WRITING SELF-EFFICACY AND SELF-REGULATED STRATEGY DEVELOPMENT INSTRUCTION: PERCEPTIONS OF THREE SIXTH-GRADE STUDENTS WITH LEARNING DISABILITIES

by

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DEDICATION

In recognition of their unending patience, support, and love,

I hereby dedicate this dissertation to my forever cheerleaders, Edward and Julie Moore.
ACKNOWLEDGEMENTS

A work like this, an experience like this, could not have been achieved without the support of many people. Of course, this dissertation would not be possible without the support of my dissertation chair, Dr. Sybil A. Keesbury, and my other committee members, Dr. H. Anne Hathaway, Dr. Vincent W. Youngbauer, and Dr. Vicki L. Luther. To Dr. Hathaway, may you rest in peace. Yours is a loss felt by your students, the University, and the field. You are remembered.

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ABSTRACT

KATHRYN LYNN KINSLER
WRITING SELF-EFFICACY AND SELF-REGULATED STRATEGY DEVELOPMENT INSTRUCTION: PERCEPTIONS OF THREE SIXTH-GRADE STUDENTS WITH LEARNING DISABILITIES
Under the direction of SYBIL A. KEESBURY, Ed.D.

Students with learning disabilities (LD) continue to fall behind their typical peers in the area of writing (Graham & Harris, 2011; National Joint Committee on Learning Disabilities, 2008). Studies indicate that self-efficacy influences writing performance and that self-regulation may be an important aspect of both metacognitive and affective aspects of writing (Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, 2013). The purpose of this study was to describe the experiences of three sixth-grade students with LD as they participated in explicit self-regulation strategy instruction and to understand how those experiences influenced their writing self-efficacy.

The following research question guided this study: How do sixth-grade students with LD describe their writing self-efficacy before and after participation in explicit self-regulation strategy instruction? This study was grounded in the triadic reciprocity of social cognitive theory (Zimmerman, 1998, 2000). In this qualitative case study, three sixth-grade students with a Georgia special education eligibility of Specific Learning Disability were bounded by their shared participation in a five-week writing instructional intervention, utilizing the Self-Regulated Strategy Development (SRSD) instructional model developed by Harris and Graham (1985).

Data collected included participant interviews, perceived self-efficacy questionnaires, observations, and researcher field notes. Data were analyzed and interpreted thematically through the lens of social cognitive theory (Bandura, 1997).
Interview transcripts were evaluated to identify participants’ affect and judgment of esteem (Martin & White, 2003), students’ responses to the perceived self-efficacy questionnaires were compiled and analyzed, and observation protocols and field notes were analyzed.

Results indicated that explicit self-regulation strategy instruction may be beneficial to sixth-grade students with LD in developing writing self-efficacy and knowledge. Additionally, the SRSD instructional model may serve as an effective way to combat the common writing challenges faced by students with LD.

Despite the positive findings in this study, continued research is needed to substantiate the direct impact that self-regulation strategy instruction may have on the writing self-efficacy of students with LD. Future research studies should also consider integrating the explicit strategy instruction into the general writing curriculum throughout the school year in order to aid in long-term retention and skill transfer (Harris, Graham, Brindle, & Sandmel, 2011).
CHAPTER 1
INTRODUCTION

With the implementation of the Common Core State Standards, schools have placed new importance on writing instruction across grade levels and content areas (National Governors’ Association, 2010); however, the prioritization of research funding in the areas of reading and math have generally overshadowed the need for research funding in writing (Harris, Graham, Brindle, & Sandmel, 2009). While literacy achievement has increased in elementary-age children (Graham & Perin, 2007), the National Assessment of Education Progress reported that only 37% of eighth grade students scored Proficient or above in writing performance (National Center for Education Statistics [NCES], 2012).

Emphasis on early reading and writing instruction is not enough to improve our nation’s literacy deficit. Adolescent literacy achievement, specifically in writing, continues to remain low (Graham & Perin, 2007). In addition, students with learning disabilities (LD) appear to continue to experience significant deficits in these areas (National Joint Committee on Learning Disabilities [NJCLD], 2008), causing the achievement gap to widen between students with LD and their typical peers (Van Kraayenoord, Miller, Moni, & Jobling, 2009). According to Graham and Harris (2011), 19 out of every 20 students with learning disabilities do not gain the writing skills needed in order to be successful in school. Characteristically, students with LD tend to
produce writing that lacks detail, is disorganized, and contains errors in grammar (Baker, Chard, Ketterlin-Geller, Apichatabutra, & Doabler, 2009; Graham, Collins, & Rigby-Wills, 2016), which often results in low academic achievement across all content areas (NCES, 2011).

Background of the Study

Writing is not a simple process, nor is it a generalized ability (Hidi & Boscolo, 2006). Learning to write requires the use of patterns, through which students are able to construct meaning (Hidi & Boscolo, 2006) and support their understanding (Hebert, Gillespie, & Graham, 2013); writing provides a medium through which they may demonstrate their knowledge. Writing may serve as a tool by which students begin to understand themselves through engagement in introspection and self-reflection (Graham & Harris, 2011; Pajares & Valiante, 2006). Additionally, when writing tasks are meaningful, they have the potential to serve as motivators for achievement (Hidi & Boscolo, 2006; Oldfather & Dahl, 1994).

Researchers have focused extensively on the cognitive aspects of writing; however, the affective aspects of writing have not been studied as thoroughly (Hidi & Boscolo, 2006; Pajares & Valiante, 2006). It was not until the late 1980s that researchers integrated both the cognitive and affective aspects of writing, investigating the motivational implications of self-regulation (Hidi & Boscolo, 2006). However, recent studies have found that students’ self-beliefs appear to be strongly connected to their writing performance (Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, 2013; Pajares & Valiante, 2006; Pintrich, 2002). Cognitive research proved writing to be a
complex and difficult process and laid the groundwork for current and future research on self-efficacy and self-regulation as they impact writing (Harris et al., 2009; Hidi & Boscolo, 2006; Pajares & Valiante, 2006).

Students’ beliefs about their own learning abilities (Bandura, 1997; Pintrich, Anderman, & Klobucar, 1994; Trainin & Swanson, 2005) influence students’ behaviors and impacts their reactions to different educational experiences, ultimately impacting their academic performance (Bandura, 1997). Self-efficacy refers to individuals’ mental judgments regarding their own abilities to plan and complete various tasks (Hidi & Boscolo, 2006; Pajares & Valiante, 2006). Writing self-efficacy refers to students’ self-perceptions related to their own writing abilities (Pajares & Valiante, 2006). Students possessing a low sense of self-efficacy for learning may avoid or exert less effort toward a task when the task becomes frustrating (Bandura, 1993; Bandura & Cervone, 1986; Pajares, 1996). Self-efficacy can often be a better predictor of achievement than past knowledge or skill (Graham & Weiner, 1996; Pajares & Valiante, 2006). Of course, students must have knowledge, but self-efficacy may be a vital determinate during the initial learning process (Bruning et al., 2013; Graham & Weiner, 1996; Pajares & Valiante, 2006). Self-regulation refers to individuals’ ability to exert control over their learning by systematically and intentionally monitoring and managing their behavior, cognition, and affective states (Klassen, 2010). Zimmerman and Moylan (2009) define self-regulation as the “self-generated thoughts, feelings, and actions for attaining one’s learning goals” (p. 299). In order to engage in active learning, students with LD often need to understand why they should participate in and maintain control of their learning;
therefore, students with LD should be taught strategies that enable them to self-monitor, self-check, and self-evaluate (Paris & Winograd, 1990; Wong, 1986).

As a graduate student researching instructional models that emphasize self-regulation and self-efficacy, I stumbled across Harris and Graham’s (1985) Self-Regulated Strategy Development (SRSD). In using SRSD as a writing instructional model, students are taught strategies to address writing skills and self-regulation skills. Through discussion and modeling, students are provided with explicit instruction related to the awareness of task demands and strategies to monitor their progress or success achieved through the application of those strategies (Palincsar & Brown, 1987; Pintrich, 2002; Wong, 1986). The SRSD instructional model is designed to address both self-efficacy and self-regulation (Harris & Graham, 1985). SRSD instruction begins by activating prior knowledge and engaging in discussions related to the rationale behind using the targeted strategy (Harris, Graham, MacArthur, Reid, & Mason, 2011). In doing so, students may develop the confidence or belief that they are prepared to tackle the task at hand, and these discussions may also cause students to place emphasis on the value of the strategy if used successfully, meaning students are more likely to pay attention to the ensuing model (Bandura, 1986, 1997).

The SRSD instructional model is especially beneficial to students with LD due to the ways in which it addresses their need to understand why they must engage in and maintain control of their own learning (Paris & Winograd, 1990; Wong, 1986). SRSD instruction incorporates goal setting and self-monitoring in order to encourage the employment of cognitive processes necessary to engage in self-regulation (Harris,
Graham, Friedlander, Laud, & Dougherty, 2013; Harris et al., 2011). Providing students with the chance to take control of their own learning has the potential to positively impact student motivation and achievement (Beal & Arnold, 2005; Pintrich et al., 1994; Vrugt & Oort, 2008; Wong, 1986); consequently, SRSD instruction may be especially beneficial when used to teach writing to students with LD (Wood, Rosenberg, & Carran, 1993).

Statement of the Problem

Despite outcries from colleges and businesses that students are not graduating high school with proficient writing skills, little improvement has been made in the development of literacy skills for the nation’s students aged 13-17 (Graham & Harris, 2011; NCES, 2012; NJCLD, 2008). College students appear to be ill-prepared for English composition courses, and adults are entering the workforce without proficient writing skills (Alliance for Excellent Education, 2007). This is a problem for many given that 90% of white-collar workers and 80% of blue-collar workers report that writing is essential to their jobs (National Writing Project, 2007). In fact, some privately owned businesses claim to spend billions of dollars per year on basic writing instruction for their employees (National Commission on Writing, 2005).

Writing has often been an undervalued and underfunded aspect of school (Harris et al., 2009; National Commission on Writing, 2005). While an emphasis on writing in schools is increasing (National Governors Association, 2010), the majority of writing instruction still appears to be confined to the language arts classroom (Harris et al., 2013). The lack of writing instruction across disciplines may be due to inadequate teacher preparation in the area of writing instruction, limitations on instructional time
requirements, or teachers’ beliefs that it is not their responsibility to teach writing in subject areas outside of language arts (Alliance for Excellent Education, 2007; Harris et al., 2013).

While suggestions for reforms are frequently offered, effective writing instruction remains a daunting challenge for many teachers, possibly related to the little focus placed on writing instruction in teacher preparation programs (Graham, Capizzi, Harris, Hebert, & Morphy, 2014; Graham & Harris, 2011). According to a study conducted by Graham et al. (2014), many middle school teachers reported that they make only one or two instructional adaptations for struggling writers on a weekly or monthly basis. The lack of effective, consistent writing instruction in schools is an unfortunate phenomenon that leaves many middle school students struggling with the transition to high school due to underdeveloped language literacy and functional writing skills (NJCLD, 2008); therefore, further investment should be made into the writing instruction of middle school students.

More specifically, students with LD are at particular risk for underdeveloped writing abilities. Students with LD tend not only to struggle with basic skills, such as handwriting, spelling, and grammar, but also the foundational steps in the writing process, such as planning, revising, and editing (Graham et al., 2016; Graham & Perin, 2007). Recent studies have found that the writing produced by students with LD includes fewer ideas and details, is less organized, lacks basic structure, and contains less complex or precise vocabulary (Graham et al., 2016) than the writing of their typical peers. Additionally, students with LD appear to experience a decline in self-efficacy toward their academic and self-regulatory ability in writing during middle school (Caprara et al.,
2008). This decline in writing self-efficacy is a serious hindrance for these students as students with lower self-efficacy tend to be less willing to participate and persevere through difficult tasks (Hidi & Boscolo, 2006) and have more difficulty managing their learning environments (Bandura, 1997; Klassen, 2010) due to underdeveloped transcription and metacognitive skills (Annervirta & Vauras, 2006). Consequently, explicit strategy instruction to aid in self-regulation and self-monitoring may be necessary to support students with LD as they struggle to develop writing skills (Berninger & Winn, 2006). Research is needed in order to examine the experiences and writing self-efficacy of students with LD as they participate in SRSD instruction.

Purpose of the Study

Students with disabilities continue to fall behind their typical peers in the area of writing (Graham & Harris, 2011; NJCLD, 2008; Van Kraayenoord et al., 2009). Providing students with the chance to take control of their own learning can positively impact student motivation and achievement (Beal & Arnold, 2005; Pintrich et al., 1994; Vrugt & Oort, 2008; Wong, 1986). Through engagement in active learning, students have the potential to become more self-aware (Nesin, 2005). Rather than watching students with weak writing skills flounder or fail, teachers can teach active learning strategies and metacognitive strategies to help foster the development of students who are self-aware, possess self-efficacy, and understand concepts in the contexts of their own lives and the real world (Nesin, 2005; Paris & Winograd, 1990; Pintrich, 2002; Wong, 1986).
Quality education teaches students the ability to ask meaningful questions, an ability that can contribute to the development of lifelong learners (National Research Council, 2000). Research has shown that components of metacognitive instruction can be effectively used in the classroom, and with guided practice, students can become independent, effective users of metacognitive strategies (Duffy et al., 1987; Mason, Davison, Hammer, Miller, & Glutting, 2012; Mason, Snyder, Sukhram, & Kedem, 2006; Palincsar & Brown, 1987).

Studies that have indicated that self-efficacy is strongly connected to writing performance and that self-regulation may be connected to both metacognitive and affective aspects of writing (Bruning et al., 2013; Pajares & Valiante, 2006; Hidi & Boscolo, 2006). This study focused on the connections among students’ experiences with writing instruction, self-efficacy, and self-regulation.

Using Harris and Graham’s (1985) SRSD instructional process, planning and self-regulation strategies for writing were modeled and explained to sixth-grade students in central Georgia. The students were provided with guided practice in order to aid them in the utilization of the strategies, and then students were asked to complete the strategies independently. The process was repeated on multiple occasions to provide students with the opportunity to become efficient at using each writing strategy. The purpose of this study was to describe the experiences of three sixth-grade students with LD as they participated in an explicit self-regulation strategy instructional intervention and to understand how those experiences influenced their writing self-efficacy.
Research Question

This study addressed the following research question: How do sixth-grade students with LD describe their writing self-efficacy before and after participation in explicit self-regulation strategy instruction?

Theoretical Framework

Social cognitive theory provides a framework for making meaning of the world through a series of interactions between behavioral, environmental, and personal factors (Zimmerman, 1998, 2000), and these reciprocal relationships set the stage for learning experiences. In addition to reciprocal interactions, social cognitive theorists posit that learning occurs enactively and vicariously, that there is a distinct difference between learning and performance, and that self-regulation plays a key role in it all (Bandura, 1986; Zimmerman & Schunk, 2003). Social cognitive theory is grounded in the notion of triadic reciprocality, a representative model of the reciprocal relationships between behaviors, environmental factors, and personal factors such as cognition and self-efficacy (Zimmerman, 1998, 2000). Students’ individual contexts guide them through a learning experience from which they gain knowledge in order to inform their next experience (Dewey, 1998/1938). By reconciling their prior knowledge with their gained knowledge, students are able to self-evaluate in order to adjust their understanding, generate new ideas, and anticipate future outcomes, often guided by their self-efficacy (Bandura, 1986). Writing, a major focus of this study, often serves as a tool to enable students to construct meanings and extend their understanding (Hebert et al., 2013; Hidi & Boscolo, 2006); however, it also enables students to begin to understand themselves through
introspection and self-reflection (Graham & Harris, 2011; Pajares & Valiante, 2006). In addition, while much of the writing process occurs internally (Martinez, 2010; Mertens, 2010), a writing piece becomes part of the environment once it has been shared and discussed, demonstrating an interaction between cognition and the environment (Berninger & Winn, 2006), which in turn, interacts with other individuals’ cognition and variables within the social group (Creswell, 2009).

SRSD instruction intentionally fosters both vicarious and enactive learning experiences (Bandura, 1986; Harris & Graham, 1985; Zimmerman & Schunk, 2003). After strategies have been introduced and discussed during SRSD instruction, teachers engage in cognitive modeling of those strategies in order to not only demonstrate how to use the strategies (Rosenthal & Bandura, 1978; Schunk, 1995; Zimmerman, 1977), but also to demonstrate how to approach problems or errors through self-instruction by intentionally including these barriers into the model (Schunk, 2012) and thereby engaging students in vicarious learning through the observation of instructor models (Merriam, Caffarella, & Baumgartner, 2007). This notion of self-instruction, or self-statements, is especially important for students with LD who should be taught to self-monitor, self-evaluate, and self-regulate (Paris & Winograd, 1990; Wong, 1986). In turn, the exposure to adult models potentially influences students’ self-efficacy toward learning and their ability to perform well on similar tasks (Zimmerman & Ringle, 1981). Students internalize more than just the information; they internalize the beliefs and attitudes from models as well as the effectiveness, usefulness, and appropriateness of the model (Bandura, 1997).
Within the context of social cognitive theory, it is important to note that learning and performance are two distinct processes (Bandura, 1986). While students may learn a skill vicariously, they may not be given the opportunity to perform that skill immediately (Bandura, 1986), but that does not diminish the learning experience. Because there are aspects of complex skills students are not able to learn vicariously (Bandura, 1986), students participating in SRSD instruction engage in enactive learning by practicing the use of strategies both with peers and independently while receiving ongoing teacher support (Harris et al., 2011), which provides them with the necessary opportunities to receive corrective feedback and re-teaching in order to master skills (Bandura, 1977, 1997). However, it is not the performance itself that enables enactive learning.

Enactive learning occurs as a result of actions taken throughout performance; it occurs when students learn from the consequences of those actions (Bandura, 1986). Enactive learning refers to how cognition interacts with the consequences of the performance and the information those consequences provide to the learner that influences learning behaviors (Bandura, 1986). If a performance results in success, then one retains the actions that led to success, but if a performance results in failure, then one will often self-reflect and alter their future actions. For instance, a common consequence of performance is a discrepancy between the performance and the expectation by which it was assessed; this type of consequence should activate self-reflection by identifying the actions that could be changed in order to achieve a goal, which serves to influence behavior during subsequent performances (Bandura, 1986). Further, as students engage in the writing process, their experiences throughout the performance may serve as a tool
by which they are able to construct meaning and extend their understanding (Hebert et al., 2013; Hidi & Boscolo, 2006) as well as enabling students to better understand themselves through introspection and self-reflection as a result (Graham & Harris, 2011; Pajares & Valiante, 2006).

Within social cognitive theory, central significance is placed on self-regulation and its role in regulating thoughts and actions in order to control events or performance (Bandura, 1997). While students may desire to control event outcomes, self-efficacy can influence their ability to exert control (Bandura, 1997). Goal setting can potentially improve learning and performance, serving as a catalyst for anticipating outcomes and assessing progress—two skills required for self-regulation (Bandura, 1997; Locke & Latham, 2002). In this study, tenets of social cognitive theory informed the research question, methodology, data analysis, and interpretation, and it was with these tenets in mind that SRSD was chosen as the instructional model for this study.

Researcher Positionality

It is important for reflexivity purposes that I reveal my position and possible bias as researcher and participating intervention teacher in this study. I have worked as both a general education and special education teacher in the district where this research was conducted for more than ten years, with the majority of those years taking place in an inclusive, eighth-grade language arts classroom, working with students with and without disabilities. Within that time, the writing struggles my students faced were always significant to me. I struggled to find ways to ease their difficulties with writing, but each year brought a new set of students with a new set of struggles, and each writing struggle
was different from the next. Specifically, I noticed that my students with LD often struggled to even begin a writing task. Students often spoke of how they disliked writing because they perceived it to be boring or too difficult for them. The struggles experienced by my students and the struggles I faced when trying to help them develop writing skills led me to conduct this study. As students progress through their adolescence, their self-efficacy tends to decrease (Caprara et al., 2008); therefore, students in the sixth grade are at a critical age regarding their self-beliefs, being at the onset of adolescence. I believed there would be value in exploring the experiences of students when their self-efficacy and confidence were being tested and reshaped, and who, because of their struggles with LD, characteristically have lower self-efficacy than students without LD (Baird, Scott, Dearing, & Hamill, 2009; Klassen, 2010; Lackaye, Margalit, Ziv, & Ziman, 2006; Wong, 1986).

Although no longer a classroom teacher, I still work with teachers as a central office employee. In that role, I spend a significant amount of time in the school where I conducted this study. Therefore, I attempted to create a safe environment for students where they understood that their thoughts and actions within interviews, observations, and questionnaires would not negatively impact their grades or my opinions of them as individuals or students. Consequently, I designed this study’s methodology in order to minimize subjectivity and provide a forum for students to freely share their experiences. As a qualitative researcher, my role in this study is to explore how the triadic reciprocality occurring through the explicit self-regulation strategy instruction affected
learning experiences, more specifically the self-efficacy, of the three sixth-grade students with LD who participated in the study.

Methodology Overview

This study took place in a suburban public school district in central Georgia during the students’ small group Study Skills classes. Participants were chosen based on their enrollment in a sixth-grade Study Skills class and their special education eligibility. Twelve sixth-grade students were invited to participate in the study, and three students returned the required consent forms. Each of these three student participants received special education services through the eligibility area of Specific Learning Disability (SLD). For five weeks, these students participated in writing instruction based on the SRSD instructional model. Further explanation of the SRSD instructional model is provided in the following chapters.

A qualitative case study approach was utilized in order to gain understanding of how this type of explicit writing instruction influenced the ways in which these students felt about themselves as writers. Prior to writing instruction and data collection, participants first completed a baseline writing assignment in alignment with the types of writing assignments that would be presented during the study. Students then participated in semi-structured interviews in order to identify their specific writing needs relevant to the style of writing addressed through the baseline writing assignment. A perceived writing self-efficacy questionnaire was developed based on the participants’ interview responses and was administered both before and after the SRSD instructional experience. Numerical data collected from these questionnaires were used as a way to
limit bias (Maxwell, 1995) as well as to a gain deeper understanding of the participants’ self-efficacy by revealing patterns that may have been missed otherwise (Sandelowski, Voils, & Knafl, 2009). At the conclusion of the study, students participated in a second round of semi-structured interviews, and their responses after the SRSD writing instruction were compared to their responses before the writing instruction. In addition, informal observations and field notes were collected and analyzed to provide more insight concerning these students’ experiences with explicit SRSD writing instruction.

Significance of the Study

The findings of this study may help to inform professional development opportunities related to effective writing strategy instruction for teachers of middle school students with LD, and also general education teachers who teach writing in inclusion classrooms. Many students with LD appear to have difficulty using cognitive strategies spontaneously or effectively, so one possible reason for the achievement failure of students with LD (NCES, 2011; Van Kraayenoord et al., 2009) in schools may be attributed to a lack in development of processes necessary to execute appropriate metacognitive strategies (MacArthur, 2009; Palinscar & Brown, 1987; Pintrich et al., 1994; Wong, 1986).

