for each student. This review does not include studies which focused on using assistive technology as a component of the independent variable. A small number of studies met the inclusion criteria, which is indicative of the lack of research in this area. An overview of the strategies included in all studies meeting the criterion is presented, followed by summaries of the high school and post-secondary studies. Two post-secondary studies utilized SRSD but included both individuals with

and without disabilities. The data in these studies were not separated by disability category. However, the interventions implemented in the studies demonstrate positive results for students with disabilities, which could indicate that these interventions may be applied successfully with the targeted population of this review.

Interventions

To be successful in high school and college, students have to be equipped to write for various audiences and purposes. Olson (2006) suggests that one reason students have difficulty with written expression is because they lose the resources of body language and tone of voice when their thoughts are translated from speech to text. Everson (1991) describes L.S. Vygotsky's theoretical framework as supportive of the idea that language is a first a 'social tool,' and that students who have opportunities to talk with others about their experiences before writing them down are then more likely to write using richer detail. These students are also more inclined to generalize and extend their learning. The studies included for review identified two main categories of interventions: Self-regulated strategy development and Direct Instruction. Each of these categories is briefly described in the following sections, followed by reviews of the included studies. A summary of the studies included for review is found in Table 2-1, *Writing Interventions for Secondary and Post-secondary Students*.

Secondary Interventions

Ten studies were identified as meeting the inclusion criterion. Nine of the studies used self-regulated strategy development (SRSD), and the remaining study used a specific Direct Instruction writing program, *Expressive Writing*.

Self-Regulated Strategy Development

Since the 1980s, Graham, Harris, and their colleagues have researched and developed the framework for the method of SRSD. SRSD is intended to address deficits in planning, composing and revising among students with significant writing problems (Graham & Harris, 1993; Harris, et al., 2003). Compared to their peers, students with learning disabilities produce writing that is lacking in organization, structure, and background knowledge (Graham & Harris, 1992). These students have difficulty with idea generation, topic selection, planning, producing and revision of writing. In addition, students' own perceptions of their writing abilities may be positively skewed and incongruent with rubric scores (Harris, et al., 2003). Generally speaking, SRSD has two main focal points: explicit teacher instruction and student development of self-regulation procedures (Graham & Harris, 1993). SRSD has been widely used and adopted by classroom teachers across a number of settings. Teachers have reported that SRSD is easy to implement due to its practicality and flexibility (Leins, et al., 2017). Specific to writing, the goals of SRSD are to assist students with developing knowledge about writing, support students in the ongoing development of writing skills as they begin to self-monitor and promote positive thinking about writing and themselves as writers (Harris, et al., 2003). As a result of mastering the strategies, students' motivation, self-efficacy, and self-awareness improves. Students also demonstrate a better understanding of genre, essay structure, and writing quality (Harris, et al., 2008).

SRSD Included Studies

Using a repeated measures design and pairwise comparison, Chalk, Hagan-Burke, and Burke (2005) examined the effects of implementing SRSD instruction with 15 high

school sophomores. The study was a replication of previous work in elementary settings by Graham and Harris (1989, 1996), extending the research to include high school students with disabilities. The focus of the intervention was to increase the total number of words written, and to improve the overall quality of the writing as measured by a holistic rubric. Students demonstrated gains in both areas, evidenced by statistically significant increases in writing production and holistic rubric scores across phases, thus providing promising results for applying SRSD with older adolescents.

Hoover, et al. (2012) evaluated the effectiveness of SRSD POW + TREE writing interventions for persuasive quick writes before, during, and after instruction. The POW mnemonic has been used with students for general writing tasks and stands for P-Pick my idea, O-Organize my notes, W-Write and say more. The TREE component is added to POW when the writing task involves persuasion. TREE stands for T-Topic sentence (state what you believe), R-Reasons and counter reasons, E-Explanations and refute, E-Ending (Harris, et al., 2008; Leins, et al., 2017). The POW + TREE strategy is appropriate for students in elementary, middle, and high schools (Gillespie & Graham, 2014).

Participants in this study were four high school students with learning disabilities. A multiple baseline method was used to determine the effects of the intervention on the number of essay elements and the total number of words the students included in their writing. Data were collected on the number of TREE response parts and the number of words written. Participants completed five instructional lessons and were given the opportunity to repeat lesson five if the criteria of strategy mastery were not met. Post-

instruction and maintenance probes were administered to all participants (Hoover, et al., 2012).

Student responses were scored on a 10-point scale for TREE response parts: topic sentence, three or more reasons related to the topic sentence, explanations for each reason, a counter reason and explanation, and an ending sentence. All four students in this study showed an increase in the number of response parts included in independent writing. One student in the study did not meet the instructional goal of including 10 response parts post-instruction; however, data indicated improvement in stability over the course of the study (Hoover, et al., 2012).

The number of words written was determined with the word count feature of Microsoft Office. While the participants showed variability in the number of words written during the baseline and intervention phases, the data stabilized for all four participants by the end of the maintenance probes. The increase in the number of response parts present and the stabilization of the number of words written may show that students learned to write more concisely by applying the strategy. In terms of social validity, students involved in this study also expressed that using the strategy was beneficial as they gathered their thoughts prior to writing. One student even suggested that the strategy should become part of the general curriculum. Even after a key graphic organizer was not provided, students recreated the organizer in their notebooks because it was helpful in the writing process (Hoover, et al., 2012).

Similarly, Mason, et al. (2013) measured the effects of SRSD for POW + TREE on students' quality of writing, number of words written, and number of persuasive parts written. Three male high school students, identified as having emotional disorders (ED),

were included in the study, which employed a multiple baseline across participants design. Five probes were given to the students to establish a baseline. The intervention included five lessons, scaffolded to increase student independence in using the strategy. During the fifth lesson, students were expected to demonstrate criterion performance in writing a persuasive quick write. Student responses were scored on their inclusion of at least eight parts: 1 point for a topic sentence, 1 point for each reason, 1 point for a counter-reason, 1 point for refute, and 1 point for an ending sentence. Two of the three students had to repeat lesson five in order to meet the criterion. All students were given at least six post-instruction probes. Students were also given two maintenance probes following instruction.

All three students showed improvements in the measured areas: quality, number of words, and number of parts written. As reported in the Hoover et al. (2012) study, students reported that using the strategy was helpful to them in terms of organization and being confident about their abilities to write a response. The students' maintenance scores support the effectiveness of the intervention. All three students' scores in the measured areas of quality, number of words, and number of parts written were higher in the maintenance phase than in the baseline phase of the intervention (Mason, et al., 2013).

A key component of both of the previously reviewed studies is the 10-minute quick write combined with the SRSD for POW + TREE instruction. High school students are regularly required to write within a given timeframe, on classroom assignments and assessments as well as on standardized tests (Hoover, et al., 2012). The results of both studies showed students including a higher number of response parts along with a higher number of words written, showing that the use of SRSD for POW + TREE has the

potential to assist students with LD and/or EBD in writing clearly, concisely, and completely when responding to a prompt or task (Hoover, et al., 2012; Mason, et al., 2013).

Jacobson & Reid (2010) employed a multiple baseline across participants design to examine the effectiveness of SRSD strategies for high school students with ADHD. The study focused on planning time, writing time, strategy elements included, transition words, total words written, and overall quality. Using SRSD mnemonics STOP and DARE, participants engaged in persuasive writing tasks. STOP is focused on the planning process, reminding students to (a) **S**uspend judgment (b) **T**ake a position before deciding on a premise (c) **O**rganize ideas from strongest to weakest and (d) **P**lan and write. The purpose of DARE is to prompt students to include the basic elements of persuasive writing: (a) **D**evelop a topic sentence, (b) **A**dd supporting ideas, (c) **R**eject the counterargument, and (d) **E**nd with a conclusion (De La Paz & Graham, 1997). The dependent variables were essay elements, total words, planning time, and a holistic quality score. The students showed gains in all areas, but one student did not maintain growth across the maintenance phase in holistic quality, perhaps due to an external factor of passing the district required writing exam for graduation. The data suggest the SRSD model of instruction is beneficial to students with ADHD. Using SRSD, students learn the steps of the strategy in small, scaffolded steps until they have committed the steps to memory. The model also provides students with organizational structures to use while writing, resulting in fewer demands on the working memory.

Jacobson and Reid (2012) conducted a replication of the previous study, which included four high school students with ADHD. Participants in the study showed gains in

planning time and time spent writing following instruction. Additionally, students included greater numbers of essay elements, included transition words, and scored higher on a holistic rubric. The participants continued to use strategy elements and demonstrate gains into the maintenance phase of the study.

Kiuhara, et al. (2012) also reported positive findings after implementing SRSD instruction in a study conducted with six high school sophomores with special education eligibilities of EBD, ADHD, or SLD. The primary focus of the study was persuasive writing skills, since the academic demands of secondary and post-secondary settings often require students to argue opinions and persuade readers to concur. For this study, a new mnemonic was developed to enhance the previously developed STOP + DARE. The AIMS mnemonic was added with the anticipation that it would focus the students' attention on the writing task presented: (a) **A**tttract the reader's attention with a hook (b) **I**nform the reader of the problem or issue (c) **M**ap the context to increase the reader's understanding of the background information and (d) **S**tate the thesis so the premise is clear.

The study employed a multiple baseline design across three pairs of students and examined the effects of intervention on the number of persuasive elements present, overall quality of the writing, the number of words produced, use of linking words, genre knowledge and social validity. One significant difference in this research and the previously reviewed SRSD studies is that it did not utilize quick writes, opting instead to allow students as much time as needed to complete the writing task.

Ennis and Jolivette (2014) conducted a study of the impact of SRSD instruction on the writing of six high school freshman students with EBD. The study took place in a

residential setting, utilizing SRSD instruction with the STOP & DARE mnemonic. Students were randomly assigned to pairs, and then randomly assigned to legs of the intervention. Baseline data were collected from writing prompts administered during health class using a multiple probe multiple baseline design across pairs of students. Following baseline, instruction was staggered for each pair in a separate, pull-out setting for 2-3 days per week. Post-intervention data were also collected using a multiprobe, multiple baseline method.

Participants' written responses were scored on the number of essay elements present, number of correct word sequences, and quality of the writing, based on a holistic rubric. Additional measures of student motivation and self-efficacy were collected. All students showed improvement in the areas of essay elements present, number of correct word sequences, and overall quality of writing. The significance of this study was the setting, outside of the regular language arts instruction period, suggesting the generalizability of SRSD instruction to other content areas, and the flexibility of its implementation (Ennis & Jolivet, 2014).

In an extension of this line of research, Ennis, et al. (2015) examined the effects of SRSD using STOP + DARE instruction given by a classroom teacher in a residential setting. The study included 44 secondary students, all identified as EBD. Additionally, the participants received instruction only two days a week, which is less intensity than used in previous research. As in other studies, written responses were measured by the number of essay elements used, the number of correct word sequences, and a holistic quality assessment. A piecewise hierarchical linear model was applied, revealing

statistically significant gains in the academic areas as well as in the areas of student engagement and motivation.

Implementing a novel SRSD strategy developed to address the writing demands of the ACT Writing Exam, Ray, et al. (2019) conducted a study with four high school participants in a private school setting. The participants were identified as struggling writers through school records and teacher reports but were educated in the regular education setting. Two of the four had disabilities of ADHD or dysgraphia; all expressed plans to go to college.

Using the SRSD framework, students learned to apply the mnemonic *HIT SONGS*³ to structure their responses to ACT writing prompts. The mnemonic *HIT* prompted students to write an introductory paragraph by using a **H**ook, **I**ntroducing a topic, and writing a **T**hesis. *SONG* was replicated three times to analyze the different perspectives in a given prompt: **S**tate the perspective, **O**utlook on the perspective, **N**eed examples, and **G**ive your opinion. Finally, *S*³ outlined the closing paragraph with **S**upport for the thesis, **S**tate the relationships between the thesis and the perspectives given in the prompt, and include a **S**ummary. Dependent variables measured were argument elements, planning time, transition words used, holistic quality, total number of words, and social validity. All students demonstrated gains in every area.

Direct Instruction

While SRSD is widely known and implemented in elementary and middle school classrooms and has met some success in the high school setting, other methods are also supported by current research (Walker, et al., 2005; Hoover, et al., 2012; Mason, et al., 2013; Leins, et al., 2017). One such method is Direct Instruction. The Direct Instruction

(DI) model is a teacher-centered method of instruction with two underlying principles: to increase the amount and the quality of student learning by systematically developing background knowledge and linking it to new learning. It includes five key curriculum components: identify 'big ideas' to organize content; teach explicit, generalizable strategies; scaffold instruction; integrate skills and concepts; and provide review (Stein, et al., 1998). Using the Direct Instruction method, teachers adhere to specific stages of instruction (Walker, et al., 2005). The instruction itself is fast paced, with a scripted delivery ensuring consistency of instruction across settings. Teachers cue choral responses from students and follow a systematic method of error correction (White, et al., 2014).

