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## Writing Underachievement: How to Support Students with Learning Disabilities and/or Attention Deficit Hyperactive Disorder through Self-Regulation Strategy Development

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This thesis, written under the direction of the candidate's thesis advisor and approved by the program chair, has been presented to and accepted by the Department of Education in partial fulfillment of the requirements for the degree of Master of Science in Education.

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**Writing Underachievement: How to Support Students with Learning Disabilities and/or  
Attention Deficit Hyperactive Disorder through Self-Regulation Strategy Development**

By

Katie Ludin

This thesis, written under the direction of the Jennifer Lucko, Ph. D. and approved by the program chair, has been presented to and accepted by the Department of Education in partial fulfillment of the requirements for the degree of Master of Science in Education

Dominican University of California

San Rafael, CA

May 2019



## **Abstract**

Writing underachievement is a national dilemma, especially among students with LDs and/or ADHD. Difficulties with written expression create negative social and emotional consequences for students since writing is critical to academic and professional success. Despite this, few studies have explored the impact of writing underachievement. The purpose of this research was to better understand the experiences of struggling writers within the elementary school setting, especially students who receive special education services. Part of this research included an intervention group. Self-Regulation Strategy Development was taught to a group of students with LDs and/or ADHD. This research was conducted in an effort to provide special and general education teachers with more information about supporting struggling writers to avoid negative social and emotional outcomes which may lead to decreased motivation, self-efficacy and possibly school failure. Combining a qualitative and quantitative approach, data was collected through teacher and parent surveys, interviews and a focus group for students and parents. Writing samples and notes were analyzed during a four-week intensive intervention in which five students with LDs and/or ADHD were taught how to write informational texts using the Self-Regulation Strategy Development model. The results of the intervention and the data collection led to four main findings. A substantial number of students will struggle to write, this struggle is attributed to many factors, students who struggle with writing experience social and emotional consequences, foundational skills are critical to writing competency and Self-Regulation Strategy Development improves student writing, motivation and self-efficacy.

## Acknowledgements

This thesis is dedicated first to my husband who taught me about learning disabilities back in our college days. He was worried that his history with special education would make me uninterested in him, but in fact, the way his brain worked was exactly what made him interesting. Years later we had two children and one of those children experienced both my husband's learning disability and my family's ADHD. It was Drake's struggle with handwriting, reading and written expression, and his early qualification for special education services in first grade which led to my interest in supporting students with LDs and/or ADHD. Today Drake is a strong student who overcame those early challenges and discovered his strengths.

I would also like to acknowledge my students who made me fall in love with teaching. The students who participated in the writing intervention taught me how to teach and led me to want to discover new approaches to support them. Their unique needs, kindness and humor made each work day enjoyable, but it is their progress which was most exciting to watch. They have become the bright, self-sufficient learners I knew they could be and I am thrilled to be able to watch this. Thank you so much to their families for their participation and for trusting me with their kids. This group of students is amazing. I was so happy to be a small part of their academic journey and I will never forget them.

## Table of Contents

Abstract .....	iii
Acknowledgements .....	iv
List of Tables .....	viii
Chapter One: Introduction .....	1
Statement of Purpose .....	4
Overview of the Research Design.....	5
Significance of the Study .....	6
Research Findings/Implications.....	7
Chapter Two: Literature Review .....	8
Contemporary Writing Instruction.....	10
Writing Expectations .....	10
Writing Instruction.....	12
Writing Intervention.....	14
Writing Philosophies.....	18
ADHD and Writing.....	21
Working Memory.....	21
Differences in Writing .....	22
Self-Regulation .....	23

LDs and Writing .....	24
Impacts on Writing .....	24
Interventions .....	25
Consequences.....	26
Barriers.....	26
Recommendations.....	27
In Summary.....	28
Chapter 3: Methods.....	30
Description and Rationale for Research Approach.....	30
Research Design.....	32
Participants.....	32
Sampling Procedure .....	33
Methods.....	34
Research Positionality.....	35
Data Analysis .....	36
Validity and Reliability.....	37
Chapter 4: Findings.....	39
Overview.....	40

Contributing Factors to Students Not Meeting Proficiency Standards .....	41
Foundational Skills Matter.....	49
The Frustration of Writing Difficulties.....	53
Self-Regulation Strategy Development Improves Student Writing, Self-Efficacy and Motivation.....	58
Conclusion .....	66
Chapter Five: Implications.....	69
Implications for Practice and Policy .....	75
Limitations of the Study.....	80
Direction for Future Research.....	81
References.....	83
Appendix A Teacher Survey Questions.....	88
Appendix B Parent Survey Questions.....	91
Appendix C Teacher Interview Questions .....	93
Appendix D Parent Focus Group Questions.....	95
Appendix E Student Focus Group Questions .....	97
Appendix F IRB Approval Letter .....	99

**List of Tables**

Table 1 Intervention Schedule .....	61
Table 2 Pre-Assessment Scores .....	63
Table 3 Post-Assessment Scores.....	64
Table 4 Increase in Post-Assessment Acores.....	64

## Chapter One: Introduction

Writing underachievement is something I have experienced both as a concerned parent of a child with ADHD and a LD and as a Resource Specialist responsible for supporting struggling writers at the elementary school level. When I began my work as a Resource Specialist this task was overwhelming since I had not been able to successfully help my own son. While I advocated for him and wanted to support him, I did not have a solution to his writing difficulties and honestly, I did not even fully understand what the problem was. In fact, his qualification into special education in first grade highly influenced my decision to pursue a special education teaching credential. At this time there were few explanations for his poor handwriting and his difficulty expressing his thoughts on paper.

Becoming a teacher taught me that there are many other students like my child. Surprisingly, there were students who fit his exact profile on my caseload. Those students had ADHD and a Learning Disability (LD) and they struggled with poor handwriting and spelling. Like my son, those students had occupational therapy support, but this support was typically offered once a week, and it was helping, but not exactly transforming his writing development. During Resource Class it can be difficult to fit in writing time since most resource students need support with reading. When I taught writing it was primarily with materials from teacher websites since there was no writing curriculum provided in my Resource Room and no available funds to purchase curriculum.

My school site had a strong general education writing curriculum which was adopted the year I began teaching. The school taught Lucy Calkins, *Units of Study* which is a Writer's Workshop approach to writing. I felt this curriculum would greatly benefit struggling writers since it

promoted student choice and there was daily writing time. I soon realized this was not the case. Many students were struggling with writing. I attended Study Success Team meetings and IEP meetings and staff meetings where writing underachievement was discussed. Teachers mentioned graphic organizers and one-on-one support, but still, students struggled. Most struggling students either wrote nothing or wrote everything they could think of with a complete lack of structure or use of mechanics. I researched writing LDs only to discover that there was little information about this topic. I had not learned about struggling writers in my teacher preparation program and most of my professional development focused on struggling readers.

When I began to review research articles I discovered that writing underachievement is a bigger problem than I originally thought. It turns out this problem extends far beyond special education. According to information collected from the most recent National Assessment of Educational Progress (National Center for Education Statistics, 2012), only 30% of 8<sup>th</sup> and 12<sup>th</sup> grade students are writing at a proficient level (Graham, Harris & Santangelo, 2015). These statistics are even more dismal for students with LDs. Only 1% of students with disabilities write at a proficient level and most of those students are identified with a LD. At my school site teachers self-reported that about 30% of their students struggled with writing. According to data from the California Assessment of Student Progress and Performance in 2017 (CAASPP) 46% of the students with disabilities in third through fifth grade wrote below standards at my school site. Their non disabled peers faired better but there were still students not meeting writing standards. In fact, according to CAASPP, 8% of students without disabilities in third grade through fifth grade did not meet writing standards. When both statistics are averaged together, 27% of third through fifth grade students wrote below standards in 2017 at my site.

The CAASPP breaks the ability to write well into three categories: Above Standard, Near Standard and Below Standard. If Near Standard is close, but not meeting standards, then 68% of students in third through fifth grade did not meet writing standards. This is a large number of students and there is a clear gap in the writing achievement of students with disabilities and those without. This school does not have a self-contained special education classroom, so all of the students with disabilities are primarily students with ADHD, LDs, hearing impairments or students with autism who have average IQs. All of these students spend most of their school day in general education classrooms.

The literature review provided a great deal of background information for this study and it guided how the study was conducted. The literature review led to the discovery of the Self-Regulation Strategy Development method. Self-Regulation Strategy Development was originally developed by writing researchers Graham and Harris (1989). This approach was specifically designed for students with LDs. It is the most researched writing intervention and it is the only writing intervention which is evidence-based. Despite this extensive research, many educators have never heard of it. The literature review revealed that Writer's Workshop is not evidence-based. Additionally, several studies have claimed that it is not effective for struggling writers (Troia, Lin, Monroe & Cohen, 2009; Harris & Graham, 2013). This is a problem because many schools teach some form of Writer's Workshop according to teacher survey results. At the same time, many students are not meeting writing proficiency standards nationally. The statistics for students with disabilities are even worse. This is both a general and special education problem. In special education a great deal of attention is focused on teaching students how to read. In California many parent advocate groups requested that students identified with a reading disability be taught using evidence-based, multisensory, direct and explicit curriculum. There is

little talk about appropriate curriculum for writing learning disabilities. This is a problem because writing proficiency is critical to both academic and professional success. Students who cannot write proficiently often suffer academic consequences since many assessments require strong writing skills. Data suggests that students with ADHD and LDs will have difficulty with writing due to cognitive differences such as a weaker working memory (Rodriguez, at. Al., 2015). Despite this knowledge, most educators provide little in the way of adaptations. As a result, many students do not meet writing standards, especially students with ADHD and LDs.