The knowledge of cognitive tasks relates to the notion that different tasks can be more or less difficult and require different strategies (Pintrich, 2002). After students have developed a knowledgebase of learning strategies, they are able to apply that knowledge in order to decide what, how, when, and why those strategies should be used (Pintrich, 2002). Metacognitive judgments are vital in determining which tasks students will deem
worthy of engaging (Paris & Winograd, 1990). It is important that teachers explain how mental processing associated with specific strategies can be used and how they can be transferred to other situations, and these explanations must be provided both explicitly and consistently over an extended period of time (Duffy et al., 1987). Duffy et al. (1987) suggested that interventions place a balanced emphasis on comprehension within the real-world context and the test-taking context.

Educators must provide students with information regarding how strategies are used as well as provide them with feedback related to their strategy use in order for students to retain and take ownership of those strategies, an aspect that has been generally accepted as a weakness in students with LD (Palincsar & Brown, 1987; Wong, 1986). If writing curriculum integrates not only writing skills and knowledge but also strategy development, then it may be possible to close the ever-widening gap in writing performance between students with disabilities and their typical peers (Graham & Harris, 2009). Consequently, this study is significant because it provided a forum for three students to describe their experiences with SRSD instruction designed to teach applicable strategies and skills.

Definition of Terms

In the context of this study, several terms related to LD, writing, and students’ self-perceptions are relevant. Such terms are defined below:

*Explicit writing instruction* is not the same as rote drill practice, but it may include teacher modeling, providing verbal and nonverbal strategies and prompts, teaching chunked items close in time to avoid memory constraints, and should include
explicit strategy instruction in order to develop self-regulation (Berninger & Winn, 2006; Martinez, 2010).

*Literacy,* in the context of this study, is defined as a complex set of skills that encompasses aspects of both reading and writing.

*Metacognition* is an integral part of teaching (Palincsar & Brown, 1987). It consists of an awareness and regulation of thinking (Palincsar & Brown, 1987; Trainin & Swanson, 2005). Palincsar and Brown (1987) defined these two components as the knowledge of one’s own cognitive processes and the regulation of those processes.

*Perceived self-efficacy* is representative of the beliefs people have regarding their own capabilities to accomplish a task successfully (Bandura, 1986, 2006).

*Process writing approach* is defined as a method through which students engage in the following processes: planning, translating, and reviewing (Graham & Sandmel, 2011). According to Graham & Sandmel (2011), the process writing approach involves writing for real-world purposes, enabling students to take ownership over their writing, and it involves both self-reflection and evaluation.

*Self-efficacy* refers to individuals’ mental judgments regarding their own abilities to plan and complete various tasks (Hidi & Boscolo, 2006; Pajares & Valiante, 2006).

*Self-knowledge,* in the context of this study, refers to the knowledge of one’s strengths and weaknesses (Pintrich, 2002) related to writing ability.

*Self-regulation* refers to students’ abilities not only to process information but also to activate learning, monitor learning, and evaluate learning. Zimmerman and
Moylan (2009) define self-regulation as the “self-generated thoughts, feelings, and actions for attaining one’s learning goals” (p. 299).

*Social cognitive theory* posits that people learn from the interactions between behavioral actions, environmental variables, and personal factors (Zimmerman, 1998, 2000). Through the lens of this theory, learning may occur through performances as well as through observing models as facilitated by goal setting; and through the self-regulation of cognitive processes, affects, behaviors, and environments, one may strive to achieve those goals (Bandura, 1986).

Students with an eligibility of *Specific Learning Disability (SLD)* demonstrate a pattern of processing strengths and weaknesses, and those processing deficits negatively impact their academic achievement (Georgia Department of Education, 2015). The term *specific*, included in the Federal definition with the Individuals with Disabilities Education Act of 2004 (Wright & Wright, 2011), has been added to the label of students with LD in order to better describe the classification as a group of students with a range of disabilities (e.g., written expression, math calculation, etc.).

*Writing self-efficacy* refers to students’ self-perceptions related to their own writing abilities (Pajares & Valiante, 2006).

**Summary**

Chapter 1 provided an overview of this study, including the background of the study, statement of the problem, purpose of the study, research question, theoretical framework, researcher positionality, methodology overview, significance of the study, and definition of key terms. The purpose of this study was to describe the experiences of
three sixth-grade students with LD as they participated in an explicit self-regulation strategy instructional intervention and to understand how those experiences influenced their writing self-efficacy. A qualitative case study methodology was used to address the following research question: How do sixth-grade students with LD describe their writing self-efficacy before and after participation in explicit self-regulation strategy instruction?

Chapter 2 provides a review of literature relevant to metacognition and self-regulation in the contexts of writing and students with LD. Chapter 3 describes the qualitative methodology utilized in the study, and Chapter 4 presents the data analysis of the study. Finally, Chapter 5 summarizes and discusses the study’s key findings, implications, and recommendations for future research.
CHAPTER 2
LITERATURE REVIEW

Writing is a critical aspect of communication, learning, and self-expression (Graham, 2006). Students with deficits in writing are at a startling disadvantage in school, work, and life (Harris et al., 2009). Writing can be used as a learning resource, an extension of learning, and way to support learning (Harris et al., 2009; Hebert et al., 2013); however, many children do not like to write (Harris et al., 2009), and writing is often a challenge (Bereiter & Scardamalia, 1987; Flower & Hayes, 1981; Hayes, 1996). It is not uncommon for struggling writers to lack metacognitive skills and strategies such as planning and monitoring (Annervirta & Vauras, 2006). However, as students’ metacognitive skills improve, their writing skills and proficiency appear to improve (Garner, 1990). In addition, as students gain skills and strategies, increase their knowledge of the writing process, and begin to experience success, their motivation for writing often improves (Bruning & Horn, 2000). With a greater sense of writing self-efficacy, students often experience greater academic achievement (Bruning et al., 2013; Pajares & Johnson, 1994; Shell, Colvin, & Bruning, 1995).

The purpose of this chapter is to present a review of research relevant to students’ writing self-efficacy. The literature review includes seminal works related to cognitive
aspects of writing, two major writing process models, metacognition and self-regulation, self-efficacy and motivation, strategies for developing self-regulated writers, and teaching metacognition and self-regulation to students with LD, metacognitive strategy instruction, the SRSD instructional model, affective aspects of the writing process, and social cognitive theory. This chapter reviews ways in which educators can foster self-regulation and self-efficacy in students, specifically focusing on students with LD and other struggling writers.

Cognitive Aspects of the Writing Process

Prior to the 1980s, the role of writing in school was primarily audiolingual, with a focus on the rote practice of listening and speaking to learn language. Writing was used mainly for language reinforcement, with sentence drills used as the primary mode of writing in school (Raimes, 1991). During the 1980s, cognitive researchers began conducting empirical studies in order to study the more multifaceted and recursive nature of the writing process; consequently, more complex models of the writing process were developed (Raimes, 1991). Once this complex, recursive view of writing became more accepted in American education, educators shifted their focus from students’ writing products to the process of writing itself, and instructional strategies shifted to support the process writing approach (Harris et al., 2009). Due to its connection to effective writing, metacognition played a major role in these new instructional models (Harris et al., 2009). Two influential writing process models emerged in both the education and psychology fields: the Hayes and Flower (1980) model and the Scardamalia and Bereiter (1986) model.
Hayes and Flower Writing Process Model

Hayes and Flower (1980) based their model on four main ideas: 1) writing is goal-directed and strongly related to problem solving, 2) writing requires various cognitive processes in order to meet goals, 3) writing is a recursive process, and 4) writing demands the writer to multitask across various processes (Harris et al., 2009; Hayes & Flower, 1980). Further, their model consists of three components: the task environment, the cognitive processes used, and the writer’s long-term memory (Hayes & Flower, 1980). The necessary cognitive processes were further identified as planning (i.e., setting goals, generating ideas, and organizing those ideas into a specific writing plan), translating (i.e., text production), and reviewing (i.e., evaluating and writing revision) (Hayes & Flower, 1980). Writers are the monitors of this process, and they have control over the execution of these processes (Harris et al., 2009; Hayes & Flower, 1980). The processes of planning, translating, and reviewing have the capability to run simultaneously and cooperatively, demonstrating the recursive nature of the writing process (Hayes & Flower, 1980).

In 1996, Hayes revised the original 1980 model by modifying the semantics used, changing the term translation to text generation and the term reviewing to revising, and by disaggregating the task environment and the individual (Harris et al., 2009; Hayes, 1996). For instance, Hayes (1996) described the task environment as existing within two realms: the social environment, made up of the audience or collaborating writers, and the physical environment, which may include the text requirements and/or the writing medium (Harris et al., 2009; Hayes, 1996). Some controversy regarding writing as a
solitary action or a social act in context exists within the literature (Hacker, Keener, & Kircher, 2009); however, Flower and Hayes (1981) expressed a cognitive perspective to writing that acknowledges the role of social influences on writing.

In this model, writing is a social artifact that reflects the conventions of a society and culture in a specific time and place in history (e.g., legislation); therefore, effective writers are aware of a generalized, social audience—bearing in mind that it is unlikely readers will internalize exactly what the author intends (Flower & Hayes, 1981; Harris et al., 2009). While writing is essentially a social act, the writer’s own cognition produces distinct phenomenology. Further, Hayes (1996) elaborated on the individual writer. Four aspects of the individual impact the writing process: 1) the writer’s motivation or affective states toward writing (e.g., goals, self-efficacy), 2) the writer’s utilization of cognitive processes (e.g., reflection, text production), 3) the writer’s use of working memory (e.g., phonological memory, semantic memory), and 4) the writer’s long-term memory, which can include task related schema, topic knowledge, audience awareness, or genre knowledge (Harris et al., 2009; Hayes, 1996). Ultimately, writers hold the relative knowledge in their long-term memories that is necessary in order to complete tasks (Hayes & Flower, 1980).

Martinez (2010) described an information processing cognitive model consisting of a working memory, also known as short-term memory, and a long-term memory. In this model, information is first encountered through the sensory register, which is capable of maintaining incredible detail for a short duration (Martinez, 2010). As information is perceived beyond the initial sensory register, it enters the working memory where it is
held through the process called Attention (Martinez, 2010). Learning occurs when information moves from the working memory to the long-term memory; however, it is important to distinguish between learning and remembering, which is the process of moving information from long-term memory back into working memory (Martinez, 2010). This difference is most visible in situations when students have successfully learned concepts, but have difficulty remembering their learning during assessments (Martinez, 2010).

**Scardamalia and Bereiter Writing Process Model**

The Scardamalia and Bereiter (1986) writing process model consists of four main processes related to writing: 1) engaging in a mental representation of the task at hand, 2) analyzing problems and setting goals, 3) translating the problem, and 4) the act of knowledge-telling (Bereiter & Scardamalia, 1987; Harris et al., 2009). The main focus of Bereiter and Scardamalia’s (1986) research focused on identifying discrepancies between new or struggling writers and expert writers as well as engagement in knowledge-telling and knowledge-transformation.

Knowledge-telling is the translation of many or all of the ideas produced during brainstorming; in contrast, knowledge-transformation occurs when the experienced writer translates fewer ideas, but in a greater depth (Bereiter & Scardamalia, 1987; Harris et al., 2009). Knowledge-telling is made up of three parts: 1) thinking about and understanding the assignment (i.e., creating a mental representation of task), 2) accessing content knowledge (i.e., knowledge about the topic) and discourse knowledge (e.g., genre and language), and 3) engaging in the actual telling of knowledge, which are strategies used
to produce text (Bereiter & Scardamalia, 1987; Harris et al., 2009). Novice or struggling writers tend only to engage in the act of knowledge-telling (Bereiter & Scardamalia, 1986), which is sometimes interpreted as a simplified version of Hayes and Flower’s (1980) notion of idea generation (Graham, 2006; Harris et al., 2009). For instance, inexperienced writers may only use memory retrieval and the act of writing those memories on paper (Bereiter & Scardamalia, 1987; Harris et al., 2009).

In contrast, experienced writers go through the process of knowledge-transformation (Bereiter & Scardamalia, 1987), an aspect that has impacted research practice and instructional practice related to the development of metacognitive strategy instruction (Harris et al., 2009). Knowledge-transformation is described as planning content with all of the following in mind: rhetoric (e.g., audience reactions), communication (e.g., ideas to be communicated), and pragmatism (e.g., time given for writing) (Bereiter & Scardamalia, 1987; Harris et al., 2009). The expert writer’s process is similar to that of the novice in that they both begin by thinking about and understanding the task and engaging in problem analysis and planning (Harris et al., 2009). Yet, once experienced writers retrieve content and rhetorical knowledge from their long-term memories, they are able to transform the knowledge between and amongst the two separate working spaces being used in the working memory in order to then engage in the knowledge-telling process (Bereiter & Scardamalia, 1987).

Significant to experienced writers, the processes are guided by their goals that resulted from the planning process (Bereiter & Scardamalia, 1987). To ensure adherence to goals, the expert analyzes the produced text and sets new goals according to the
original problem analysis and original goals, only to then go back to revise the text according to the newly developed goals (Bereiter & Scardamalia, 1987). While research supports Bereiter and Scardamalia’s (1987) description of struggling writers and their uses of simple versions of the knowledge-telling process, sufficient research does not yet exist to support the idea that expert writers engage in a more complex knowledge-transformation process (Graham, 2006; Harris et al., 2009).

It is not uncommon for writers as well as evaluators of writing to focus on the product without consideration of how the writer reached the product’s end; however, without a focus on the writing process, one may be unable to instruct a novice writer as to how to produce a better final product (Hacker et al., 2009). While it may be difficult to see a distinction between the product and the process, Hacker et al. (2009) explained that the process of writing is a reflection of thinking processes, and the product of writing reflects said thinking. The process is hidden in the product, which explains why writers may struggle to make the distinction in their own work: they are privy to the process (Hacker et al., 2009). From their research, Bereiter and Scardamalia (1987) identified five areas of competence from within the writing process that are especially difficult to master: 1) content generation, 2) choosing an organizational structure, 3) setting goals for progress, 4) developing automatic writing mechanics, and 5) revising and setting new goals. While these cognitive processes may be difficult to master, many of them may be controlled through the use of metacognition as well as self-regulated learning strategies (Winne, 2011).
Metacognition and Self-Regulation

Flavell (1981) defined metacognition as “knowledge of cognition that takes as its object or regulates any aspect of cognitive endeavor” (p. 37); in other words, thinking about thinking. Metacognition is comprised of two major aspects: what one knows about cognition, and the deliberate monitoring and controlling of one’s cognitive processes (Baker & Brown, 1984; Harris et al., 2009). Students must be aware of their own thinking in order to understand and control their own thinking.

McCormick (2003) described three kinds of metacognition: declarative, procedural, and conditional knowledge. Declarative knowledge refers to understanding one’s self as a learner, a knowledge of one’s own strengths and weaknesses (Harris et al., 2009; McCormick, 2003). Further studies have expanded this definition of declarative knowledge to include the knowledge of one’s own affective states, including self-efficacy, and the ways in which self-efficacy affects performance (see Pressley & Harris, 2006; Zimmerman & Risemberg, 1997). Declarative knowledge may be represented by a topic; what is known about the topic; one’s likes or dislikes regarding the topic; or key definitions, schemas, or outlines of information related to a topic (Winne, 2011). In order to convert this knowledge into actions, cognitive resources must be used to transform the knowledge into automated action, also known as expertise (Winne, 2011). In short, declarative knowledge encompasses all applicable knowledge relating to self, task, and strategies or procedures (Harris et al., 2009). Writers with declarative knowledge understand themselves as writers, understand the writing tasks at hand, and understand
how they feel about writing (Harris et al., 2009). Consequently, it is not uncommon for struggling writers to overestimate or underestimate their abilities (Harris et al., 2009).

Procedural knowledge refers to how one engages with the tasks at hand as well as the knowledge he or she is able to monitor and control (McCormick, 2003; Winne, 2011). It is the knowledge that is necessary in order to carry out complex cognitive processes that may be required when applying declarative knowledge (Harris et al., 2009). Procedural knowledge may be represented by accomplished tasks; however, they are not written or carried out (e.g., applying grammatical knowledge to writing) (Winne, 2011).

Conditional knowledge connects declarative and procedural knowledge. Conditional knowledge refers to the ability to know when it is appropriate to apply one’s procedural and declarative knowledge as well as one’s ability to choose the appropriate strategy (i.e., procedural knowledge) or particular piece of declarative knowledge (i.e., topic or self-knowledge) (Harris et al., 2009; McCormick, 2003). It is critical to students’ success (Harris et al., 2009).

Nelson and Narens (1990) presented a metacognitive model containing three principles: 1) cognition and metacognition are both mental processes that are used interchangeably, 2) metacognition contains a model of cognition, and, therefore, 3) dominance relations exist between control and monitoring. In addition, Bracewell (1983) posited that effective writers have the ability to intentionally control their writing skills. Control refers to the modification of thoughts and behaviors and is important in both acquiring new writing skills and employing writing strategies (e.g., brainstorming, drafting, revising, editing) in order to solve issues during the process (Hacker et al.,
2009). This idea of control leads a writer to do one of three things: begin a new strategy, continue or change the current strategy in some way, or end the current strategy altogether (Nelson, Stuart, Howard, & Crowley, 1999).

However, writers must be able to monitor and assess their own thinking (Kellogg, 1994) in order to carry out these control functions. Monitoring refers to the awareness of thoughts and behaviors (Hacker et al., 2009) and is necessary in order to keep recursive processes (e.g., reading, rereading, reflecting, and reviewing) manageable. Without the ability to self-monitor, the brain cannot make the decision as to which action to take (Hacker et al., 2009); however, the monitoring process has the potential to be flawed by one’s false conceptions of his or her success, the under- or overestimation of one’s ability as mentioned by Harris et al. (2009), and thereby delivering false information and affecting the aspect of control.

Bereiter and Scardamalia (1987) discussed the notions of the monitoring and control processes when they described the acts of knowledge-telling carried out by novice or struggling writers as well as knowledge-transformation carried out by more experienced writers. The monitoring and control processes continue until they are interrupted by a breakdown in meaning, the deliverance of false information as previously mentioned, which is when it becomes necessary for the writer to make modifications in order to continue the process (Bereiter & Scardamali, 1987; Harris et al., 2009). Meaning is directed by the writer’s goals, which often change during the writing process after careful monitoring; therefore, strategies should be changed accordingly, and such changes require the use of control, or self-regulation (Hacker et al., 2009).
Paris and Lindauer (1982) applied the metacognition construct to both reading and writing and gleaned three cognitive activities from their findings: planning, monitoring, and evaluating. Planning refers to the act of selecting strategies and resources to accomplish specific tasks or goals, and monitoring refers to when one assesses the relative success of the plan (Paris & Lindauer, 1982). Whereas, evaluating refers to the measuring of one’s progress toward goals, revising the plan in light of evaluation, and then a repeat of those steps as necessary, creating a recursive process (Paris & Lindauer, 1982). The evaluation and revision process is not unlike the idea from Nelson et al. (1999) of monitoring and control. Writing success may not occur if educators do not address all three areas of metacognition when providing instruction (Harris et al., 2009).

Hacker et al. (2009) described writing not only as a metacognitive process, but also contended that writing, in itself, is applied metacognition, claiming that applied metacognition is a theory that “bridges the gap among cognitive, social, [and] textual dimensions of writing” (p. 155). All types of writing are the result of thought, whether someone is writing a to-do list or a well-developed essay (Hacker et al., 2009). The production of any piece of writing, no matter how menial, involves both cognitive and metacognitive processes; however, applied metacognition implies that the actual process of writing is, in fact, metacognition in action (Hacker et al., 2009). Hacker et al. (2009) defined the writing process as being made up of three parts: the production of thought, the writer, and goal-oriented metacognitive monitoring and control.
Applied metacognition theory not only incorporates the cognitive and social aspects of the writing process but also the notion of monitoring and control, also known as regulation (Hacker et al., 2009). Self-regulation has been recognized in writing research for the last forty years (Hacker et al., 2009). The regulation of thought generation (e.g., brainstorming) and writing one’s thoughts differ in that only some thoughts are actually written down whereas all generated thoughts are regulated (Hacker et al., 2009). The mind generates so many thoughts that writers must use metacognition to monitor and control their thoughts when writing. Self-regulated writers are able to monitor and control their strategy use, their environments, their cognitive processes, affective responses, and attention to tasks (Hacker et al., 2009).

Self-regulation is part of the nature of learning activities, and learners often self-regulate even if they are not taught how to do so (Winne, 2011), but Nelson et al. (1999) noted that this process may often be flawed, especially without a self-regulation structure in place. Many necessary self-regulation strategies can be learned implicitly; however, students’ ability to use these strategies generally correlates with their writing skills (Hacker et al., 2009). When these implicit, automatic strategies are employed, students tend to be unaware of the success of their strategy use, but when strategies are used explicitly and success is reaped, writers have the potential to gain self-efficacy (Hacker et al., 2009), a possible determinate in academic achievement (Bruning et al., 2013; Graham & Weiner, 1996; Pajares & Valiante, 2006). The difference between metacognition and self-regulation is often blurred because of the historical context of their origins. The ideas of metacognition and self-regulation developed relatively simultaneously from
various perspectives and theories, but because they inform and impact each other to such an extent, little distinction exists between them in current research (Harris et al., 2009).

Self-Efficacy and Motivation

While few studies have been conducted in the area of writing motivation (Hidi & Boscolo, 2006; Pajares & Valiante, 2006), it is important to note that writing processes appear to be more difficult than reading processes. Writing requires learners to construct knowledge, which is an extension of understanding (Graham, 2008; Graham & Hall, 2016; Graham & Hebert, 2011; Hebert et al., 2013), rather than merely consume knowledge (Hidi & Boscolo, 2006), and this may be a factor in motivation as well. Writers are often asked to generate texts with minimal guidance or external input; therefore, writers must possess a knowledgebase from which to draw their prior learning (Hidi & Boscolo, 2006). The difficulty for many students often arises when they have a minimal knowledgebase (Hidi & Boscolo, 2006).

Knowledge factors appear to influence the quality and relevance of student writing (Hidi & Boscolo, 2006). While distinguishing between superficial learning and true understanding, Martinez (2010) explained that to learn something is not the same as being able to remember it. Writing necessitates the use of retrieval processes that are distinct from learning in that it requires the ability to produce information independently from long-term memory, rather than simply recalling or recognizing information (Martinez, 2010). Unfortunately, other aspects of writing also tend to foster students’ negative feelings toward writing: its solitary nature, its frequent lack of immediate feedback due to the extended length of time needed to evaluate, and its necessity for
persistence in order to complete a task; however, it is possible to overcome these barriers (Martinez, 2010). For instance, providing students with progress feedback may enable them to recognize their competence and ability to learn, which may result in their strengthened self-efficacy (Martinez, 2010).

According to Hidi and Boscolo (2006), writing research as it relates to cognition emphasizes active processing as a result of motivational factors (e.g., positive self-efficacy, writing performance satisfaction, and willingness to engage in new tasks). In contrast, poor writers tend to maintain lower self-efficacy beliefs, increased anxiety, and/or apprehension toward writing (Hidi & Boscolo, 2006). Students who appear to have little interest in writing seem to aim at completing tasks rather than completing them well (Berringer & Winn, 2006). When compared to their counterparts, students who possess higher levels of self-efficacy tend to be more willing to participate and persevere through difficult tasks (Hidi & Boscolo, 2006). While it is possible that students may get excited from time to time about school, learning, or about a specific assignment, those students who are successful tend to utilize self-regulation strategies throughout the process in order to monitor their progress (Borkowski, 2001). It appears that without a motivation to learn, it is unlikely that students will use self-regulation strategies. It is students’ self-beliefs, interests, and aspirations to write that is often vital to their writing success (Bruning et al., 2013).