Expressive Writing Study

Expressive Writing is a writing curriculum that focuses on grammar and mechanics, sentence and paragraph construction, and revision. Designed to accelerate the skills of students whose written expression is significantly delayed, *Expressive Writing* employs Direct Instruction methods, facilitating student acquisition of new skills (Walker, et al., 2005; White, et al., 2014). In 2005, Walker, et al. evaluated the effectiveness of using the *Expressive Writing* curriculum with three high school students who were identified as LD. This study is the first to examine the use of a DI method in writing intervention with high school students with LD. The independent variable in the study was the writing instruction using *EW* materials. There were two dependent variables. First, the study examined the writing fluency on narrative writing assignments as assessed by the number of Correct Word Sequences (Crawford, 2001) written. A CWS is defined as (1) two adjacent, correctly spelled, capitalized, and punctuated words; (2) capitalized and correctly spelled beginning

of sentences; or (3) correctly spelled and punctuated ending of sentences. The CWS were scored line by line (Walker, et al., 2005). The second dependent variable was the posttest scores on spontaneous writing scales of the TOWL-3, which is a standardized test of writing skills. The TOWL-3 measures contextual conventions, language, and story construction (Walker, et al., 2005).

This study employed a multiple probe design across participants, which allowed for demonstration and replication of a functional relation between the *EW* curriculum and the dependent variables. Prior to implementation of the intervention, the TOWL-3 was given to the participants in order to obtain a pre-intervention measure of their writing skills. During the baseline phase, students were given topic sentences and 3 minutes to compose a written response (Walker, et al., 2005). These responses were scored using Crawford's CWS method (Crawford, 2001). When a stable baseline was established, instruction in *EW* began. Once participants were in the intervention phase, they received instruction for 50 consecutive days (except for absences). Each intervention session lasted about 50 minutes and included instruction on sentence and paragraph construction. The first 3 minutes of participants' writing was scored for CWS as a measure of the dependent variable. Upon completion of all intervention sessions, an alternate form of the TOWL-3 was administered to students to assess generalization. Once the intervention phase was complete, three maintenance probes were also given to the participants, at two-week intervals (Walker, et al., 2005).

All three participants in the study showed improvement in CWS from baseline to maintenance, as indicated by an increase in the mean scores for each participant. Likewise, all participants' scores on the TOWL-3 increased from the pretest measure to

the posttest, indicating a generalization of improved writing skills from narrative paragraphs to a standardized assessment. Results of a four-question social validity measure showed that all three participants felt they were better writers as a result of the program. Two of the three would recommend it to others, two enjoyed the program, and all three felt they would remember what they had learned during the intervention. Though this study has limitations, including inconsistencies in the writing prompts given during the intervention and maintenance phases, it does indicate that the use of a DI-based intervention could be effective for students with LD in a high school setting (Walker, et al., 2005).

While the studies included indicate the effectiveness of SRSD and DI in interventions for high school students with mild disabilities, clearly there is a need for further research. Further research should examine the efficacy of these interventions in a variety of content settings as well as across writing genres. Additionally, including a behavioral component to measure student engagement could be useful in conveying the usefulness of the intervention to practitioners.

Post-secondary Interventions

SRSD Studies

Two studies conducted in postsecondary settings measured the effectiveness of the *ANSWER* strategy with students with developmental disabilities. The findings of these studies are promising for students with LD and/or ED and may offer a direction for future research. The *ANSWER* strategy is part of the Essay Test-Taking Strategy developed by Hughes, et al. (2005). The strategy was developed to assist learners in progressing through a sequence of steps in order to complete a writing task. *ANSWER* is comprised of

the following steps: (a) **Analyze** the action words in the essay question, (b) **Notice** the requirements of the question, (c) **Set up** an outline, (d) **Work** in the details of the outline, (e) **Engineer** an answer, and (f) **Review** the answer.

Participants in both studies were students in a two-year postsecondary certificate program at a university in the Midwest, ranging in age from 19-23 years old. Participants were given a pretest before being assigned to either a treatment or control group. There was no significant difference in the treatment vs. control group scores on the pretest in either study (Woods-Groves, et al., 2012; Woods-Groves, et al., 2014).

In each study, there were six intervention sessions in which participants received scaffolded instruction on how to apply the *ANSWER* strategy to a writing task. Their answers were scored using the Therrien Strategy Scoring Rubric (Therrien, et al., 2009), which measured the application of the strategy as well as the specific essay components: introductory sentence, rephrase of the question, sentence for all requirements in the question, all sentences pertaining to the topic, and a concluding sentence (Woods-Groves, et al., 2012; Woods-Groves, et al., 2014).

Posttest results were favorable in both studies with regard to the application of the strategy. In the 2012 study, there was only a medium treatment effect between pre and posttest scores pertaining to essay components. However, the 2014 study yielded a large effect on the same measure with just a moderate adjustment on the intervention hours (Woods-Groves, et al., 2012; Woods-Groves, et al., 2014).

Though the case study model does not meet criteria for experimental control, Butler, et al. (2000) reported the results of three case studies involving adult learners in postsecondary settings that are significant to report. Each of the case studies employed a

Strategy Content Learning (SCL) model, focused on individuals setting goals and mastering strategies important to meet their needs. As previously mentioned, the focus of the SCL model is to build upon the student's understanding within their own experiences. Instructors support student growth and achievement through teaching students to generate strategies, analyze task requirements, monitor their own progress and modify familiar strategies as required for task completion.

Two of the participants were enrolled in college programs, and one individual was working toward a high school equivalency degree. The range of time spent in SCL instruction was 14.25-18.25 hours. Students were given a Metacognitive Questionnaire requiring short answers and a Strategy Interview to measure their perceptions of writing (Butler, 1995). Additionally, students were observed with regard to their approach to writing tasks. Writing samples were collected from the students prior to the intervention and during the intervention and were scored on a 5-point scale across the dimensions of thematic salience, organization, idea flow, and clarity (Butler, et al., 2000).

During the intervention, instructors met with individual students two to three times each week of a semester for a total of two to four hours per week. Students came to each session with an assignment they identified as pressing and received help in completing it. Students received instruction in task analysis and learned to organize their time and resources more effectively when presented with academic tasks. Students generated their own strategies for approaching tasks and learned to modify them. They were taught to self-evaluate in order to improve their writing performance. For example, one of the students worked on a revision strategy to help her identify her own most frequent grammatical mistakes, while another analyzed his writing in terms of depth and

persuasiveness of his arguments. It is significant to note that the focus is not only on strategies to complete tasks, but also on teaching students to self-monitor. At the completion of the semester, all three students were able to show generalization from the intervention sessions to tasks completed outside of intervention. This is consistent with previous findings that SCL is effective in the context of 1:1 tutoring (Butler, et al., 2000).

Summary and Conclusions

While there is no overlap in the existing research body pertaining to writing interventions of secondary and postsecondary students with mild disabilities, there are indicators that both populations can benefit from research-based interventions such as SRSD, DI, and SCL. SRSD and SCL are similar in that both are focused on students' independent goal setting and progress monitoring. The student characteristics (high school and post-secondary) are very similar with regard to instructional needs; therefore, successful treatments in each of the separate populations may be beneficial for both groups. Recent research efforts by Ray, et al. (2019) yielded positive results; however, there are limitations to its generalizability. Specifically, the participants included were educated in an inclusion setting of a private school, which is outside the norm for many students with disabilities. Consequently, additional research focused on effective writing interventions for college-seeking high school students with disabilities will extend the current understanding. Leins, et al. (2017) reported the challenges for students with disabilities in argument writing, as the tasks involve greater sophistication in planning and implementation of specific strategies and assert that college-bound students may benefit from SRSD writing instruction. The results of SRSD across grade levels and

content areas are promising; however, more research of the effectiveness of SRSD with older students is needed.

Table 2-1

Writing Interventions for Secondary and Post-secondary Students

Study	Setting & Number of Participants	Intervention	Results
Chalk, Hagan-Burke, & Burke (2005)	High School (15)	SRSD	Increase in holistic rubric scores and total words written
Ennis & Jolivette (2014)	High School (6)	SRSD	Increase in number of essay elements, number of correct word sequences, and improved quality of writing
Ennis, Jolivette, Terry, Fredrick, & Alberto (2015)	Middle & High (44)	SRSD	Statistically significant gains in number of essay elements, number of correct word sequences, and a holistic assessment
Hoover, Kubina, & Mason (2012)	High School (4)	SRSD	Increase in number of essay response elements
Jacobson & Reid (2010)	High School (3)	SRSD	Increase in planning time, number
Jacobson & Reid (2012)	High School (4)	SRSD	Increase in planning time, number of essay elements, number of transition words, and improved holistic rubric scores

Kiuhara, O'Neill, Hawken, & Graham (2012)	High School (6)	SRSD	Increase in number of essay elements, improved quality, and increase in number of words written
Mason, Kubina, & Hoover (2013)	High School (3)	SRSD	Increase in number of essay elements, quality scores, and number of words written
Ray, A.B., Graham, S. & Xinghua, L. (2019)	High School (4)	SRSD	Increase in argument elements, number of words, total words, planning time, and holistic rubric
Walker, Shippen, Alberto, Houchins, & Cihak (2005)	High School (3)	DI	Increase in correct word sequences, increase on TOWL-3 scores
Woods-Groves, Hua, Therrien, Kaldenberg, Lucas, Hendrickson, & McAninch, 2014	PS (19)	SRSD	Large treatment effect for number of essay components used
Woods-Groves, Therrien, Hua, Hendrickson, Shaw, & Hughes, 2012	PS (16)	SRSD	Medium treatment effect for number of essay components used

CHAPTER THREE

METHOD

The purpose of this chapter is to describe the study, specifically addressing the following: research design, participants, setting, independent and dependent variables, reliability, validity, and limitations. This study examined the effects of SRSD (STOP + AIMS + DARE) instruction on argument writing for high school students with disabilities who have been identified as having a learning disability in writing and/or demonstrate difficulty in writing based on their Individual Education Plan goals and academic performance. The study examined the following questions: 1) Does instruction in SRSD (STOP + AIMS + DARE) increase the number of argument elements present in student writing? 2) Does instruction in SRSD (STOP + AIMS + DARE) result in an increased score in overall quality of writing as measured by a holistic rubric? 3) Does instruction in SRSD (STOP + AIMS + DARE) increase the total number of words produced by students when presented with an argument writing prompt? 4) Does SRSD instruction increase the self-efficacy of students with regard to writing?

Experimental Design

A multiple baseline design across three participants was used to evaluate the effects of SRSD writing instruction on the writing of secondary students. The multiple baseline design was appropriate for this study because the learners were close in age and had similarities in academic performance. Additionally, the participants, though similar

in age and ability, received the intervention independently, supporting the likelihood that changes in performance were based on intervention (Gast & Ledford, 2014). Because the outcomes examined did not pose a risk of harm to the students, it was justifiable to utilize a multiple baseline design, introducing the intervention to one student at a time.

The students served as the intervention group, with baseline measurements collected on all students in the group. Once the first student in the first group reached a stable baseline in the number of argument elements present in three consecutive probes (less than ten percent, or one element variability), intervention instruction began with that student only. Weekly baseline data under pre-intervention conditions was collected from the other students until they entered the intervention phase. Once the first student reached the specified criteria of including at least seven of the ten necessary essay elements over at least three data points, the intervention was applied to the second student. The same procedures were applied to the remaining students, with the student in intervention demonstrating the criteria of at least seven essay elements in stabilized data before intervention was applied to the next student (Gast & Ledford, 2014).

The following criteria, established by Horner, et al. (2005) were considered in ensuring methodological rigor: adequate description of setting and participants to ensure replicability, valid and repeated measures of dependent variables with clear descriptions of the measurements, replicable description of independent variable, repeated measures in the baseline phase, demonstrated experimental control over the independent variable, replicated experimental effects, and measure of social validity. Data were collected on the reliability of the dependent variable measurements and inter-observer agreement was calculated. The fidelity of the implementation of the independent variable was measured.

The design provides three demonstrations of experimental effect across participants and evidence of a functional relationship between the independent variable and the dependent variables.

Setting and Participants

Setting

Once approval was received from the Institutional Review Board, permissions from the district assistant superintendent for secondary schools, school principal and parents, along with student assent were obtained (see Appendix A for parental consent). This study took place in a public high school in the Southeastern United States. In the district, there are approximately 4,038 high school students. The school is in a suburban area and has a total enrollment of 1,177 students, approximately 12% of whom receive special education services. The student body is comprised of 90% White and 10% Black, Hispanic, or two or more races. Approximately 47% of the students are eligible for free or reduced lunch (Kentucky School Report Card, 2019). The intervention took place during a daily study hall period outside of students' regular writing instruction. The baseline and intervention sessions took place in the high school library, which was familiar and comfortable to the students. The study took place in the 2019-2020 academic school year and included three students. The criterion recommended by Gast & Ledford (2014) of a minimum of three participants who perform similarly but are independent of one another as related to academic performance was met.

Students

Students were selected based on (a) special education eligibility of SLD in writing or other disability with difficulty in writing (b) writing goal on the IEP document or (c)

teacher recommendation based on writing performance in the classroom and (d) IEP transition goal indicating a plan to pursue post-secondary education. Parental consent was obtained for all participants, as was student assent. While this study initially included four students, Christopher, the first student to have stabilized baseline data and begin intervention, revoked his assent to participate in the study due to external stressors in his life.