Writing underachievement is an appropriate area of education to study because it is a significant problem for both general and special education. Educators understand that students learn differently and that one approach does not work for all learners. Despite this, writing instructional approaches are overlooked. It is necessary to provide students with instruction which is appropriate to their needs so students can make significant gains. This instruction may look different for different students but each student deserves to learn in a way which suits their needs. Using multiple teaching methods is a way to create educational equity for all learners.

### **Statement of Purpose**

This study began with three central purposes. The first purpose was to explore how students with ADHD and LDs perform within the Writer's Workshop approach to writing. The next purpose was to determine any factors which contribute to writing underachievement at this site. The final purpose was to examine if students with ADHD and LDs could improve their writing quality, self-efficacy and motivation if taught a Self-Regulation Strategy Development intervention. The literature review studies provided background information about this problem, though it was clear from the beginning of the literature review, that a general lack of information about this topic was a problem. Additionally, researchers conducted studies which examined

separate parts of the issue, but there was no research which looked at the problem, factors which contributed to the problem and a solution. This study was conducted in an attempt to contribute to the overall information about struggling writers and also to examine the problem of writing underachievement through a more comprehensive lens which considered multiple factors. This allowed for various contributing factors which impact students with ADHD and LDs and their writing performance to be examined.

### **Overview of the Research Design**

This study was designed using a transformative, pragmatic and humanized approach. The data includes both quantitative and qualitative data. This study took place at an elementary school (TK-5) in a primarily white, affluent, suburban area of Northern California. The participants included the entire teaching staff, five fifth grade students with ADHD and a LD (three boys and two girls), their general education teachers and their parents. The students all had IEPs and they received regular specialized academic instruction in a pull-out resource program. Each student had goals in written expression and had experienced some difficulty with writing. Two of the students had poor handwriting and they previously or currently received occupational therapy services. All of the students had difficulty with spelling. Additionally, the students all lacked organization in their writing and four of the students expressed that they did not like writing.

My relationship to the participants is significant because this was my third year teaching four of the case study students and my second year teaching the remaining case study student. For this reason, I had personal relationships with each student and their family. I was fully committed to their success and this impacted the study in terms of how the intervention was taught, how I interacted with the students during the intervention and how they interacted with me during the

intervention and the focus group. Attempts were made to reduce researcher bias, though it certainly does exist due to my personal relationship with all of the participants.

The data collected during this intervention included both quantitative and qualitative data in the form of survey data, interviews, focus groups, test scores, intervention notes and writing samples. All of this data was important to examine because it all contributes to answering the research questions. Both types of data are important to consider because writing can be measured in both ways. However, just examining one type of data without the other would only offer a partial picture. Using multiple approaches allowed for a more comprehensive understanding of the problem.

### **Significance of the Study**

This study resulted in several key findings. First, many students are struggling to write and Writer's Workshop is essentially a whole language approach which is not effective for a certain percentage of students. Students on the whole lacked structure in their writing. Second, students with ADHD and LDs do not thrive in this curriculum. The achievement gap between strong and weak writers grows when this is the only approach taught. Finally, Self-Regulation Strategy Development works for struggling students with ADHD and LDs. Self-Regulation Strategy Development can be added to Writer's Workshop since it is an instructional approach and not a stand alone curriculum. When taught Self-Regulation Strategy Development, students in the intervention group improved their writing quality, self-efficacy and motivation. This is the most significant finding of the entire study. This finding proved that there is an intervention which supports struggling writers and it can be easily added to the existing writing program. In other words, if this new method is added, more students will meet writing proficiency standards and therefore suffer fewer negative outcomes. If the district prioritizes preparing students for

college and career, developing their writing skills is a critical aspect of this. For this reason, the district should prioritize writing instruction for all learners. It is not equitable to teach struggling writers with a model which does not meet their unique needs, but this is what is done in many school districts and even in special education classrooms or resource classrooms even though educators know students learn differently.

### **Research Findings/Implications**

This study contributes to more equitable education for students with ADHD and LDs because it identifies that the current writing curriculum is not meeting their needs and provides an evidence-based solution to the problem. There should be more awareness about different learning styles within writing instruction, especially in special education. The inclusion of evidence-based interventions in both special and general education is a key solution which addresses this problem. This study does imply that a reassessment of Writer's Workshop and its effectiveness is necessary moving forward.

## Chapter Two: Literature Review

In order to better understand the relationship between existing pedagogical approaches to writing instruction and the ongoing writing struggles experienced by many students, especially those with LDs and/or ADHD, this literature review presents areas of research which have typically existed apart from one another. This review was conducted in an effort to provide information as to why students with LDs and/or ADHD have such difficulty with writing. This review revealed that writing underachievement is not a simple issue and there is not a simple answer or solution.

Currently, only 5% of students identified with a disability achieve national writing proficiency according to the the most recent data from the National Assessment of Educational Progress (U.S. Department of Education, 2011). Of these students, 60% do not meet basic writing standards. It is worth noting that a large percentage of these students are students identified with a LD. While writing underachievement is indeed a problem, much of the literature examining this issue contains disclaimers which state that more research should be conducted or the authors specifically cite a lack of research. This is a problem, especially since students with ADHD and/or a LD are members of a vulnerable population, who are already susceptible to academic difficulties due to their disabilities. Without fully understanding the phenomena of writing underachievement and how it impacts students with disabilities, it is difficult to find solutions to address the problem.

When examining research databases and studies, several themes emerged. This literature review will focus on three main themes which impact struggling writers since this is the population most at risk for academic and professional consequences. The first central theme is writing instruction. Present writing expectations are explored through the adoption of the

Common Core State Standards (CCSS) by examining how those standards increase writing expectations for all students. Next, writing instructional approaches are explained through data collected from teachers and researchers. Then, writing philosophies are discussed to provide a context for how students have learned how to write in the past and present. The second central theme is the writing difficulties of students with ADHD. This is a subgroup of students who have historically struggled with writing (Rodriguez, et. al., 2015) but the reasons for this struggle are not well known. The third central theme is the writing difficulties of students with LDs. Students with LDs often experience writing underachievement in terms of their writing quality, organization, vocabulary use, sentence fluency, use of conventions, grammar, handwriting, knowledge of genre conventions and motivation (Graham, Collins & Willis, 2017). This struggle often leads to disillusionment with writing and possibly academic work in general since so much academic work requires writing. On the positive side, writing interventions are proven to be effective for students with LDs, but educators are not necessarily providing these interventions for struggling students.

This literature review identified many gaps in the present literature as well as a lack of research generally about writing difficulties. The specific gaps include: evaluating the effects of teaching Writer's Workshop to struggling students, the social and emotional impacts of writing underachievement on students and identifying how to support struggling writers within Writer's Workshop. These gaps are significant because students with ADHD and/or LDs, as well as some of their typically achieving peers, are not meeting writing standards nationally. In order to support students with ADHD and/or LDs, as well as their peers, it is critical that educators fully understand writing underachievement. This understanding will naturally lead to a discovery of how schools can support all students and provide more equitable educational opportunities.

## **Contemporary Writing Instruction**

In order to explore why students with LDs and/or ADHD struggle with writing, it is important to have background knowledge about what writing instruction looks like in classrooms today. This instruction is impacted by state standards, teacher instruction and varying approaches to writing instruction. Each area greatly influences how each individual student will develop their writing ability. The following section will provide an overview of writing instruction, expectations and philosophies. According to information collected from the most recent National Assessment of Educational Progress (National Center for Education Statistics, 2012), only 30% of 8<sup>th</sup> and 12<sup>th</sup> grade students are writing at a proficient level (Graham, Harris & Santangelo, 2015). These statistics are even more dismal for students with LDs. Only 1% of students with disabilities write at a proficient level and most of those students with a disability are students with an identified LD. The National Center for Educational Statistics did not provide information about students with ADHD though it would be expected that their writing proficiency level would be impacted.

## **Writing Expectations**

The CCSS require that teachers increase their attention on writing and its instruction simply due to the demanding nature of the standards. This increased attention to writing is happening nationwide since the CCSS have been adopted by 46 states. In the CCSS, students are required to write to persuade, inform and narrate, as well as use writing to build understanding, use technology to write and master foundational skills (Graham, Harris & Santangelo, 2015). These are complex and demanding tasks for most students, but especially arduous for students with LDs and/or ADHD since these students are typically less efficient learners who require more direct and explicit instruction (Harris & Graham, 2013).