Research demonstrates the barriers of learning to write, but others demonstrate methods through which educators may combat these barriers. For instance, studies have shown that process goals and feedback on progress may enhance the transfer of
strategies, writing skills, and self-efficacy (Pintrich, 2002; Schunk and Swartz, 1993). Graham and Harris (1989) concluded that problem learners, as well as young children, appear to have difficulty accurately evaluating their own capabilities due to their lack of necessary metacognitive skills. In addition, students with LD tend to make inaccurately high self-efficacy judgments about their own abilities in creative writing (Graham & Harris, 1989); however, Graham and Harris (1989) were able to demonstrate that self-instructional strategy training can produce improvements in students’ self-efficacy (Graham & Harris, 2003; Harris et al., 2009; Harris et al., 2013). Self-instructional strategy training refers to a set of procedures wherein students utilize self-instructions or self-statements in order to exert control over a particular task (Chan, 1991).

If self-regulated learners tend to possess high self-efficacy (Zimmerman and Risemberg, 1997), it stands to reason that teaching self-regulation strategies may not only improve students’ writing performances but also improve their attitudes toward writing, including their self-efficacy (Borkowski, 2001; Hidi & Boscolo, 2006; Pajares & Valiante, 2006). Zimmerman and Risemberg (1997) stressed the importance of self-efficacy, which is influenced by the success of strategy implementation. Self-efficacy then influences students’ motivation for writing and further use of strategies (Zimmerman & Risemberg, 1997). If students are able to gain self-efficacy, they may be able to develop a belief in themselves as writers and in their writing (Harris et al., 2009).

Bruning et al. (2013) created a writing self-efficacy construct consisting of three areas: ideation, conventions, and self-regulation. Ideation, or idea generation, refers to the ongoing access of the working memory in order to inform all other aspects of writing
(Bruning et al., 2013). This area may consist of self-administered questions such as “Do I have ideas to write about?” or “Can I find the right words to express them?” (Bruning et al., 2013, p. 28). The area of conventions refers to the generally accepted format of mechanics or translation (Bruning et al., 2013). This area draws upon linguistic knowledge and can have a wide range of aspects to be evaluated (e.g., spelling, word order, syntax, or discourse). Finally, the self-regulation area refers to activities such as the ability to start writing, engage the reader, adjust style, clarify sentences, or to find and correct grammatical errors. This area is often associated with questions such as “Can I get started writing?” or “Can I manage my frustration when my progress slows?” (Bruning et al., 2013, p. 29).

Borkowski (2001) described a reciprocal relationship between beliefs about one’s self as a learner and self-regulated learning, a process through which every mental action has a motivational outcome, which perpetuates the brain to self-regulate. Positive self-efficacy beliefs are foundational to academic motivation and success (Bruning et al., 2013), due to the inspiration sparked from a desire to accomplish (Borkowski, 2001). In fact, perceptions of ability, often times, influence choices and courses of action; it is an important human belief that one has the ability to accomplish a task (Pajares & Valiante, 2006). Self-efficacy may be determined by how much effort students put toward tasks, their level of perseverance, and their resiliency; students possessing high levels of these qualities tend to have a greater sense of intrinsic motivation (Pajares & Valiante, 2006). Students with low levels of self-efficacy tend to think that tasks are more difficult than they truly are, and it may be the cause of anxiety, stress, and narrow perspectives (Pajares
& Valiante, 2006). This cycle can sometimes become an inevitable trap: each time a student gives into a task, failure is eminent, which further supports the student’s low self-efficacy (Pajares & Valiante, 2006). Pajares and Valiante (2006) postulated four ways in which self-efficacy beliefs are formed.

First, self-efficacy beliefs can be informed by past performances; students use these situations to make decisions regarding their capabilities of success on future tasks. Essentially, students act on their own self-beliefs, exposing themselves to a self-fulfilling prophecy (Pajares & Valiante, 2006). Second, self-efficacy beliefs may be formed from the observations of others; while observation may be a less effective approach to learning, strong models may still significantly influence students’ self-efficacy beliefs (Pajares & Valiante, 2006). Similarly, these beliefs may be formed based on the judgments made by others; educators play an important role in self-efficacy development and should aim to cultivate self-beliefs as well as ensure that success is attainable (Pajares & Valiante, 2006). Third, negative feedback can have adverse effects on students’ self-efficacy beliefs; it is important to keep in mind that self-efficacy beliefs are easier to weaken than to strengthen (Pajares & Valiante, 2006). Finally, self-efficacy beliefs may be impacted by one’s affective states (e.g., anxiety, stress, mood), which can provide information regarding self-efficacy (Pajares & Valiante, 2006). Affective reactions to negative self-efficacy beliefs may cause more anxiety or stress (Pajares & Valiante, 2006).
Fostering Self-Regulated Writers

Writing done with intention and deliberation tends to rely more on explicit cognitive processes rather than implicit processes (Hacker et al., 2009). Therefore, the act of thinking about knowledge can contribute to self-efficacy (Winne, 2011), further justifying the need for self-regulation strategy instruction. Among the different aspects of literacy, writing in particular demands an integrated system of cognitive, metacognitive, and linguistic processes, all of which require self-regulation skills (Hidi & Boscolo, 2006). However, self-regulation is not just a matter of cognitive and metacognitive processes; self-regulation demands that students be motivated to attain their learning and process goals (Hidi & Boscolo, 2006). Therefore, self-regulated writers tend to understand and be able to implement a myriad of strategies, in turn promoting positive self-efficacy, which often leads to a stimulation of interest in the writing task at hand (Borkowski, 2001; Hidi & Boscolo, 2006). Although self-regulation is a common area of motivational research, few empirical studies examine the relationship between self-regulation strategy use and motivational aspects of learning.

Although educators cannot force students to learn, they can explicitly model and prompt strategies necessary for learning (Berninger & Winn, 2006). Due to its flexibility toward objectives (Hidi & Boscolo, 2006), writing can be used across the curriculum as a tool with which students can externalize their thoughts, enabling them to analyze and revise their thinking. This process fosters learning engagement when students are encouraged to interact with their own texts (Berninger & Winn, 2006). Externalizing cognition through writing is especially helpful when students’ internal working memories
are full and is often a method that fosters sustained problem solving and perseverance (Borkowski, 2001; Berninger & Winn, 2006), a quality often lacking in students with LD. Berninger and Winn (2006) suggested that instructional strategies should be designed to guide students’ attention to their cognitive processes as well as to use their external environments to scaffold the writing process. Such strategies should emphasize that writing, as a method of externalizing cognition, may be used to overcome the barriers of students’ internal working memories (Berninger & Winn, 2006).

**Teaching Metacognition and Self-Regulation to Students with LD**

A report by the NJCLD (2008) indicates that students with LD are unprepared writers when going into college and the work force. Trainin and Swanson (2005) assert that it is possible for students with LD to reach normal levels of achievement when they are provided with appropriate academic support early on in their academic careers. Assuming that students with LD attending college are considered academically successful and accepting the theory that metacognition and self-regulation may be related to emotion or affect (Trainin & Swanson, 2005), it may also be possible to attribute some of the success of college students with LD to their metacognitive ability as well as their self-efficacy.

The long-term goal of metacognition is to lessen the effort required for cognitive activities so that learning can occur more easily; therefore, metacognition is a functional means of learning, not a goal (Paris & Winograd, 1990). The goal in teaching students with LD is to improve their abilities to the extent that they can function independently and autonomously, much like their typical peers (Wong, 1986).
Trainin and Swanson (2005) demonstrated that increased academic achievement may be related to increased metacognitive knowledge and students’ abilities to seek help. The motivation to learn as well as the achievement of students with LD appear to be impacted by their emotions, self-perceptions, self-esteem, and attributions to success or failure (Wong, 1986). Studies indicate that the motivation of students with LD and students without LD may be comparable (Baird et al., 2009; Klassen, 2010; Lackaye et al., 2006); however, Wong (1986) suggests that students with LD show significantly lower measures in self-value and higher measures of anxiety. It is possible that their lower self-concepts are related to their past academic failures and not associated with current performance (Wong, 1986). On the other hand, the lower academic self-perceptions of some students with LD may actually represent a realistic self-appraisal (Bear, Minke, Griffin, & Deemer, 1998), which would suggest a stronger sense of metacognition than generally accepted; however, it may also be that their academic self-perceptions are inaccurately below their actual academic skills (Stone & May, 2002).

Regardless of the cause, it is important that students with LD develop strong self-advocacy skills and an accurate understanding of their strengths and weaknesses (i.e., self-knowledge), which is a prerequisite for self-advocacy (Stone & May, 2002). Without realistic insight into their own capabilities, students may be unable to set appropriate goals or utilize self-help strategies effectively (Stone & May, 2002). Therefore, accuracy of self-perception is important in the success of adolescent students with LD, as well as being important to their psychological well-being (Stone & May, 2002). This notion of metacognition blends the knowledge of the cognitive state and
processes in order to aid in self-appraisal and self-management (Paris & Winograd, 1990). It is commonly accepted that students gradually increase their realistic self-appraisals as they age, which may be a factor of their increased ability to make social comparisons by judging their performances to the performances of other students (Stone & May, 2002); however, extrinsic factors of these comparisons may include instructional grouping (e.g., inclusion or small group settings) as well as their teacher performance feedback (Stone & May, 2002). Unfortunately, while their self-appraisals may become more realistic, in the case of adolescents, their self-efficacy beliefs often suffer a decline (Caprara et al., 2008).

Teachers can foster students’ self-knowledge, or the knowledge of their strengths and weaknesses, by providing them with constructive feedback (Pintrich, 2002). Although positive constructive feedback is preferred, it is important to note that feedback should not be inaccurate or misleading in regards to students’ strengths and weaknesses (Pintrich, 2002). It is more important for a student to have an accurate perception of his or her knowledgebase (Pintrich, 2002). If students do not realize that a problem exists, then they are unlikely to put forth the necessary effort to correct the problem. Self-knowledge is integral to success and is commonly accepted to be central to cognition, motivation, and behavior; similarly, students’ self-beliefs are integral to their academic success (Pajares & Valiente, 2006). Consequently, self-knowledge can be important as a learning facilitator or a learning constraint (Pintrich, 2002). When students know their own strengths and weaknesses, they are better able to adjust their own thinking and be more adaptive to tasks, which will facilitate learning (Pintrich, 2002). When students
lack self-knowledge, they tend to be less likely to adapt to different situations or to regulate their own learning (Markman, 1979; Pintrich, 2002). For instance, students with inaccurate perceptions of their content understanding may not thoroughly or effectively prepare for upcoming assessments (Pintrich, 2002).

**Strategy Instruction**

Studies have shown that students who receive metacognitive instruction tend to perform better than those who do not (Palincsar & Brown, 1987; Pintrich et al., 1994). However, students should not simply be taught an inventory of strategies; they must be taught specific strategies to be used for specific purposes (Paris & Winograd, 1990). Although many educators provide metacognitive instruction through implicit, embedded lessons (Paris & Winograd, 1990; Pintrich, 2002), educators are able to effectively and explicitly teach metacognition skills (Duffy et al., 1987; Graham & Harris, 2009) and should explicitly label strategies for students (Pintrich, 2002). Pressley, Borkowski, and O’Sullivan (1985) noted that students who receive more explicit, elaborate instruction of strategies tend to be more successful and tend to utilize the strategy more frequently than students who receive a more simplistic strategy instruction.

Key features of metacognitive instruction have been identified as follows: 1) an analysis of the task, 2) identifying the most appropriate strategy to be used, 3) explicit instruction of strategies including metacognitive information regarding their application, 4) providing feedback related to how well students used the strategies as well as the success achieved, and 5) instruction regarding the generalized use of strategies in order to promote learning transfer (Palincsar & Brown, 1987). Palincsar and Brown (1987)
outlined a model of metacognitive instruction, which should begin with the teacher assuming the role of guiding instruction through explanation and modeling strategies (Pintrich, 2002) as well as demonstrating why the strategies are important. As the responsibility for learning gradually shifts from teacher to student, the teacher should provide students with guided practice, which also shifts teacher focus from involvement to evaluation and encouragement (Palinscar & Brown, 1987). Although evaluation may lead to further instruction, prompting, or praise, metacognitive instruction is not complete until the learner can apply the strategies independently (Palinscar & Brown, 1987).

Metacognitive orientation should be assessed based on where the students fit into the school curriculum, by what prior knowledge of strategies they possess, and how students respond to strategy instruction (Palinscar & Brown, 1987).

In addition, it may be possible for the brain to overcome its genetic restraints through explicit instructional interventions; the brain is malleable and responds to instruction (Berninger & Winn, 2006). Some critics of the blank slate theory assert that humans also develop as a result of their own predispositions’ interactions with their environments (Pinker, 2003). Given such beliefs, Berninger and Winn (2006) suggest that writing instruction incorporate not only learner differences, instruction, and materials but also the brain’s structure and mechanisms as they relate to writing processes as well as the necessary cognitive processes.

Researchers such as Zimmerman (1989) have examined self-regulation with regards to Bandura’s (1986) social-cognitive model and have identified three elements of self-regulation: behavior, environment, and person. Behavioral self-regulation refers to
individuals’ judgments of their own behavior and progress toward goals. Environmental self-regulation includes received feedback, and internal self-control relates to individuals’ control of affective states as well as metacognitive strategies (Zimmerman, 1989). Using this model of the three elements of self-regulation, Zimmerman and Risemberg (1997) developed four progressive levels for the development of self-regulation: 1) observation, 2) emulation, 3) self-control, and 4) self-regulation. Characteristic of this fourth level, known as developed self-regulation, are qualities such as high self-efficacy, interest, and the ability to shift from processes to outcomes or goals (Zimmerman & Risemberg, 1997). The authors suggested that interventions dealing with novice or struggling writers begin with process strategies and goals before then shifting to outcome goals (Zimmerman & Risemberg, 1997).

In addition, metacognition is designed to facilitate social exchanges of shared knowledge (Paris & Winograd, 1990). Teachers and students should have discussions regarding metacognitive knowledge as part of their everyday discourse; it is believed that these reciprocal discussions foster a common language through which students can interact with their own thinking and learning (Borkowski, 2001; Paris & Winograd, 1990; Pintrich, 2002). For instance, discussions should involve teachers asking questions, listening to answers, and talking with students in order to estimate their prior knowledge as an informal assessment used to guide instruction and to obtain information about students’ strengths, weaknesses, and interests (NJCLD, 2008; Paris & Winograd, 1990; Pintrich, 2002). Effective metacognitive instruction requires teachers to be able to provide spontaneous explanations based on student responses and understandings, and
instruction should emphasize developing the ability to reason strategically (Borkowski, 2001; Duffy et al., 1987). It is important that educators explain how mental processing associated with specific strategies may be used and how they may be transferred to other situations. These scaffolded and sequenced explanations should be provided both explicitly and consistently over an extended period of time (Duffy et al., 1987; NJCLD, 2008).

Educators should also consider several suggested conditions when implementing effective metacognitive instruction. Metacognitive interventions must be explicit in explaining a strategy’s intended goal, its range of application, the learning that can be gained from its use, as well as the effort it takes to use the strategy effectively (Palincsar & Brown, 1987). Explanation of these metacognitive strategies can increase student awareness, both situationally and procedurally over time (Duffy et al., 1987). In addition, assisting students in methods of how to identify and use strategies will promote self-monitoring and learning (Palincsar & Brown, 1987; Paris & Winograd, 1990). For example, Wong and Jones’s (1982) study showed systematic improvement in self-monitoring skills of adolescent students with LD through the use of a five-step self-questioning method. Another consideration should be to hold these individual self-assessment discussions in a private environment in order to maintain student motivation through this process (Pintrich, 2002). This is even more necessary when dealing with students with LD. Students with LD often appear to have a compelling need for peer group acceptance and access to social interaction; therefore, students with LD may reject being singled out in front of their peers (NJCLD, 2008).
SRSD Instruction

The SRSD instructional model, developed by Harris and Graham (1985), was informed by an array of theoretical perspectives (Harris et al., 2011), and it has been shown to have more impact on students’ writing than any other strategy instruction model (Baker et al., 2009; Graham & Perin, 2007; National Center on Response to Intervention, 2011). In fact, studies have shown that students with LD are responsive to SRSD interventions containing explicit strategy instruction and multiple components (e.g., Mason et al., 2012; Mason et al., 2006).

SRSD is characterized by five distinctive traits (Harris et al., 2011). First, writing knowledge as well as writing and self-regulation strategies are explicitly taught and supported throughout instruction. Second, students are expected to be “active collaborators” who work together and with the intervention teacher during instruction (Harris et al., 2011, p. 195). Third, individualized instruction is provided both through students’ design of their individual writing goals and through the feedback they receive from peers and teacher regarding their writing (Harris et al., 2011). Fourth, SRSD is criterion-based. Strategy instruction is not dependent on time; therefore, instruction of one strategy does not end until students are able to use said strategies both independently and effectively (Harris et al., 2011). Fifth, strategy instruction is ongoing: as the instruction of one strategy concludes, new strategies are introduced, while previously taught strategies are upgraded (Harris et al., 2011).

In addition to the aforementioned characteristics, SRSD maintains six stages of instruction; however, these stages merely serve as a guide (Harris et al., 2011). Stages
may be rearranged and are meant to be recursive when necessary. Throughout these stages, aspects of metacognition are demonstrated (Harris et al., 2011). The six stages of SRSD include the following: 1) Build and activate prior knowledge necessary for the writing task as well as self-regulation, 2) Discuss the strategy, 3) Model the strategy, 4) Memorize the strategy, 5) Support the strategy throughout instruction, and 6) Students independently perform the strategy (Harris et al., 2011). Self-efficacy may be fostered throughout these stages by SRSD’s emphasis on scaffolding during the initial portion of the process; its focus on student effort and strategy use through a commitment to learning and the use of said strategies; the aspects of goal-setting, self-monitoring, and reinforcement; and its element of discussion regarding beliefs about writing (Harris et al., 2013; Harris et al., 2011).

Affective Aspects of the Writing Process

The act of writing requires a complex system of processes, dependent on several cognitive as well as affective factors. Hull and Rose (1989) posited that as researchers discovered more about writing and its connection to cognition, they realized this connection was even more complex than it had appeared to be. In order to investigate this complex relationship, researchers began to study the affective factors related to writing (Hull & Rose, 1989). Through a sociocognitive lens, Bandura (1986) described individuals as being both proactive and as having the ability to self-regulate as opposed to being controlled by one’s genetics or environment—emphasizing the role of beliefs about one’s self as they relate to achievement. Students’ beliefs about themselves enable them to control the way they think, feel, and act (Bandura, 1997). These beliefs about their
own capabilities, known as self-efficacy, may determine the manner in which they employ their knowledge and skills, making self-efficacy vital to students’ success in school (Bandura, 1997; Bruning et al., 2013; Bruning & Horn, 2000; Graham, Berninger, & Fan, 2007; Pajares, 2003).

Explicitly teaching self-regulation strategies in the classroom, such as planning and goal setting, may increase students’ use of self-regulation. When students are able to identify and prioritize their writing goals, then they often increase their chances of success, thus impacting their affective states (i.e., beliefs and attitudes), which in turn may impact their future success (Bruning & Horn, 2000; Graham et al., 2007; Shell et al., 1995).

Social Cognitive Theory

The sociocultural perspective holds that children develop through their interactions with adults—an aspect that can be used as an effective instructional tool when said interaction is aimed within a child’s zone of proximal development (Berninger & Winn, 2006). Educators should explicitly guide students through the learning process by implementing scaffolding strategies. According to social constructivism, because writing is a cultural activity rather than an ability, students’ motivation to write is often rooted in meaningful, authentic experiences (Hidi & Boscolo, 2006). Social cognitive theory is built upon assumptions based on reciprocal relationships (i.e., behavior, environment, behavior), how learning occurs (i.e., enactive and vicarious), the difference in learning and performance, and the central role of self-regulation (Bandura, 1986; Zimmerman & Schunk, 2003; Schunk, 2012). Researchers have applied the tenets of
social cognitive theory to the acquisition of cognitive, motor, social, and self-regulation skills as well as many other facets of society (Zimmerman & Schunk, 2003).

Reciprocal Relationships

Behavior is viewed as a triad of reciprocal relationships between behavioral, environmental, and personal factors (e.g., self-efficacy, cognition) (Bandura, 1986, 2001; Zimmerman, 1998, 2000). For instance, students’ perceived self-efficacy; an example of a personal factor influencing behavior; influences their persistence to complete tasks, the amount of expended effort, and skill acquisition (Pajares & Schunk, 2002). When students persevere through tasks, they may receive praise from a teacher, which makes them believe they did well and further affirming their self-efficacy. In this case, behavior influenced an environmental variable, which in turn influenced a personal factor. While this is a positive example of Zimmerman’s (1998, 2000) triadic reciprocality, these relationships can result in negative outcomes as well. In the case of many students with LD, a history of failures accompanied by critical feedback can negatively impact these students’ self-efficacy toward their ability to perform well and influencing their future performance—a prime example of the reciprocal relationship between personal factors and environmental variables (Licht & Kistner, 1986). Similarly, students are sometimes presumed to be incapable of rising to the academic standards by which their typical peers are held, despite their average performance in certain subjects (Bryan & Bryan, 1983).

Learning

Within the framework of social cognitive theory, one can learn in two distinct ways: vicariously and enactively (Bandura, 1986). Vicarious learning refers to learning
that occurs as a result of an observation of a model (Bandura, 1986). Students of varying ages are capable of learning strategies and skills by observing a model (Horner, 2004; Schunk, 2008). This type of cognitive modeling requires educators to orate their thinking and rationales for various actions (Miechenbaum, 1977), which is a more effective approach to instruction than mere explanation (Rosenthal & Bandura, 1978). In fact, this key component in social cognitive theory presumes the observers’ ability to render behavioral, cognitive, and affective learning experiences as a result of observing cognitive modeling (Rosenthal & Bandura, 1978; Schunk, 1995, Zimmerman, 1977). Modeling is an effective approach to teaching because students are able to eliminate the need to perform each task in order to learn a concept (Bandura, 1986). While students are able to learn some aspects of particularly complicated or complex skills, not all learning experiences can occur through observation. Ensuing observation, students must be given the opportunity to practice and receive corrective feedback and reteaching in order to master their skills (Bandura, 1977, 1996); however, enactive learning is not the performance itself (Bandura, 1986). Social cognitive theory defines learning and performance as two different processes. For instance, students may grasp a concept as a result of vicarious learning, but the learning environment may not be conducive to demonstration at that particular time (Bandura, 1986); yet, learning still occurred. Enactive learning takes place when one learns from the consequences of his or her actions (Bandura, 1986). If students’ performances result in successes, they retain those actions leading to the successes, but if their performances result in failures, then students will often self-reflect and alter their actions in the future. But, it is not the
consequence driving the motivation of those students: it is their cognition—how they feel about those consequences and the information the consequences provide—that influences their learning behaviors (Bandura, 1986).