Table 3-1

Participant Characteristics

Name	Grade	Gender	Age	Ethnicity	Disability	Transition Goal
Christopher	12	M	17	Caucasian	OHI	Vocational Training
Ashley	12	F	17	Caucasian	SLD	College
Brittany	12	F	17	Caucasian	OHI	Vocational Training
Alex	12	M	17	Caucasian	Autism	College

Note. OHI=Other Health Impairment (Attention Deficit Disorder), SLD=Specific Learning Disability

Researcher

The instruction was delivered by the researcher, who is a certified Special Education teacher with 13 years of classroom experience in resource room and collaborative settings. She has a Master of Education degree in Learning and Behavior Disorders and completed SRSD Online' course in SRSD for middle and high school students in 2018. The online training consisted of several modules and learning tasks. As measured by lesson fidelity checklists during practice lessons, the researcher

demonstrated 100% fidelity with lesson plan implementation prior to the start of intervention.

Independent Variable

The independent variable, SRSD (see Appendix B), is a framework of instruction comprised of six stages: *develop background knowledge, discuss it, model it, memorize it, support it and independent performance* (Graham, et al., 2000). These steps can be reordered, revisited, and re-taught as necessary for student development (Harris, et al., 2003). The SRSD strategy use of STOP + DARE has been shown to be effective in middle and high school settings (Kiuhara, et al., 2012; Ennis & Jolivet, 2014, Ennis, et al., 2015, De La Paz & Graham, 1997) and is appropriate for adolescents. STOP is focused on the planning process, reminding students to (a) Suspend judgment (b) Take a position before deciding on a premise (c) Organize ideas from strongest to weakest and (d) Plan and write. The purpose of DARE is to prompt students to include the basic elements of persuasive writing: (a) Develop a topic sentence, (b) Add supporting ideas, (c) Reject the counterargument, and (d) End with a conclusion. This strategy is strengthened by the addition of AIMS, which serves to guide students in writing a strong introduction for their papers: (a) Attract the reader's attention, (b) Identify the problem so the reader understands, (c) Map the context of the problem with background information to enhance the reader's understanding, and (d) State the thesis so the premise is clear (Kiuhara, et al., 2012). While the stages provide a framework for instruction, if necessary, they can be revisited for student mastery.

Stage 1: Develop background knowledge

During this step, students were presented with the background knowledge (specific vocabulary, story elements, etc.) they needed for the lesson. The researcher informally assessed student knowledge of the genre by asking them where arguments are found in the world and to name the necessary parts of an argument essay. The researcher began to collaborate with students to formulate appropriate self-regulating statements based on individual needs (Graham, et al., 2000).

Stage 2: Discuss it

Here, the researcher and students discussed the strategies including self-regulating statements, or “self-talk”, and the writing strategy, including mnemonics. These are integral components of the model. Additionally, the students were asked to identify other areas in which the strategies would be beneficial and given multiple opportunities to orally rehearse the strategy (Graham, et al., 2000). Another important part of this step of the process is that students were asked to make a commitment to learn the strategy and partner with the researcher as they developed new skills (Graham, et al., 2014). One or two of the baseline data points were scored using the argument elements rubric, and the data were graphed by the students. Graphing is a powerful visual that is useful in motivating students and increasing self-regulation (Harris, et al., 2003).

Stage 3: Model It

In the modeling stage of the instruction, the researcher demonstrated the writing process, including using strategy step statements (“Oops, I forgot. . .first, I need to. . .”). Energy was vital in this stage, because the modeling needed to be natural and enthusiastic, using language that the students would understand and be likely to

incorporate into their own processes (Harris, et al., 2003). While the students did not participate in the writing process, they were asked to be active observers and encouraged to take notes, if needed. Once the strategy was modeled, the researcher and students discussed the process. The students were given the opportunity to ask clarifying questions and verbalize which self-instructions they prefer. Additionally, students considered how the strategy might be modified to be more effective or efficient for them as individuals (Graham, et al., 2014).

Stage 4: Memorize It

This stage of instruction involved students' memorization of strategy steps, mnemonic devices, and self-instruction statements. Because internalization of the strategy steps is critical to student success, extra time was allowed for this step to ensure student mastery (Harris, et al., 2003).

Stage 5: Support It

During this stage of instruction, the students began to assume more responsibility for their use of the strategy. The researcher was available for collaboration, but support and prompts were gradually faded as students worked independently (Graham, et al., 2014)

Stage 6: Independent Performance

This stage occurred when students were able to apply the strategy independently. Students evaluated the effectiveness of their own use of strategy and made necessary changes (Graham, et al., 2014). The strategy steps were scaffolded to enhance independent student use and allow students to work at their own pace. Based on individual student needs, the steps of the strategy were repeated/retaught until students

demonstrated mastery by independently initiating strategy components of pre-planning, including all mnemonic components in their writing, and using positive self-statements. Students were taught to apply the SRSD strategies using mnemonic devices, graphic organizers, and self-regulation.

Procedures

Baseline

During the baseline phase, students received argument writing prompts and were given the direction to respond with their best writing. The argument writing prompts (see Appendix E) were developed and adapted from course materials included on SRSD Online, which were originally written by Kiuahara (SRSD Online, 2017; Kiuahara, 2009). To ensure an adequate number of prompts were available for the current study, the researcher wrote additional prompts, following Kiuahara's format and style. Each prompt was evaluated for similar word count, structure, and Lexile level using the word count feature of Microsoft and an online Lexile calculator (Lexile.com, 2019). Student writing was scored by a count of argument elements present in the writing. One point was given for each element present. The argument elements rubric is found in Appendix F. Once data stabilized in the number of argument elements present, students began instruction as previously described in the experimental design.

Instruction

During the instruction phase of this study, students were taught STOP + AIMS + DARE using the SRSD framework established by Harris and Graham (1996). Lesson plans and student materials were adapted from Harris, et al. (2008), SRSD Online (SRSD Online, 2017), and from a doctoral dissertation (Kiuahara, 2009). The instruction phase

included five lessons, which took place over approximately ten sessions (see Appendix C for sample lesson materials). All teacher materials needed for each lesson were copied and kept in a binder. Each student had a folder which included the mnemonic visuals (Appendix D), notebook paper, graph paper, a transition word list, and their list of self-talk statements. The researcher kept the student folders between lessons. Each lesson included: lesson plan, teacher fidelity checklist, teacher materials, and student materials for the lesson. Each lesson lasted approximately 40 minutes, with students being allowed to use extended time on written responses to reflect IEP accommodations.

Pre-Assessment. During the first stage, *Develop Background Knowledge*, the researcher orally reviewed student understanding of argument writing by asking the student to brainstorm the elements of an argument response. “What do effective arguments have in common?” and “What makes an argument strong?” are examples of questions asked by the researcher. Next, the researcher and student discussed the significance of the genre by identifying ‘real world’ examples of arguments. The researcher and student then read and analyzed a model argument essay, collaboratively identifying components of the model essay like a hook, thesis statement, and evidence. During the final portion of this stage, the student was asked to respond to an argument writing prompt with their best writing. This pre-assessment data point, collected prior to any strategy instruction, is reflected in the graphed results. Subsequent lesson plans are summarized below.

Lesson 1. As they entered the instruction phase, each student was introduced to parts of the essay planning strategies STOP, AIMS, and DARE and practiced orally reciting the steps. The researcher and student identified essay parts of an exemplar before annotated the student’s pre-assessment essay, highlighting any of the argument elements included in

the writing. The researcher and student briefly discussed the strengths of the pre-assessment and how the pre-assessment writing could be improved. “What did you do well?” and “What would make this section stronger?” are examples of questions asked of the students during this lesson. Finally, using the Argument Elements Rubric, students scored their last baseline essay, pre-assessment essay and graphed the argument elements found in their own writing.

Lesson 2. Students orally recited the parts of the essay planning strategies STOP, AIMS, and DARE. If the student did not remember all the parts, the researcher provided prompting and cueing such as, “Oh, I know I need to develop a *topic* sentence, right? Could we use the top of this table all by itself? No? What does it need? Oh, yes, it needs *supporting ideas*!” Students also had access to their mnemonic visual reminders in their folders. Through oral review, students demonstrated understanding of the parts of an introduction using AIMS and the parts of a body and conclusion using DARE strategies. During this lesson, the researcher modeled a response to an argument writing prompt from start to finish and included positive self-statements throughout. When the response was complete, the students and researcher counted the argument elements present for the rubric score. The researcher modeled the use of positive self-statements throughout the writing process, and the students began to develop their own positive self-statements to use during writing. Following the lesson plan materials, the students generated examples of self-talk initiated when doing something they like to do or feel confident doing. The students were then asked to choose from their list a few statements they could use while writing. The researcher modeled this process, using personal examples of cooking for her family. “This smells great! The kids will love this.” and “I need to remember to pre-heat

the oven before I make the pie filling.” The researcher then modeled how the positive self-statements could be transferred to an activity about which she is less confident, like driving in the rain. For example, the reminder to complete the task of pre-heating the oven before making the pie filling could be transferred to remembering important steps when driving on wet roads. “I can do this. I have done this many times before and been fine. I’ll just keep a safe distance from others, and if I need to slow down, I’ll remember to pump the brakes.” Positive self-statements can serve as reminders to think about the steps of the writing process, provide encouragement to continue writing and prompts to self-regulate the use of the strategy (Graham, et al., 1992).

Lesson 3. Students orally stated the parts of the essay planning strategies STOP, AIMS, and DARE. Again, the researcher provided support if the students could not recall all of the strategy elements. Scaffolds included verbal prompts such as saying the first word of the element, and visual prompts such as patting the tabletop to remind students of the “develop a topic sentence” element. Students collaboratively wrote an argument response with the researcher using the STOP, AIMS, and DARE strategies and positive self-statements. Following the argument element rubric, students scored the collaborative essay, graphed the number of argument elements, and set goals for their next essay.

Lesson 4. Students orally stated the parts of the essay planning strategies STOP, AIMS, and DARE, again receiving scaffolded supports as needed. Students independently planned and wrote an essay using the strategies, evaluated their work, and set goals for their next essay. Once the student began writing, the prompts given were exclusively strategy related, like “Have you completed STOP? What’s next?” or “Do you need to use your self-talk?” Prompts were offered only if the student demonstrated frustration with

the task, either verbally or by stopping work. Once complete, students scored their work using the argument elements rubric, graphed their score, and set goals for the next writing.

Lesson 5. Students orally stated the parts of the essay planning strategies STOP, AIMS, and DARE. Students brainstormed ideas for writing and independently wrote an essay using the strategies. Students utilized the argument elements rubric to self-score, graph results, and set goals for their next writing.

Maintenance

Two writing prompts were administered to each student, similar in style to the prompts used for baseline and intervention. Students received maintenance prompts approximately two weeks apart following completion of the instruction phase. The maintenance prompts were scored in the same manner as other phases of the study, with trained teachers scoring all. Reliability was calculated using Pearson's r .

Dependent Variables and Recording Procedures

The dependent measures of the intervention are the number of argument essay elements employed by students in their writing, a holistic rating of the quality of the essay, a total word count, and a social validity score. Since the number of argument elements was the primary focus, experimental control was established for this decision-making dependent variable.

Instrumentation and Scoring

Baseline

Students completed argument writing tasks during each phase of the study: baseline, intervention, and maintenance. The researcher administered writing prompts

taken from high school leveled planning materials developed and adapted from Harris, et al. (2008), SRSD Online (SRSD Online, 2017), and a doctoral dissertation (Kiuahara, 2009). Sample prompts are included in Appendix E. For each baseline probe, the students were given the prompt, a piece of notebook paper, and a pencil. Students were also given the choice to complete their response on their school-issued Chromebook. All students chose to respond using their school-issued Chromebooks. The researcher read the prompt aloud, set a timer for 40 minutes, and instructed the students to begin writing. Forty minutes was chosen because it is the standard time for a stand-alone on-demand writing prompt on the Kentucky Performance Rating of Educational Progress (K-PREP), which is administered to high school juniors in Kentucky (Kentucky Department of Education, 2018). To reflect IEP accommodations, extended time was available to students who needed it. However, none of the students used more than the standard 40-minute allotment. The researcher remained across the table from the students while they wrote. Upon completion, the students shared their work electronically. To preserve anonymity, the responses were then copied electronically and organized into numbered electronic folders (one to three) and shared with the scorers. All identifying information was extracted from the student work. The essays were scored by two trained teachers, blind to the research questions and hypotheses. Prior to scoring student work for this study, the teachers calibrated their scores with sample essays taken from the SRSD Online materials (SRSD Online, 2017). Pearson's r to test correlation between the scorers was computed.

Instruction and Maintenance

Following the procedures established in baseline, during the instruction (lessons four and five) and maintenance phases, students were presented with argument writing

prompts along with their student folder containing notebook paper, graph paper, their self-talk statements. While the mnemonic charts were included in the student folders, none of the students chose to access the charts. As with the baseline phase, once students were finished writing, they shared their work electronically with the researcher. The researcher made an electronic copy of the responses and redacted all identifying information before placing student work into numbered electronic folders to be shared with the scorers.