The CCSS were developed in response to the increased writing demands of everyday life. Students are growing up in a world where teachers assess students through written assignments and assessments. At home, many students will email, text, blog or write comments on social media platforms. Beyond the academic writing expectations, students will encounter increased writing demands professionally since about 90% of white collar workers and 80% of blue collar workers are expected to write as a part of their job (National Commission on Writing in America's Schools and Colleges, 2004, 2005, 2006). Writing instruction has changed in many schools since the CCSS were adopted.

Graham, Harris and Santangelo conducted a meta-analysis and meta-synthesis about research based writing practices and the CCSS in 2015. While students are expected to greatly increase their writing production in order to achieve the CCSS, there are no specific instructions about how to teach writing. This is challenging since writing is a complex and difficult skill which must be worked on beginning in early elementary school. Writing is both social (since you write for an intended audience) as well as cognitive (since you must plan what you want to write). Therefore, many skills interact concurrently when composing a piece of writing. Students must also physically write, use their writing skills and knowledge about the writing genre, self-regulate themselves and consider their own motivation throughout the process.

Perhaps because of all the moving parts, the CCSS are vague about how students are expected to meet standards. Graham, Harris and Santangelo provided many suggestions based upon their research. They suggested creating a writing environment which is positive and supportive, establishing writing routines, implementing a Writer's Workshop approach to writing, creating routines to ensure students write frequently, designing instructional routines where students compose together, establishing goals for student writing, using twenty-first-

century writing tools, providing feedback, ensuring students acquire needed writing skills, knowledge and strategies, teaching foundational skills (transcription, sentence-construction), increasing student knowledge about writing, teaching students strategies for planning, drafting, revising and editing and using writing as a tool to support student learning (Graham, Harris & Santangelo, 2015). The suggestions above are intended for all students, and are not specifically designed for struggling writers or students with ADHD or LD.

Graham, Harris and Santangelo identified a lack of research about students with LDs in general, although they did make a few recommendations explicitly for students with LDs. These recommendations apply to all students with LDs, not just those with writing learning disabilities. The suggestions include: strategy instruction, goal setting, dictation, Writer's Workshop approach and word processing. Of those suggestions, the only suggestion effective for only students with LDs is dictation (Graham, Harris & Santangelo, 2015). It is interesting that dictation is the intervention which specifically applies to students with LDs since it removes transcription from writing. This would imply that students are able to produce better quality writing when they are not focused on handwriting, conventions or spelling.

### **Writing Instruction**

In an attempt to better understand writing instruction, researchers surveyed teachers and reviewed literature about classroom writing instruction. Cutler and Graham surveyed a random sample of primary grade teachers about their writing instruction in 2008. The survey included responses from 294 primary grade teachers who came from diverse areas across the country. Most of the responding teachers were white and had taught for an average of 17 years. Cutler and Graham's primary finding was that most teachers teach writing using both a Writer's Workshop approach and skills instruction, such as handwriting, sentence-combining and spelling. Within

this there was variation about how teachers implemented each approach, but most teachers cited using both.

Even though Cutler and Graham administered and analyzed the survey, they stressed that generally there is surprisingly little information about writing instruction in elementary school. This lack of data makes it difficult to determine the effectiveness of any approach. Other survey findings included data about teacher preparation to teach writing and the use of writing curriculum. Most teachers reported not using a specific curriculum to teach any aspect of writing, meaning they developed their own curriculum based on their knowledge and resources. Even though writing is a critical component of elementary school educational instruction, 28% of teachers reported that their preparation to teach writing was poor or inadequate (Cutler & Graham, 2008) meaning nearly a third of teachers did not feel prepared to teach writing. This lack of preparation could contribute to the varying methods used to teach writing across the country and the low national writing proficiency rates.

After reviewing the survey responses, Cutler and Graham made seven recommendations intended to reform elementary school writing instruction. Their recommendations included: increased time spent writing, increased time writing expository text, balance between writing and other academic skills, learning strategies and skills, focusing on motivation, connecting writing between home and school, using computers and improving professional development in teacher education programs (Cutler & Graham, 2008). The survey did not specifically address students with LDs, so the recommendations above are designed for typically developing students. Cutler and Graham stated that more information is needed to assess the instruction and accommodations used for students with disabilities.

## **Writing Intervention**

Graham, McKeown, Kiuahara and Harris conducted a meta-analysis of writing intervention data for students in elementary school in 2012. They reviewed 13 writing interventions. Every intervention, except for one, improved student writing. Grammar instruction was the only writing intervention which did not have a statistically significant impact upon student writing performance. This review resulted in 12 recommendations. The first recommendation was using explicit instruction. This involves explicitly teaching students strategies for planning, writing and revising their writing. Another suggestion was to scaffold student writing. Scaffolding includes setting goals, allowing students to write together, prewriting and using computers to type text.

Graham and Harris wrote an article about writing research conducted from 1999 to 2003 by the Center on Accelerating Student Learning in 2005. This center's main purpose is to identify effective instructional practices for students with special needs and those who struggle with academics. The research center includes work from Vanderbilt University, Columbia University and the University of Maryland. While there is data about how many students in the United States do not write at a proficient level, there is no data about the number of students with a writing learning disability (Graham & Harris, 2005). While this exact data is unknown, it is known that students with LDs and/or ADHD experience difficulty with writing.

Many researchers understand that current writing instruction does not produce competent writers, but there is little information about how writing is actually being taught in classrooms (National Commission on Writing, 2003). To explore this, Graham and Harris reviewed three elementary teacher surveys in 2005. They discovered that teachers teach a combination of the Writer's Workshop approach and foundational skill instruction such as handwriting and spelling.

This is a similar finding to that Cutler and Graham. Similarly, within this combination of approaches, there is variety in how much time is spent writing or how each method is taught.

The survey inquired about how teachers support struggling students. The question was designed to provide understanding about how students are given accommodations or adaptations within their general education classrooms. Most teachers reported making little to no adaptations for struggling writers (Graham & Harris, 2005). Of the adaptations reported, 28% specifically related to transcription. This means that most of the writing support is applied to the physical act of writing versus prewriting or planning strategies.

The Center on Accelerating Student Learning collected data from national surveys about handwriting, spelling and strategy instruction. For the handwriting and spelling survey, 169 first to third grade teachers participated. Those teachers reported 18% of their students had difficulty with handwriting and 26% had difficulty with spelling (Graham & Harris, 2005). Most teachers expressed that handwriting and spelling did have an impact on student writing in general. This aligns with the theory that having to think about handwriting or spelling while writing taxes a student's working memory which will negatively impact their writing (Beringer, 1999). Researchers agree that fluency with foundational skills allows writers to focus on higher level planning and composing skills. A student trying to draft an introduction while concurrently thinking about how to spell "introduction" may have difficulty accessing those higher level planning skills.

An experiment was designed to assess if providing students with extra handwriting and spelling instruction would improve their writing. This experiment was done in response to data revealing that spelling and handwriting accounted for 66% of the differences in writing scores for elementary school students (Graham, Beringer, Abbot & Whitaker, 1997). The results of the

experiment showed that more handwriting instruction led to immediate writing gains. The spelling intervention resulted in improvements in writing, but this improvement was not observed after progress monitoring six months later, which indicates that spelling instruction needs to take place over a longer period of time or be taught with more consistency since each intervention was taught for 16 weeks, three days a week for 20 minutes.

Graham and Harris conducted studies to see if strategy instruction was effective for students at the elementary school level. To explore the effects of strategy instruction, they conducted a series of studies with 3<sup>rd</sup> and 4<sup>th</sup> grades struggling writers. The Self-Regulation Strategy Development method was used since it was specifically developed by Graham and Harris for struggling writers. This method is effective for both typically developing and struggling writers. In fact, Self-Regulation Strategy Development resulted in significant writing improvements in over 30 studies (Graham & Harris, 2003; Wong, Harris, Graham & Butler, 2003). Self-Regulation Strategy Development explicitly and systematically teaches writing strategies for each writing genre (narrative, information and opinion) as well as self-regulation strategies (goal setting, self-monitoring and self-talk). Self-Regulation Strategy Development includes six phases of instruction which can be taught as determined by the instructor based upon the needs of the students. The phases include: developing background knowledge and discussing it (students are introduced to the writing genre, strategies and discuss self-talk), modeling it (teacher models how to use strategies, self-talk and goal setting), memorizing it (students memorize the strategies), supporting it (students practice using the writing strategies and self-regulation) and independent performance (students use strategies independently) (Graham & Harris, 2005).

In one of Graham and Harris's studies with elementary school age students, 73 3<sup>rd</sup> grade students from urban schools were taught Self-Regulation Strategy Development planning instruction, or Self-Regulation Strategy Development planning instruction with peer support or the general education writing curriculum (Graham, Harris & Mason, 2004). Of the participating students, 26% of those students received special education services. The results of the study showed that Self-Regulation Strategy Development alone improved both the number of words written and the quality of the writing. When peer support was added, the results increased, which is not surprising since many researchers recommended increasing collaboration as a writing intervention strategy.