The Role of Self-Regulation

Bandura (1997) placed great significance on the notion of self-regulation and the role it plays in an individual’s ability to control events by regulating his or her thoughts and actions. A basic assumption of this theory is that people actually want to assert control over events in their lives; however, people’s perceived self-efficacy does affect their ability to do just that (Bandura, 1997). Self-regulation, the process of utilizing cognitive processes, affects, and actions in order to reach a goal, is at the center of this notion of controlling outcomes (Zimmerman & Schunk, 2011). Bandura (1986) posits that people seeking control of outcomes engage in goal setting; consider the expected results of their actions; assess their progress; and self-regulate what they think, feel, and do. Often times, behavior is driven and controlled by personal expectations and self-assessments of one’s actions (Bandura, 1986); therefore, it is important that one’s self-regulation is informed by an accurate sense of self-knowledge as these processes unfold. Self-regulation may also be fostered through the incorporation of self-reinforcing statements into cognitive models. Teachers can intentionally include problems or errors in their models in order to demonstrate how to approach them (Schunk, 2012). This type of self-instruction has been used to show students how to regulate their learning (Meichenbaum, 1977), and it is especially beneficial when used with students with LD (Wood et al., 1993).
SRSD was chosen as the instructional model for this study due to its close alignment with social cognitive theory. With the impact self-efficacy has on performance (Bandura, 1997), it is important that SRSD fosters self-efficacy throughout its procedures, particularly during the activation of prior knowledge (Harris et al., 2011). In doing so, students may develop the confidence or belief that they are prepared to tackle the task at hand. In addition, through the ongoing support of students during SRSD, positive consequences are more frequent and negative consequences are limited, contributing to the self-efficacy of students (Harris et al., 2011). Social cognitive theory posits that students value teacher models if they believe they will have to carry out the same task or if they place some other value on learning the action (Bandura, 1997). The emphasis SRSD places on the discussion of the strategies and their rationales, purposes, benefits, and goals; in turn, places emphasis on the value of the strategies if used successfully; meaning students are more likely to pay attention to the ensuing model, and thereby engaging in vicarious learning. The idea of modeling is embedded throughout SRSD. Not only do instructors of SRSD model the academic strategy, a writing strategy in the case of this study, but also instructors intentionally incorporate roadblocks into their models as antecedents for demonstrating the use of self-statements (Harris et al., 2011).

Incorporating self-statements into a model is important because the learning gained from observing said model goes beyond the information; people internalize beliefs and attitudes from models as well as the effectiveness, usefulness, and appropriateness of the model (Bandura, 1997; Schunk, 2012). In addition to the ample opportunity for
vicarious learning through SRSD, it also incorporates enactive learning as students practice in peer groups and independently until mastery can be reached.

Finally, self-regulation is a foundational component of both SRSD and social cognitive theory. Social cognitive theory perceives goal setting as a method by which to improve learning and performance because of how the presence of goals affect one’s sense of progress, self-efficacy, and self-assessment (Bandura, 1997; Locke & Latham, 2002). Through goal setting and self-monitoring, SRSD encourages students to employ the cognitive processes necessary to self-regulate their anticipated outcomes, actions, and progress (Harris et al., 2013; Harris et al., 2011).

Summary

Research demonstrates that writing is a complex, recursive, and difficult process for many students that involves both social and solitary aspects (Bereiter & Scardamalia, 1987; Hayes, 1996). However, writing is also a necessary part of the learning process; it provides students with the means to externalize their thoughts and deepen their understanding (Berninger & Winn, 2006; Borkowski, 2001; Graham & Hebert, 2011), which meets several needs within both the academic and personal realms. The notion of externalizing one’s thoughts provides students with the opportunity to analyze and evaluate their thinking, fosters problem solving and perseverance, and tends to be a helpful strategy to use when students’ working memories are at capacity (Berninger & Winn, 2006)—the latter two benefits are especially useful to students with LD who are often deficient in these areas.
While each writing model is somewhat different, they all tend to have many similar elements. Writers must always begin by thinking about and understanding the task at hand, and then writers should participate in some type of planning process—albeit this process is slightly different between a struggling writer and an expert writer (see Bereiter & Scardamalia, 1987). Finally, all writers go through the experience of actually producing text (Bereiter & Scardamalia, 1987; Hayes, 1996), and for many struggling writers, the process ends here; however, expert writers often continue the recursive process of writing by analyzing the produced text, setting new goals based on this analysis, and then revising the text accordingly (Bereiter & Scardamalia, 1987). The difference between struggling writers and expert writers may rest within the notions of metacognition and self-regulation.

Writing uses cognition, metacognition, and linguistic processes, and in order for students to use these systems in an integrated manner, they must be able to self-regulate, which requires the motivation to learn and to reach goals (Hidi & Boscolo, 2006). The ability of self-regulated writers to understand and implement strategies promotes a positive sense of self-efficacy, and, thereby, stimulates an interest in writing (Borkowski, 2001; Hidi & Boscolo, 2006). If self-regulated learners tend to have higher levels of self-efficacy (Zimmerman and Risemberg, 1997), then it is logical to assume that teaching self-regulation strategies to students may not only increase their writing success, but also their self-efficacy (see Graham & Harris, 2003; Harris et al., 2009).

Due to their increased stress and anxiety over writing, struggling writers often attempt to simply finish a writing task, rather than finish it well (Hidi & Boscolo, 2006).
This may also be due to their, often, low self-efficacy toward writing (Hidi & Boscolo, 2006). Students with LD, the target population of this research, especially tend to be unprepared writers (Baker et al., 2009; Graham & Perin, 2007; MacArthur, 2011; NCES, 2011), but with the appropriate instruction, they have the potential to achieve success similar to their typical peers.

The long-term goal of metacognition and self-regulation is to help students by enabling them to put forth less effort toward the cognitive processes related to writing; it is a way to learn, not the goal of learning (Paris & Winograd, 1990). When working with students with LD, particularly, it is a means to improve their use of strategies so that they can function more independently and autonomously (Wong, 1986). Instruction should demonstrate to students how their cognitive processes function and should utilize the external environments in order to scaffold the writing process (Berninger & Winn, 2006).

Self-regulation strategy instruction should include explicit instruction related to the three stages of self-regulation: planning, monitoring, and evaluating (Paris & Lindauer, 1982); just as writing is a recursive process, self-regulation should also be recursive. Self-regulation refers to the monitor and control aspects of the metacognitive procedural knowledge outlined by McCormick (2003).

Students who engage in intentional writing are more than likely engaging in explicit cognitive processes (Hacker et al., 2009), and thinking about knowledge often contributes to self-efficacy (Winne, 2011). Many students are capable of self-regulating without instruction, but their ability to do so is often flawed without a provided framework in which to perform those cognitive tasks (Nelson et al., 1999). When this
occurs without explicit thought, students are not aware of the success achieved by using the strategy (Hacker et al., 2009). In contrast, when students use strategies with explicit thought, they are able to see the success from the strategy used, which, in turn, has the potential to increase self-efficacy (Hacker et al., 2009). In conclusion, if students’ self-regulation skills are related to their self-efficacy, then it may be that explicit self-regulation strategy instruction will foster a higher sense of self-efficacy, particularly in students known for having little of either, such as students with LD.
CHAPTER 3

METHODOLOGY

Students with LD continue to fall behind their typical peers in the area of writing (Graham & Harris, 2011; NJCLD, 2008; Van Kraayenoord et al., 2009). Studies indicate that self-efficacy influences writing performance and that self-regulation may be an important aspect of both metacognitive and affective aspects of writing (Bruning et al., 2013; Pajares & Valiante, 2006; Hidi & Boscolo, 2006). This study focused on the self-efficacy of sixth-grade students with LD as they participated in a five-week writing intervention.

Purpose and Research Question

The purpose of this study was to describe the experiences of three sixth-grade students with LD as they participated in an explicit self-regulation strategy instructional intervention and to understand how those experiences influenced their writing self-efficacy. This study addressed the following research question: How do sixth-grade students with LD describe their writing self-efficacy before and after participation in explicit self-regulation strategy instruction?

Qualitative Case Study Design

Qualitative research is an interpretive method of inquiry that enables researchers to understand the world and his or her place within the world, and to examine others’
experiences and understanding of the world (Denzin & Lincoln, 2011). Qualitative researchers demonstrate the ways in which a context influences participants’ experiences; therefore, qualitative research is usually context-bound, taking place within a specific situation (Nastasi & Schensul, 2005). Data collection methods associated with qualitative research may be viewed as a series of representations of the world, enabling the researcher to better understand a phenomenon by making sense of those representations (Denzin & Lincoln, 2011). The methodology chosen by researchers during qualitative research is determined by their ontological and epistemological views as well as their research purposes, participants, and environments (Ormston, Spencer, Barnard, & Snape, 2013). This study was grounded in social cognitive theory (Bandura, 1997). Within social cognitive theory, central significance is placed on self-regulation and its role in influencing thoughts and actions in order to control events or performance, such as writing in the classroom (Bandura, 1997). Tenets of social cognitive theory informed this study’s research question, methodology, and data analysis.

A qualitative case study is defined by the object of study (Stake, 1998), which is a complex functioning unit (e.g., a person or group of people) and bounded by time and space (Johansson, 2005; Stake, 1995; Yin, 1994). In a qualitative case study, multiple forms of data are collected, analyzed, and triangulated (Creswell, 2009) in order to investigate a case within the context of its natural environment (Boblin, Ireland, Kirkpatrick, & Robertson, 2013; Stake, 1995; Stake, 2005; Yin, 1994; Yin, 2003). In this study, three sixth-grade students with LD were bounded by their shared experience participating in a five-week SRSD instructional intervention (Harris & Graham, 1985),
which took place at their public middle school in central Georgia. These students’ writing self-efficacy could not be separated from the context of school (Yin, 2003). Consequently, a qualitative case study approach was utilized in order to gain understanding of how this explicit, self-regulated writing instruction influenced these students’ writing self-efficacy.

Setting

This study was conducted in a suburban, public school district in central Georgia. At the time of the study, the district consisted of 51 schools, which includes 29 elementary, 11 middle, and 11 high schools with an enrollment of approximately 41,000 students. The district’s student population was 46.9% African American, 38.2% Caucasian, 7.9% Hispanic, 3.8% Interracial, and 2.7% Asian, with 51.4% of the population considered economically disadvantaged. In addition, 34.5% of the district’s students were enrolled in the Early Intervention Program, 9.6% were enrolled in the Gifted Education Program, and 12.9% were enrolled in the Special Education Program (Georgia Department of Education, 2015).

This study took place within the middle school where I, the researcher, was employed at the time. The school’s population consisted of approximately 900 students, 453 of whom were male and 447 of whom were female; 390 of these students were eligible for free or reduced lunch. Approximately 633 of the students were African American, 179 were White, 47 were Hispanic, 33 were Multiracial, and 8 were Asian or Pacific Islander. The overall student to teacher ratio was approximately 1 to 17, with 53 full-time teachers (Georgia Department of Education, 2015).
The study was conducted at the end of the second semester; therefore, time constraints applied, which impacted long-term retention and skill transference. The writing intervention and assessment procedures were conducted over a five-week period during the school day within the participants’ regularly scheduled class period. Research was conducted within two sixth-grade special education Study Skills classes, which were scheduled during students’ Connections time (a time outside of core academics). The classes were classified as resource classes, which took place outside of the general education classroom in a small group. Three sixth-grade students participated in the study; however, all students enrolled in both classes participated in the SRSD instructional writing intervention (Harris & Graham, 1985).

Participants

From two small group Study Skills classes in a public middle school in central Georgia, 12 students with LD and identified by their teacher as having poor writing skills were invited to participate in this study. The participants selected for the study received special education services and had a current Georgia eligibility of Specific Learning Disability (SLD). Of the 12 students selected, three agreed to participate and returned the required parental consent and student assent forms. The classroom teacher of both Study Skills classes agreed to devote two to three days per week over a five-week period to the study, so students could participate in a SRSD writing intervention developed by Harris and Graham (1985). The participant selection was purposeful, in that only students served in the SLD program were selected to participate in the study; however, it was also a convenience sample due to the limitations of the school setting.
After gaining permission from the school district to conduct the study, the classroom teacher attempted to contact the parents of the 12 students who met the study’s criteria to explain the intervention study and request permission for students’ participation. Parents were assured that students would not receive any negative consequences if they declined participation. The teacher was able to reach six of the 12 parents.

After the parents were contacted, I visited both classes in order to discuss the purpose and details of the study with the students. Because each class consisted of students being served in special education under a variety of eligibility areas, I explained that not all students would participate in interviews or be included in the study; however, all students would receive the same five-week writing intervention.

Three of the 12 students selected agreed to participate: one student from the first class and two students from the second class. The classroom teacher gathered parental consent and student assent forms. Informed parental consent and student assent forms are included in Appendices B and C, respectively; however, school and district identifying information has been removed to protect the participants’ privacy. To ensure confidentiality, pseudonyms were used for each student who participated in this study: Nate, a 12-year-old African American male; Brent, a 13-year-old Multi-racial male; and Korra, a 13-year-old African American female.

Vignette: Getting to Know Nate

While Nate appeared to be the most eager participant of the three, he was also the most positive participant prior to instruction. Nate’s responses throughout the majority of
the pre-interview as well as his responses to the prequestionnaire were mostly positive. During the SRSD instruction, Nate often volunteered to answer questions when asked to the whole group, and he did not appear to become frustrated when he gave incorrect responses on occasion. Nate’s speech and language skills appear to be a struggle for him just as Mertens (2009) warns is sometimes the case with students with disabilities. During interviews and observations, Nate’s speech was often unintelligible, and he was asked to repeat himself. In addition, at times Nate would misinterpret the purpose of an interview question, so further explanation was given to help guide him toward the intended topic. For instance, at the conclusion of the pre-interview, Nate was asked if he was a good writer to which he replied, “No, my handwriting look [sic] like a kindergartener.” While the intent of the question was to inquire as to his overall writing self-efficacy, Nate interpreted the question in a more literal sense. Vignette: Getting to Know Brent Brent portrayed a true individual from the moment he first spoke to me, eagerly standing in my office doorway inquiring as to when we would have time to conduct his pre-interview. His eagerness did not wane even at the very end, still paying me visits every time he walked passed, asking with a slight lisp, “Are you coming to our class today?” While they may not have always been clear or what I defined as accurate, Brent’s ideas were never in short supply, and he was never shy about sharing them. During our first modeling lesson, we previewed a non-fiction text entitled, “Can you genetically engineer a chimp to make a human?” Immediately after hearing me read the title aloud, Brent looked up with a confident smile and said, “Yes!” He went on to
explain to the class that chimpanzees were the closest relatives to humans and that through cloning and DNA modification, scientists could turn a chimpanzee into a human. Despite his shaky science, Brent beamed as he spoke, assuring me that he watched a lot of documentaries. Although endearing, this misunderstanding is representative of how many students with LD approach learning—exercising a limited knowledgebase in order to make sense of new information, which fosters an internalization of misinformation. Combating this cycle of misunderstanding and misinformation, while more time-consuming than mere information dissemination, is a necessary struggle in which teachers must engage through scaffolding, explicit instruction, and feedback so that students like Brent are better able to self-regulate and self-monitor the sensibility of their thoughts and ideas.

Vignette: Getting to Know Korra

Although I had spoken to Korra’s class regarding my upcoming research, inviting them to participate in my study, I had not yet identified names with faces. So, the first time I actually met Korra was when she waltzed in for her first interview, not an ounce of intimidation showing on her face. Korra appeared confident and eager, as if being chosen to participate in my study was a privilege, even though she already knew what it entailed—writing. Korra was one of the students in her class with LD who was identified by Ms. Angeles (pseudonym) as being a struggling writer, yet one would not know it by her confidence. She answered the majority of my questions quickly, without hesitation. As I questioned Korra about any possible difficulties she had with writing, she surprisingly asserted that she did not really struggle with many of the skills addressed.
fact, Korra used the word *easy* five separate times regarding various skills. Even her body language spoke of self-assuredness, yet her baseline writing assignment told a different story. I had seen this display of contradiction before with other middle school students with LD, an unfounded certainty that they had it right. Whether this certainty stemmed from a simple overestimation of skill, a lack of critical comparison to others, or inflated praise combined with little constructive feedback, I do not know; however, I do know that the longer we engaged in SRSD instruction, the less eager she seemed, yet her air of confidence did not dissipate.

**Limitations and Delimitations**

The purpose of this study was to describe the experiences of three sixth-grade students with LD as they participated in explicit self-regulation strategy instruction and to understand how those experiences influenced their writing self-efficacy. Although students with other disabilities participated in the intervention, only students with an eligibility of SLD were included in this study. This study was limited by the use of convenience sampling, setting, and time constraints. The findings of this study may only be transferable to the study’s limited population (i.e., students with an eligibility of SLD) and location (i.e., suburb of central GA); however, the findings of this study may still serve to contribute to relevant areas of research.

The intervention aspect of this study was limited by the time constraint of five weeks, so long-term effects and learning transference were not assessed. The study took place in the researcher’s school of employment; all required permissions, consent, and assents were attained by the school district, school, parents, and students (see Appendix B
and C). Permissions from the district and school are not provided in the Appendix in order to maintain anonymity.

In an effort to reveal all bias, it is important to note that I, the researcher, worked in a supervisory capacity over the classroom teacher who participated in the study. Additionally, I engaged in team-teaching with the classroom teacher during approximately half of the intervention lessons in order to limit prior teacher training by modeling the procedures.

Finally, the writing intervention and data collection focused on the writing skills with which participants felt they struggled. Limiting the number of participants in this study made the process of identifying these writing skills from interview data manageable.

Design Controls

Lincoln and Guba (1985) designed four criteria for establishing the trustworthiness of qualitative studies: credibility, transferability, dependability, and confirmability. Each of these design controls were addressed in this study. This study employed triangulation (Creswell, 2009) in order to ensure that the participants’ experiences and perspectives were reflected accurately, thereby establishing credibility. Triangulation requires multiple methods of data collection in order to provide the rich understanding of a study (Denzin, 2012; Denzin & Lincoln, 2011); triangulation is “the display of multiple, refracted realities simultaneously” (Denzin & Lincoln, 2011, p. 5). Triangulation strengthens the interpretive power of a study and adds a sense of completion to the data (Fielding, 2012; Houghton, Casey, Shaw, & Murphy, 2013). In
this study, data were triangulated through multiple forms of collection via interviews, questionnaires, observations, and field notes. In order to aid in transferability, I have provided thick description of the research context, methodology, and data collection (Houghton et al., 2013). For instance, my field notes contain detailed information regarding the context of data collection measures, such as observations (Creswell, 2009). In addition to establishing credibility and transferability, I established confirmability and dependability by providing an audit trail. Audit trails are established by providing a rationale for each decision made throughout the research process so that the reader can understand how each decision was reached (Houghton et al., 2013). This chapter provides the reasoning for each methodological decision made, and rationales are provided regarding data analysis decisions in the following chapter. Reflexivity, the intentional practice of directing a critical eye toward the ways in which the researcher, participants, setting, and methods interact and influence one another (Glense, 2011) was also used through writing reflective field notes as a method of establishing confirmability and dependability (Houghton et al., 2013).

**SRSD Writing Intervention**

Critics of instructional intervention studies have identified three potential limitations related to this type of research (Nastasi & Schensul, 2005): 1) intervention research does not always document the specific challenges that the researcher encountered during the intervention implementation, 2) there is often not enough attention paid to the possible influence that cultural and contextual factors might have on the effectiveness of the intervention, and 3) little emphasis tends to be placed on the
specific needs and resources of the participants. In order to combat these limitations, the use of qualitative inquiry methods is key to collecting, analyzing, and interpreting data in the context of these often ignored aspects of instructional intervention studies (Nastasi & Schensul, 2005).

In this study, participants were taught explicit writing strategies for planning and self-regulation over a period of five weeks, based on the SRSD instructional writing model designed by Harris and Graham (1985). While all students in the small group classes were receiving special education services and participated in the writing intervention, only three students with a Georgia eligibility of SLD participated in the study: Nate, Korra, and Brent. Pre- and post-interviews were conducted and pre- and post-questionnaires (i.e., Writing Self-Efficacy Rating Scale) were administered, and observations and field notes were documented and analyzed in order to examine the participants’ perceived writing self-efficacy.

The primary writing skills addressed through this intervention included the planning phase of the writing process as well as goal setting; however, it is important to note that while two constructs were assessed, all writing skills addressed within both constructs were relative to self-regulation. For instance, the ability to plan in preparation of writing indicates an ability to self-regulate one’s thoughts, identifying and organizing relevant ideas. In addition, the use of a mnemonic to aid in planning enables students to self-regulate this process. Details of the intervention are included in the following section.
SRSD Procedures

Harris and Graham first developed SRSD in 1985 (Harris & Graham, 1985; Harris et al., 2009). Since then, more than 40 studies related to writing have been conducted using their instructional method. According to a meta-analysis of both true- and quasi-experimental design studies, SRSD has been identified as having “had the strongest impact of any strategies instruction approach in writing” (Harris et al., 2011, p. 142). In a more recent meta-analysis, Harris et al. (2011) reviewed the results of 15 true- and quasi-experimental design studies as well as 27 single-subject design studies. The meta-analysis focused on the impact SRSD had on overall writing quality. Harris et al. (2011) found that SRSD appears to be an effective strategy instructional method for teaching writing, demonstrating no significant difference between grade levels or the ability of the writer.

SRSD has also been proven effective in both small groups and whole class environments (see Graham & Harris, 2003). Their meta-analysis indicated that the implementation of SRSD may result in students’ increased success in five main areas: genre knowledge, writing quality, writing knowledge, writing approach, and self-efficacy. These improvements have also shown to be consistently maintained over time. Because of its proven effectiveness among grade levels, abilities, and environments, SRSD was chosen as the intervention method for this study. In addition, SRSD is well established for use with students with disabilities (i.e., students with LD and students
with Attention Deficit Hyperactivity Disorder) for some writing tasks (Harris et al., 2011).

Harris et al. (2011) concluded that teachers often implement SRSD more effectively than do researchers. For the purposes of this study, I, the researcher and a former middle grades language arts teacher for nine years, actively participated in the instruction process in conjunction with the classroom teacher. In following with the six stages of SRSD with each strategy to be addressed in turn (see Harris et al., 2011), we first scaffolded and developed prior knowledge by reading and discussing model writing pieces similar to what was later asked of the students, focusing on the author’s goals, possible strategies used, and the identification of the characteristics and elements of good writing as discussed in Harris et al. (2011). Next, we conducted an explicit discussion of the rationale, benefits, and procedures of each strategy stage in order to help develop declarative, procedural, and conditional knowledge (Harris et al., 2011). Then, we modeled the use of each strategy using a think-aloud instructional strategy. Students were then asked to memorize the strategy and were provided with the support necessary to complete this task. Students worked collaboratively with other students and with the instructor to practice using each strategy. The classroom teacher supported students through this process, providing feedback on success as well as the benefits that may be seen throughout the practice stage and reiterating the need for the memorization of the strategy in order to aid in its automaticity and ease. The final step of SRSD entails students independently engaging in the use of each strategy until they master their uses to
the best of their ability in the time allotted. More detailed procedures are outlined in the following chapter.

Due to time limitations, this intervention took place over the course of five weeks; therefore, some characteristics of SRSD were not included. SRSD is characterized as being criterion-based rather than time-based, meaning instruction of one strategy continues until students have mastered the strategy (Harris et al., 2011). The data collection process for this intervention, however, was concluded after the allotted five-week time period and students’ perceived self-efficacy was measured, regardless of student mastery. It was not possible to continue the strategy instruction beyond the five-week timeframe because the school year was at an end. In addition, SRSD recommends that self-regulation strategies be used in conjunction with writing strategies (Harris et al., 2011). For the purposes of this study, only one writing strategy and one self-regulation strategy were discussed and implemented; therefore, strategy instruction was not ongoing in the sense that as one strategy is concluded, new strategies are introduced, and old strategies are upgraded or revised (Harris et al., 2011).