Strategy-Specific Essay Elements

Strategy-specific essay elements present in student writing were measured by a simple count of the following argument components: *Attract the reader's attention (hook) (1), Identify the problem (1), Map the context (background information)(1), State my thesis(1), Develop a topic sentence (1), Add supporting ideas (3), Reject arguments for the other side (1), and End with a conclusion (1)*, for a possible ten essay elements present. If students expanded on any of the essay elements (e.g. provide additional supporting ideas or reasons to reject the counterargument), the additional essay elements received 1 point (De La Paz & Graham, 1997; Taft & Mason, 2011). Graham (1990) established using essay elements as a measure, and those guidelines were applied. In all phases of the study, the essays were scored by two trained teachers blind to the research questions and hypotheses. Pearson's r to test correlation between the scorers was computed.

Holistic Rubric Score

Student writing was scored for overall quality using the ACT writing rubric found in Appendix G (ACT.org). All essays were scored by two trained teachers blind to the

purpose of the study. Following the pattern of Kiuahara et al. (2010), the scorers read attentively, but not laboriously to determine overall quality. Spelling and grammar did not count against the student unless the mistakes interfered with the message the writer was attempting to convey.

Total Words Written

All student writing was submitted electronically. The word count feature was used to determine the total number of words written (TWW) in each writing sample.

Social Validity

At the completion of the study, the students completed a survey measuring social validity using a combination of Likert-scale and open-ended responses (see Appendix B). The Likert-scale statements included: 1) I can identify all the elements of an effective argument essay. 2) I understand all the steps of the STOP + AIMS + DARE strategy. 3) I feel confident that I will be able to use the STOP + DARE + AIMS strategies in the future when I am asked to complete an argument writing task. 4) I liked the methods my teacher used to teach the strategies. 5) I am a better writer now than I was before I learned to use STOP + DARE + AIMS.

Reporting

The number of strategy-specific essay elements was the decision-making variable, and student scores were recorded in a graph. Also recorded were the mean scores and ranges for each phase, along with the percentage of non-overlapping data (PND). PND was calculated by counting all non-overlapping data points in the baseline and intervention phases. The PND was computed by counting all non-overlapping data points

in both phases, dividing by the total number of data points in the phase, and multiplying by 100 (Gast & Ledford, 2014).

Reliability and Validity

Interobserver Agreement. Student writing was scored by two trained teachers blind to the research questions and purpose of the study. Scores were based on the number of strategy elements present in each essay and a holistic score. The two teachers' scores were calibrated for argument strategy elements and holistic rubric scores with sample essays prior to the start of the study and found to be significantly correlated based on Pearson's r scores.

Procedural Reliability. The researcher used a fidelity checklist (Appendix I) for each lesson to confirm that all instructional steps were followed. As an additional measure of fidelity, the lessons were recorded using either Swivl technology to track and record the teacher audio visually, or a simple audio recording. A trained teacher unfamiliar with the design and purpose of this study independently reviewed a random sample of 25% of the recordings. Using the same lesson plan checklists used by the researcher in the study, the scorer checked off the lesson plan steps as they occurred in the recording. An average percentage of the steps completed across each lesson, the range of scores, and mode were computed.

Threats to Validity. Single subject research design seeks to establish functional relationships between independent and dependent variables. When changes in performance occur immediately following the introduction of the independent variable (SRSD instruction), confidence increases that the change was caused by the intervention. If changes are delayed, the potential for demonstrating experimental control is weakened.

However, because the primary research question in this study focused on the measurement of the outcome of strategy use as the result of internalized understanding, the difference in performance was not expected to be immediate. Other potential threats to internal validity, including history, attrition, and maturation should also be noted (Gast & Ledford, 2014). Measures to control for these threats included asking the classroom teachers not to implement any other argument writing strategy instruction during the study, choosing participants who had a history of consistent school attendance, and ensuring that the length of the study was appropriate.

Data Analysis

Visual analysis of the data collected was used to determine if a functional relationship between SRSD instruction and the dependent variables existed. In each phase, the data for each student was graphed and used to determine the level of performance, the stability and trend of the data. Additionally, the visual analysis was used to determine progression into the next phase of the study.

The four step process recommended by Kratochwill, et al. (2010) was used in the visual analysis process: 1) record a predictable pattern of baseline data 2) examine the data within each phase to identify patterns in the data 3) make comparisons between similar data across phases to determine the effect of the independent variable 4) examine across phases to identify at least three demonstrations of effect at various points.

Limitations

There were limitations to this study. First, the sample size was small, which limited generalizability. Generalizability could be increased with future replications of the study. Second, because the multiple baseline design only introduced the independent

variable one time to each participant, the design lacks intra-subject replications, which, according to Gast & Ledford (2014), limits the demonstration of effectiveness.

CHAPTER FOUR

RESULTS

The purpose of this chapter is to present the results of analysis of all study questions in terms of student outcomes, interobserver agreement and social validity. The study examined the following questions:

- 1) Does instruction in SRSD (STOP + AIMS + DARE) increase the number of argument elements present in student writing?
- 2) Does instruction in SRSD (STOP + AIMS + DARE) result in an increased score in overall quality of writing as measured by a holistic rubric?
- 3) Does instruction in SRSD (STOP + AIMS + DARE) increase the total number of words produced by students when presented with an argument writing prompt?
- 4) Does SRSD instruction increase the self-efficacy of students with regard to writing?

Student Outcomes

The primary dependent variable for this study was argument elements present in student writing, with secondary dependent variables of holistic writing scores, total words written, and a measure of student efficacy in writing. The resulting examination includes visual and statistical analyses across all participants. Across all dependent variables, students' argument writing skills improved following SRSD instruction using STOP, AIMS, and DARE. The number of argument elements, holistic rubric scores, and total

words written are displayed in Figures 4-1, 4-2, and 4-3. Examples of student writing are included in Appendix F. Student responses to the social validity survey were positive as related to the strategy instruction and their individual mastery.

Argument Elements

Student writing was scored with an Argument Element Rubric (see Appendix H). Students received one point for each of the following argument elements: hook (1 point), identification of the problem (1 point), map the context (1 point), thesis (1 point), topic sentence (1 point), supporting ideas (3), refutation/rejection of arguments for the other side (1 point), and ending with a conclusion (1 point), for a total of ten points. Students received bonus points for elaborating on supporting ideas and/or rejections of arguments for the other side. Once students engaged in independent writing following instruction, the criterion to exit intervention was set at seven argument elements in three separate responses.

Ashley

Ashley completed five baseline sessions before entering intervention, with a moderately variable decreasing trend with scores of 4, 3, and 2 argument elements prior to entering intervention. The range of baseline scores was 1.5-4.0. Once she entered intervention, she completed a pre-assessment writing response, which is reported separately in the graphs. The pre-assessment data point was obtained prior to any strategy instruction. Ashley's pre-assessment data point continued along the level and trend of her baseline data, with a baseline mean of 2.75 and a pre-assessment score of 2.5. Following strategy instruction in lessons 1-3, the change in level was immediately evident, with a post-instruction mean of 10.5 and a range of 10-11. There was one overlapping data point

in baseline and intervention, for a percent of non-overlapping data (PND) value of 89%. PND is calculated to supplement the visual analysis of the data. PND in the range of 70-90% is considered to be reflective of an effective intervention, while $PND > 90\%$ is indicative of a very effective intervention (Scruggs & Mastropieri, 1998). Ashley's first three independent writing responses in the post-instruction phase met the criteria of including seven argument elements in three sessions, which allowed her to move to the maintenance phase, where data showed a flat trendline of 9.0, but a sustained level change when compared to baseline data.

Brittany

Brittany completed eight baseline sessions with a range of 0.0-2.5 and a mean of 1.28 before entering intervention. As shown in Figure 4-1, though the data showed a moderately variable increasing trend with scores of 1.0, 1.5, and 2.0, there was stability in the low level, which contributed to the decision for her to be the second student to enter intervention. Her pre-assessment data point continued the level and trend of the baseline data with a score of 2.0. While her first post-instruction writing met the criterion of including at least seven argument elements, Brittany's second post-instruction response fell below the cutoff, with a score of six. She completed four post-instruction writings to meet the criterion and move into the maintenance phase. As a whole, her post-instruction data as showed moderate variability, with a range of 6.0-8.5. Following strategy instruction in lessons 1-3, the change in level was immediately evident with a mean of 7.25. There was one overlapping data point between baseline and intervention, PND 92%. In the maintenance phase, although one response only included six argument elements, the change in level was sustained, with a range of 6.0-8.0 and a mean of 7.0.

Alex

Alex completed eleven baseline sessions before entering intervention, with three data points of decreasing trend before stabilization and moderate variability overall, as shown by a range of 1.0-5.5 and a mean of 2.86. His pre-assessment data point continued the level and trend of baseline, with a score of 4.0. Following strategy instruction in lessons 1-3, Alex's level immediately increased, with a range of 8.0-10.5 and a mean of 8.8. There was one overlap in data points between baseline and intervention, PND 93%. The change in level continued through the maintenance phase, with range and mean scores of 9.0.

Summary

During the baseline phase, students' collective mean of argument elements was 2.3. Following instruction, the collective mean of argument elements present in student writing was 8.9, with all three students demonstrating significant increases. Growth was sustained through the maintenance phase, as shown by a collective mean of 8.33. As outlined in the previous chapter, student writing was scored for overall quality using the 6-point ACT writing rubric found in Appendix H (ACT.org). All essays were scored by two trained teachers blind to the purpose of the study. Following the pattern of Kiuvara et al. (2010), the scorers read attentively, but not laboriously to determine overall quality. Spelling and grammar did not count against the student unless the mistakes interfered with the message the writer was attempting to convey.

Figure 4-1

Effects of SRSD on Number of Argument Elements

Holistic Rubric Scores

Ashley

Ashley's holistic rubric scores were initially low and showed a decrease from the first baseline data point of 2.0 to the fifth data point of 1.0. The baseline mean was 1.5. Following strategy instruction, Ashley demonstrated a slight change in level along with an increasing trend of rubric scores, with scores ranging from 3.0 to 3.5 and a mean of 3.3. Her first maintenance data point continued along the increasing trendline of post-instruction with a score of 4, while the second data score decreased to 3.5, still maintaining the level change from baseline. The mean for the maintenance phase was 3.75. PND for this variable was 100%.

Brittany

Brittany's baseline scores were low and flat across all data points, with holistic scores of 1. Her pre-assessment score was slightly higher, at 1.5. Following strategy instruction in lessons 1-3, there was an immediate change in level with an upward trend of the holistic writing scores. Her highest score was a 3.5, with a range of scores from 2.5 to 3.5 and a mean score of 3.1. In the maintenance phase, however, there was a decline in the rubric scores, with scores of 3 and 2 and a mean of 2.5. PND for this variable was 100%.

Alex

Alex's baseline scores indicated some variability but established a low level. His baseline range was 1-3, scoring the highest in response to a prompt on which he had strong opinions. The pre-assessment data point continued the expected path of the baseline. Following strategy instruction in lessons 1-3, a slight increasing level change occurred, as his range of scores was 3-4. During the maintenance phase, he maintained

the change, with scores of 4 and 3, respectively and a mean of 3.5. With three overlapping data points across baseline and intervention, the PND for this variable was 80%.

Summary

During the baseline phase, the collective mean for the holistic rubric score was 1.4. Following instruction, the collective mean for the rubric score was 3.2. Growth in this component continued to the maintenance phase, shown with a collective mean score of 3.25.

Figure 4-2.

Effects of SRSD on Holistic Rubric Scores of Participants

Total Words Written

Ashley

Ashley's Total Words Written baseline data was stable in trend and variability, with a range of 52-96 and mean of 70.2. The pre-assessment data point continued along the trend of the baseline at 97. Following strategy instruction in lessons 1-3, there was a significant change in level and an increasing trend, with a difference of 192 words between the pre-assessment data point and the lowest post-instruction point. During the intervention phase, the range of scores was 289-366, with a mean of 311.6. Ashley's writing during the maintenance phase demonstrated an initial increase along the post-instruction trendline with a score of 366 followed by a slight decline of 356 and a mean score of 361.

Brittany

Brittany's baseline scores for TWW initially showed a sharp decline before demonstrating a slight increasing stable trend. The range of scores in the baseline was 26-75, with a mean of 43.5. Her pre-assessment score maintained the stability of the baseline with a score of 33. A change in level, along with an increasing trend, was evident following strategy instruction in lessons 1-3. Post-instruction, Brittany's range increased to 110-161, with a mean of 137.5. During the maintenance phase, the first data point continued the increasing trend of the post-instruction phase at 166; however, combined with the second data point score of 115, the resulting mean was 140.5.

Alex

Data during the baseline exhibited some variability but overall stability in level and slightly increasing trend. In baseline, the range was 70-156 and the mean 105.6. As expected prior to instruction, the pre-assessment data point continued the baseline trend,

at 122. Following strategy instruction in lessons 1-3, the level of the data changed and demonstrated an increasing trend, with scores ranging from 276-305 and a mean of 294.3. Unlike the other two participants, Alex continued the increasing trendline established post-instruction during the maintenance phase, with scores of 368 and 391 and a mean of 379.5.