An additional Self-Regulation Strategy Development study was conducted with six 2<sup>nd</sup> grade struggling writers (Saddler et. al., 2004). This study improved the writing performance of younger students. In another study conducted by Graham and Harris, 66 2<sup>nd</sup> grade students were assigned to Self-Regulation Strategy Development only, Self-Regulation Strategy Development with peer support or the general education writing instruction. The general education writing instruction was Writer's Workshop. Twenty percent of the students participating in the intervention received special education services. The Self-Regulation Strategy Development only students generalized what they learned during the intervention and brought that knowledge into their general education classrooms. Again, when peer support was added, effect rates increased.

Graham and Harris cited a fourth study which took place at an urban school in 2005. Nine second grade teachers agreed to teach Self-Regulation Strategy Development to their struggling writers during Writer's Workshop three days a week for 20 minutes. This school had taught Writer's Workshop for years. Overall, the teachers expressed positive feelings about the effectiveness of the approach during interviews and observations. Again, students who were

taught Self-Regulation Strategy Development improved their writing. Additionally, the teachers who taught the Self-Regulation Strategy Development during Writer's Workshop felt it was easy to include this approach to support their struggling students (Graham & Harris, 2005). Together, the studies illustrate that Self-Regulation Strategy Development improves the writing performance of struggling writers, especially when peer support is included.

### **Writing Philosophies**

The process approach is also referred to as Writer's Workshop and it is one of the most popular ways to teach writing (Graham & Sandmel, 2011) even though there is little data regarding its effectiveness. This approach began in 1968, when Murray asked the question: "Why don't we teach students how to write like authors write?" (Calkins & Ehrenworth, 2016). This question brought attention to the process writers go through, regardless of the type of writing they are doing. This process includes organizing, drafting, revising and editing (Calkins & Ehrenworth, 2016). Many researchers have contributed to this method since this initial question. Calkins and Ehrenworth, advocates of Writer's Workshop and major contributors to the Teachers College Reading and Writing Project at Teachers College, Columbia University, New York, have written many articles and books about Writer's Workshop. Calkins even developed a Writer's Workshop curriculum entitled *Units of Study*.

The Writer's Workshop theory was originally developed in the 1980s by Atwell, Calkins, Graves and Murray. Their work combined with the cognitive model of writing developed by Hayes and Flower in 1980 (Troia, Lin, Monroe & Cohen, 2009). This cognitive model was the first research which considered the process the brain goes through when drafting a piece of writing. This focus on the process approach led to Writer's Workshop. Writer's Workshop was also developed in response to the the writing approach which preceded it. The previous approach

consisted of teacher-directed lessons about specific skills with very little actual writing (Troia, Lin, Monroe & Cohen, 2009). Contrastingly, Writer's Workshop encouraged time spent writing, choice about what to write and peer and teacher response. Extended time to write is an essential pillar of this method since many students spend little time writing according to researchers. Gilbert and Graham report that students in 4<sup>th</sup> through 6<sup>th</sup> grade spend an average of 25 minutes writing per day (2010).

Calkins and Ehrenworth believe that to write well, students must write about things they care about (2016). This personal interest is intended to increase motivation and production. Writer's Workshop provides some explicit instruction in the form of mini lessons and conferences. While Calkins and Ehrenworth strongly believe Writer's Workshop is effective for all students, they do stress the importance of teacher knowledge and professional development. In fact, thousands of teachers travel to New York each year to receive professional development at The Teacher's College (Calkins & Ehrenworth, 2016). Additionally, Calkins and Ehrenworth write about school-wide adoption of Writer's Workshop and how to systematically support this change.

While Writer's Workshop is clearly influenced by prior writing research, it is not actually evidence-based. For a method to be evidence-based, it needs to be thoroughly studied and it must demonstrate an effect size greater than one-half. Thus, the effectiveness of Writer's Workshop is not proven. Graham and Sandmel conducted a meta-analysis of Writer's Workshop in 2011. They identified the following strengths of Writer's Workshop: writing for real purposes and audiences, including ownership of writing, self-reflection, evaluation, collaboration and creating a comfortable writing environment. Graham and Sandmel predicted that all students would improve their writing when taught Writer's Workshop based upon the strengths of the program.

Their research did confirm that Writer's Workshop improved the writing of typically developing students, but unfortunately it did not improve the writing of struggling students. In fact, the writing growth of struggling students was statistically insignificant. Additionally, Graham and Sandmel predicted motivation would improve among all students since students had choice and freedom. Despite this, Writer's Workshop did not improve motivation among all students (Graham & Sandmel, 2011).

To further explore how Writer's Workshop impacts writers, both good and poor, Troia, Lin, Monroe and Cohen conducted a study at an urban school in Seattle. This investigation took place during the 2002-2003 school year at a school where the majority of students received free or reduced lunch (Troia, Lin, Monroe & Cohen, 2009). Despite this economic disadvantage, many students at the school were actually doing well according to state assessment results. Prior to this investigation, the school had committed to a new literacy program which included Writer's Workshop. Six teachers participated in the study and each teacher selected strong, average and weak writers to follow. The teachers taught 1<sup>st</sup> through 5<sup>th</sup> grade. Before and during the study the teachers had coaching and professional development. Each teacher taught Writer's Workshop 4-5 days per week for 45 minutes each day.

Troia, Lin, Monroe and Cohen found that good writers did demonstrate significant growth in the quality of their writing, while poor writers did not make significant gains (2009). This finding contrasts to the findings of Graham and Sandmel which stated that Writer's Workshop is effective for all students. Contrastingly, Troia, Lin, Monroe and Cohen found that Writer's Workshop works for good writers, but it does not close the achievement gap between good and poor writers. Additionally, poor writers make little progress in their writing development when taught this approach. The authors felt Writer's Workshop might not be

effective for poor writers because they require more support with foundational skills and strategy instruction. This finding illustrates the need for alternative instruction for struggling writers.

### **ADHD and Writing**

ADHD and writing difficulties frequently occur together, but there is a limited information about this correlation. To better understand the connection, Rodriguez et. al., explored ADHD and writing learning disabilities (WLD) in 2015. ADHD is a disorder which impacts at least 5% of the population (Rodriguez, et. al., 2015) while WLDs are twice as common in students with ADHD compared to other academic areas such as reading or math (Mayes & Calhoun, 2006). Little is understood about this link, but some researchers suggest this connection is due to deficits in working memory. Working memory is the system which processes and stores temporary information and allows individuals to hold and manipulate information. Working memory is necessary for high-level cognitive function and emotional regulation (Zhang & Kong, 2018). Writing is a higher level academic skill which taxes working memory since a student must physically write while cognitively planning their writing at the same time. They must also hold onto the idea for the amount of time necessary to physically write the idea down.

### **Working Memory**

The Kellogg Model explains that working memory includes visuospatial, phonological and executive control processing areas (Rodriguez, et. al., 2015). The visuospatial processing area is responsible for visual information storage (handwriting), while the phonological processing area is responsible for auditory storage (spelling). The executive control system includes formulation, implementation and monitoring. Formulation refers to both planning and translation. In other words, planning what to write and the physical act of writing. Students with

ADHD often have difficulty with planning and organizing generally. The implementation area of the executive control system refers directly to the graphomotor skills or the fine motor skills required to write. This area is often impaired in ADHD students (Lange et. al., 2007). Monitoring includes reading and editing which are skills necessary for revision. Kellogg's Model explains the importance of working memory and makes it clear why students with ADHD often have difficulty with writing (Rodriguez, et. al., 2015). If one area of working memory is impaired, the whole system will not function smoothly. Thus, implying that students with ADHD will experience difficulty with writing due to working memory weaknesses.

### **Differences in Writing**

Since students with ADHD are at risk for developing difficulties with writing due to their working memory deficits (Mayes & Calhoun, 2006) it is important to consider writing skills when working with students with ADHD. Rodriguez et. al. conducted an additional study in 2015 about how students with ADHD differ from their peers in their ability to write. Participants were placed into various categories (students with ADHD, students with LDs, students with both ADHD and LDs and a control group) and each group was given an essay writing task and a writing log to track how students produced text and how much time they spend on the writing process. Not surprisingly, they found that students with ADHD and LDs spent less time thinking about writing, writing and revising. Of course, this negatively impacts writing performance. Interestingly, the researchers found that having ADHD alone does not mean you will write fewer words. Although, if you have ADHD and a LD or a LD alone, you likely write fewer words. While quantity was not necessarily impacted by ADHD, the quality of writing was. Students with ADHD wrote poorer quality writing which lacked structure and organization. Those students with both ADHD and LDs demonstrated even less quality and organization in their

writing. Rodriguez et. al. shared that educators sometimes think students with ADHD produce less writing because ADHD often occurs with a LD in writing (2015). This finding suggests that interventions are needed for students with ADHD and/or LDs in order to support those students with organizing their thoughts before writing. This step-by-step instruction is often not present in Writer's Workshop unless the teacher is providing that instruction in addition to the mini lessons and/or working with small groups of struggling students during writing time.