Data Collection

This qualitative case study focused on a specific group (sixth-grade students with an eligibility of SLD and identified deficits in writing ability) and context (a sixth-grade Study Skills classroom in a suburban district in central Georgia). Data were collected through semi-structured interviews, pre- and post- perceived self-efficacy questionnaires, periodic classroom observations, and researcher field notes.

Interviews
In this study, interviews were conducted in order to examine the writing experiences of sixth-grade students with LD and to understand how those experiences influence their feelings toward writing as well as their perceptions of their abilities as writers. Interviews are an appropriate method of qualitative data collection when a researcher is specifically looking to describe the participants’ experiences (Siedman, 2006). Qualitative interviews are situated on a continuum that ranges from formal to informal (Mertens, 2010). Three types of interviews are used in order to create the level of formality needed for each study: structured, semi-structured, and unstructured (Seidman, 2006).

At the two far ends of the continuum lay structured and unstructured interviews. Structured interviews consist of questions with predetermined wording and a predetermined order (Seidman, 2006). Because of this rigid format, structured interviews may not allow a researcher to access the perspectives and understandings of the participants (Seidman, 2006). In stark contrast, unstructured interviews consist of open-ended questions with an unspecified flexible wording and order (Seidman, 2006). These interviews take on the format of a conversation between the researcher and the participants (Seidman, 2006). They are often used when the researcher does not know enough about a phenomenon in order to predetermine relevant questions; therefore, the unstructured interviews are often used as learning tools in order to form appropriate questions to be used later (Seidman, 2006). Researchers often begin with informal, open-ended questions, which enable them to uncover participants’ thoughts and opinions (Mertens, 2010). Between the structured and unstructured interview formats is the semi-
structured interview method, which, along with the unstructured interview, is often the preferred method of qualitative researchers (Mertens, 2010). This method includes structured questions used flexibly (Seidman, 2006). More structured questions are often used in order to gather specific data that may be required from all participants, but, for the most part, the semi-structured interview is merely guided by a list of questions related to specific issues with no predetermined wording or order (Seidman, 2006). This type of flexibility enables the researcher to respond to participants’ unique responses (Seidman, 2006). It allows researchers to ask personalized follow-up questions in order to discover deeper meaning in participants’ responses (Mertens, 2010).

Given the age of the participants in this study as well as the fact that they have been determined to have some type of LD, a semi-structured interview method (Creswell, 2009) appeared to be most appropriate. Mertens (2010) cautions that challenges may exist when interviewing students with disabilities due to possible communication needs or ability. The semblance of structure within a semi-structured interview enabled me to provide students with guidance in answering questions, preventing them from shutting down due to an inability to express their feelings and thoughts verbally. In addition, the flexible nature of the semi-structured interview enabled me to explain the meaning of questions when necessary or to ask follow-up or clarifying questions when participant answers were brief or unclear.

Semi-structured interviews were conducted individually in a separate room during students’ Instructional Focus period, which is an additional class period implemented by the district and used to address student remediation, enrichment, and interventions.
Interviews took place twice during the research process: first before the intervention began in order to identify challenges specific to the type of writing task addressed in the intervention and then at the end of the intervention to gauge participants’ reactions to the intervention and strategies, to obtain current perspectives of the writing tasks, and to monitor perceived self-efficacy. The pre-interviews took place after students participated in a baseline writing assignment, and interview questions were addressed specifically toward their experiences with that assignment. Each interview lasted approximately 10 minutes.

The majority of questions included in the interviews were designed to address factors included in the self-efficacy construct outlined by Bruning et al. (2013). For instance, the model includes the ability to know where to place ideas in writing within the Ideation or Idea Generation aspect of their construct; therefore, the following question was included in the interview protocol: Did you struggle to find the right place for your ideas when you were writing? While the pre-interview involved questions from all three aspects of the self-efficacy construct, it was decided that the intervention would only address Idea Generation and Self-Regulation (excluding Conventions) due to time constraints; therefore, the post-interview involved only questions related to the two aspects of the construct addressed during the intervention. The pre-interview responses were analyzed in order to develop the Writing Self-Efficacy Rating Scale discussed below. A similar interview protocol was used during the post-interview in order to assess any changes occurring after the intervention, adjusting to only include items addressed
during the intervention based on identified writing weaknesses. The pre-interview and post-interview protocols may be found in Appendices D and E, respectively.

Using recording devices during the interview process enables researchers to maintain a complete record of the interview and allows the researcher to focus completely on the participants’ words as well as body language (Glense, 2011); however, I did not choose to record participant interviews. Handwritten notes are often less obtrusive or intimidating to participants (Glense, 2011); therefore, I took handwritten notes in order to minimize some of the perceived threat I may have posed as an unfamiliar adult as well as the possible power imbalance due to the students’ knowledge of my supervisory role in the school. However, not using a recording device may have diminished some of my control of the interviews since I spent much of my focus attempting to write down everything that was said, thereby restricting the amount of eye contact I was able to maintain and attention I was able to pay toward nonverbal cues. While handwritten notes from interviews may have negative aspects, I feel it was the most appropriate approach given the needs of the study’s participants. Interview notes were typed immediately after the interviews in order to preserve and record my recollection of observations during the interviews.

Questionnaires

No single, generalizable scale can be used to determine self-efficacy, and items on a scale must be specific to the task as well as the domain within the task to be measured (Bandura, 2006). Not only that, self-efficacy scales should reflect the specific challenges related to the writing task; therefore, the construction of the questionnaire used in this
study required preliminary work (Bandura, 2006). Prior to the intervention period, participants in the study were given a similar writing task to those used in the intervention (i.e., Baseline), then semi-structured interviews were conducted in order to identify participants’ specific challenges related to the task. The resulting information was then used to design the Writing Self-Efficacy Rating Scale. For instance, during the pre-interview, Korra reiterated on several question responses that thinking of how to begin her sentences when writing was difficult; therefore, this topic was identified as an area of need and was included on the questionnaire and the post-interview protocol.

The Writing Self-Efficacy Rating Scale was administered to students by the researcher during their regularly scheduled class period. Instructions and items on the questionnaire were read aloud to students to compensate for any reading difficulties related to their disabilities. Instructions asked participants to rate their current capabilities (Bandura, 2006). In addition, it is important to note that the questionnaire utilized in this study represents participants’ perceived self-efficacy, which relates to their ability to complete or execute a task, rather than focusing on the outcome of performance (Bandura, 2006). Although Bandura (2006) suggested that scales be administered anonymously with non-identifying codes in order to reduce evaluative concerns and consistency expectations, pre- and post-questionnaires, for the purposes of this study, contained identifying information only for use by the researcher in order to better assess any changes in perceived self-efficacy by connecting the questionnaire results with other qualitative data. I, as the researcher, rather than the classroom teacher, administered the
questionnaires in order to limit any connection of assessment to performance perceived by students (Bandura, 2006).

Rather than a traditional Likert scale, the Writing Self-Efficacy Rating Scale (see Appendix F) consisted of a 0-100 point scale in intervals of ten; this range is generally more familiar to students as it is the scale most often used when assigning grades to students (Bandura, 2006). In addition, scales containing fewer intervals appear to be more difficult for participants to distinguish; many people do not prefer extremes (Bandura, 2006). Bandura (2006) also suggested that self-efficacy scale items be phrased as “can do” statements rather than “will do” statements because “can do” statements denote a judgment of one’s capability. Scales were designated according Bandura’s (2006) suggested scale as 0: Cannot Do, 50: Moderately Certain Can Do, and 100: Highly Certain Can Do. The perceived writing self-efficacy questionnaire consisted of two of the three domains consistent with Bruning et al.’s (2013) writing self-efficacy construct: idea generation (5 items) and self-regulation (4 items). Note that the area of conventions was excluded from the study due to time constraints of the classroom intervention. The inclusion of these domains in the questionnaire enabled the researcher to better answer the study’s research question.

Qualitative researchers view the world as a series of events and processes, and the intent of the researcher is to analyze data on a local scale, bounding their analysis to specific individuals, events, and settings (Mohr, 1982). In contrast, quantitative researchers use data in an attempt to develop a generalizable theory of causation by controlling for specific factors and comparing conditions (Mohr, 1982). Mixed-methods
research, in short, is a combination of both qualitative and quantitative perspectives, methods, and data collection. While numerical data is most often associated with quantitative research, one might assume that the use of numbers in qualitative research denotes a mixed-methods approach; however, it is the juxtaposition of the qualitative and quantitative world-views that constructs mixed-method research, not simply the combination of data collection methods (Maxwell, 2010; Maxwell & Loomis, 2003). Although the use of numerical data in qualitative research has its critics, many leading qualitative researchers support the use of numbers in qualitative research when it is used to complement the overall approach (e.g., Becker, 1970; Erickson, 2007; Hammersley, 1992; Miles & Huberman, 1984), claiming its legitimacy as well as its value (Maxwell, 2010). The inclusion of numerical data in qualitative research enables researchers to more clearly identify patterns or outliers they may not have otherwise been able to identify, and it may also serve to show the researcher that a pattern or outlier they thought existed may not actually be there (Sandelowski et al., 2009). It has the potential to provide more precision to qualitative statements regarding elements such as frequency, amount, or typicality of events or phenomena, thus complementing the qualitative data (Maxwell, 2010). In addition, this numerical data can help to diminish the presence of bias (Maxwell, 1995); in fact, it may not only help support claims, but also enable researchers to examine the amount of existing evidence supporting particular conclusions (Maxwell, 2010). Consequently, numerical data from the Writing Self-Efficacy Rating Scale were included in this qualitative case study.

Observations
Using observations as a method of data collection enables researchers to record behavior as it is happening (Merriam, 2009), generally in a naturally occurring environment (Angrosino & Rosenberg, 2011). Observations provide knowledge of context and they often document specific incidents and behaviors of participants, which can serve as reference points for later interviews (Merriam, 2009). Therefore, observations are a critical element of an intervention study.

The role of a researcher in observations exists on a participant-observer continuum that ranges from one extreme to the other. The complete observer maintains little to no interaction with participants, and participants usually do not know that they are being observed (Glense, 2011). In fact, often times the researcher is completely hidden from the participants or the observation takes place in a public place (Merriam, 2009). The other extreme is the full or complete participant who is a functioning member of the community or group (Glense, 2011). In this case, the researcher often conceals his or her observations from the participants; such concealment raises ethical questions (Merriam, 2009). Similar to the complete participant, the collaborative partner maintains group membership; however, the participants are aware of the researcher’s role as an observer (Merriam, 2009). Another difference is that the researcher and the participants are equal partners in the research process, working together to identify issues and collecting and analyzing data (Merriam, 2009). This form of observation tends to be the most subjective (Angrosino & Rosenberg, 2011).

Between those extremes, the researcher-observer operates as a participant, and the researcher-participant operates as an observer. The observer-as-participant serves
primarily as an observer and in a secondary role as a participant (Glense, 2011; Merriam, 2009). The researcher maintains some interaction with the participants, and the participants are aware of the researcher’s role as an observer (Glense, 2011; Merriam, 2009). In contrast, the participant-as-observer serves primarily as a participant with his or her role as an observer remaining secondary (Merriam, 2009). In this case, the participants also know of the researcher’s role as an observer (Merriam, 2009). Although the participant-as-observer strives to remain objective (Angrosino & Rosenberg, 2011), Glense (2011) warns of the risk of the researcher losing objectivity in this model, but he couples that warning with the benefit of the method, providing a greater opportunity to learn from the research process.

In this study, my role most closely aligned with the participant-as-observer approach. While I was not a “participant” in the study per se, I acted in conjunction with the classroom teacher during approximately half of the instructional lessons, thereby acting as a participant in the research process. This type of observer role, while team-teaching with the classroom teacher, enabled me to establish a better rapport with the students as participants in the intervention by fitting into the routine and showing interest in their experience as well as their success and learning (Merriam, 2009). It proved too difficult to take observation notes while aiding in the implementation of the intervention; therefore, my observations during the particular sessions when I aided in or led instruction focused primarily on participants’ interactions with and reactions to the writing tasks while they were working independently. Brief observation notes were
collected during these periods, and more detailed reflective records were written after observations occurred (Merriam, 2009).

Field Notes

Along with observation notes, field notes were written after each intervention period observed. These notes included details and interpretations related to not only my observations of participants, but also regarding my role as a participant in the teaching process and the success of the intervention period itself (Merriam, 2009). These field notes enabled me to better develop a more complete picture of participants’ level of participation in the intervention as well as any attitudes or adaptive behaviors that may have influenced the participants’ success in using the strategies.

Data Analysis

Interview transcripts were evaluated to identify participants’ affect and judgment of esteem (Martin & White, 2003). Positive and negative valuations regarding participants’ capacity to perform and tenacity to overcome or complete a writing task were identified in order to explore any changes occurring after the intervention period. In this case, current literature supports the connection between self-regulation and self-efficacy; therefore, I sought to examine any change in participants’ perceived self-efficacy before and after the self-regulation strategy instruction. Students’ responses to a writing self-efficacy questionnaire were compiled and analyzed before and after the intervention; pre-interviews were used to inform the pre-questionnaire questions. Observation protocols and field notes were analyzed to assess participants’ progress throughout the study, their behaviors during the writing process, and their responses to
instruction. Data were analyzed and interpreted thematically through the lens of social cognitive theory (Bandura, 1997).

Summary

This qualitative case study collected data through semi-structured interviews, pre- and post-questionnaires, observations, and researcher field notes in order to explore the perceptions and writing self-efficacy of three sixth-grade students with LD in a central Georgia public middle school during a five-week instructional intervention. Triangulation was used in order to strengthen the credibility of the study, and thick description was provided in order to aid in transferability. In addition, confirmability and dependability were established through the use of an audit trail as well as researcher reflexivity. Therefore, inferences determined through the data collected within this study are transferable to similar situations and may provide specific insights into comparable contexts. A qualitative case study approach was used as a best fit with the nature of the study’s purpose, research question, and conceptual framework (Creswell, 2009). Rich descriptions and data analysis are presented in Chapter 4.
CHAPTER 4

DATA ANALYSIS AND FINDINGS

This qualitative case study focused on the writing self-efficacy of three sixth-grade students with LD. The purpose of this study was to describe the experiences of these students as they participated in a five-week SRSD writing intervention and to understand how those experiences influenced their writing self-efficacy. The study took place in a suburban public middle school in central Georgia during the participants’ regularly scheduled small group Study Skills classes. Participants included three sixth-grade students who have a current special education GA eligibility of SLD. Pseudonyms were used in order to maintain confidentiality and protect the students’ privacy. Semi-structured interviews were conducted before and after the SRSD instruction, and the Writing Self-Efficacy Rating Scale was administered before and after instruction. In addition, classroom observations and researcher field notes were completed and analyzed as part of the case study database (Creswell, 2009).

Grounded in social cognitive theory (Bandura, 1997), this study was guided by the following research question: How do sixth-grade students with LD describe their writing self-efficacy before and after participation in explicit self-regulation strategy instruction? This chapter presents the study’s instructional intervention.
Rich description (Stake, 1995) for this case study is presented through observation notes and images, vignettes, interview and questionnaire excerpts, and participant work samples.

Vignette: The Classroom

In the midst of the uninviting stark white walls made of cement blocks, Ms. Angeles’s intentionally non-traditional classroom fostered a juxtaposition of comfort and pragmatism. Student desks were positioned directly in front of the whiteboard on which the LDC projector shown bright, yet rather than in rows, the desks were spread apart in all directions, leaving students with a semblance of space. Behind the students’ desks, a kidney table sat surrounded by chairs, which is where Ms. Angeles often provided small group instruction or one-on-one assistance. Next to the kidney table in the back of the room, a long counter lined part of the left wall where three desktop computers were available for student use. At any given time, one might walk in to see a student lounging on the blue, plaid couch with a laptop in hand, sunken into the indentations left from a long history of use. And, if a student just needed to get away from it all, a cubicle-like area was arranged in the back right corner of the classroom, providing privacy and helping to eliminate distraction.

Not surprising given the number of options for seating, each of the three participants in the study chose to sit in different areas of the room, which was somewhat of a reflection of their personalities. Nate, a seemingly shy student who appeared to prefer adult attention over the attention of his peers, usually sat at the kidney table in the back where Ms. Angeles could often be found. Whereas, Korra, who made sarcastic
jokes or remarks aloud, but who also did not appear to interact with her peers often, preferred to sit at the long counter in the back of the room, never turning on a desktop computer, but working in her notebook on the counter between two keyboards. In noticeable contrast, Brent, the student whose enthusiasm did not falter throughout the study, always sat in his self-assigned student desk positioned directly toward the middle of the whiteboard, right up front.

SRSD Procedures

This section includes detailed procedures conducted prior to, during, and after the SRSD instruction. For the purposes of this section, the term student(s) is used when addressing aspects of the intervention that were conducted with all students in both classes, and the term participant(s) is used when referring to procedures conducted with only the three participants in the study. Additionally, the term instructor is used to denote the person leading instruction rather than the researcher or classroom teacher as we each taught lessons and sometimes engaged in team teaching.

Before Instruction

Prior to any instruction or data collection, students participated in a baseline writing assignment conducted by the classroom teacher. Figure 1 shows Brent’s baseline writing sample. Students were given a non-fiction article and asked to respond to a writing prompt related to the article. The article and writing prompt were read aloud in order to compensate for any reading deficits related to students’ disabilities. Students completed written responses to the prompt independently. This writing piece was later used as a baseline when students were asked to graph the number of words they had
included in their written responses. Following the baseline writing assignment, I administered the Writing Self-Efficacy Rating Scale rather than the classroom teacher in order to create a sense of separation between their responses and classroom assessment or grading. The instructions were read aloud and clarified, and the items on the questionnaire were read aloud. In addition, the rating scale was explained and examples provided to ensure student understanding. After both the baseline writing piece and the pre-questionnaire administration were completed, individual participant pre-interviews were conducted. I interviewed each participant in a separate room for approximately ten minutes each.

Figure 1. Brent’s Baseline Writing Sample
During Instruction

The SRSD instructional model (see Harris et al., 2011) was used to teach a writing strategy and a self-regulation strategy. The specific writing strategy used is represented by the mnemonic POW coupled with a structural frame represented by RACES. Figure 2 is a visual representation of the strategy used in this study.

![POW+RACES Diagram]

Figure 2. Representation of POW+RACES Provided to Students

While POW is a commonly used SRSD strategy (see Harris, 1996), it has not necessarily been used with RACES as its structural frame in a research study. Due to recent changes to the high-stakes testing in Georgia (i.e., Georgia Milestones End of Grade Assessment), students’ ability to develop constructed responses has been
increasingly emphasized; therefore, RACES was specifically chosen to address this need, which has recently become a commonly used constructed response writing strategy in the school district. Additionally, many students in the class had previously been introduced to RACES; therefore, given the short timeframe allotted for the intervention and the likelihood that mastery would take longer than typical students of the same grade and age due to their various disabilities, a familiar strategy was prudent. Using this writing strategy, students were taught to assess the writing expectations, to plan and write a fully developed constructed response, to set writing goals, and to use self-statements to overcome difficult tasks. Instruction was divided into seven lessons; however, many lessons extended to multiple days.

In addition to the writing strategy, students set goals regarding the number of words written in each piece. Because this was not used as a method of data collection, participants’ word counts for each writing task were not verified. The purpose of this self-regulation strategy was to help students become more aware of or to self-monitor the amount of detail included in their writing by setting goals prior to each writing task as to how many words they would use and by graphing the number of words they did in fact use in each constructed response after the completion of each assignment.

The instruction phase included four of the five stages of SRSD: 1) Develop Background Knowledge, 2) Discuss It, 3) Model It, and 4) Memorize It, and 5) Independent Practice (Harris & Graham, 1996). Due to the intended recursive nature of these stages, some stages were addressed together, reordered, or revisited throughout the
intervention process to meet the needs of the students. The following sections are ordered in the manner in which these stages were addressed during the study.

Develop background knowledge and discuss it. Before explicit instruction was provided, students were introduced to the writing strategy mnemonics and important aspects of a constructed response were reviewed (e.g., textual evidence). In addition, the rationale for using the strategy and the importance of planning were discussed.

First, the term mnemonic was introduced and relevant terms, such as textual evidence, elaboration, and summary, were reviewed and discussed in order to develop a common language between instructors and students. Then, the POW mnemonic was introduced (P- Pull apart the prompt, O- Organize my notes, W- Write and say more). The importance of the planning process was discussed, and connections were made to familiar terms like brainstorming or prewriting. Real-world examples were discussed regarding when planning would be beneficial (e.g., making a list before going shopping). In addition, the rationales for understanding the writing expectations, requirements, and audience were discussed in detail. Situations were discussed when specific words or details would or would not be appropriate based on writing requirements and audience.

Next, the structural frame was introduced: RACES (R- Restate the question, A- Answer the question, C- Cite textual evidence, E- Explain evidence, S- Summarize). While the mnemonic was already somewhat familiar to most students, the reason for using the strategy in order to monitor whether or not the necessary elements were included was discussed as well as the difference in an opinion and a well-supported
argument. Students were given a sample paragraph written in response to the baseline writing prompt (see Figure 3).

![Figure 3. Baseline Writing Prompt Model Paragraph](image)

The paragraph was read and analyzed to determine whether the paragraph contained the necessary elements of a constructed response by using the information in the paragraph to complete a RACES graphic organizer. Finally, students were given the POW+RACES (see Figure 2) representation as well as the cue cards for RACES (available in Appendix G) created to aid in memorization. No cue cards were used for POW due to its brevity; students did not appear to have difficulty memorizing the POW mnemonic and had all done so before the end of the first session in which POW was introduced.

Discuss it, model it, and memorize it. The next piece of instruction focused on continued discussion, modeling, and memorizing the mnemonics. Discussions of the strategy components and the importance of planning were continued in addition to new discussions of goal setting and self-monitoring. Along with the classroom teacher, I
modeled the use of the strategy and self-regulation procedures, and we continued to
emphasize the need for having the mnemonics memorized.

First, students reviewed the mnemonic, POW+RACES. Students practiced with
their peers using the provided cue cards until they were confident in their ability to name
each component independently. In addition, each student was asked to identify a specific
component repetitively until every student had named each component. Once students
were confident they had memorized the mnemonics, they volunteered to identify each
component aloud for the class.

Next, the notion of self-statements was introduced by discussing situations when
frustration occurs and the need to overcome said frustration. Students were asked to take
note of self-statements used by the instructor throughout the ensuing lesson and told that
they would be developing their own self-statements. In addition, the Citing Textual
Evidence handout (see Appendix J) was provided and explained.