Summary

The collective mean during baseline for TWW was 73.1. Following instruction, the collective mean was 330. This increase was sustained through the maintenance phase, with a collective mean of 296.

Figure 4-3

Effects of SRSD on Total Words Written

Table 4-1*Mean and Range of Argument Elements, Holistic Rubric Scores, and Total Written Words*

Student	Phase	AE (M)	AE (Range)	HRS(M)	HRS (Range)	TWW(M)	TWW (Range)
Ashley	Baseline	2.75	1.5-4.0	1.5	1.0-2.0	70.2	52-96
	Pre-Assess.	2.5	-----	1.0	-----	97	-----
	Intervention	10.5	10-11	3.33	3.0-3.5	312	289-366
	Maintenance	9.0	9	3.75	3.5-4.0	361	356-366
Brittany	Baseline	1.28	0.0-2.5	1.0	1.0	43.5	26-75
	Pre-Assess.	2.0	-----	1.5	-----	33.0	-----
	Intervention	7.25	6.0-8.5	3.1	2.5-3.5	137.5	110-161
	Maintenance	7.0	6.0-8.0	2.5	2.0-3.0	140.5	115-166
Alex	Baseline	2.86	1.0-5.5	1.59	1.0-3.0	105.6	70-156
	Pre-Assess.	4.0	-----	1.5	-----	122.0	-----
	Intervention	8.83	8.0-10.5	3.3	3.0-4.0	294.3	276-305
	Maintenance	9	9	3.5	3.0-4.0	379.5	368-391

Note. AE=Argument Elements; HRS=Holistic Rubric Score; TWW=Total Words Written

Social Validity

Student report of social validity revealed that students liked the lessons and felt highly confident in their learning of the strategies. Results also indicated that the students' perception of their writing ability improved following instruction. As a group, they were slightly less confident that they would remember the strategies in the future when presented with writing tasks.

Table 4-2*Summary of Social Validity Student Responses*

Statement	Number of Student Responses Per Statement					Mean
	Strongly Agree 5	4	Neutral 3	2	Strongly Disagree 1	
1. I can identify all the elements of an effective argument essay.	3					5
2. I understand all the steps of the STOP + AIMS + DARE strategies.	3					5
3. I feel confident that I will be able to use the STOP + DARE + AIMS strategies in the future when I am asked to complete an argument writing task.		3				4
4. I liked the methods my teacher used to teach the strategies.	3					5
5. I am a better writer now than I was before I learned to use STOP + DARE + AIMS.	3					5

Fidelity and Reliability

Interobserver Agreement

Interobserver agreement was measured using *Pearson's r* to calculate the correlation between the two scorers' individual scores for each written response. For argument elements, the scores were found to be significantly correlated, $r(40) = .94, p < .01$. The holistic scores were found to be significantly correlated, $r(40) = .91, p < .01$.

Procedural Reliability

After each lesson, the researcher completed a fidelity checklist (Appendix I). The lessons were also recorded. Using the recordings and the fidelity checklist, a trained observer reviewed 25% of the lessons. An average percentage of the steps completed across each lesson, the range of scores, and the mode were computed. The average percentage of the steps completed were 96%, with a range of 7-8 on an 8-point scale. The mode score was 8.

CHAPTER FIVE

DISCUSSION

The purpose of this study was to extend the existing research base of SRSD using persuasive or argument writing strategies in secondary settings with students with disabilities. Ray, et al. (2019) were intentional in including high school students with disabilities who plan to go to college. Similarly, the participants in this study all intend to pursue some form of post-secondary education. However, while the students in the current study received ELA instruction in a resource room, the students with disabilities included in the Ray, et al. study received ELA instruction in the general education setting. Together, the studies support the assertion that SRSD is an effective strategy to utilize with high school students with disabilities who receive educational services in inclusive or resource settings. Consequently, the positive results following intervention are promising for additional research efforts involving SRSD strategies and college students with disabilities. Extending the work of De La Paz and Graham (1997), who employed STOP and DARE with middle school students, Kiuvara et al. (2012) added the AIMS strategy for work with high school students to address the expectation of more sophisticated writing demands in the high school setting. While similar to the Kiuvara et al. (2012) study, the present study utilized differences in experimental design, dependent variables, inclusion criterion and measure of social validity. The participants have plans to pursue post-secondary training in a college or vocational setting. Because post-

secondary writing tasks often involve some form of argument writing, and the students here indicated confidence in their mastery of the strategy, the positive results of this study could extend to their post-secondary writing demands. Student responses were evaluated for changes in the number of argument elements included in their writing, overall holistic rubric score, and the total number of words written. A measure of social validity was also investigated and evaluated by participants' survey responses. The objective of this chapter is to interpret and discuss the outcomes of the study, along with an examination of its limitations and implications for future practice and research.

With regard to the four dependent variables, the results of the study are positive and suggest that SRSD can improve the argument writing of students with mild disabilities. Participants demonstrated increases in argument elements present in writing when responding to prompts, showed gains in holistic rubric scores, and increased the total words written in individual responses. Student survey responses were positive regarding the strategy instruction and its usefulness.

Dependent Variables

Argument Elements

Does instruction in Self-Regulated Strategy Development (SRSD STOP + AIMS + DARE) increase the number of argument elements present in student writing?

The data presented in chapter 4 support the conclusion that the use of SRSD strategies STOP, AIMS, and DARE resulted in an increase in the use of argument elements in student writing.

Although the pre-assessment data point was collected at the start of each student's intervention phase, no strategy instruction had occurred prior to the administration of the

prompt. As expected, each pre-assessment data point continued at the level and trend of the baseline data. The number of argument elements present in student responses was the decision-making variable for this study (i.e., the number of argument elements present determined when the next participant would enter intervention). Experimental control was demonstrated when SRSD strategy instruction improved individual participants' outcomes, as evidenced by the immediate change in level and trendline following instruction in using STOP, AIMS, and DARE, supporting the assertion that the use of STOP, AIMS, and DARE was effective in increasing the use of argument elements in student writing.

It is well-documented that students with disabilities often lack the skills required to generate plans for writing, expand on their ideas and self-monitor their writing process (Graham & Harris, 1996). Instead, they rely on whatever background knowledge they possess and typically begin to write with no pre-planning. This 'retrieve and write' approach to writing is limiting for students with disabilities, many of whom have limited content knowledge and difficulty recalling information (Graham, et al., 1991). Because deficits in writing can result in long-term post-secondary limitations related to educational and employment opportunities, it is important to continue to explore effective instructional practices with secondary students and to validate the effectiveness of SRSD with this population of learners (Graham & Perin, 2007; Mason, et al., 2011).

There is extensive research supporting the benefits of strategy instruction in writing, ranging from broadly defined practices such as brainstorming to explicit instruction to complete a specific writing task. In a 2007 meta-analysis of writing instruction for adolescents, strategy instruction for struggling writers was reported to

have a greater effect size ($d = 1.02$) than strategy instruction for students in the general education setting ($d = .70$) (Graham & Perin, 2007). Additionally, research favoring the use of explicit instruction for students with disabilities across grade levels and contents is broadly endorsed (Archer & Hughes, 2011; Hattie, 2012). The SRSD model is steeped in both explicit and strategy instruction. SRSD strategies in the present study included learning the mnemonic components and when to use them: STOP for planning and pre-writing, AIMS for the introduction, and DARE for the body of the response. Prior to strategy instruction, when presented with a prompt, the participants simply wrote and submitted their responses. During the post-instruction and maintenance sessions, students demonstrated their internalization of the SRSD strategies by applying them independently. In contrast with the baseline approach, when presented with a writing prompt after receiving instruction, all three participants developed pre-writing plans, organized their ideas, and determined a stance on each topic before writing. Once the pre-writing was complete, students had the framework for written responses and consequently increased the use of argument elements. While the students were familiar with brainstorming ideas for writing, learning to apply the STOP strategy prompted them to consider perspectives from both sides of an issue prior to establishing a viewpoint for themselves. STOP also served as a reminder for students to organize their ideas from strongest to weakest, which provided structure and focus for written responses. Once the planning process was complete, the students moved on to the AIMS and DARE components, many times jotting the words “AIMS” and “DARE” on their notebook paper as visual reminders of the strategy steps, marking the steps off through the progression of writing (see Appendix G for a sample of student planning post-instruction). The

immediate change in the level of the data following strategy instruction supports the inference of a functional relationship between the increase in argument elements and the instruction. Though replications of the current study are necessary to generalize the findings, the results are encouraging for secondary students with disabilities and could inform future research directions for this population, both in secondary and post-secondary settings.

An essential component of mastering the strategies included in this study is the internalization of positive self-talk. Increased awareness of cognitive processes during writing serves as a catalyst for self-regulation of strategy implementation (Graham, et al., 1992). Though not formally measured in this study, participants' use of positive self-statements during writing was observed by the researcher post-instruction. Writing independently, students frequently used the self-talk statements developed during strategy instruction. These utterances were usually very quiet and not meant for anyone else to hear. For example, "Okay, that part is finished. Now what?" and "I like it." Self-talk also seemed to encourage the students to continue planning and writing, with examples "One more argument. I can do this." and "Almost finished." Similar statements were modeled by the researcher during lesson 2 and generated collaboratively with the students during lesson 3. Again, while no data was formally collected on this component alone, using the self-statements appeared to have a positive impact on the students' persistence to complete the writing task.

Holistic Rubric Score

Does instruction in SRSD (STOP + AIMS + DARE) result in an increased score in overall quality of writing as measured by a holistic rubric? Following instruction,

students planned their responses with a self-generated T-chart and set goals for including at least three pieces of evidence for each side of an issue (see Appendix G for a sample of post-instruction planning.). Most post-instruction responses included improvements in AIMS strategy components of attracting the reader's attention, identifying the problem, mapping the context with background information, and stating a thesis. Additionally, students were intentional with using transition words, which resulted in greater clarity. Generally, post-instruction body paragraphs included arguments for both sides of an issue. Strategy instruction had a positive effect on the overall writing quality for all three participants, as demonstrated by the immediate level change in the data following instruction.

Total Words Written

Does instruction in SRSD (STOP + AIMS + DARE) increase the total number of words produced by students when presented with an argument writing prompt? As expected, all three participants showed significant increase in total words written following strategy instruction. It is noteworthy to report that the mean of Ashley's word count from baseline to maintenance increased by more than five times, while Brittany and Alex's scores increased by approximately three times from baseline to maintenance.

Social Validity

Does SRSD instruction increase the self-efficacy of students with regard to writing? Student responses regarding strategy instruction were positive, indicating confidence in understanding the components of an argument essay and their knowledge of the strategy components. Additionally, students are certain of their writing improvements and liked the methods the researcher employed to teach the strategies.

However, students are less certain of their ability to generalize their learning to other situations where they might be presented with an argument writing task.

Some quality indicators for social validity are that the dependent variable is socially important, that the magnitude of change is socially important, and the implementation is cost effective. Additionally, social validity is developed when the implementation of the independent variable occurs within a typical context (Horner, et al., 2005). The writing demands in high school and in post-secondary educational and vocational settings signify the importance of improving both writing skills and confidence about writing in students with disabilities. SRSD writing materials are widely available and inexpensive. Finally, SRSD incorporates elements of teaching practices that are commonly observed in classrooms, such as a think-aloud lesson and pre-planning activities. Given explicit instruction on strategy use themselves, secondary writing teachers, like their elementary and middle school counterparts, could certainly incorporate the SRSD framework into their instruction.

Limitations

Several limitations of this study should be considered. First, there was the attrition of one student. Christopher revoked his assent after he had completed baseline and lessons 1-3. In spite of having established inclusion criterion to attempt to control for this threat, Christopher's external circumstances resulted in his revocation of assent. Had he chosen to continue, Christopher's data would have expanded the basis of the findings. The decision to introduce the intervention to Brittany before Alex in spite of a slightly ascending trend line in the baseline phase is also a limitation. Ideally, the trend line would have been stable and descending prior to introducing the intervention. However,

her data reflected greater stability comparatively; thus, the determination to advance into the intervention phase.

Another limitation of the study is the degree of generalizability based on the single subject design. Single subject research relies on direct and systematic replications to increase generalizability, so the replications would need to include a variation in grade, writing genre, or educational setting (Horner, et al., 2005). None of the writing prompts presented to students contained any content-specific material, which could limit students' perception of the generalizability of the strategies outside the ELA setting, which is where most writing instruction traditionally occurs. Additionally, while the instruction was implemented with a high degree of fidelity, it was delivered by the researcher, who may not be representative of secondary teachers. Specifically, other instructors may not have the experience or enthusiasm about teaching writing, which could impact student outcomes. Curriculum and pacing guides could also contribute to teachers' anxiety about the time it might take to try something unfamiliar. Training in the SRSD strategy instruction would be necessary in order to ensure fidelity of implementation. Furthermore, the students chose to participate and could opt out at any time. Students do not have this level of autonomy in a regular school day. Another limitation is that this study took place during students' study hall time in a 1:1 setting, which is atypical of secondary instruction. Finally, long-term maintenance data were not collected, which would be useful in determining future directions in instructional practice.