### **Self-Regulation**

Self-regulation connects to ADHD because some researchers actually refer to ADHD as a disorder of self-regulation (Barkley, 1998). Barkley explains that ADHD is not a lack of knowledge, but more a lack of being able to act upon that knowledge. For example, a student may intellectually understand that a paragraph needs a topic sentence, but when it comes time to write that paragraph, he or she may not be able to retrieve that information and use it to produce the topic sentence. Later, when their teacher asks, "Where is your topic sentence?" that student may become frustrated because they intellectually understood they needed a topic sentence but they failed to act upon that knowledge.

Self-regulation refers to many processes which occur somewhat naturally for many individuals. Students with ADHD have difficulty managing, monitoring and assessing their behavior or academic performance. For this reason, they benefit from instruction specifically intended to teach self-regulation skills (Reid, Trout & Schartz, 2005). Also, since these students have difficulty regulating themselves, feedback is very important. In fact, students with ADHD require more feedback more often (Barkley, 1998) than typically developing students. Reid, Trout and Schartz conducted a meta-analysis of self-regulation interventions for students with ADHD in 2005. They found that self-regulation interventions, such as self-monitoring, self-

monitoring plus reinforcement, self-management, and self-reinforcement are effective for students with ADHD since they support that development of self-regulation in general. It is the focus on self-regulation which is most impactful for students with ADHD because they are lacking self-regulation generally.

### **LDs and Writing**

Students with LDs experience writing difficulties across all areas of writing (Graham, Collins & Rigby-Wills, 2017). To investigate the extent of this difficulty, Graham, Collins and Rigby-Wills conducted a meta-analysis of the writing characteristics of students with LDs compared to that of their peers. The goal was to find areas where students with LDs lagged behind their peers to determine next steps and design appropriate interventions. According to the U.S. Department of Education, 60% of students with a disability write below a basic level, with only 5% writing at a proficient level (2011). Most of these students with disabilities are students with LDs. Students with LDs struggle with writing for a variety of reasons such as weaker working memory skills and difficulties with executive functioning and monitoring (Graham, Collins & Rigby-Wills, 2017). These weaknesses are also found among students with ADHD. Essentially, students with LDs have difficulty regulating themselves and holding information in their working memories. Some students with LDs also have difficulty with phonological awareness, which is a processing area which impacts reading and spelling. If students have difficulty reading, they may have difficulty with writing as well. When students with LDs experience difficulty with writing they may lose confidence and be less motivated to write.

### **Impacts on Writing**

In 2017, Graham, Collins and Rigby-Wills reviewed 53 studies conducted over 40 years from 1973 to 2013. None of those studies met their quality control guidelines, which illustrates

the need for better quality studies about writing interventions. First, they looked at writing quality and discovered that the writing of students with LDs was of significantly lower quality than typically developing students. Next, they looked at organization. Students with LDs had more difficulty organizing their writing. Writing output was reviewed and it was discovered that students with LDs produce less writing. Additionally, students with LDs write poorer, less fluent sentences and demonstrate more difficulty with using writing conventions. Students with LDs also use fewer genre elements and vocabulary. Finally, students with LDs have a decreased motivation to write. This could be due to their overall difficulty with the task itself. Overall, there are distinct differences between the writing of students with LDs and their typically developing peers (Graham, Collins & Rigby-Wills, 2017). On each and every writing assessment, students with LDs scored lower than their peers, which confirms the idea that students with LDs struggle with writing.

### **Interventions**

Researchers found that interventions improve the writing of students with LDs (Gillespie & Graham, 2014). Gillespie and Graham conducted a meta-analysis of the impact of writing interventions on the quality of LD student writing. Overall, they discovered that writing interventions do in fact improve LD student writing. Every intervention had a positive effect, but there were four statistically significant methods. Those methods included strategy instruction, dictation, goal setting and process writing. Strategy instruction includes modeling how to use specific strategies such as planning and revising. Dictation includes writing down what a student orally dictates. Goal setting is having a student create a goal based upon their current progress. Process writing is Writer's Workshop. Gillespie and Graham explained that most students with LDs approach writing as though it only involves content generation (2014). Those students

search their brain for information related to their writing topic and then they compose a sentence and then compose the next sentence based upon the sentence before it. Therefore, there is little planning and organization. The LD student's approach to revising often includes only proofreading or editing instead of revising. Additionally, students with LDs have transcription difficulties because they often use their brain power thinking about how to form letters or spell words. This can turn writing into an overwhelming experience for students struggling with foundational skills.

### **Consequences**

Writing is a necessary skill for demonstrating knowledge, but for students with LDs, it is an area where they will probably struggle and their attitude about writing may diminish as a result (Harris & Graham, 2013). Challenges with writing can lead to academic and professional failure. Harris and Graham describe writing as a problem solving skill which requires planning, translating and reviewing (2013). Many students with LDs engage in knowledge-telling (simply telling everything a student knows about a subject) instead of knowledge-transformation (having a deeper understanding of the writing process) (Scardamalia & Bereiter, 1987). This approach impacts writing performance overall and it means that students will not meet writing proficiency standards. Once students experience failure or frustration with writing they may lose self-efficacy and motivation.

### **Barriers**

Harris and Graham identified some barriers to writing development for students with LDs. Two of the main barriers were lack of teacher preparation to teach writing and the Writer's Workshop approach to writing instruction (2013). Harris and Graham explained that Writer's Workshop often does not include explicit instruction. Conversely, advocates of Writer's

Workshop believe that students immersed in a classroom with language, books and meaningful assignments, will learn what they need to learn when they are ready. This lack of explicit instruction is identified as a barrier since some learners require explicit instruction. Harris and Graham state, “Research indicates that typical Writer’s Workshop approaches do not offer the extensive, explicit, and supported instruction students need to master important writing strategies and abilities” (2013, pg. 70). Of course, not every student will require direct and explicit instruction. But students with LDs often do require extensive, structured and explicit instruction. Graham and Harris specifically advocate for evidence-based writing practices to support students with LDs.

### **Recommendations**

Graham and Harris shared their research-based recommendations for students with LDs in an article about how students with LDs learn how to write in 2013. Their research-based recommendations included: setting clear goals, explicitly teaching handwriting and spelling, teaching strategies for planning and revising, teaching how to use mechanics, construct sentences, construct paragraphs and edit. Harris and Graham developed a method entitled the Self-Regulation Strategy Development, which meets the criteria of an evidence-based practice by independent researchers (Baker et. al., 2009), to support struggling writers. Since its beginnings, multiple meta-analyses have determined that Self-Regulation Strategy Development instruction shows the greatest improvements in student writing and it is the most thoroughly researched writing intervention (Graham & Perin, 2007). There are many factors contributing to the high effect rates of this intervention. Those factors include explicit instruction in writing genres, paragraph construction, self-regulation and motivation. Across multiple areas of the literature

review, Self-Regulation Strategy Development is referred to as an effective, evidence-based writing method designed for students with LDs.

### **In Summary**

Writing underachievement is a complex problem without an easy explanation or fix, and many factors contribute to this problem. This literature review narrowed down a few specific areas of research which helped to shed light on this issue. First, the present writing environment in our nation has led to a lack of writing proficiency among our students overall. Struggling writers and students with ADHD and/or LDs are performing worse than their typically achieving peers on writing assessments. This performance discrepancy points to inequities within educational instruction. Students with disabilities can learn how to write, as is shown by multiple research articles, but they may require a more specialized approach. Also, students with ADHD and/or LDs will likely struggle with writing. Those students genuinely have a more difficult time writing because of how their brains function. This difference does not mean that educators should give up on teaching them. Educators and researchers know that students with ADHD and/or LDs require more explicit and sequential instruction. When this instruction is provided, those students can make gains.

The overall gap in the literature is clearly the amount of research available about writing LDs, the lack of quality studies, as well as the disjointed areas of study. Each area of study impacts the other, but the research has not been pulled together to examine the entire problem. Each area of research ultimately plays a role in how a vulnerable student population, such as students with ADHD and LDs, are learning. Based upon these gaps, this study was designed with three specific purposes. The first purpose was to explore how students with ADHD and LDs perform within the Writer's Workshop approach to writing. The next purpose was to determine

any factors which contribute to writing underachievement at this site. The final purpose was to examine if students with ADHD and LDs could improve their writing quality, self-efficacy and motivation if taught the Self-Regulation Strategy Development model. Specifically, this study asked the following questions: Does Writer's Workshop meet the needs of all students? Will teaching an evidence-based writing intervention to students with ADHD and LDs increase their writing quality, self-efficacy and motivation?

Writing is a complex and challenging skill. It is perhaps the most difficult thing we ask kids to do. Despite this, it is important for educators to explore why the national writing proficiency rates are so low and come up with solutions to improve scores. It is not acceptable to say writing is difficult and move on. This approach results in inequitable educational outcomes for students with ADHD and LDs and their typically developing peers. Students with ADHD and LDs are not consistently receiving education which meets their needs, even though there is evidence suggesting they can learn when taught using specific approaches. This study was designed to increase the educational instruction and outcomes for students with ADHD and LDs. Additionally, special educators have a responsibility to their students to provide the best instruction they can. If that instruction is evidence-based, then it will probably be more effective than programs which aren't. Finally, researchers and colleges must share knowledge about evidence-based practices in all academic areas.