Students were given a non-fiction article and writing prompt, which the instructor
read aloud to the class. The instructor explicitly modeled the process of using the writing
strategy, accompanying graphic organizer, and sentence starters provided on the Citing
Textual Evidence handout. Throughout the process, the instructor intentionally
introduced barriers to the writing process and modeled the use of self-statements, writing
them on the board for later discussion (see Figure 4). When the process was complete,
students discussed various writing situations that frustrate them and possible self-
statements to be used to overcome those frustrations. Students recorded possible self-
statements for future use.
Finally, students discussed the importance of good details and elaboration when writing as well as what it means to set goals. The instructor modeled the use of the Write and Say MORE! handout (see Figure 5; also available in Appendix I) in order to graph the number of words used in the constructed response. Students were asked to count the number of words they had written for their baseline writing assignment and to graph it on their handouts. The notion of goal setting was discussed, and students set goals for the number of words they would use in their next writing assignment.
Discuss it, memorize it, and support it. Of course, discussions were continued throughout instruction to reiterate the importance of planning and goal setting as well as the use of self-statements. In addition, each lesson began with a review of the mnemonics to support memorization. However, the emphasis of this stage was placed on scaffolding and collaborative writing practice.

First, students reviewed their goals for the number of words to be included in their writing pieces. Then, students were given a non-fiction article and writing prompt, which were read aloud by the instructor. The students and the instructor used the POW+RACES strategy collaboratively with the instructor primarily leading the discussion. Using their completed graphic organizers, students wrote their constructed responses with as much teacher support as needed (see Figure 6). After the writing tasks
were completed, students counted and graphed the number of words used in their constructed responses (see Figure 7). Finally, goal setting was once again discussed, and students set new goals for the number of words they would use in their next constructed response.

*Figure 6. Brent’s Collaborative Writing Sample*
These collaborative writing sessions continued, encouraging to lead more and more of the discussion. Throughout the lesson, student supports were lessened from a scripted graphic organizer, to a blank graphic organizer containing only the strategy mnemonic. Sample graphic organizers are provided in Appendix H.
Independent Practice

The procedures for the Independent Practice phase of instruction were identical to the baseline procedures. Students were provided with a non-fiction article and writing prompt, which were read aloud. Students were then asked to complete the writing assignment without support. *Figure 8* shows Korra’s graphic organizer based on one independent writing prompt, and *Figure 9* shows an example of Korra’s independent writing.

![Korra’s graphic organizer](image)

*Figure 8*. Korra’s POW+RACES Independent Graphic Organizer
Following the independent writing assignment, I administered the Writing Self-Efficacy Rating Scale. The instructions were read aloud and clarified, and items on the questionnaire were read aloud. In addition, the rating scale was explained and examples provided to ensure student understanding, though less explanation was required during the post-administration. After both the independent writing piece and the post-questionnaire administration were completed, individual participant post-interviews were conducted. I interviewed each participant in a separate room for approximately ten minutes each.

Figure 9. Korra’s Independent Writing Sample
Vignette: The Eagerness Fades

Korra appeared to be an eager participant at the start of the study and maintained eager participation throughout all aspects of the intervention with the exception of independent writing. For instance, during the last SRSD lesson, the classroom teacher allowed students time to complete their writing assignments from the previous day. Korra was among a few other students who raised their hands when asked who had not finished writing. Korra then whined, “I just want to get this over with,” making a crying noise when the classroom teacher announced that they would be doing another writing lesson that day. While this could be due to a negative attitude toward writing or the intervention itself, it is equally likely due to the fact that this final session took place during the last week of the school year. Korra appeared to be confident in her writing ability in most areas based on pre-intervention measures, with the exception of her ability to think of ways to begin her sentences. During the SRSD instruction, Korra would often call out answers to questions when asked to the whole group without raising her hand—many times speaking over other students who had been acknowledged to answer. Overall, Korra provided correct answers; however, on occasion she provided incorrect answers, seemingly because she was too quick to answer without giving herself enough time to process what was being asked. For instance, during one lesson after the class had read an article and writing prompt, the classroom teacher asked, “What should we do first?” Korra called out, “Restate your question!” which is the first step when beginning to write; however, the intent behind the question was to remind student to first analyze
the writing prompt in order to understand what is expected of their written response (*P-Pull apart the prompt*)—a step that should be completed prior to beginning to write.

**Students’ Writing Self-Efficacy Toward Idea Generation**

Students participated in individual interviews with the researcher before and after instruction with four of the interview questions being related to idea generation. In addition, students completed the Writing Self-Efficacy Rating Scale before and after instruction (see Appendix F). Item #s 1, 2, 3, 4, and 5 addressed students’ self-efficacy toward idea generation. The degree of confidence scale ranged from 0 (*Cannot do it at all*) to 100 (*Highly certain can do*). 50 was defined as *Moderately can do*. For the purposes of analysis, ranges were further defined: ratings of 0-33 were categorized as *Cannot do it at all*, 34-67 were categorized as *Moderately can do*, and 68-100 were categorized as *Highly certain can do*. Responses to questions asked during interviews, responses to items on the Writing Self-Efficacy Rating Scale, as well as observation data gathered by the researcher were analyzed and presented according to each skill assessed.

Among the four interview questions related to idea generation regarding writing skills addressed through the intervention instruction, all four of Nate’s answers indicated positive changes after SRSD instruction. In contrast, Nate responded with a lower degree of confidence on three out of five idea generation items on the post-questionnaire, he responded with a higher degree of confidence on one item, and his rating did not fluctuate on the remaining item. However, four out of five responses in this area on both pre- and post-questionnaires fell in the *Highly certain can do* range, indicating confidence in the area of idea generation.
Among those same four interview questions related to idea generation, Korra’s responses indicated positive change for only two skills and no change for the remaining two skills. In contrast, Korra responded with a higher degree of confidence on four out of five idea generation items on the post-questionnaire, and her rating did not fluctuate on the remaining item.

Brent’s responses to those same four interview questions indicated positive change for only two skills and no change for the remaining two skills; however, on all five idea generation items, Brent reported a higher degree of confidence on the post-questionnaire than he did on the pre-questionnaire. Overall, an analysis of both the interview and questionnaire responses revealed the greatest change in students’ perceived self-efficacy toward idea generation. A more in-depth review of each participant’s responses to individual skills is discussed in the next section.

Thinking of Ideas

Nate’s degree of confidence regarding his ability to think of several ideas when given a writing assignment decreased by ten points from pre- to post-questionnaire; however, both responses were within the Highly certain can do range and not indicating a significant change. In contrast during interviews, when asked about the difficulty he has when attempting to think of ideas to use in his writing, Nate initially responded that it was hard, and during his post-interview, Nate used the term “kinda” hard—both responses seeming to either indicate a degree of confidence lower than self-reported on the Writing Self-Efficacy Rating Scale. It may also indicate that while he is certain he can think of ideas, he recognizes the difficulty of the task. While his initial responses
may only indicate a slight change in his certainty, Nate’s elaboration during the pre-interview shifted from a focus on his difficulty understanding assigned topics, how to respond to writing prompts, and struggling “to think of words” to a singular focus on his struggle “to think of a lot of word [sic]” to use in his writing in the post-interview. The elimination of not understanding the topic or what to include in his answer from his response during the post-interview may indicate that Nate was more comfortable with his ability to break down writing prompts in order to understand them after participating in SRSD instruction. However, it is important to note that when observed during instruction, Nate rarely completed or only partially completed the graphic organizer portions devoted to the process of pulling apart writing prompts.

Korra’s degree of confidence regarding her ability to think of several ideas when given a writing assignment increased by ten points from the pre- to post- administrations of the Writing Self-Efficacy Rating Scale; however, both responses were within the Moderately can do range. While not a significant change in perceived self-efficacy, it is supported by her interview responses. During the pre-interview, Korra stated, “Yes [it is difficult], because some topics is like [sic] can’t really think of stuff to put in, and you don’t like the topic, so it’s hard to write about”; however, Korra stated that it was not difficult to think of ideas during her post-interview. During whole group lessons, Korra was often observed volunteering her ideas to be used as supporting details. While some ideas may have been off-topic, the majority of Korra’s answers were relevant and appropriate.
Brent’s degree of confidence regarding his ability to think of several ideas when given a writing assignment increased 20 points from the pre- to post- administrations of the Writing Self-Efficacy Rating Scale, moving from a 60 (Moderately can do) to an 80 (Highly certain can do). While indicating a somewhat significant positive increase in perceived self-efficacy on the questionnaire, Brent’s interview responses do not appear to reflect this change. During both pre- and post-interviews, Brent responded that thinking of ideas to include in his writing is easy for him; however, during the post-interview, Brent did acknowledge that he has to think about what to write before he begins writing, which is contrast to his pre-interview response that it is easy, and he “just has to write.” This slight shift in response does bring some focus to the pre-writing step in the writing process.

Planning Before Writing

Nate indicated a positive increase in perceived self-efficacy on the Writing Self-Efficacy Rating Scale when asked about his ability to plan before he writes, moving from a degree of confidence of 30, which falls in the Cannot do it at all range, to a degree of confidence of 60, which falls in the Moderately can do range. During the pre-interview when asked how he plans what he is going to write, Nate stated, “I start to write, go through the end, and put a period.” In response to the same question after participating in the SRSD instruction, Nate stated, “Think of an idea, and then write,” which indicates at least some attention to the planning stage of the writing process. This slight alteration in response during the post-interview supports Nate’s self-reported ratings, beginning with
very little confidence in his ability to plan and gaining a slight confidence albeit still not necessarily an area of strength.

When asked about her ability to plan before writing on the Writing Self-Efficacy Rating Scale, Korra’s responses indicated only a slight positive change in perceived self-efficacy, moving from a degree of confidence of 70 to a degree of confidence of 80, both falling in the *Moderately can do* range. While such an incremental shift in self-reported degrees of confidence may not reflect a definitive change or gain in perceived self-efficacy toward her ability to plan before writing, Korra’s interview responses do demonstrate more attention being given to this planning process. During the pre-interview when asked how she plans before she writes, Korra stated, “I think about it first, then I write.” After participating in the SRSD instruction, Korra stated, “First I read the passage, and then I make like the little diagrams, and I put my ideas on there, and then I start it off,” a response that indicates a possible increase in knowledge of the planning or prewriting phase by recognizing the need for a written, organized method of planning as opposed to limiting the planning phase to a mental action only. The additional step included in Korra’s response regarding reading the passage is specific to the type of writing used during the intervention, which required students to respond to writing prompts specific to non-fiction articles.

When asked about his ability to plan before writing on the Writing Self-Efficacy Rating Scale, Brent indicated a positive change in perceived self-efficacy, increasing from a degree of confidence of 50, *Moderately can do*, to a degree of confidence of 80, which falls in the *Highly certain can do* range. Language used in Brent’s responses
during pre- and post-intervention interviews may also indicate a positive change. During the pre-interview when asked how he plans what he is going to write, Brent stated, “I just think about ideas, and then I write ideas”; whereas, during the post-interview when asked the same question, Brent stated, “Uh, I do brainstorm sometimes when I think it’s needed.” Brent’s post-intervention interview response indicates a more concrete pre-writing phase of the writing process by specifying that he does brainstorm rather than simply thinking about what he wants to say—the verb “do” giving the impression that Brent completes a specific brainstorming activity. In addition, the use of the term “brainstorms” rather than “think about,” indicates a greater knowledge of the prewriting process. When asked to further explain in what situations a brainstorm would not be needed, Brent explained that he has often already thought of a way to start his writing when he is given a writing prompt, and, therefore, a brainstorm would not be needed. It does appear that Brent is associating the need for a prewriting step with only a way to begin writing; however, getting started did appear to be a particular struggle for Brent. For instance, when completing the baseline writing piece, Brent appeared to be staring around the room as well as at his paper rather than writing his assignment. When asked if he needed any help getting started, Brent simply stated that he was thinking. The researcher encouraged him to plan out his ideas on paper to help him organize his thoughts; however, although Brent did flip his paper over to the blank side, he did not make any notes and continued to stare at his paper. Finally, without completing any type of written brainstorm, Brent began writing. While this response during the post-interview may demonstrate only a superficial knowledge of the planning phase in that he appears to
associate prewriting as only a way to begin writing rather than a useful method of idea
generation and organization to be used throughout his writing, Brent’s gained knowledge
of the writing process to aid him in this struggle does appear to have influenced his
perceived self-efficacy.

Writing Ideas on Paper

According to interview responses, Nate demonstrated the greatest positive change
in self-efficacy when asked about his ability to write down his ideas. During his pre-
interview, Nate indicated that it was “hard” for him to write out his ideas. When asked
the same question in the post-interview, Nate stated that it was “easy to put it [ideas] down”; however, Nate was unable to explain his response in further detail when asked
follow-up questions, only pausing to think, and then shrugging his shoulders. In contrast,
Nate indicated no change in perceived self-efficacy for this writing skill on the Writing
Self-Efficacy Rating Scale, self-reporting a degree of confidence of 100 during both
administrations of the questionnaire.

When asked about her ability to write down her ideas, Korra’s responses on the
Writing Self-Efficacy Rating Scale indicate a slight positive change in perceived self-
efficacy from a degree of confidence of 80 on the first administration to a 90 on the
second administration; both ratings fall within the Highly certain can do range. During
both interviews when asked about this particular writing skill, Korra responded that it
was “easy.” Although her initial responses were the same during both interviews, when
asked to elaborate on her answer during the pre-interview, Korra reiterated her belief that
it was hard coming up with ideas; however, she explained that once she has the ideas, it’s
easy to write them down. During the post-interview, Korra did not discuss the difficulty of thinking of ideas, but she did state that it just depended on the writing topic.

When asked about his ability to write down his ideas, Brent’s responses on the Writing Self-Efficacy Rating Scale indicate a positive increase in perceived self-efficacy from a degree of confidence of 50 (Moderately can do) on the first administration to 70 (Highly certain can do) on the second administration. This positive change in self-efficacy is supported by Brent’s interview responses. During the first interview, Brent explained that the difficulty depended on the topic and that he has to “think about it,” but during the second interview, Brent was adamant that it was “Easy once I know what to do.” When asked to elaborate, Brent focused on knowing what words or sentences to use, again indicating a prewriting or planning stage albeit that planning may or may not take place on paper or in a typically organized fashion.

Organizing Ideas

In addition, Nate’s interview responses regarding his ability to put his ideas in the appropriate places when writing indicate a slight positive change in self-efficacy. Nate initially stated that he “kinda [sic]” struggled with this writing skill; however, during the post-interview, Nate used the absolute term, “No,” that he did not struggle placing his ideas in the appropriate place within his writing piece. Contrastingly, Nate’s self-reported degree of confidence on the Writing Self-Efficacy Rating Scale decreased from a 99 to a 90, but both fall in the Highly certain can do perceived self-efficacy range. Such a small decline at the very top of the rating scale may not indicate an actual change in self-efficacy. In addition, Korra’s interview responses regarding her ability to put her
ideas in the appropriate places when writing indicate no change in perceived self-efficacy; Korra already held high self-efficacy beliefs regarding her ability to organize her ideas prior to the intervention, stating during the pre-interview, “It’s not hard.” Korra’s responses on the pre- and post-questionnaires support this lack of change; during both administrations of the Writing Self-Efficacy Rating Scale, Korra self-reported a degree of confidence of 70, which falls in the Moderately can do perceived self-efficacy range.

Brent’s interview responses regarding his ability to put his ideas in the appropriate places when writing indicate no change in his initial response in that it was not difficult for him to place his ideas in his writing. However, when compared to his pre-interview response when he stated, “Sometimes I just try to think of how to put in place where it [ideas] belongs,” Brent’s post-interview response represents the skills of a slightly more sophisticated writer by once again including a prewriting element of some kind in his response. Brent emphasized that he sometimes does “jot things down, and then figure [sic] it out.” However, Brent’s responses on the Writing Self-Efficacy Rating Scale support a positive change in perceived self-efficacy, representing his largest increase from a degree of confidence of 50 (Moderately can do) on the pre-questionnaire to an 80 (Highly certain can do) on the post-questionnaire.

Starting Sentences

The ability to think of ways to begin sentences is a writing skill that was not directly addressed during the pre-interview as it was only identified as an area of need during the analysis of the pre-interview responses used to design the Writing Self-
Efficacy Rating Scale questionnaire. Therefore, a comparison of interview responses cannot be made; however, during the post-interview, Nate indicated that he did not have trouble thinking of ways to begin his sentences when writing. Nate’s questionnaire responses regarding his ability to think of ways to begin his sentences indicate a decrease of twenty points in his degree of confidence, moving from a 100 to an 80. Although both responses fall into the *Highly certain can do* range of perceived self-efficacy, 20 points is a more significant decline than discussed above and may indicate an actual decrease in self-efficacy in this area. It is possible that this decrease is due to Nate’s initial lack of understanding regarding the skill prior to the intervention, or it may also be possible that Nate was previously unused to the structured, formal style of writing addressed during the intervention and was, therefore, previously unaware of the expectations and difficulties accompanying that style. On multiple occasions, Nate was observed asking for help writing one or more sentences, and he was redirected by the classroom teacher to first refer to his Citing Textual Evidence handout, which contained example sentence starters for each element of the paragraph.

As previously mentioned, the ability to think of ways to begin sentences is a writing skill that was not addressed during the pre-interview, so a comparison of interview responses cannot be made. This writing struggle was identified as an area of need during the analysis of the pre-interview responses used to design the Writing Self-Efficacy Rating Scale questionnaire. Given that it was Korra’s reiteration of this struggle during her pre-interview that prompted the inclusion of this skill in the study, one can assume a low sense of self-efficacy in this area prior to the SRSD instruction;
unfortunately, Korra stated that she still had difficulty starting her sentences during the post-interview. However, Korra’s responses on the Writing Self-Efficacy Rating Scale regarding her ability to think of ways to begin her sentences indicate an increase in her degree of confidence from 24 (Cannot do it at all) to 50 (Moderately can do), demonstrating her largest increase in perceived self-efficacy of all four idea generation items. While Korra may still have struggled to begin her sentences after the SRSD instruction, it is likely that her perceived self-efficacy did improve, and that it was easier for her to quantify a change using a 0-100 rating scale rather than using her words.

During two observed lessons, Korra asked the classroom teacher for help because she was seemingly having difficulty starting off a sentence, and she was redirected to refer to her Citing Textual Evidence handout, which contained example sentence starters specific to the assigned style of writing.

Although the ability to think of ways to begin sentences is a writing skill that was not addressed during the pre-interview since it was identified during the analysis of the pre-interview responses, Brent stated he did not have difficulty beginning his sentences when writing during the post-interview. Brent’s questionnaire responses regarding his ability to think of ways to begin his sentences indicate a slight increase in degree of confidence from a 60 to a 70, moving from the Moderately can do range to the Highly certain can do range, which is not a significant increase and may not indicate a change in perceived self-efficacy. Brent appears to have had high self-efficacy in this area prior to the SRSD instruction.
Self-Regulation

As previously discussed, students participated in individual interviews with the researcher before and after SRSD instruction with three questions relating to self-regulation. In addition, students completed the Writing Self-Efficacy Rating Scale (see Appendix F) before and after instruction. Item #s 6, 7, 8, and 9 addressed students’ self-efficacy toward self-regulation. The degree of confidence scale ranged from 0 (Cannot do it at all) to 100 (Highly certain can do). 50 was defined as Moderately can do. For the purposes of analysis, ranges were further defined: ratings of 0-33 were categorized as Cannot do it at all, 34-67 were categorized as Moderately can do, and 68-100 were categorized as Highly certain can do. Responses to questions asked during interviews, responses to items on the Writing Self-Efficacy Rating Scale, as well as observation data gathered by the researcher were analyzed and presented according to each assessed skill.

Nate’s interview responses are difficult to categorize; I was only able to definitively see one area in which Nate demonstrated a positive change after SRSD instruction. However, on only one out of four self-regulation items on the pre- and post-questionnaires, Nate responded with a higher degree of confidence on the post-questionnaire, he responded with a lower degree of confidence on two items, and his rating did not fluctuate on the remaining item.

Korra’s interview responses did not appear to fluctuate on any of the three questions related to self-regulation. In addition, on only one out of four self-regulation items on the post-questionnaire, Korra responded with a higher degree of confidence than
on the pre-questionnaire, and her ratings did not fluctuate on the remaining three items, which were all in the *Highly certain can do* range.

Brent’s interview responses did not appear to reflect much change in self-efficacy on any of the three questions related to self-regulation. However, on three out of four self-regulation items on the post-questionnaire, Brent responded with a higher degree of confidence than on the pre-questionnaire, and his ratings did not fluctuate on the remaining item, which was in the *Highly certain can do* range.

While still demonstrating positive changes, participants appear to have experienced a less significant change in perceived self-efficacy in self-regulation than in idea generation. A more in-depth review of each participant’s responses to individual skills is discussed in the next section.

**Getting Started**

On the Writing Self-Efficacy Rating Scale, Nate’s responses regarding his ability to get started easily when given a writing prompt indicated a slight positive increase from a degree of confidence of 60, *Moderately can do*, on the pre-questionnaire to a degree of confidence of 71 on the post-questionnaire, which falls just slightly into the *Highly certain can do* range. This positive change in perceived self-efficacy is supported through Nate’s interview responses. When asked during the pre-interview if it takes a long time for him to begin when given a writing prompt, Nate stated, “It takes time to start when she say [sic] start”; whereas, during the post-interview, Nate stated, “Go ahead and begin.” When asked whether Nate meant that he began writing immediately, Nate indicated that he started writing after the prewriting stage was completed. However, it is
possible that Nate provided an answer that he anticipated was the correct answer. While Nate did follow the prewriting steps during the SRSD instruction, his graphic organizers were often incomplete, containing a few short words in each section that did not appear to include all necessary parts. See Figure 10 for an example of Nate’s independent work.

Figure 10. Nate’s POW+RACES Independent Graphic Organizer
For instance, during a lesson in the independent phase of SRSD instruction, students were given the following writing prompt with an accompanying non-fiction article: Why is Baseball becoming a more difficult sport to play? Use evidence from the text to support your answer. Next to “P” on his graphic organizer, representing “Pull apart the prompt,” Nate wrote, “Your teacher.” Assumiely, Nate meant that the teacher was his writing audience; however, pulling apart the prompt is intended to help students pause to analyze not only the intended audience, but also the type of response needed and what should be included in their responses.

On the Writing Self-Efficacy Rating Scale, Korra’s responses regarding her ability to get started easily when given a writing prompt indicated a significant positive change from a degree of confidence of 10, *Cannot do it at all*, on the pre-questionnaire to a degree of confidence of 70 on the post-questionnaire, which falls into the *Highly certain can do range*. While a large increase exists in Korra’s self-reported degree of confidence on the Writing Self-Efficacy Rating Scale, her interview responses demonstrated no change between pre- and post-interviews. During the pre-interview when asked if it takes a long time for her to begin writing, Korra stated, “It takes some time.” When asked to elaborate, Korra explained that she has to think about what she is going to write before she starts writing; she also reiterated the difficulty she has thinking of how to start her sentences, which further delays her start time. During the post-interview when asked the same question, Korra initially only provided an abrupt, “Yes,” in response. When asked to elaborate on her answer, Korra explained that it takes a long time to complete her graphic organizers, which she does before beginning to write.
When observed during the SRSD instruction, Korra usually began completing the prewriting phase immediately albeit sometimes with protest, lending credence to her self-reported ease in getting started; however, regardless of ease, Korra does not appear to feel that engaging in prewriting speeds up the process for her, enabling her to begin writing more quickly.