Future Research

This study adds to the growing body of evidence supporting the use of SRSD strategies with high school students; however, further replications are necessary to

generalize to different populations. The research could be extended to include a variety of high school grade levels and special education eligibility categories. Another extension would be to include data collection on the students' use of self-statements, perhaps through a self-reporting measure at the close of each session. Additionally, the research could be extended to include content specific prompts during the instruction or maintenance phases. Doing so could strengthen the generalizability. Touting the flexibility of SRSD application for teaching argument writing, Leins, et al. (2017) provide examples of how to apply argument writing to different content areas. For example, in mathematics, students could be prompted to discuss situations in which real-life data can be used to support an argument. A study specifically focused on content area writing using the SRSD framework could provide additional support for the existing secondary research.

Though many secondary writing tasks involve argument writing, instructing high school students with SRSD strategies for other writing genres is needed. Studies examining the use of SRSD strategies for informational and narrative writing would provide data to inform recommended changes to practice or implementation of writing instruction. Improving student writing ability across genres could address the deficits for students with disabilities identified by the Nation's Report Card of poorly written sentences, lack of clarity in idea development, and deficiencies in overall structure (National Center for Education Statistics, 2012). Extended research with secondary students has the potential to positively impact overall achievement and post-secondary outcomes.

The purpose of this study was to add to the existing research around implementing SRSD strategies with high school students. Secondary special education teachers are expected to address the writing standards, provide accommodations, ensure student engagement, and monitor student progress. Implementing SRSD with fidelity in secondary classrooms not only provides students with the explicit strategy instruction they need to be successful, but also affords teachers the flexibility to adjust, revisit, and reteach skills as necessary (Graham, et al., 2015; Leins, et al., 2017). Occasions to write do not cease following high school graduation, with advances in technology perhaps increasing opportunities to write for personal and professional reasons. Equipping special education teachers of secondary students with evidence-based strategies for meeting the needs of their diverse learners is necessary for student and teacher successes (Leins, et al., 2017).

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APPENDIX A: PARENTAL CONSENT

Subject Informed Consent Document

EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT ON THE ARGUMENT WRITING OF ADOLESCENTS WITH DISABILITIES

Investigator(s) name & address: Amy S. Lingo, Ed.D.
University of Louisville, College of Education & Human Development,
Department of Teaching & Learning, Louisville, KY 40292
Site(s) where study is to be conducted: North Bullitt High School
Phone number for subjects to call for questions: 502-852-3603

Introduction and Background Information

Your child is invited to participate in a research study. The study is being conducted by Amy S. Lingo, Ed.D. and Stacy Crawford Bewley, M.Ed. The study is being conducted through the University of Louisville, College of Education and Human Development. The study will take place at North Bullitt High School. Approximately eight subjects will be invited to participate.

Purpose

The purpose of this study is to examine the effects of research-based writing instruction on argument writing skills of adolescents with disabilities. The goal is to see if the instruction results in improvement of argument writing.

Procedures

Participation in this study will involve extra instruction in argument writing with a certified special education teacher from your student's school. Your child will be given a pre-assessment before instruction begins and will be asked to respond to writing prompts throughout instruction. We anticipate that your child's involvement will require 12-15 lessons.

Potential Risks

There are no foreseeable risks, although there may be unforeseen risks.

Benefits

The possible benefits of this study include providing research-based strategies for students to improve argument writing.

Compensation

You will not be compensated for your time, inconvenience, or expenses for your child's participation in this study.

Confidentiality

Total privacy cannot be guaranteed. Your child's privacy will be protected to the extent permitted by law. If the results from this study are published, your child's name will not be made public. While unlikely, the following may look at the study records:

The University of Louisville Institutional Review Board and Human Subjects Protection Program Office.
Office for Human Research Protections (OHRP),
Office of Civil Rights, and
Staff from the University of Louisville directly involved with the study

All methods will be used to ensure that the data collected is secured (e.g., locked in a file cabinet, kept in a secured area, or kept in a password protected computer).

Voluntary Participation

Taking part in this study is voluntary. You or your child may choose not to take part at all. If you decide for your child to be in this study, you may stop taking part at any time. If you decide for your child to not to be in this study or if you stop taking part at any time, you will not lose any benefits for which you may qualify.

You will be told about any changes that may affect your decision to continue in the study.

Research Subject's Rights, Questions, Concerns, and Complaints

If you have any concerns or complaints about the study or the study staff, you have three options.

You may contact the principal investigator at 502-852-0576.

If you have any questions about your rights as a study subject, questions, concerns or complaints, you may call the Human Subjects Protection Program Office (HSPPPO) (502) 852-5188. You may discuss any questions about your rights as a

subject, in secret, with a member of the Institutional Review Board (IRB) or the HSPPO staff. The IRB is an independent committee composed of members of the University community, staff of the institutions, as well as lay members of the community not connected with these institutions. The IRB has reviewed this study.

If you want to speak to a person outside the University, you may call 1-877-852-1167. You will be given the chance to talk about any questions, concerns or complaints in secret. This is a 24-hour hotline answered by people who do not work at the University of Louisville.

This paper tells you what will happen during the study if you choose to take part. Your signature means that this study has been discussed with you, that your questions have been answered, and that you will take part in the study. This informed consent document is not a contract. You are not giving up any legal rights by signing this informed consent document. You will be given a signed copy of this paper to keep for your records.

Signature of Subject/Legal Representative

Date Signed

Signature of Person Explaining the Consent Form
(if other than the Investigator)

Date Signed

Signature of Investigator

Date Signed

LIST OF INVESTIGATORS

PHONE NUMBERS

Amy S. Lingo, Ed.D.

502-852-0563

Stacy Crawford Bewley, M.Ed.

502-428-1532

APPENDIX B: SRSD Stages and Tasks

Self-Regulated Strategy Development's Stages and Tasks		
Stages	Tasks	Approximate Number of Lessons
<u>Stage 1:</u> Activate and Develop Background Knowledge	<ol style="list-style-type: none"> 1. Build enthusiasm for genre – (hype the genre) 2. Develop background knowledge, pre-skills, vocabulary 3. Read and discuss models 4. Collect Pre-Assessment 5. Provide strategy overview and good writing models 6. Introduce self-regulation (self-talk, goal-setting) 	1 - 2
<u>Stage 2:</u> Discuss It	<ol style="list-style-type: none"> 1. Map models using graphic organizers 2. Review and repair poor models 3. Build collaborative partnership 4. Provide deeper discussion of benefits of strategy use 5. Begin graphing student progress 6. Develop goals and self-talk statements 7. Explore when/where to use strategy (generalization) 	2
<u>Stage 3:</u> Model It	<ol style="list-style-type: none"> 1. Model planning and writing using think-alouds 2. Model collaborative planning and writing activities 3. Model personalization of self-talk statements 4. Model and practice self/peer scoring with rubrics 5. Model and practice graphing routines 6. Model and support goal setting 	2
<u>Stage 4:</u> Memorize It	<ol style="list-style-type: none"> 1. Ensure strategy is memorized 2. Internalize personalized self-statements 	0

<p><u>Stage 5:</u> Support It</p>	<ol style="list-style-type: none"> 1. Continue collaborative writing experiences 2. Support students’ strategy use, fading support when ready 3. Support self-regulation (self-talk, goal setting, checking off steps in strategies, “notes in corner, etc.), fading support when ready 4. Provide feedback on writing, self-regulation, and scoring guidelines, fading support when ready 	<p>5 - 10</p>
<p><u>Stage 6:</u> Independent Performance</p>	<ol style="list-style-type: none"> 1. Independent use of strategies and self-regulation 2. Fade overt self-instruction to covert (“in your head”) 3. Ensure transfer and buy-in of strategies and self-regulation 	<p>2 - 4</p>

APPENDIX C: Lesson Plan Sample

PRE-ASSESSMENT LESSON PLAN

Task 1: Build Enthusiasm for the Genre—"Hype the Genre"

Discuss:

1. Why is this genre important?
2. Connect writing to their lives.
 1. In what situations can we use this skill?
3. Get students excited about writing an argument essay.
 1. It's "fun" to be able to share our opinions and arguments for or against a topic.
 2. We can try to persuade others to agree with our point of view.

1. First, we tell students about the genre.

Sample Script:

"Today, we are going to learn a new writing strategy that good writers use for everything they write. Then we are going to learn the strategy or trick that helps you write a paper that tells the reader what you believe or what you think about something. This kind of writing is called an argument essay." (Adapted from: Project Write)

1. Then, we discuss reasons why writing an opinion piece would be helpful – connect to their lives and be excited.

Sample Script:

"Writing an argument essay is a way to tell people you're thinking about something. It's an opportunity to persuade them to change their minds. Writing an essay helps you be clear with your ideas— to organize your thoughts about your arguments. Learning to write down your thinking will help you to discuss ideas and topics that are important to you. Wouldn't it be great if you could change your parents' minds about letting you do something? How about changing a school rule? Wouldn't you like to be able to change the Principal's mind about letting you do something? It's helpful to be able to write your ideas down in an essay because arguing your point in person may get you rattled—this way you will have your ideas organized and easy to follow."

❖ Task 2: Activate/Develop Background Knowledge, Pre-skills, Vocabulary

Discuss that students:

1. Must know the parts of the strategy in the genre they are learning (e.g. mnemonic—STOP AIMS & DARE)
2. Must know the vocabulary related to the genre (e.g. argument, essay, transition words, etc.)
3. Must have background knowledge and pre-skills to move into the next stages (e.g. what are the parts of a good argument essay? What graphic organizer should I use? etc.)
4. Must develop skills in regard to writing and the self-regulation strategies to be learned (e.g. things I should say to myself when I write, find a writing partner)
 - Might say things to themselves that either help or hinder their writing
 - Provide some examples

❖ Task 3: Read and Discuss Positive Model Essays—in Selected Genre

1. Read exemplar essay in the genre (e.g. argument) out loud.
 - Show students age appropriate exemplar essays (e.g. Athenian versus Spartan)
 - Show students what a complete essay looks like
 - Show students that all of the parts are included (essay must have all its parts)
1. Note: We are not trying to teach these concepts if the student doesn't have them. Rather, we are trying to activate their knowledge to see if they have the concepts and will use them in their writing. Some students will have them and others will not.
2. After reading the sample (exemplar) argument essay:
 - Ask students to identify the parts that make up the genre just read.
 - Did the writing say what they believe?
 - Can you find at least three reasons?
 - Where is the ending sentence?
 - Use a graphic organizer and write notes on it. Examine the parts.
 - If prompting or more structure is needed you can ask, "*What would you put in an argument piece if you were writing one?*"

❖ Pre-Assess Skills—When?

The challenge with the pre-assessment is the question of *when* to do it. Some teachers pre-assess before any instruction is delivered. They will provide a brief introduction and then ask students to write a piece in the genre. Others will complete Tasks 1—3 and then ask the students to write a genre piece. The critical idea is to be consistent with your assessment routines.

❖ Pre-Assess Skills—Why?

Why collect a pre-assessment writing sample?

- Oftentimes, 40/50 % of what we plan to teach is known to some students
- Document progress so that we can move students forward
- Students can better self-monitor and set goals
- School administrators can make key data-based curriculum decisions
- Parents can feel confident that their student is making progress

❖ Pre-Assess Skills—What?

We pre-assess:

1. Background Knowledge they might have related to the genre
2. Pre-skills they might have in the genre
3. Vocabulary related to the genre

We want to use our own state and/or district standards to guide our decisions regarding key skills necessary for each grade level.

Some questions we might ask students at this juncture (orally or in writing):

- Concepts / Strategies
 - How does the writer grab the reader's interest?
 - How does the writer close the piece?
- Genre Knowledge
 - What are the parts of an opinion essay?
 - What are some different kinds of text?
 - What is the purpose of an opinion essay?
- Vocabulary / Word Choice
 - What does opinion mean?
 - How do you define a paragraph?
 - What is a setting?
 - What are “million-dollar” words?
 - How do students use figurative language?

❖ Pre-Assessment Sample Script

1. Ask questions and tell why this genre is important:

“What does the word ‘persuade’ mean to you? When do you need to persuade someone? Examples? What makes an argument more persuasive than another? Why is this skill important?” (i.e. to get what you want/to win/to get people to listen to you, etc.) *“Do you think persuasive arguments are built on facts or fiction? (factual arguments are more powerful)”*

1. Read a model argument essay:

“Okay, today we are going to read a persuasive, factual article called, “‘Would I Rather Be from the Athenian Assembly or the Spartan Assembly?’ I want you to pay close attention to how this article is written.” [Together, whole class reads the article.]

“What grabbed your interest? Did you agree or disagree with the author? Why? Would you consider this author persuasive? I wonder what the author said to him/herself while he/she was writing? Perhaps, ‘Oh, this will be a strong point.’ etc.

1. Pre-Assess Skills:

“Please do your best writing today. We will be looking this over together to decide next steps we can take to help make your writing even better. It is important that you do your best writing so that we can see what you already know how to do and not spend time working on that.

Please write an argument response about the following prompt: Should children be allowed to eat whatever they want?

When completed:

Teacher collects ALL (writing samples with name and date), self-assessments, and feedback cards.