## Chapter 3: Methods

### Description and Rationale for Research Approach

The student intervention group consisted of five fifth grade students. During the intervention, student writing quality, self-efficacy and motivation was assessed before, during and after the intervention. Additionally, surveys, interviews and focus groups were used to collect information about how students were performing in Writer's Workshop and to identify factors which contributed to writing underachievement at this site.

This study was conducted using a transformative, pragmatic and humanized approach. The study's approach is transformative due to an interest in representing marginalized groups and a desire to change outcomes for vulnerable students. Special education students are a vulnerable population and the researcher is a special education teacher who works primarily with students with LDs and ADHD. These students often require an alternative or specialized approach to learning. According to a Department of Education report, titled the Condition of Education 2018, the percentage of students receiving special education services is 13% (2018). Of this percentage, about 34% have a LD and 14% are qualified under Other Health Impairment (OHI), which is the category frequently attributed to ADHD. Special education students represent a smaller percentage of the school population than their typically developing peers. As a result, their needs are often considered after the needs of other students. The researcher appreciates the transformative worldview because it requires that research be connected to social oppression and it demands change in the current policies (Bazeley, 2013). This viewpoint is appropriate when considering the needs of special education students since their educational needs are often not considered.

The pragmatic worldview is mixed with the transformative approach since the researcher

used mixed methods when collecting data. Both quantitative and qualitative approaches were necessary to understand a problem as complex as writing underachievement. For example, writing performance can be looked at through the score a student receives on their writing as well as through their feelings about writing. This mixed approach is appropriate because simply identifying how writing underachievement impacts individual students does not provide information about the extent of the problem and its effects. Without all of the data it is difficult to identify appropriate solutions. For this reason, it is important to look at all relevant data since the researcher is concerned with applying solutions in addition to identifying problems (Bazeley, 2013). Simply identifying a problem, while valuable, does not present ways to immediately support struggling students.

During the interviews, observations and interventions the researcher employed a humanized approach. This was done for a number of reasons. First, the heart of the study is about improving student outcomes and providing solutions for parents, teachers and students (Paris & Winn, 2016). In order to do this, it was essential to solicit and examine student, teacher and parent thoughts and feelings about writing. This information was used to understand why some students struggle with writing. Within the humanized approach, the researcher employed a phenomenological style when interviewing and working with students. To that end, the researcher worked to gain an understanding of a situation from the participant's point of view – including teachers, parents and the students themselves (Creswell, 2018). This viewpoint was particularly important during interviews and when working with students. This strategy also allowed for the researcher to become open to outcomes during the study. This was helpful since the researcher is not the one who is living this particular experience.

## **Research Design**

This is a quantitative and qualitative study since both interview and focus group data, survey data and student work was examined. The data was collected from one elementary school in an affluent, primarily white, suburban area of Northern California. The study was originally designed with the school site and case study participants in mind, since writing underachievement is a problem at this site and the researcher had prior knowledge about the students and the site and she had access to the students and the site. The case study students were fifth grade special education students who received resource support. Information was collected about each student involved in the case study to provide background information about their difficulties with writing. This information included school records, psychoeducational assessment reports and Individual Education Plans.

## **Participants**

A convenience sample was used for this study. This approach was chosen due to the researcher's access to the students and school site and her prior knowledge about the students and their difficulties with writing. The teachers and parents were chosen due to their relationship to the case study participants. All teachers at the elementary school were emailed a survey about the writing culture of the school (See Appendix A). Parents of case study students were emailed a survey about the writing culture at the school as well (See Appendix B). Interviews were conducted with two teachers at the school. Those teachers taught the case study students in their general education classrooms. The teachers were asked about the writing culture, Writer's Workshop and their students (See Appendix C). A focus group was held with the parents of the case study students. Parents were asked about their child's difficulties with writing (See Appendix D). In addition, each case study student participated in a student focus group in which

they were asked questions about writing and the intervention (See Appendix E). A convenience sample was most appropriate for this study due to time and schedule restraints.

### **Sampling Procedure**

The researcher used single-stage sampling since she had access to names and could sample directly. She used nonprobability or convenience samples since participants were chosen based upon their convenience and availability. The sample size determination was based upon the number of students on the researcher's caseload who meet the required criteria (ADHD and/or LD) and in the fifth grade special education group. Five students participated in the case study group. This was the maximum number of students the researcher ideally wanted to include to maintain small group instruction. All of the participating students had ADHD and/or a LD. The group consisted of two girls and three boys. Pseudonyms are used for all of the participating students in the findings section. Teacher and parent names were omitted to preserve privacy.

All parents, teachers and students participating in this study were native English speakers. The teachers and parents who participated were primarily female, white and between the ages of 30-60. Approximately 20 teachers at the school site were emailed a survey and asked to participate. Two teachers were interviewed. Five sets of parents were emailed a survey and asked to participate in a focus group. Five parents participated in the parent focus group and five students participated in the student focus group. The students were all white, native English speakers who came from similar middle-class economic backgrounds.

The school site is the least diverse elementary school within the school district. Much of the population is white, native English speakers and middle class. The student teacher ratio is 23.7 to one. There are 499 students attending this school. Seventy-six percent of the school

population is white, 12.2% is Hispanic, 7.6% is two or more races, and 8.4% are free/discounted lunch recipients (Great Schools, 2018). This information was collected from Great Schools.

Specific students and their families were asked to participate in the case study via email. This invitation was based upon each student's writing profile and the researcher's knowledge of their writing ability. The researcher explained that the participating students would participate in a four-week writing intervention which would be administered during school hours as part of their regular resource service time (four days a week for 45 minutes each session). The researcher administered the intervention based upon the evidence-based writing intervention, Self-Regulation Strategy Development. To prepare to deliver this instruction she completed an online Self-Regulation Strategy Development course and read articles and books about the approach.

Parents were asked to participate in a focus group about their child's experience with writing toward the end of the intervention. This focus group took place at the school site, in the researcher's classroom, after school on a Friday afternoon. There was full parent participation in the focus group. The students participated in a focus group during their regularly scheduled resource time and each student participated.

Informed consent forms were signed by all teachers and parents participating in the study. Parents signed Proxy Consent forms for their participating children. All teachers participating in the survey provided their consent by participating in the survey. The survey was anonymous.

## **Methods**

The researcher used a humanistic approach to interviewing. Teachers, parents and the case study students were interviewed or participated in a focus group. The researcher had been employed as a Resource Specialist at this school site since August 2016. The researcher

conducted all surveys, interviews and interventions. She organized and prepared the data for analysis. She read and looked at all the data, coded all of the data, generated a description of themes and represented the description and themes. The researcher coded all of the data using expected themes such as motivation, self-efficacy and accommodations, as well as unusual themes such as lack of teacher interest in learning new approach and the types of students who struggled with Writer's Workshop.

The researcher expected that student writing would improve over the course of the intervention. The researcher evaluated this improvement by scoring the student writing samples, taking notes about their participation during the study and holding a focus group. The researcher used a Self-Regulation Strategy Development rubric to score student writing. The students were familiar with the rubric and had used it in class sessions. Student motivation and self-efficacy were measured through student observations and student focus group responses.

### **Research Positionality**

Researcher positionality is important to consider in this study because the researcher's past experiences naturally shaped the interpretation of the data. It was important to remain open to outcomes when coding and analyzing the data and the researcher made an effort to remain open. The role of the researcher in connection to the participants is a significant aspect of researcher positionality. The researcher naturally wanted for the students to succeed as both a teacher and a researcher. She had worked with many of the participating students for years and had contact with their parents and teachers often. This familiarity is important to consider when reviewing the data since all participants have bias and they will bring this bias to the study. The researcher made attempts to reduce the impact of researcher positionality by remaining as objective and neutral as possible during the interviews and focus groups. Additionally, the

researcher consciously tried to remain open to outcomes during the intervention and the coding of data.

### **Data Analysis**

The data analysis includes information about how the data was collected and reported. This includes how many participants did and did not return the survey to explore response bias. Attempts were made to encourage full participation, but a response bias did exist and it likely changed the results of the study. Every teacher at the school site was emailed the survey and emailed reminders to take the survey. Out of 21 teachers emailed, 16 teachers took the survey.

The study included both independent and dependent variables. The dependent variables were writing quality, self-efficacy and motivation. The dependent variables were influenced by the independent variables and included the type of writing instruction the intervention group was taught. The intervention group was taught the Self-Regulation Strategy Development method. If this approach was changed, the dependent variable would change. The data examined included student writing samples, informal observations during the intervention and focus group questions and answers. The effect size is the five students who participated in the intervention. The data was interpreted using review and coding. All data was interpreted with the understanding that this is one school, within one school district, and therefore not a representation of a larger sample size. The size of the sample is related to this particular location, but it may not be applicable to other areas.