On the Writing Self-Efficacy Rating Scale, Brent’s responses regarding his ability to get started easily when given a writing prompt indicate only a slight positive increase from a degree of confidence of 70 on the pre-questionnaire to a degree of confidence of 80 on the post-questionnaire, both falling in the Highly certain can do range. This incremental increase may not indicate an actual change in perceived self-efficacy given that his interview responses do not reflect a change in self-efficacy either. When asked during the pre-interview if it takes a long time for him to begin writing when given a prompt, Brent explained that it is easy for him to get started. Similarly, during the post-interview, Brent stated, “Most of the time it’s easy for me to begin a writing prompt, but sometimes though I’ll get a little stumped sometimes [sic].” While Brent appeared to be confident in his ease and ability to start writing without delay during pre-intervention measures, as discussed in the section devoted to idea generation, Brent did not appear to be able to begin writing right away at the start of the intervention period. It is important to note that while the gist of the interview responses was similar during both interviews, when asked to elaborate during the post-interview, Brent mentioned that he does struggle to get started sometimes, which may indicate an increase in self-monitoring if not self-efficacy.
Coping with Difficult Writing Tasks

Regarding how he handles a writing assignment that seems hard, Nate’s interview responses and questionnaire responses differ. On the Writing Self-Efficacy Rating Scale, Nate’s perceived self-efficacy appears to have increased twenty points with his self-reported degree of confidence for this skill at an 80 during the pre-administration, and during the post-administration, Nate’s self-reported degree of confidence was a 100, both falling in the *Highly certain can do* range. During the pre-interview when asked what he does when assignments seem too hard, Nate explained that he tries to think of an idea and figure out what to write, a response indicating a motivation to overcome the assignment’s difficulty independently; however, whether or not this strategy was successful prior to the intervention is unknown. During the post-interview when asked the same question, Nate explained that he asks for help.

While this response could be interpreted as a slight regression due to increasing his dependence on others possibly because of the level of support provided during the SRSD instruction, it may also be interpreted as an improvement in that he now understands that using his resources, such as a teacher, may be a more effective strategy in moving passed an assignment’s difficulty. While both ratings on the Writing Self-Efficacy Rating Scale regarding this skill fall in the *Highly certain can do* range, Nate did appear to increase his perceived self-efficacy, meaning he was likely more confident in his success when asking for help rather than when he attempted to independently overcome difficulty by thinking only. When observed prior to SRSD instruction while completing the baseline writing piece, Nate did not ask for help even though he appeared
to have trouble getting started, and he was unable to complete the assignment during the
time allotted. Like Brent, Nate was observed staring around the room and at his paper.
However, in line with his post-interview response, Nate was observed raising his hand and
seeking help on multiple occasions toward the end of the intervention period during the independent stage. In fact, during the final lesson, Nate approached the teacher after completing each step in the strategy process, possibly seeking approval or possibly due to uncertainty in his ability.

Regarding how she handles a writing assignment that seems hard, Korra’s interview responses and questionnaire responses did not indicate any change after participating in the SRSD instruction. On the Writing Self-Efficacy Rating Scale, Korra’s perceived self-efficacy appears to have already been high prior to the intervention, self-reporting a degree of confidence of 100 during both administrations. Similarly, Korra’s responses during both interviews when asked what she does when assignments seem too hard were the same, “Ask for help,” which appears to be a coping strategy in which she is confident as well as one encouraged during all phases of the SRSD instruction, with the exception of the independent practice stage, which ultimately shouldn’t be reached until students are ready.

Regarding how he handles a writing assignment that seems too hard, neither Brent’s questionnaire nor interview responses rendered much change after participating in the SRSD instruction. Brent’s degree on confidence on the Writing Self-Efficacy Rating Scale increased from a 60, Moderately can do, to a 70, which falls in the Highly certain can do range; however, similar to his responses to his ability to get started easily,
this slight increase may not be indicative of an actual change in self-efficacy. Also similarly, his interview responses did not indicate a change in self-efficacy. During the pre-interview, Brent stated, “Uh, I don’t give up and get my teacher to help me.” Similarly, during the post-interview, Brent stated, “Uh, I’ll keep on trying to do as best I could [sic] if it takes me at least five or ten minutes. I [sic] can’t get started off, I’ll normally ask a teacher to help.” While Brent chose slightly different wording among his responses, both interview responses demonstrate an instinct to seek teacher guidance or support when an assignment seems too hard.

Persevering Through Frustration

Similarly, Nate’s responses regarding what he does when he becomes frustrated while writing could be interpreted in various ways. When addressed during the pre-interview, Nate simply stated, “Don’t give up”; however, during the post-interview, Nate stated, “Ask my teacher.” Of course, Nate’s shift in response could once again indicate a regression due to an increasing dependence on teacher guidance; however, asking a teacher for help could also be a more concrete method of pushing beyond his frustration and inclusive of not giving up. This second scenario may be more likely when coupled with Nate’s responses to the Writing Self-Efficacy Rating Scale when asked about his ability to ask for help when he is frustrated while writing, which demonstrated a drastic positive increase in perceived self-efficacy—a change in degree of confidence from 0 (Cannot do it at all) to 60 (Moderately can do). As discussed above, Nate was observed to ask for help more often as the intervention period progressed.
Korra’s responses regarding overcoming frustration when writing did not indicate a change in self-efficacy on either the questionnaire or during interviews. On the Writing Self-Efficacy Rating Scale, Korra’s perceived self-efficacy for this writing skill also appears to have been high prior to intervention. Korra’s degree of confidence during both administrations of the questionnaire were self-reported at 100, indicating that she felt strongly that she could overcome her frustration while writing before and after SRSD instruction. During the pre-interview when asked what she does when she becomes frustrated while writing, Korra stated, “I stop. I ask for help,” and when asked the same question during the second interview, Korra stated, “Ask for help. Both responses mirrored her response to the previously discussed interview question, which indicates that her ability to overcome frustration relies on her ability to use her resources, such as teacher support.

On the Writing Self-Efficacy Rating Scale when asked about his ability to overcome frustration when writing, Brent self-reported a degree of confidence of 70 during the first administration and a degree of confidence of 90 during the second administration. Although both ratings fall within the Highly certain can do range, his responses do indicate a positive increase in perceived self-efficacy. However, Brent’s interview responses did not differ significantly in content between the pre- and post-interviews. During the pre-interview when asked what he does when feels frustrated while writing, Brent explained that he stops writing and tries to think of something else, and after receiving the SRSD instruction, Brent stated during the post-interview, “I normally just take a break from writing and put my head down for a while, but first I get
permission from the teacher to do it.” One slight difference in the two responses is that
the post-intervention response included the notion of asking for help, indicating a
possible outcome of the teacher support encouraged through the SRSD instruction.

Writing Production

When asked about his ability to continue writing or keep the story going, Nate’s
self-reported degree of confidence on both administrations of the Writing Self-Efficacy
Rating Scale was a 100. Nate appears to have had an already high perceived self-efficacy
related to this skill. Although this writing skill was not addressed during interviews, Nate
did appear proud when showing the researcher his chart indicating that he went from
writing only six words in his baseline writing piece to 47 words in a later writing piece.

When asked about her ability to continue writing or keep the story going, Korra
demonstrated a high degree of confidence before and after the SRSD instruction, rating
herself at 90 during both administrations of the Writing Self-Efficacy Rating Scale.
Although this was addressed through the self-regulation strategy used during the
intervention, it was not addressed during interviews.

Finally, the ability to continue writing or keep the story going was an area in
which Brent demonstrated a high degree of confidence before and after the SRSD
instruction, rating himself at an 80 on both administrations of the Writing Self-Efficacy
Rating Scale, which falls in the Highly certain can do range. This skill was not addressed
during interviews.
Interpretation of Data Analysis

An understanding that all things influence the learning experience in some way through a series of reciprocal interactions provided the lens through which data were analyzed and interpreted. While data were coded by categories related to personal factors as that was the area of interest, information was interpreted with the understanding that a generalizable correlation cannot be made between the instruction of self-regulation strategies and self-efficacy.

In order to explore any differences in participants’ perceived self-efficacy between pre- and post-interview transcripts, positive and negative valuations were assigned. For instance, when asked if a skill was difficult, an initial response, yes, during the pre-interview received a positive valuation while the response, no, during the post-interview received a negative valuation. In this case, a gain in self-efficacy toward that specific skill is likely. In other instances, the valuation was not so easy to determine. To illustrate, when Nate was asked during his pre-interview about his capability to get started on a writing assignment easily, he indicated that it took him some time to get started, but when asked the same question during the post-interview, he indicated that he was able to begin right away. The pre-interview response was interpreted as Nate’s uncertainty toward his ability to think of an idea about which to write whereas the latter interview response was interpreted as confidence toward his ability to attack a writing prompt, and thereby, receiving a more positive valuation. Analyzing interview responses for change in perceived self-efficacy enabled me to explore the outcomes of
Zimmerman’s (1998, 2000) triadic reciprocity as experienced by the study’s participants through the SRSD instruction.

Qualitative content analysis provides a researcher with flexibility toward the analysis of text, allowing for not only a focus on language, but also its content and use within context (Hsieh & Shannon, 2005). As opposed to the quantitative version of content analysis, qualitative content analysis does not simply count words; it examines language in order to categorize data into themes—making meaning from data (Hsieh & Shannon, 2005). Data from the interviews and observations in this study were analyzed using directed content analysis. Directed content analysis is used when a theory exists that may not be complete or may need further description (Hsieh & Shannon, 2005). The goal when using directed content analysis is to validate or extend an existing theory (Hsieh & Shannon, 2005). This existing theory provides researchers with some direction when coding schema as well as determining the relationships between codes (Hsieh & Shannon, 2005). The process begins by identifying the key concepts or variables within the existing theory as coding categories, and then developing definitions for each category using the current research (Hsieh & Shannon, 2005). Next, the researchers code the text using predetermined codes and identify any categories that may not fit into their original schemas (Hsieh & Shannon, 2005).

In the case of this research study, the following categories were used to code data: low self-efficacy, high self-efficacy, self-monitoring, underestimation of ability, realistic estimation of ability, overestimation of ability, influence by past performance, observations of others, affective states, and writing knowledge. Categorizing data in this
way lent itself to the examination of how each variable could in turn affect another, demonstrating the reciprocal relationships among these factors (Zimmerman, 1998, 2000).

In order to explore participants’ experiences while engaging in self-regulated learning and how those experiences influenced their self-efficacy, key personal factors were drawn from relevant literature in order to predetermine coding categories. Environmental and behavioral factors were excluded as coding categories. From those factors, categories were defined.

Self-efficacy was identified as an influential personal factor that has been tied to student effort, motivation, and achievement (see Bruning et al., 2013; Pajares & Valiante, 2006). Additionally, Borkowski (2001) posits a reciprocal relationship between self-efficacy and self-regulated learning. Self-efficacy was separated into two categories: low self-efficacy and high self-efficacy. During the data analysis process, data surfaced to indicate that participants felt a higher sense of self-efficacy toward certain skills prior to engaging in the study, which did not necessarily align with their observed or reported abilities; therefore, it became necessary to further define these categories. While self-efficacy had already been defined for the purposes of this study as how participants perceive their capabilities, the categories of low and high self-efficacy did not provide enough depth or flexibility to explore the participants’ learning experiences. Because inaccurate perceptions of ability are not uncommon in struggling writers (Harris et al., 2009), additional categories for the overestimation, realistic, and underestimation of ability were created.
Similarly, self-monitoring was identified as another influential personal factor as it is integral to the self-regulation process. Without the ability to self-monitor accurately, students are unlikely to be able to appropriately regulate their mental actions (i.e., control) because their decisions are based on false conceptions—under- or over-estimation of ability or understanding (Hacker et al., 2009). In this case, subcategories were developed in order to differentiate between participants’ recognition of their own understanding and of their own misunderstanding.

Of Pajares and Valiante’s (2006) four identified ways in which self-efficacy may be influenced, negative feedback was eliminated as it was purposefully avoided throughout the SRSD instruction. The influence of past performance, observation of others, and affective states were included as categories; however, no data trends or patterns could be identified using these codes likely because the data were dependent on participants being able to identify and articulate these factors during interviews or during observed sessions.

Hayes and Flower’s (1980) writing model indicates that skilled writers engage in the processes of planning, translating, and reviewing, and in contrast, it is not uncommon for struggling writers to lack metacognitive skills or strategies like planning (Annervirta & Vauras, 2006). Further, as students improve their metacognitive skills, increase their writing knowledge, and experience success as a result, their self-efficacy may improve (Bruning & Horn, 2000), often leading to more academic success (Bruning et al., 2013). Because planning was the primary focus of the writing strategy used during the SRSD instruction in this study, writing knowledge was identified as a coding category and was
used when participants indicated an understanding of the importance of the planning stage of the writing process.

Vignette: The Unfaltering Smile

As I approached the classroom, I noticed Nate folded over in a chair outside the door, face in hands. I knelt down, making eye contact, when I saw the tears staining his face. Of course, given our newly formed relationship, Nate did not feel comfortable confiding in me, so I gently reminded him that I would be there if he needed me.

Mouthing to Ms. Angeles that Nate was crying, I entered the classroom with a tinge of worry in my heart. When I think of Nate crying in the hallway, knowing he would be expected to engage and focus in class, expected to learn, even though his emotions were clouding his mind, I think of the impossible situations in which middle school students reside. Despite whatever hormonal changes Nate was facing, despite whatever personal hardships he was facing, despite his continuous struggle with expressive and receptive language, Nate would always be expected to push it all aside to learn concepts of which he has likely never understood the importance. Yet, when I think of his smiling face when he entered the room after collecting himself in the restroom, I thought about the resilience of his innocence, and I thought about how little time Nate had taken for that resilience to come so easily.

Nate stands on the edge of a precipice overlooking a world of difficulty, of criticism, of comparing himself and his performance to others—to those who won’t have to work quite as hard as he will—of the loss of self-esteem and self-efficacy that may ensue. Though resiliency is not an inevitable loss for Nate, not if he is understood.
Educators have this power, the power to encourage students to want to learn rather than force them to learn. It is our job to help students like Nate understand the importance of the skills and knowledge we fight so hard for them to learn. Understanding will be his impetus to persevere through his learning difficulties. But for now, Nate remains eager to learn, to improve. Nate’s smile when he returned to the classroom said that he was ready to write. Language will likely always be a struggle for him; writing will likely always be difficult, but if he is able to use with automaticity strategies that are designed to help him control and monitor his thoughts, to express and organize his ideas, then maybe Nate’s self-efficacy will survive. Despite being asked to repeat himself on several occasions because I could not understand him, Nate never displayed signs of frustration, and his smile did not falter.

Themes

All three students appeared to begin the study with an overestimation of ability as compared to reality; this phenomenon is supported by the work of Harris et al., (2009). As a former eighth grade teacher, I am less accustomed to such confident attitudes. While not absent from my experience, I most often encountered students who had become so comfortable in their failure that they had all but given up on their ability to write, often beginning the lesson with a defeated attitude and low self-efficacy (see Caprara et al., 2008).

All students demonstrated a greater understanding of the planning process and its importance at the conclusion of the study. This understanding can be seen consistently through their interview responses and through their observed demeanors while engaging
in the POW+RACES strategy. As the study progressed, students appeared to be able to more readily and accurately explain as well as engage in the sequence of steps involved in the strategy.

When the practice phase of the study first began, participants rarely engaged with each other or the instructors. I observed them engaging in long pauses while writing, often looking off to other sections of the classroom, but those prolonged breaks to think did not seem effective in enabling them to complete the writing assignments. However, as the practice phase began to conclude near the end of the study, students were more prone to seek out guidance or assurance while engaging in the writing process. I think this is a reflection of their increasing ability to self-monitor, enabling them to recognize their strengths and weaknesses and prompting them to seek guidance in order to persevere through the task rather than to remain frustrated and unable to move forward. This indicates the presence of active learning, which could potentially deter them from comparing themselves to others (Nesin, 2005).

Summary

Overall, students’ perceived self-efficacy toward writing appeared to increase or remain at already high levels after participating in the SRSD instruction. Among the three participants, a total of 27 item responses from each administration of the Writing Self-Efficacy Rating Scale were collected and compared. 15 of those 27 responses indicated at least a slight positive increase in perceived self-efficacy. On a scale of 0 (Cannot do it at all) to 100 (Highly certain can do) and a rating of 50 defined as Moderately can do, increases in degree of confidence ranged from 10 points to 60 points.
Of the items compared, seven responses indicated no change; however, all but one of those seven were already rated in the *Highly certain can do* range, and the remaining item was in the *Moderately can do* range.

Only one participant’s responses to the Writing Self-Efficacy Rating Scale indicated a decrease in perceived self-efficacy; however, even the majority of Nate’s self-reported degrees of confidence, albeit decreased from pre- to post-administrations, remained in the *Highly certain can do* range. In addition, five out of seven of Nate’s post-interview responses demonstrated a more positive sense of self-efficacy.

Similar to the questionnaire responses, the majority of post-interview responses when compared to pre-interview responses indicated a more positive self-efficacy toward writing. Of the post-interview responses that did not indicate this positive change, many of those responses did demonstrate a more focused attention on the planning stage of the writing process, indicating a possible increase in knowledge.

All three participants appeared to make positive gains in perceived self-efficacy toward at least one or more skills within each area (i.e., idea generation and self-regulation) as a result of the explicit strategy instruction. However, overall idea generation appears to be the area on which the SRSD instruction had the greatest impact.
CHAPTER 5
DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

This study focused on the writing self-efficacy of three central Georgia sixth-grade students with LD. The purpose of this study was to describe the experiences of these students as they participated in a five-week SRSD (Harris & Graham, 1985) instructional writing intervention and to understand how those experiences influenced their writing self-efficacy. This final chapter provides a brief review of the study, discussions of key findings and implications, and recommendations for future research.

Review of the Study

Engaging in the writing process is challenging for many students due to its complex use of cognitive processes (Hayes, 1996). Learning the writing process itself often proves to be difficult for many students (Hidi & Boscolo, 2006), which in turn causes many students to dislike writing (Harris et al., 2009). Despite its difficulty, writing is a valuable skill, one that is necessary to the learning process and that enables students to externalize their thoughts (Berninger & Winn, 2006; Borkowski, 2001) and to construct meaning from those thoughts (Hidi & Boscolo, 2006), serving as a means by which students may better understand what they read (Hebert et al., 2013) and better understand themselves and the world (Graham & Harris, 2011; Pajares & Valiante, 2006). Although research supports the perception that writing is a vital skill, colleges and businesses
continue to attest students are not prepared for the writing demands they are facing after high school (Alliance for Excellent Education, 2007). Among ill-prepared students, 19 out of 20 students with disabilities do not possess the writing skills needed for success in high school, college, and the workplace (Graham & Harris, 2011). Due to this lack of skill acquisition, many adolescents transitioning to high school are faced with expectations that are often unattainable (NJCLD, 2008). Unfortunately, effective writing instruction remains a challenge for educators (Graham & Harris, 2011), creating a need for research into effective instructional approaches that may increase the acquisition of writing skills for adolescents with LD (NJCLD, 2008).

Educators are charged with fostering self-beliefs and ensuring the attainability of success for students in order to cultivate their self-efficacy (Pajares & Valiante, 2006). This cultivation of self-efficacy is important to the success of students in that self-efficacy may determine how they use their knowledge and skills (Bandura, 1997; Pajares, 2003). Self-efficacy can influence students’ ability to exert control (Bandura, 1997). According to Hacker, Keener, and Kircher (2009), when students use writing strategies with intent and experience success using said strategies, it may be possible for those students to gain self-efficacy. Through the use of the SRSD model developed by Harris and Graham (1985), students in this study were taught the POW+RACES (see Figure 2) strategy and were engaged in goal setting in order to lengthen their writing pieces by monitoring the number of words used in each writing piece. These students, sixth graders with LD at a public middle school in central Georgia, participated in a five-
week SRSD writing intervention during their Study Skills classes. This study was conducted in the context of that classroom-based instructional intervention.

A qualitative case study methodology, grounded in a social cognitive theory framework, was used to address this study’s research question: How do sixth-grade students with LD describe their writing self-efficacy before and after participation in explicit self-regulation strategy instruction? Participants, three sixth-grade students with LD attending a public middle school in central Georgia, were given explicit planning and self-regulation instruction over a period of five weeks. While all students in the small group classes were receiving special education services and participated in the SRSD instruction, only three students with a Georgia eligibility of SLD participated in the study: Nate, Korra, and Brent. Employing a qualitative research approach, pre- and post-interviews were conducted and analyzed, pre- and post-questionnaires (i.e., Writing Self-Efficacy Rating Scale) were administered to assess participants’ perceived self-efficacy toward the writing constructs of idea generation and self-regulation, and observations and field notes were documented and analyzed. The primary writing skills addressed through this intervention included the planning phase of the writing process as well as goal setting; however, it is important to note that while two constructs were assessed, all writing skills addressed within both constructs were relative to self-regulation. While individual results for each participant varied, participants’ overall perceived self-efficacy toward writing in the assessed areas seemed to increase or remain at already high levels after participation in the study. The instructional intervention appears to have had the greatest impact on students’ self-efficacy toward idea generation.
Discussion of Findings

All three participants appear to have gained self-efficacy toward some skills within the areas of idea generation and self-regulation, and all participants demonstrated an increased knowledge and awareness of the planning stage of the writing process. While two participants appeared to have gained self-efficacy toward writing in multiple areas and maintained their already high perceived self-efficacy, Nate’s perceived self-efficacy was already so high at the start of the study that it was difficult to see a distinct change in most areas. Therefore, it seems prudent to suggest that the experiences of these three sixth-grade students with LD while participating in explicit self-regulation strategy instruction appear to have impacted their writing self-efficacy in a positive way as well as contributed to the development of their writing knowledge. Participants appeared to experience the most positive change in their writing self-efficacy toward skills related to idea generation. Toward the conclusion of the study, the participants asked more questions, which leads me to believe that their experiences throughout the SRSD instruction fostered their self-knowledge and self-regulation, enabling them to better identify their weaknesses, which prompted them to seek guidance.

Increase in Students’ Perceived Writing Self-Efficacy

Analysis of interview responses revealed overall a more positive sense of self-efficacy during the post-interviews. Even the majority of Nate’s post-interview responses indicated slight gains in self-efficacy. While some post-interview responses did not necessarily indicate a positive change in self-efficacy, many of the responses did indicate
an increase in writing knowledge by demonstrating a greater focus and emphasis on the planning step of the writing process.

Further, students were asked to rate their degree of confidence regarding writing skills related to idea generation and self-regulation on the Writing Self-Efficacy Rating Scale, both before and after SRSD instruction. The questionnaire contained nine items. When all three participants’ responses were combined, a total of 27 item responses from the pre-questionnaire were compared to the 27 item responses from the post-questionnaire. Of those 27 responses, 15 responses indicated some gain in perceived self-efficacy and seven responses indicated no change, but remained in the *Highly certain can do* or *Moderately certain can do* range (only one item). The remaining five item responses, indicating a decline in self-efficacy, all originated from one participant, Nate; however, the degree of confidence for the majority of these items remained in the *Highly certain can do* range. Despite inconsistencies, all three participants appeared to make gains in their perceived self-efficacy in at least one area assessed overall (i.e., idea generation, self-regulation). Of the two areas assessed, idea generation appeared to be most impacted by the SRSD instruction.