APPENDIX D: Strategy Tools

STOP (Planning Strategy)

Ssuspend Judgment

- use **TWA** and read articles about the topic; identify facts and details using **TIDE**
- brainstorm and list ideas for and against the topic from sources

Take a Position

- evaluate your listed ideas
- choose a side of the argument; put a + at the top of the side you will take

Organize Ideas

- from strongest to weakest or most important to least important
- put stars next to your best ideas

Plan and Write More

- think about, plan and write more while developing the essay; use AIMS & DARE

AIMS (Composing Strategy for Introduction)

Atract the Reader's Attention: use an interesting "hook" to grab reader's attention

Identify the Problem: convey enough information so reader understands the problem

Map the Context: provide background information necessary to understand the issue

State my Thesis: take a position; ensure my position is clearly stated

DARE (Composing Strategy for Body and Conclusion)

Develop a Topic Sentence:

- use a sentence that tells what is coming in the paragraph
- use appropriate transition words/phrases

Add Supporting Ideas

- use elaborations
- use appropriate transition words/phrases

Refute the Other Position

- clearly reject the other position
- use appropriate transition words/phrases

End with a Conclusion

- wrap up my essay
- use appropriate transition words/phrases

APPENDIX E: SAMPLE WRITING PROMPTS

Random locker searches

Situation: In the past couple of years, parents have been concerned about the increase of school shootings. They think that school violence will decrease if the school has a policy to randomly search lockers and backpacks for weapons. Some parents want the principal to implement a random locker and backpack check. However, other parents are concerned that their child may be searched without a good reason.

Directions: Based on the above situation, discuss whether you think the principal should start a policy to randomly search lockers and backpacks for weapons. Write an essay in which you argue your position to the principal.

Athletes as role models

Situation: In the past 10 years, there has been a rise in domestic violence, drug and alcohol use, and illegal activities like dog fighting among some professional athletes. Some people believe that the view of the professional athlete as a role model is fading. However, some people believe that professional athletes contribute positively to their communities.

Directions: Based on the above situation, discuss whether you think professional athletes are positive role models for teenagers. Write an essay in which you argue your position.

Cheating

Situation: Recently, you took the UBSCT test and you saw one of your friends looking at another student's answer sheet. It is pretty obvious that your friend was cheating. However, he is your friend and you're not sure whether you should tell the teacher.

Directions: Based on the above situation, discuss whether you would tell the teacher about your friend's cheating. Write an essay in which you argue your position to your parent/guardian.

School surveillance cameras

Situation: Recently, some of the cars parked in the student, faculty, and visitor parking lots have been vandalized. The principal wants to install surveillance cameras in the parking lots, as well as in the library, cafeteria, hallways, and restrooms. However, some people believe that having cameras installed inside and outside the building is an invasion of privacy.

Directions: Based on the above situation, discuss whether you think the principal should install surveillance cameras inside and outside the school. Write an essay in which you argue your position.

APPENDIX F: Student Writing Samples Across Phases

Sample Responses, Ashley, Before and After Instruction (spelling errors corrected)

Baseline	Post-Instruction
<p><i>Ashley</i></p> <p>I think teachers should have their own rules on phones. Some teachers make you put it up in a backpack. Some teachers allow you on your phones for reference. Let's say your in art and you have this big project to do and you need a reference but you only have your phone. So some teacher let you on your phone. Why I think teachers should have their own rules on phones, is because there are teachers with the rule you can get on it when there are not talking or doing something together in class.</p>	<p><i>Ashley</i></p> <p>What do you think about school? Has it been the same for years? The teacher are wanting to know how you feel about who should set behavior rules in school. Should it be the students or the teacher? I think it should be the teachers because they have their own goals for classes, have been in school before they were teaching, and have been teaching longer and been in school longer. This is why I think teachers should have their own behavior rules.</p> <p>First of all, teachers want their own goals for their classes. They set goals for where they want to get down for the day. They work so hard on what they want and the students don't want to leash on what they are teaching them. Some students asked "why do we need to know this? Are we going to us after school?" the teacher always says that "everyone ether us it every day or us it sometimes." but they do have goals that they want to set and get down before the school day has ended or before the school year is over.</p> <p>Another, teachers were not just put in for looking after the school and students. They do have a college degree. They have been in school before they were teachers. The students can never take that away. The teachers are older than the students and have seen what has been going on around schools longer than the kids. Teachers know what is expected to be in the school.</p> <p>Finally, teachers had been discipline in school and after school. Students don't understand that teachers have been in school and been discipline in school more harshly then what students are today. Teacher know that they got it if</p>

they did something wrong and they got discipline for what they did wrong.

On the other hand, students know more than they show. They hide and want to fight all the time. Students think that teachers don't care what they need and what goals and problems they have. Students try and get what they want.

In conclusion, teachers should make the rules because they know what is expected to know what goes on in schools.

Sample Responses, Brittany, Before and After Instruction (spelling errors corrected)

Baseline	Post-Instruction
<i>Brittany</i> In some terms yes and other terms no, some of the reasons are the drug abuse,dog fights that's one reason they aren't role models, but the way they played back before the drug abuse,dog fights is a reason why they are a good role model	<i>Brittany</i> Have you ever been stressed about both home and school? In some schools they are thinking about letting students have a mental health day. I would like to introduce some examples of why they should let students have a mental health day. First, I would like to tell you that at home students are more relaxed when things are done at home. Second, is that they can spend time making up any school work they have to catch up on so they are ahead in class when they get back. Also, they'll have a few days at home to get things done around the house that way they don't have anything to do after school. On the other hand, some people think having mental health days is bad so that students work more at home and school so they are ready for the real world. In my opinion I think schools should have mental health days so students can focus more.

Sample Responses, Alex, Before and After Instruction (spelling errors corrected)

Baseline	Post-Instruction
<i>Alex</i> Cell phones can be used for class changes, before/after school, but teachers lets students use their cell phones for assignments and projects or to take pictures. They have cell phone rules Some teachers may let you use your cell phone during class for assignments and some teachers think they shouldn't be using the phones at all because he or she is talking or students taking the test. I think students don't need phone alarms to go off during classes because it can distract other students from working on something like an assignment or any other work they have so they can only have it out when it's free time and during class change. My prediction is that cell phones shouldn't be banned from classes.	<i>Alex</i> Have you ever played video games when you were little? Have you ever had to defeat the level by completing their tasks? Have you ever had to talk to people while playing a game? People were playing video games because most kids love to play games when it comes to learning more math and reading. My experience is that video games are important because your brain can confuse you doing your work at school and in order to do better in class you can only play video games for at least 1 to 2 hours a day. I think people play video games by using your knowledge to beat the game, socialize with others, and physically share with others. The lesson why people play video games when spending their free time for themselves. First, they use thinking strategies to find ways to beat a game and have to keep practicing and practicing to beat the game. They also use their brain to know how to play it and getting used to playing what they play. For example, games like Minecraft, Roblox, and Angry Birds can be used for learning and education. Also, people talk to their friends when playing special games like Fornite and Minecraft which gives me an idea that some games can be played in social networks like connecting to the internet and Facetime. Finally, people share with others by playing a video game for 15 to 30 minutes each. Sharing is a great way to use video games because it helps you relax and give a rest while the other person plays it. However, when kids get older, sometimes they can end up with violence because of losing a level and being weak. In conclusion, people play video games by using thinking strategies,

communicating with others, and sharing
with other people's devices.

APPENDIX G: Student Initiated Writing Plan Post-Instruction

<div data-bbox="722 247 982 304" style="border: 1px solid black; padding: 2px; display: inline-block;">School Districts</div> <div data-bbox="535 304 852 409"> different lenders Boys/G </div>	<div data-bbox="1055 294 1177 367">Single</div> <div data-bbox="1226 283 1323 388" style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">1</div>
<ul style="list-style-type: none"> • More Distacted Boys 	<ul style="list-style-type: none"> • Make New friends <div data-bbox="1274 409 1372 514" style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">3</div>
<ul style="list-style-type: none"> • Different Perspectives 	<ul style="list-style-type: none"> • Less Distacted <div data-bbox="1274 535 1372 640" style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">2</div>
<ul style="list-style-type: none"> * <div data-bbox="462 693 527 777" style="border: 1px solid black; border-radius: 50%; padding: 2px; display: inline-block;">2</div> Communicate Off Campus 	<ul style="list-style-type: none"> * More Focus on are Your work <div data-bbox="1242 703 1339 808" style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">1</div>
<p>Thesis: I think they should go all together because there are no other places to put them.</p>	I I M
STOP	<div data-bbox="584 1512 779 1585" style="font-size: 2em;">AIM</div> <div data-bbox="812 1470 917 1648" style="display: inline-block; vertical-align: middle;"> D A R E Reasons </div>

APPENDIX H: SCORING RUBRICS

Argument Element Rubric

Prompt _____

Argument Element (1 pt. each)	Yes- 1	No-0	Comments
Attract Reader's Attention (hook)			
Identify the Problem			
Map the context (Background Information)			
State my thesis			
Develop a topic sentence			
Add supporting idea #1			
Add supporting idea #2			
Add supporting idea #3			
Reject arguments for the other side			
End with a conclusion			
Total Points /10			
Additional Points for Expanding with <i>Support</i>			
Additional Points for Expanding with <i>Rejections of Counterargument</i>			
Total Points			
ACT Rubric Score			

ACT Writing Test Scoring Rubric

	<i>Ideas and Analysis</i>	<i>Development and Support</i>	<i>Organization</i>	<i>Language Use</i>
Score 6: Responses at this scorepoint demonstrate effective skill in writing an argumentative essay.	<p>The writer generates an argument that critically engages with multiple perspectives on the given issue. The argument's thesis reflects nuance and precision in thought and purpose. The argument establishes and employs an insightful context for analysis of the issue and its perspectives. The analysis examines implications, complexities and tensions, and/or underlying values and assumptions.</p>	<p>Development of ideas and support for claims deepen insight and broaden context. An integrated line of skillful reasoning and illustration effectively conveys the significance of the argument. Qualifications and complications enrich and bolster ideas and analysis.</p>	<p>The response exhibits a skillful organizational strategy. The response is unified by a controlling idea or purpose, and a logical progression of ideas increases the effectiveness of the writer's argument. Transitions between and within paragraphs strengthen the relationships among ideas.</p>	<p>The use of language enhances the argument. Word choice is skillful and precise. Sentence structures are consistently varied and clear. Stylistic and register choices, including voice and tone, are strategic and effective. While a few minor errors in grammar, usage, and mechanics may be present, they do not impede understanding.</p>
Score 5: Responses at this scorepoint demonstrate well-developed skill in writing an argumentative essay.	<p>The writer generates an argument that productively engages with multiple perspectives on the given issue. The argument's thesis reflects precision in thought and purpose. The argument establishes and employs a thoughtful context for analysis of the issue and its perspectives. The analysis addresses implications, complexities and tensions, and/or underlying values and assumptions.</p>	<p>Development of ideas and support for claims deepen understanding. A mostly integrated line of purposeful reasoning and illustration capably conveys the significance of the argument. Qualifications and complications enrich ideas and analysis.</p>	<p>The response exhibits a productive organizational strategy. The response is mostly unified by a controlling idea or purpose, and a logical sequencing of ideas contributes to the effectiveness of the argument. Transitions between and within paragraphs consistently clarify the relationships among ideas.</p>	<p>The use of language works in service of the argument. Word choice is precise. Sentence structures are clear and varied often. Stylistic and register choices, including voice and tone, are purposeful and productive. While minor errors in grammar, usage, and mechanics may be present, they do not impede understanding.</p>
Score 4: Responses at this scorepoint demonstrate adequate skill in writing an argumentative essay.	<p>The writer generates an argument that engages with multiple perspectives on the given issue. The argument's thesis reflects clarity in thought and purpose. The argument establishes and employs a relevant context for analysis of the issue and its perspectives. The analysis recognizes implications, complexities and tensions, and/or underlying values and assumptions.</p>	<p>Development of ideas and support for claims clarify meaning and purpose. Lines of clear reasoning and illustration adequately convey the significance of the argument. Qualifications and complications extend ideas and analysis.</p>	<p>The response exhibits a clear organizational strategy. The overall shape of the response reflects an emergent controlling idea or purpose. Ideas are logically grouped and sequenced. Transitions between and within paragraphs clarify the relationships among ideas.</p>	<p>The use of language conveys the argument with clarity. Word choice is adequate and sometimes precise. Sentence structures are clear and demonstrate some variety. Stylistic and register choices, including voice and tone, are appropriate for the rhetorical purpose. While errors in grammar, usage, and mechanics are present, they rarely impede understanding.</p>