Once the data was collected it was organized into categories. The information was placed into categories such as the factors contributing to writing underachievement. Those factors included Writer's Workshop instruction, teacher preparation to teach writing, accommodations used for struggling writers, teacher interest in learning new strategies, the unique needs of

students with ADHD and LDs and the social and emotional impact of writing difficulties. This information was collected from the survey, interviews and focus group responses. Another area of data which was explored was the intervention data. This information was coded into specific writing topics which included writing quality, self-efficacy and motivation. The researcher observed these themes when concept mapping and she then grouped similar themes together. This process occurred once the data was collected and reflected upon. All interviews and focus group responses were transcribed and coded. All survey data was summarized and coded as well. All of the data collected was completed and reviewed prior to organizing the data into categories. This was done to reduce researcher positionality and to remain open to outcomes.

### **Validity and Reliability**

Validity and reliability are of significant importance to the findings and implications of this study. The researcher considered issues of validity and reliability when designing the study and when exploring all data. This was important because it strengthens the conclusions of the study. Multiple strategies were used to capture valid and reliable data, despite participant bias and uncontrollable variables such as student absences, time and sample limitations. The researcher used triangulating different data, member checking, description, bias, negative or discrepant information, time in the field and peer debriefing.

The researcher used triangulating different data when coding data and concept mapping. This process allowed for the discovery of major themes while reviewing all of the various types of data. The various pieces of data worked together to present a picture of what was happening at this school site. Member checking was used after the data was analyzed to confirm participant responses. Description was used when concept mapping to identify themes. Description is important because it captures significant details which lead to new themes. Bias was considered

and reflected upon throughout the process. Negative or discrepant information was explored to confirm the findings by reviewing alternate possibilities. This is important because discrepant information could also lead to the development of themes which may otherwise remain unexplored. Time in the field refers to the observation notes and reflections which were used to assess student self-efficacy and motivation. Peer debriefing was used to explore themes and solidify ideas.

## Chapter 4: Findings

“I hate writing!” Tommy muttered loudly as he took a seat with his new group. This was the first day of his new writing group in resource. Before that he had been working with the Para Educator on his handwriting, reading comprehension and writing skills, though he was typically able to get away with doing as little writing as possible. His expression revealed his displeasure at being stuck in a group devoted specifically to writing, which he detested. It would be harder to avoid now. Henry wandered in and began walking aimlessly around the room before recognizing the calls of his teacher to join his new group. Meanwhile, Evan began a careful negotiation in which he would be allowed to leave a few minutes early to secure one of the coveted basketballs in exchange for work completion. His deal was accepted. Tara tried to get the teacher’s attention so she could share a story about what she did over the weekend, while Mia tipped her chair back and proclaimed, “I’m starving!” She then asked nobody in particular if she could make herself some oatmeal. Her teacher recognized this tell. It was a clear sign that she had forgotten to take her ADHD medication this morning.

This group of students, all with ADHD and/or a LD were about to begin a trial writing intervention with their Resource Teacher. This new intervention would differ substantially from the general education writing instruction. For the last three years they had been taught Writer’s Workshop and were encouraged to write, write, write. This new approach was highly structured and focused on self-regulation. Some were excited, while others appeared indifferent or slightly irritated. Over the course of four weeks this group learned new writing strategies. They were taught how to regulate their writing progress and how to talk to themselves in a positive way. But in this moment, most were skeptical about the new group their parents had signed them up for. When asked to share their feelings about writing, Tommy stated that he hated everything about

writing, while Mia, continuing to rock backwards in her chair, set the tone of a structured writing approach by stating, “I don’t think I need this at all - I just wing it.”

## **Overview**

Within special education there is a focus on reading and math learning disabilities, but writing learning disabilities are seldom mentioned. Additionally, when discussing students with ADHD, the conversation usually drifts toward behavior instead of how to support academic progress. This study set out to link those two areas of disability and explore how students with LDs and/or ADHD write within Writer’s Workshop instruction. This relationship is important to consider because studies report that students with LDs and/or ADHD experience difficulty with writing. At the same time, there are varying reports about the effectiveness of Writer’s Workshop upon struggling writers. Some studies claim it is an effective method, while others state it furthers the achievement gap between strong and weak writers. This lack of clear information leaves educators and parents without clear information about the effectiveness of Writer’s Workshop.

The findings of this study revealed that students do indeed struggle with writing when taught Writer’s Workshop. The number of struggling students was perhaps more than expected. Teachers self-reported that 32% of their students were struggling writers. Furthermore, CAASPP assessment data revealed similar results. This study searched for factors which contributed to writing underachievement at this site. The findings attributed writing underachievement to Writer’s Workshop, teacher preparation to teach writing, lack of accommodations for struggling writers, teacher interest in learning new strategies to support struggling writers and the unique needs of students with LDs and/or ADHD. These contributing factors lead to intense and emotional frustration among parents, teachers and students because educators did not yet

understand how to best support struggling writers. Furthermore, they did not fully understand why those students were struggling in the first place or the social and emotional consequences of this struggle.

The findings of this study revealed four central themes which served to answer the initial research question: Does Writer's Workshop meet the needs of all students? Will teaching an evidence-based writing intervention to students with ADHD and LDs increase their writing quality, self-efficacy and motivation? First, the results of the teacher surveys and interviews revealed that all students at this elementary school are not meeting writing proficiency standards. Second, many factors contribute to this problem. Third, writing difficulties create frustration among students, teachers and parents. The emotional impact of writing underachievement has not been previously explored and there is a gap in understanding how impactful these social and emotional consequences can be. Finally, a major focus of this study was finding a solution for struggling writers. To explore this, a group of five students participated in a Self-Regulation Strategy Development intervention for four weeks. This method significantly improved the quality of student writing, their motivation and self-efficacy.

### **Contributing Factors to Students Not Meeting Proficiency Standards**

According to data from the California Assessment of Student Progress and Performance (CAASPP) in 2017, 46% of the students with disabilities in third through fifth grade write below standards at this school. Eight percent of students without disabilities in third grade through fifth grade do not meet writing standards. When both statistics are averaged together, 27% of third through fifth grade students write below standards. The CAASPP breaks the ability to write well into three categories: Above Standard, Near Standard and Below Standard. If Near Standard is close, but not meeting standards, then 68% of students in third through fifth grade do not meet

writing standards. This is a large number of students and there is a clear gap between the writing achievement of students with disabilities and those without a disability. This school does not have a self-contained special education classroom, so all of the students with disabilities are primarily students with ADHD, LDs, hearing impairments or students with Autism who have average IQs. All of these students spend most of their school day in a general education classroom.

The Lucy Calkins Units of Study writing curriculum is taught at this study site and has been for the last three years. Most teachers at the school are enthusiastic about the method and several teachers recently joined a group of educators to campaign for the entire district to adopt the curriculum. During the 2018-2019 school year Writer's Workshop was adopted by the entire district. This school was among one of the first to pilot the program. Additionally, approximately five teachers flew to New York for professional development at The Teacher's College during the 2017-2018 school year (this trip was funded by site funds and PTA donations). As part of this study, all teachers at the school site were sent a survey about writing and two teachers were interviewed.

The teacher survey revealed that students were struggling with writing. In fact, teachers reported that 32% of students struggled to write at grade level standards, though there was variation among responses. For example, some teachers noted that most of their students were struggling writers, while others reported very few were struggling writers. When averaged together, teachers reported that 32% of their students struggled with writing. Within this group of students, teachers reported that 43% of their students were proficient writers. This finding aligns with statistics from the literature review regarding writing proficiency, CAASPP assessment data and the researcher's observation of students having difficulty with writing. Since this is the first

year of the district's adoption of the program, many teachers have attended professional development and each classroom received funds to purchase new books for their class libraries. The school energy around Writer's Workshop has been positive, despite the fact that not all students are meeting writing standards.

Despite the positive feelings about Writer's Workshop generally, not every teacher felt it was meeting the needs of all students. When asked about the effectiveness of the program, one teacher reported, "I don't think there is enough structure in the writing program that we use. I think there is a lot of free writing and I don't think it's the whole package." This teacher is considered a leader at the school and she had previously stated positive things about Writer's Workshop. Additionally, she has taught for over twenty years and was among those teachers sent to New York for professional development. She previously taught Step Up to Writing (a more structured writing method) at another school district. "I personally feel that we get better writers out of a Step Up to Writing Program." When asked if she felt the current program was reaching all learners, she sadly stated that it did not. She also expressed concerns over finding the time to teach grammar, spelling and vocabulary outside of the program because it was not included within the program. When asked about which students struggled most with writing, she shared that the mid-performing students were the ones she was most concerned about because her high students could infer structure from their reading and her lower students had special education services and push-in support during writing.

I think the higher ones that are able to to look at reading and find out about sentence structure and learn about punctuation through all our reading...and then the lower kids get so much individualized attention...that I feel like it's that middle group that aren't able to figure things out on their own - that are struggling.

This finding is surprising because the middle group of students is presumably the largest group within a classroom. Her comments also imply that the only group benefitting from Writer's Workshop is the high students who intuitively understand structure. Recently, she has become increasingly concerned about the quality of the student writing in her class. As a result, she began teaching her students how to construct a paragraph and a five paragraph essay using a more structured approach. After school she tutors many middle and high school students and this experience made her feel as though Writer's Workshop did not prepare students for the academic writing required in middle and high school.