**Minimal Increase in Writing Self-Efficacy Toward Self-Regulation**

Participants’ self-efficacy toward self-regulation, while still demonstrating positive changes, was less significant overall than in the area of idea generation. Similar to the idea generation data, some of Nate’s post-questionnaire responses indicated a drop in self-efficacy; however, Brent showed consistent gains in self-efficacy albeit smaller increases than in the area of idea generation. While Korra self-reported a large gain in
self-efficacy toward her ability to get started on a writing assignment easily, she indicated no change in any of the other skills related to the area of self-regulation when rating her degree of confidence on the Writing Self-Efficacy Rating Scale.

This outcome may be explained by a few different factors. Self-instructional strategy training is a key element to the SRSD model and must be implemented with fidelity in order to produce gains in self-efficacy (Graham & Harris, 1989). Given the nature of the students’ disabilities and their baseline self-regulation skills, it is possible that further attention would need to be paid to students’ use of self-statements in order to make a more significant difference in the area of self-regulation.

Another possibility may also be related to the study’s timeframe. It is in the nature of the SRSD model that students should move through the six stages (i.e., Develop background knowledge, Discuss it, Model it, Memorize it, Support it, and Independent practice) at their own pace. During the final session, participants were observed seeking teacher guidance, albeit minimal, while engaging in independent practice. It stands to reason that given the opportunity to continue the SRSD writing intervention beyond the five-week period allotted for the study, further growth in this area could be seen.

Students’ Overestimation of Ability

While the data reflect overall positive gains in the writing self-efficacy of the participants, some responses on the Writing Self-Efficacy Rating Scale fell within the Highly certain can do range prior to SRSD instruction, and reflected very little or no change in self-efficacy. However, it is not surprising that some pre-interview and pre-questionnaire data indicate high levels of self-efficacy. Because perceived self-efficacy
is not necessarily equivalent to capability, it is possible that some participants began the intervention study with misconceptions regarding their actual ability. The recognition of one’s strengths and weaknesses—self-knowledge—is integral to the understanding of success or ability (Pajares & Valiante, 2006; Pintrich, 2002). Struggling learners often appear to have a more difficult time evaluating their own abilities accurately due to a lack of metacognitive skills (Annervirta & Vauras, 2006; Graham & Harris, 1989), and without an accurate picture of success or ability, these students inadvertently allow false information to affect their control—their ability to modify thoughts and behaviors (e.g., self-efficacy) (Hacker et al., 2009). Therefore, it is not uncommon for students with LD to underestimate or overestimate their abilities (Harris et al., 2009). According to Hidi and Boscolo (2006), students who possess a higher sense of self-efficacy tend to be more willing to participate and to persevere through difficult tasks. Although the participants’ possible overestimation of ability may have impacted the results of this study, it may also be the cause of participants’ eagerness to engage in the SRSD instruction, enabling a greater impact on learning.

Although the SRSD instruction appeared to have had the greatest positive impact in the area of idea generation, some of Nate’s responses on the post-questionnaire indicated a slight decline in perceived self-efficacy. Of the five items addressing idea generation on the Writing Self-Efficacy Rating Scale, Nate self-reported a lower degree of confidence on three of those items albeit all three of those post-questionnaire responses still fell within the Highly certain can do range. While it is possible that Nate overestimated his ability before the intervention began, it may also be possible that Nate
did not have a full understanding of these writing skills prior to participating in the intervention. Meaning that as his knowledge-base increased, he was better able to provide a realistic appraisal of his abilities (Caprara et al., 2008).

Understanding the Importance of Planning

The ability to plan is key to good writing (Graham, 2006); therefore, the planning stage (i.e., developing goals, generating ideas, and organizing those ideas [Hayes & Flower, 1980]) in the writing process occupied a major focus of the intervention instruction in order to help students externalize their thinking, which freed up space in their working memories and helped students persevere through difficult writing tasks (Berninger & Winn, 2006; Borkowski, 2001). The writing strategy used in this study, POW+RACES (see Figure 1), focused primarily on the planning stage of the writing process. Planning is a basic and necessary writing skill that occurs prior to and during text production (Graham, 2006) and one with which many students with LD appear to struggle (Graham & Perin, 2007). In alignment with writing model constructs that have shaped current writing research (Hayes & Flower, 1980; Scardamalia & Bereiter, 1986), the instruction of this strategy emphasized not only the physical task environment by teaching students to first pull apart the prompt to analyze task requirements, but also the social environment involved by incorporating modeling and collaborative writing.

By the conclusion of the study, all three participants demonstrated a greater understanding of the planning process and its importance. Evidence of this
understanding was seen consistently through interview responses as well as through observations conducted while students were engaging in the POW+RACES writing strategy. As the study progressed, students appeared to be better able to explain their thinking and more willing to engage in the planning steps of the writing strategy. While some post-interview data did not reveal gains in perceived self-efficacy, many of those responses did reveal an increase in writing knowledge, more specifically an increased awareness of the importance of planning in the overall writing process. Research has shown that an increase in writing knowledge may lead to an improvement in writing motivation (Bruning & Horn, 2000; Graham & Harris, 2009); therefore, these data could also indicate that participants’ writing self-efficacy was positively impacted. This increased awareness of the writing process was consistent among all participants’ post-interviews.

Increase in Students’ Self-Knowledge

At the onset of the study, participants were rarely observed engaging with their peers or instructors. While working on writing tasks, Nate and Brent often engaged in long pauses, looking around the classroom or seemingly staring off with blank expressions. When asked if they had questions or needed help, their responses generally indicated that they were thinking about the task; however, after engaging in this thinking time, neither participant appeared to be able to move forward with the assignment, either abruptly concluding their writing response or they simply stopped working altogether. However, as the practice phase of SRSD came to a close, all three participants appeared to be more comfortable and willing to seek help when they were struggling and/or to seek
adult reassurance that they had completed a step or task correctly. Additionally, unlike the pre-interview responses, the notion of asking for help as a method of persevering through a difficult task was very prevalent in the post-interview responses.

While this change could be indicative of a lack of confidence regarding their ability to independently overcome frustration or to keep writing even when a task is difficult, asking more questions is more likely an indication of an increase in self-knowledge. When students understand their strengths and weaknesses, they are more likely to advocate for their needs (Stone & May, 2002). Knowing when to ask for help and knowing specifically what to ask is a reflection of their increasing ability to self-monitor, enabling them to recognize those needs and seek guidance in order to persevere through writing tasks rather than remain frustrated and unable to move forward.

Conclusions

After participating in the self-regulation strategy instruction, all students developed gains to an extent in their self-efficacy toward writing. Participants gained self-efficacy throughout the intervention as well as engaged in goal setting, utilized the cognitive and metacognitive processes involved in the planning stage of the writing process, freed up working memory space by memorizing the necessary mnemonics, and activated their long-term memories through audience awareness and genre knowledge. In addition, cognitive processes were addressed through the generation of ideas during the prewriting process (i.e., RACES) as well as by setting individual goals in order to lengthen writing pieces. Therefore, it seems prudent to suggest that while this intervention study had limitations, providing explicit self-regulation strategy instruction
may be an effective approach when attempting to impact the writing self-efficacy of middle school students with LD as well as a way to increase their writing knowledge.

The participants in this study developed more knowledge of the writing process. Two of the three students appeared to gain self-efficacy toward writing in many areas and maintained in the rest, but Nate did not. His perceived self-efficacy was already so high in many areas that it was difficult to see change. I saw the biggest impact on all three students’ self-efficacy toward the skills involved in idea generation. As a result of the instruction, they seemed to ask more questions, which causes me to wonder if they knew what questions to ask before and to consider that they may have gained the confidence they needed in order to ask questions. Each of the three participants appeared to gain writing self-efficacy within the areas of idea generation and self-regulation, and all participants demonstrated an increased knowledge and awareness of the planning stage of the writing process.

Implications

Based on the findings of this study, the SRSD instructional writing model may serve as an effective way to combat the common writing challenges faced by students with LD. For instance, writing is often presumed to be a solitary task (Martinez, 2010), but students often develop through their interactions with adults (Berninger & Winn, 2006); therefore, the use of modeling and collaborative writing that is incorporated in the SRSD instruction model may enable students to persevere through challenging writing tasks. SRSD instruction may also support students through other writing challenges, such as a lack of immediate feedback on writing progress (Martinez, 2010). During SRSD
instruction, students in this study received continuous and ongoing feedback on their progress and use of the writing strategy from instructors, and they also received immediate feedback on their goals by graphing the number of words used in each writing piece, which correlated with the amount of detail included in their writing. This type of progress feedback may enable students to recognize their own abilities, resulting in an increased sense of self-efficacy (Martinez, 2010).

The writing tasks involved in this study were short constructed response pieces prompted after the reading of non-fiction articles. This particular type of writing may also be helpful in overcoming some of the common writing challenges outlined by Martinez (2010). The provision of reading passages on which to base written responses may have eliminated some of the need for long-term memory in that little topic knowledge was necessary. Additionally, given the use of short constructed responses rather than lengthy extended responses or essays, students’ ability to persist through tasks to completion may have been increased.

Recommendations for Future Research

Further research is needed to substantiate the direct impact that explicit self-regulation strategy instruction may have on the writing self-efficacy of students with LD. It is imperative that students develop a strong sense of self-efficacy so that they are better able to persevere through challenging writing tasks without the plague of stress and anxiety that often accompanies low self-efficacy (Pajares & Valiante, 2006). More specifically, middle school students with LD should remain central to this research. While many different disabilities may contribute to writing challenges, students with LD
continue to fall behind their general education peers (Van Kraayenoord et al., 2009), having less knowledge regarding the writing process, applicable strategies, and motivational factors, which often prevent success (MacArthur, 2009). Additionally, at the age of adolescence, self-efficacy beliefs tend to decline (Caprara et al., 2008).

It would also be beneficial for future research to attempt to integrate explicit strategy instruction into the general writing curriculum throughout the school year (Harris et al., 2011). Strategies to address all stages of the writing process should be incorporated into the instruction along with other necessary writing skills in order to better assess the classroom applications. Integration may be effective in closing the performance gap between students with LD and their typical peers (Graham & Harris, 2009). This type of study would also lend itself to more long-term maintenance and transfer research that a majority of prior studies have been lacking.
REFERENCES


APPENDICES
APPENDIX A

IRB APPROVAL LETTER
25-feb-2016

Ms. Kathryn Kinder
Mercer University
Tift College of Education
1408 Coleman Avenue
Macon, GA 31207

RE: How Explicit Strategy Instruction Affects the Writing Self-Efficacy of Students with Learning Disabilities (H1602069)

Dear Ms. Kinder:

Your application entitled: How Explicit Strategy Instruction Affects the Writing Self-Efficacy of Students with Learning Disabilities (H1602069) was reviewed by this Institutional Review Board for Human Subjects Research in accordance with Federal Regulations 21 CFR 56.101(b) and 45 CFR 46.110(b) (for expedited review) and was approved under Category 7 per 45 CFR 46.105(b).

Your application was approved for one year of study on 25-Feb-2016. The protocol expires 24-Feb-2017. If the study continues beyond one year, it must be re-evaluated by the IRB Committee.

Item(s) Approved:

New application for qualitative design intervention study. Use of observations, pre/post questionnaires, and interviews.

Please complete the survey for the IRB and the Office of Research Compliance. To access the survey, click on the following link: https://www.surveymonkey.com/s/KCTT1BB

"Mercer University has adopted and agrees to conduct its clinical research studies in accordance with the International Conference on Harmonisation’s (ICH) Guidelines for Good Clinical Practice."

Respectfully,

[Signature]

Ava ChamBiss-Richardson, M.Ed., CIP, CIM
Member
Institutional Review Board
Mercer University IRB & Office of Research Compliance
Phone (478) 301-4101
Fax (478) 301-2329
ORC_Mercer@Mercer.edu

1501 Mercer University Dr., Macon, Georgia 31207-0001
(478) 301-4101 | FAX (478) 301-2329
APPENDIX B

INFORMED PARENTAL CONSENT
Parent or Guardian Informed Consent Form

Your child has been asked to participate in a research study entitled How Explicit Strategy Instruction Affects the Writing Self-Efficacy of Students with Learning Disabilities. The study is being conducted by Kathryn Kinsler who may be reached at Kathryn.L.Kinsler@live.mercer.edu. Additionally, you may reach her faculty advisor, Dr. Sybil Keesbury at 478-301-2579 or keesbury_sa@mercer.edu. The results will be used to further my understanding of how teaching students to self-regulate while writing may positively affect how they feel about themselves as writers. Your son’s/daughter's participation is voluntary. A decision to participate in the research will not affect his/her relationship with the school or school system, his/her relationship with other teachers, or his/her academic standing. The study will not interfere in your child’s current curriculum.

I. The purpose of my study is to explore the following:
This research study is designed to determine whether or not explicitly teaching students to self-regulate when writing will affect how they feel about themselves as writers. The data from this research will be used to further inform how educators approach writing instruction with students with learning disabilities. The results will be used in my doctoral dissertation in order to complete my Ph.D. in Curriculum and Instruction.

II. Procedures:
If you allow your child to volunteer for this study, your child will be asked to do the following:

- Participate in one pre-interview (5-10 minutes) to determine which areas of writing are perceived to be difficult for him/her.
- Participate in one more short interview (no more than 10 minutes) that will be conducted at the end of the study to gauge how your child feels about himself/herself as a writer. No recording devices will be used in any interview; only handwritten notes will be taken.
- The information gathered from the pre-interview will be used to create a questionnaire (no more than 20 questions) on which your child will rate his/her writing ability in various areas on a scale from 1-100. The questionnaire will be given to your child before and after the study.

Your child’s participation will take approximately 4-6 weeks.
Your child will be asked to assent to participate in this research. (Assent means that your child will be asked to voluntarily participate in this research.) Your child will tell the teacher they want to participate by answering yes or no after the teacher verbally reads to your child what the research is about and what he/she will be asked to do. Additionally, your child will be asked to sign the Informed Assent Form for Children, which means that he/she volunteers to participate in the procedures outlined above.

**Parent/guardians who allow student to participate must:**
You will be asked to read this consent form and to sign two of these consent forms. One form will be returned to the investigator, and the other consent form will be kept for your record.

**III. Potential benefits to students and/or society**
The results of this study will benefit educators by better informing how to teach writing to students with learning disabilities. Additionally, the writing instruction involved in the study will benefit students by providing them with writing strategies that, when used appropriately, will help them to self-monitor their writing as well as to help them improve their written expression skills.

**IV. Potential Risks/Discomfort**
There are no foreseeable discomforts or distresses associated with this research, and no foreseeable physical, psychological, social or legal risks associated with this study.

**V. Withdrawal of Participation**
Your child's participation is voluntary. Your child will not be penalized or lose any benefits that he/she are otherwise entitled to if you decide that your child will not participate in this research project.

If your child decides to participate in this project, he/she may discontinue participation at any time without penalty or loss of benefits. You have the right to inspect any instrument or materials related to the proposal. Your request will be honored within a reasonable period after the request is received.

**VI. Payment for Participation**
Students will not be paid for their participation. There is no financial obligation for participants.

**VII. Confidentiality**
All documents with identifying information (i.e., interview and observation notes, questionnaires, or any writing samples collected) will be kept in a secured location and pseudonyms will be used in the report in order to protect confidentiality. No video or audio recordings will be collected. All hardcopy documents before electronic copies are made will be stored in a locked cabinet in the investigator’s office, and only my faculty advisor, Dr. Keesbury, and me, Kathryn Kinsler, will have access to these documents. Once
electronic copies are made and password protected, the hardcopies will be shredded. Information will be stored at Mercer University for three years after the completion of the study. Your child’s individual responses will not be shared with parents or others. All data will be coded with random identification numbers. A number will identify the information that I collect from the interviews, observations, and questionnaires from your child. The list connecting participant numbers and names will also be kept in a separate password protected document.

**Questions about the Research**

If you have any questions about the research, please speak with Kathryn Kinsler. If you have questions later, you may contact Dr. Sybil Keesbury at 478-301-2579 or keesbury.sa@mercer.edu.

You have been given the opportunity to ask questions and these have been answered to your satisfaction. If you do agree to allow your child to participate in this research, please complete the information below:

I, ____________________, do want _______________ to participate in this research study.

*(Your Name) (Child’s Name)*

_________________________________  __________
Participant’s Name (Print Child’s Name)  Date

_________________________________  _____________________
Parent/Guardian’s Name  Parent Guardian’s Signature  Date

**Please return to your child’s teacher as soon as possible.**

In order to conduct this research, this project has been reviewed and approved by Mercer University’s Institutional Review Board (IRB). If you believe there is any infringement upon your child’s rights as a research subject, please contact the IRB Chair at (478) 301-4101. The IRBs are the governing bodies that are set in place to ensure responsible and safe conduct of research investigations.
APPENDIX C

INFORMED ASSENT FOR CHILDREN
Dissertation Study  
Informed Assent for Children Age 12-14  

*How Explicit Strategy Instruction Affects the Writing Self-Efficacy of Students with Learning Disabilities*

Investigators at Mercer University are doing a research study where we are trying to learn more about how students feel about themselves as writers. We are interested in finding better ways to teach writing to students who struggle with writing.

The purpose of this study is to discover whether or not teaching specific writing strategies to students will change how they feel about writing.

You are being asked to participate in this study because you may be a student who sometimes has difficulties when asked to write for a specific purpose in your language arts class. While you may or may not produce quality writing in the end, the task of writing may sometimes be a struggle.

The person in charge of this study is Kathryn Kinsler. She works at your school. Ms. Kinsler also attends Mercer University as a student.

The study will take place during your Study Skills class and/or during Instructional Focus.

Ms. Kinsler will plan writing lessons with your teachers and will come to speak with you and observe you during class.

You will be asked to complete a short questionnaire at the start and end of the study. This questionnaire will ask you to rate your writing abilities in various areas on a scale of 1 to 100. Your parents will not know what you say on the questionnaires. We will save some of these questionnaires in a locked cabinet to do our research. Although your name will be on the questionnaires when you first complete them, your name will be deleted and replaced with an assigned number that only Ms. Kinsler will know. Your information will be kept private and your name will not be used.

Only Ms. Kinsler will know your answers.
Your parent(s) have said that it is okay for you to be in this research study. You do not have to be in this study if you do not want. You can change your mind at any time by telling your Mom, Dad, Teacher, or the person conducting this study (Ms. Kinsler).

_____ No, I do not want to be in this study.  _____ Yes, I want to be in this study.

______________________________   ________________________
Signature of Participant            Date

______________________________   ________________________
Signature of Person Obtaining Assent Date
APPENDIX D

PRE-INTERVIEW PROTOCOL
Semi-Structured Interview Protocol

1. When you received your writing topic, was it difficult for you to think of a lot of ideas to use in your writing?

2. How easy or difficult was it for you to put your ideas down on paper?

3. Did you struggle to think of a lot of words to describe your ideas?

4. Did you ever struggle trying to find the right place for your ideas in your writing piece?

5. How difficult was it for you to spell words correctly when you wrote?

6. Were you able to write in complete sentences with no trouble?

7. Was it difficult for you to punctuate your sentences correctly? Do you often forget to use punctuation?

8. Were you able to focus on your writing?

9. Were you able to avoid distractions when you were writing?

10. Did it take you a long time to get started on a writing assignment, or were you able to begin right away?

11. How did you plan out what you were going to write?

12. What do you do when a writing assignment seems too hard?

13. If you become frustrated while writing, what do you do?
APPENDIX E

POST-INTERVIEW PROTOCOL
Semi-Structured Interview Protocol

1. When you received your writing topic, was it difficult for you to think of a lot of ideas to use in your writing?

2. How easy or difficult was it for you to put your ideas down on paper?

3. Did you struggle to think of a lot of words to describe your ideas?

4. Did you ever struggle trying to find the right place for your ideas in your writing piece?

5. Did it take you a long time to get started on a writing assignment, or were you able to begin right away?

6. How did you plan out what you were going to write?

7. What do you do when a writing assignment seems too hard?

8. If you become frustrated while writing, what do you do?
APPENDIX F

WRITING SELF-EFFICACY RATING SCALE
Writing Self-Efficacy Rating Scale

Directions: Listed below are different writing skills. Please rate how sure you are that you can do each of the skills by writing the appropriate number next to each. Remember, there are no right or wrong answers. Your answers will be kept confidential. Thank you for participating!

Rate your degree of confidence by writing a number from 0 to 100 using the scale given below:

<table>
<thead>
<tr>
<th>Confidence (0-100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>Cannot do it at all</td>
</tr>
</tbody>
</table>

1. Think of many ideas when given a writing assignment
   ________

2. Plan before I write
   ________

3. Write my ideas down on paper
   ________

4. Put my ideas in the right order
   ________

5. Think of how to start my sentences
   ________

6. Get started easily when given a writing assignment
   ________

7. Keep writing even when it’s hard
   ________

8. Overcome my frustration while writing
   ________

9. Keep the story going
   ________
EXPLAIN evidence

RESTATE the question

SUMMARIZE

ANSWER the question

CITE textual evidence
APPENDIX H

SAMPLE GRAPHIC ORGANIZERS
W - Write and say more!

According to the text, there is no doubt that this musical (will or will not) be a hit.

**Explanation:**

This means that success will (not) be a surprise. Let's examine the evidence to support this statement.

**External Evidence I:**

* The musical enjoyed critical acclaim.
* The lead role was performed by a well-known actor/actress.

**External Evidence II:**

* The songwriting has received positive reviews.
* The movie trailer was released online and has gained millions of views.

**Your Opinion:**

Do you think this musical will be a hit?

---

**Organize notes in the chart below:**

<table>
<thead>
<tr>
<th>Question</th>
<th>A - Answer the question</th>
<th>B - Restate the question</th>
<th>C - The external evidence</th>
<th>D - Summarize the evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why does your opinion prove your thesis?</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Explain the external evidence for this statement</td>
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<td></td>
</tr>
<tr>
<td>Let's examine the external evidence</td>
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<tr>
<td>The music is catchy and memorable.</td>
<td></td>
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<tr>
<td>The lyrics are meaningful and thought-provoking.</td>
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</tr>
<tr>
<td>There is a strong demand for musicals.</td>
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</tr>
</tbody>
</table>

---

**Date**

**Goal**

**Name**
Why is Baseball becoming a more difficult sport to play? Use evidence from the text to support your answer.
APPENDIX I

WRITE AND SAY MORE HANOUT
Write and Say MORE!

Directions: Please count the number of words in your writing pieces. Fill in the date of your writing piece. Graph the number of words you wrote for each piece.

<table>
<thead>
<tr>
<th>Date</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
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</tbody>
</table>
APPENDIX J

CITING TEXTUAL EVIDENCE
How do you know?

**CITING TEXTUAL EVIDENCE**

Textual evidence is used to support an argument/position when writing. The evidence is gathered from a text. It may include direct quotes from the text and inferences drawn from the text.

*Slow and Steady Wins the RACES:*

- R - Restate the question
- A - Answer all the parts of the question
- C - Cite textual evidence (at least 2 pieces)
- E - Explain your answer
- S - Summarize what your paragraph is about

**Textual Evidence Sentence Starters/Evidence Based Terms**

*Text Evidence 1*

- On page ____ the author wrote...
- An example is...
- In the text, it said...
- For instance...
- According to the text (passage)...
- The illustration shows...
- The text explicitly states that...
- I can infer from...

*Text Evidence 2*

- The text also states...
- According to the text (passage)...
- A second example from the text...
- The author also states...

**Summary Starters**

- This shows...
- This demonstrates...
- I believe...
- These details prove...