Score 3: Responses at this scorepoint demonstrate some developing skill in writing an argumentative essay.	<p>The writer generates an argument that responds to multiple perspectives on the given issue. The argument's thesis reflects some clarity in thought and purpose. The argument establishes a limited or tangential context for analysis of the issue and its perspectives. Analysis is simplistic or somewhat unclear.</p>	<p>Development of ideas and support for claims are mostly relevant but are overly general or simplistic. Reasoning and illustration largely clarify the argument but may be somewhat repetitious or imprecise.</p>	<p>The response exhibits a basic organizational structure. The response largely coheres, with most ideas logically grouped. Transitions between and within paragraphs sometimes clarify the relationships among ideas.</p>	<p>The use of language is basic and only somewhat clear. Word choice is general and occasionally imprecise. Sentence structures are usually clear but show little variety. Stylistic and register choices, including voice and tone, are not always appropriate for the rhetorical purpose. Distracting errors in grammar, usage, and mechanics may be present, but they generally do not impede understanding.</p>
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	<i>Ideas and Analysis</i>	<i>Development and Support</i>	<i>Organization</i>	<i>Language Use</i>
Score 2: Responses at this scorepoint demonstrate weak or inconsistent skill in writing an argumentative essay.	<p>The writer generates an argument that weakly responds to multiple perspectives on the given issue. The argument's thesis, if evident, reflects little clarity in thought and purpose. Attempts at analysis are incomplete, largely irrelevant, or consist primarily of restatement of the issue and its perspectives.</p>	<p>Development of ideas and support for claims are weak, confused, or disjointed. Reasoning and illustration are inadequate, illogical, or circular, and fail to fully clarify the argument.</p>	<p>The response exhibits a rudimentary organizational structure. Grouping of ideas is inconsistent and often unclear. Transitions between and within paragraphs are misleading or poorly formed.</p>	<p>The use of language is inconsistent and often unclear. Word choice is rudimentary and frequently imprecise. Sentence structures are sometimes unclear. Stylistic and register choices, including voice and tone, are inconsistent and are not always appropriate for the rhetorical purpose. Distracting errors in grammar, usage, and mechanics are present, and they sometimes impede understanding.</p>
Score 1: Responses at this scorepoint demonstrate little or no skill in writing an argumentative essay.	<p>The writer fails to generate an argument that responds intelligibly to the task. The writer's intentions are difficult to discern. Attempts at analysis are unclear or irrelevant.</p>	<p>Ideas lack development and claims lack support. Reasoning and illustration are unclear, incoherent, or largely absent.</p>	<p>The response does not exhibit an organizational structure. There is little grouping of ideas. When present, transitional devices fail to connect ideas.</p>	<p>The use of language fails to demonstrate skill in responding to the task. Word choice is imprecise and often difficult to comprehend. Sentence structures are often unclear. Stylistic and register choices are difficult to identify. Errors in grammar, usage, and mechanics are pervasive and often impede understanding.</p>

APPENDIX I: TEACHER FIDELITY CHECKLISTS

Teacher Fidelity Checklist Pre-Assessment-Argument

- ☐ 1. Discussed the importance of being able to write an argument essay.
- ☐ 2. Read a sample in the genre.
- ☐ 3. Asked students to identify the parts that make up the genre just read.
- ☐ 4. If students needed more structure or prompting, offered scaffolds (e.g. “What would you include in you were writing an argument essay?”).
- ☐ 5. Discussed argument elements.
- ☐ 6. Explained the purpose of the writing prompt (e.g. “It helps me know what to teach.”).
- ☐ 7. Wording of the prompt was clear.
- ☐ 8. Asked for best writing.

Teacher Fidelity Checklist STOP AIMS DARE

- Discussed argument essays and what it means to persuade or argue a point.
- Discussed writing a powerful argument essay--explained the important aspects of this type of essay.
- Introduced/reviewed STOP AIMS DARE and explained that it is a strategy for remembering the parts of writing an argument. STOP AIMS DARE is a method of organizing our notes.
- Discussed each part of STOP AIMS DARE and how each fit into the mnemonic.
- Practiced STOP AIMS DARE.
- Discussed the importance of including a counter argument and reminded students to include one in their writing.
- Reviewed linking words using a linking word chart. Found linking words in their own writing and/or an exemplar text. Added to linking words chart if appropriate.
- Wrapped up the lesson.

CURRICULUM VITAE

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EDUCATION

2013-Present	Doctoral Candidate (<i>expected completion May, 2020</i>) Special Education, Curriculum and Instruction University of Louisville
2007	Master of Education Special Education, Learning and Behavior Disorders University of Louisville
1994	Master of Education Mental Health Counseling Western Kentucky University
1991	Bachelor of Arts Major: Government, Minor: Mass Communications Western Kentucky University

RESEARCH INTERESTS

Tier 2 and Tier 3 literacy interventions for students with learning and behavioral disabilities; Self-Regulated Strategy Development

EXPERIENCE

Initial Teaching Certification — 2005; Rank 1—2007

Special Education, Learning and Behavior Disorders, K-12

Special Education Instructional Coach, Bullitt County Public Schools, Shepherdsville, KY; July 2019-Present

Provide support to special education teachers in three secondary schools in the areas of instruction, engagement, evidence-based strategies, and rigor. Provide professional development related to implementation of instructional strategies, co-teaching strategies, and classroom management. Conduct classroom observations and provide coaching and feedback to teachers. Collaborate with district-level team of instructional coaches to analyze data and plan for improved student outcomes. Provide compliance support in the areas of initial referrals, least restrictive environment, and behavior support plans.

Education Recovery Specialist, Kentucky Department of Education; July 2018-June 2019

Provide support to priority schools in the areas of instructional rigor, Professional Learning Communities, professional development, curriculum alignment and resource management. Research evidence-based practices meeting ESSA requirements, participate in PLCs across grade levels, conduct classroom observations and provide instructional feedback. Work with school administrative team to develop a turnaround plan based on improvement priorities identified by diagnostic review team, focusing on continuous school improvement.

Certified ELEOT observer and trained in Continuous Improvement Systems, Differentiation, Trauma Informed Instruction, Rutherford Coaching and Feedback, Student Engagement, and Kentucky Assessment.

Special Education Teacher, Bullitt Central High School, Shepherdsville, KY

— 2005-2018

Design and implement instruction in the regular and special education resource classroom setting. Determine and provide special education accommodations and modifications necessary for student success in the regular education setting as well as in the resource setting. Caseload management responsibilities include implementing interventions and maintaining monitoring data, developing post-secondary transition goals, collaborating with parents, colleagues and outside agencies.

**Adjunct Faculty, University of Louisville — 2012-present
Department of Special Education**

Courses Taught:

EDSP 545 Exceptional Children in the Regular Classroom
Fall, 2012

EDSP 545 Exceptional Children in the Regular Classroom
Spring, 2013

EDSP 545 Exceptional Children in the Regular Classroom

Fall, 2013
 EDSP 545 Exceptional Children in the Regular Classroom
 Spring, 2014
 EDSP 545 Exceptional Children in the Regular Classroom
 Fall, 2014
 EDSP 545 Exceptional Children in the Regular Classroom
 Spring, 2015
 EDSP 545 Exceptional Children in the Regular Classroom
 Spring, 2016
 EDSP 545 Exceptional Children in the Regular Classroom
 Spring, 2017
 EDSP 240 Introduction to Exceptional Children
 Fall, 2015
 EDSP 540 Introduction to Exceptional Children
 SUM, 2014
 EDSP 540 Introduction to Exceptional Children
 SUM, 2015
 EDSP 540 Introduction to Exceptional Children
 SUM, 2016
 EDSP 545 Exceptional Children in the Regular Classroom
 Spring, 2017
 EDAP 639 Education Research P-12
 SUM, 2017
 EDSP 240 Introduction to Exceptional Children
 Spring, 2018
 EDAP 639 Education Research P-12
 SUM, 2018
 EDSP 545 Exceptional Children in the Regular Classroom
 Spring, 2019
 EDSP 639 Education Research P-12
 SUM, 2019

**Early College Instructor, Morehead State University--2015-
 2017 Course Taught:**

EDF 201 Introduction to Teaching	Spring, 2015
EDF 201 Introduction to Teaching	Spring, 2016
EDF 201 Introduction to Teaching	Fall, 2016
EDF 201 Introduction to Teaching	Spring, 2017

**Early College Instructor, University of Louisville,
 2018 Course Taught:**

Social Worker, Child Protective Services, Bullitt County, KY
— **1994-2005** Investigated allegations of child abuse and neglect; provided ongoing case management services to eligible families. Case management responsibilities included development of safety plans along with family members and outside agencies, monthly monitoring of progress toward treatment goals, supervision of visits, preparation of court reports, and transportation of foster children.

PUBLICATIONS

Bewley, S.C. (2019). Using Explicit Instruction to Accelerate Student Learning. *Kentucky Teacher* (October 2019).

Bewley, S.C. (2018). Essential Questions to Enhance Student Engagement. *Kentucky Teacher* (October, 2018).

Bewley, S.C. (2018). Teaching Grammar with Authentic Texts. *Kentucky Teacher*
(April, 2018).

PRESENTATIONS

Bewley, S.C. (2020). Classroom Strategies to Increase Student Engagement Now! *Council for Exceptional Children Conference & Expo, Portland, OR.*

Bewley, S.C. (2019). Write Like a Girl: Find Your Passion and Writer's Voice. *Bullitt County Lady Leaders, Shepherdsville, Ky.*

Bewley, S. C. (2019). Writing in the Real World: Teaching Students with Disabilities to Find Their Argumentative Voice. *Council for Exceptional Children Conference & Expo, Indianapolis, IN.*

Bewley, S.C. (2019). Teaching Grammar in Context. Poster Session. *Council for Exceptional Children Conference & Expo, Indianapolis, IN.*

Bewley, S.C. (2018). Using Mentor Sentences to Teach Grammar in Context. *Kentucky Council for Exceptional Children Conference, Louisville, KY.*

Bewley, S. C. (2018). Argument Writing and Literature Themes. *Kentucky Council for Exceptional Children Conference, Louisville, KY.*

Bewley, S.C. (2018). Using Mentor Sentences in a Resource Classroom. *Teacher Educators of Children with Behavior Disorders, Tempe, AZ.*

- Bewley, S.C.** (2018). Using High Leverage Practices to Increase Student Engagement. *Kentucky Association of Teacher Educators Conference, Lexington, KY.*
- Bewley, S.C.** (2018). Authentic Grammar Instruction. *Louisville Writing Project Mini-Conference, Louisville, KY.*
- Bewley, S.C.** (2018). Teaching Grammar with Authentic Texts. *Bullitt County Public Schools Ed Camp, Shepherdsville, KY.*
- Bewley, S.C.** (2018). Using Mentor Sentences in a High School Resource Classroom. *Louisville Writing Project Mini-Conference, Louisville, KY.*
- Bewley, S.C. & Evanovich, L.L.** (2018). Argumentative Writing and Secondary Students with Disabilities: Creating Real-World Habits and Successes. *Council for Exceptional Children Conference & Expo, Tampa, FL.*
- Crawford, S.A. & McClure, E.** (2017). Argumentative Writing and Secondary Students with Disabilities: Creating Real-World Habits and Successes. *Kentucky Council for Exceptional Children Conference, Louisville, KY.*
- Evanovich, L.L. & **Crawford, S.A.** (2017). Explicit Instruction for Reading: Does it Work for All?, *Teacher Educators of Children with Behavior Disorders, Tempe, AZ.*
- Crawford, S.A.** (2017). Using Oral Rehearsal to Preserve Student Voice in Struggling Writers, *Teacher Educators of Children with Behavior Disorders, Tempe, AZ.*
- Crawford, S.A.** (2017). Using Oral Rehearsal to Preserve Student Voice in Struggling Writers, *Louisville Writing Project Mini-Conference, Louisville, KY.*
- Crawford, S.A. & Hallinan, J.** (2017). The IEP in the Regular Classroom, *Bullitt Central High School EdCamp, Shepherdsville, KY.*
- Barth, J. & **Crawford, S.A.** (2011). Effective Classroom Literacy Strategies, *Bullitt Central High School Faculty Retreat, Shepherdsville, KY.*
- Crawford, S.A. & Romine, J.** (2014). Models of Co-teaching, *Bullitt Central High School Faculty Retreat, Falls of Rough, KY.*
- Crawford, S.A. & Romine, J.** (2012). Effective Co-teaching Strategies, *Bullitt Central High School Faculty Retreat, French Lick, IN.*
- Crawford, S.A. & Roach, K.** (2008). Building Strong Co-teaching

Relationships.

Bullitt Central High School, Shepherdsville, KY.

GRANT FUNDING

Kentucky Council for Exceptional Children Mini-Grant, 2020
\$650 for teacher training in Self-Regulated Strategy Development

Initial funding for Youth Service Center, Bullitt Central High
School, Shepherdsville, KY--2007
Co-writer, \$77,000 annually

PROFESSIONAL MEMBERSHIPS

Louisville Writing Project

Kentucky Reading Association

Council for Exceptional Children

Council for Children with Behavior Disorders

AWARDS

University of Louisville College of Education and Human Development
Scholarship,
2019-2020

Outstanding Exceptional Child Educator, Bullitt Central High School, 2017-18

PROFESSIONAL SERVICE

KTIP mentor teacher, 2012-2018

Pre-service teacher mentor, University of Louisville, 2008-2018

Youth Service Center Advisory Council, Bullitt Central High School, 2008-2010

COMMUNITY SERVICE

Volunteer, Wayside Christian Mission; Various Mission Activities, First
Baptist Church Mt. Washington, KY; Relay for Life Team Captain, Bullitt
Central High School