Another teacher stated that she actually felt Writer's Workshop was quite structured and reported that her students, aside from her students who received special education services, were doing well with the program. When asked if she liked the Writer's Workshop, she shared:

Actually, I like the Lucy program. I don't like how it's so scripted. And I don't like how it's just plopped on. I don't think teaching is like that, just day, day, day. It's just not possible. It's just not always possible to stay on this day, that day. And of course good teaching, you put your own things in...but I think it has great ideas, great things...and we're all – it does keep everyone together.

This teacher began teaching Writer's Workshop after its first year of implementation at this school site. She received professional development through the district, but did not attend the New York institute during the 2017-2018 school year. When asked if she preferred another program, she shared, "No. I don't think there is one program. Every teacher should pick the best things from different things. That's the problem." When asked if she felt the Writer's Workshop reached all learners, she replied, "No, because it is specialized for that grade level. So when you have someone that's really low...I feel like to do what *they* want you to do – you're leaving them

in the dust. I don't really have time to sit and work with struggling writers." This teacher expressed an obligation to follow the curriculum to the best of her ability, which for her, meant that she could not spend as much time as she may have liked with her struggling writers. She self-reported that 70-75% of the students in her class were able to meet writing standards. When asked to describe the writing of the 25-30% who did not meet standards, she shared that this group of students were less mature and their writing was more juvenile. "Yes, it's very juvenile. It's one paragraph, it's probably 20% of what everyone else is writing." Even though most students were able to make progress and meet standards, 25-30% of the students in her class did not. When asked if it was possible to provide struggling students with one-on-one support, she shared, "Oh not – it is for here and there. Checking in, but I have 25. Cause really my job is to teach grade level content. It's about grade level content and those standards. I can't sit with my struggling writers. I give them the tools and they have to... go for it." This statement echoes a struggle many teachers experience. Struggling writers are in many classrooms and most teachers feel pressure to support these students. It is perhaps the most difficult job teachers have – to meet the needs of everyone in a group with varied needs and abilities. This finding reveals that not all students are meeting writing standards or receiving the support they need.

This study included a writing intervention group of five students with a LD and/or ADHD. Their parents were invited to participate in a focus group near the end of the intervention. Five mothers met with the researcher at the school site on a Friday evening. The parents casually knew each other and the other students who received writing support in the resource classroom, but they had not had the opportunity to openly discuss their child's struggles with a group of parents in a similar situation. Each parents also had typically developing older or younger child who was or had been taught how to write using Writer's Workshop. One parent

even had a child who previously attended the district's self contained GATE classroom. This parent majored in English and studied editing in college. During the focus group she shared a story about an experience her son had.

I had a fifth grader who is in GATE and has no problems. He wrote an essay after having been taught Lucy Calkins for two years and I went to his fifth grade teacher and basically reamed him out and said you need to teach this child how to formulate a sentence because he can't write a sentence! This is word vomit. I have two paragraphs and there is not a period anywhere here. This is just stream of consciousness dribble.

She further shared that she believes writing is structured and students should be taught the structure of writing. She felt the Writer's Workshop approach to writing was appropriate for ten minutes of daily journal writing per day.

I think, much like the whole word reading method, it teaches bad habits and it doesn't teach any kind of structure that's necessary to convey thought. And you can be the smartest person in the world but if you cannot convey your ideas to other people in a meaningful way, you might as well be the dumbest person on earth.

Another parent, whose child had struggled with writing since he began elementary school, primarily because of his difficulty with handwriting, shared, "I am not a fan at all. But this is part of just my brain and my belief about writing is just we should try for structure." She didn't feel students needed choice and open ended writing assignments. She felt this was what poetry was for. Another parent shared that she did not have an opinion about Writer's Workshop because she did not have any knowledge of the program. The results of the parent survey revealed that only one out of three responding parents could correctly identify the school's writing curriculum. This shows that not all parents are aware of how their children are being taught.

Attention was another issue addressed through the teacher survey, the parent focus group and the student focus group. Survey results revealed that 88% of teachers felt that students who struggled with attention also struggled with writing. The two teachers who were interviewed felt that inattention clearly impacted writing, but they also shared that inattention impacts all areas of school. “Kids who struggle with attention, struggle with school more.” While all academic areas are impacted by inattention, when teachers were asked to describe a struggling writer as part of the survey, they often mentioned attention or attention related concerns.

I have a student now with ADHD who writes in a stream of consciousness manner. It is whatever is in his head and it just spills onto his paper. There are no capitals or punctuation and can cover two pages or more. This boy struggles to keep his shoes on, to not shout out, and is very easily distracted. He used to be incredibly rude, but his parents and I have worked with him and now his manner is much more pleasant.

Other comments did not specifically refer to ADHD, but it was clear that many students had difficulty focusing or beginning writing assignments. “A recent struggling writer was also a struggling reader. He had difficulty focusing on academic work throughout the day. He could verbalize what he wanted to write but needed help to remember complete sentences to put on the page. Handwriting was also an issue.” Another teacher shared, “I have one that writes entire paragraphs with one stream of thought. She uses zero punctuation. When I try to read her writing it does not make any sense. When she reads her writing out loud it makes total sense to her.”

This lack of clarity and organization was consistently cited when teachers described struggling writers. It is not too surprising since students who lack internal organization are likely to have difficulty creating structure on a blank page. They may enjoy freedom and choice, but their thoughts are not understandable by others.

During the student focus group, students were asked if they felt attention played a role in their difficulties with writing. Three out of five students required an extra prompt to answer the question because they were not paying attention. One student responded with, “Yeah. I have trouble focusing when there are distractions. I think it is more when I am writing.” Inattention clearly does play a role in writing performance and it is a challenge for teachers. During the parent focus group, parents who medicated their child for their ADHD discussed the differences of working with their child with and without medication. Essentially, they found it impossible to work on homework once their child’s medication had worn off. One parent noted that once she began giving her daughter medication she saw an immediate increase in her grades and school performance. It was clear from the survey, interviews and writing intervention that attention is a concern and it does impact writing performance overall.

Teachers reported their teacher preparation programs did not prepare them to teach writing. In the survey, 81% of teachers did not remember writing being covered in their teacher preparation program. Responses includes: “Hmmm... I think this is one area that was not heavily taught to me.” And, “My prep program spent little time teaching us how to teach writing, except within the context of literacy. Most of the time was spent on the teaching of reading.” And, “We did not have any specific preparation for teaching writing. We took a class on teaching reading and a class on teaching English Learners, which both touched on different writing strategies, but there was not much focus on writing needs in my teacher preparation program.” Overall, most teachers reported that their preparation to teach writing was either nonexistent or limited. During teacher interviews, responses were similar, such as “I don’t remember going to a writing class to be a teacher at all... we are often left to our own devices to figure out the new programs without any specific training at all.” Another reported, “Fine. Just very basic. Just like everything else

though, you don't really learn until you get in there. There was a separate reading class and we didn't have a writing class. So yeah, it wasn't specialized in writing." The majority of teachers reported not feeling prepared to teach writing. When asked to rate their own writing abilities, most teachers reported their writing abilities to be in the average range themselves.

Despite the fact that students are struggling with writing, 25% of teachers reported that they are not interested in learning new strategies to support struggling writers. It is difficult to understand why a teacher would not want to learn new strategies to support students, but this response could be attributed to the fact that teachers are responsible for so much. They might feel like it is a burden to take on more strategies or programs, especially since the new writing curriculum was so recently adopted.

In the survey, teachers were asked about writing accommodations. Teachers cited graphic organizers, one-on-one instruction and pre-writing strategies. The most successful intervention cited by teachers was one-on-one instruction. "One-on-one. I hate to say it, but it's one-on-one." Thirty-eight percent of teachers reported that their classroom interventions were very effective, while 38% reported their interventions were somewhat effective and 6% reported that their interventions were not so effective. These statistics suggest that teachers would benefit from learning new strategies to support their struggling writers. Many struggling writers will only receive support from their general education teachers. If their teacher is not able to support them, they are likely to become discouraged and may experience more academic or social/emotional consequences.

### **Foundational Skills Matter**

Survey results, teacher interviews, the parent focus group and the student focus group confirmed that foundational skills, such as spelling and handwriting, are critical for writing

fluency which leads to writing proficiency. When a student does not have automaticity with foundational skills, they will struggle with writing. In the teacher survey, teachers reported that 16% of their students struggled with handwriting, 43% struggled with spelling and 37% struggled with writing organization. When asked to describe a student who struggled with writing, one teacher reported:

A student who is resistant to writing, has a hard time coming up with ideas to write about and organizing their writing. They jump from one idea to the next. Often don't reread for clarity and just continue to write. This student has a very hard time editing their own work. Handwriting is not clear and has difficulty reading their writing.

In this example, the difficulty with handwriting could be contributing to the overall lack of clarity and organization. If a student is focused on letter formation, their working memory may become flooded and there might be little attention remaining for content production. Another teacher described a struggling writer as, "Unfocused or too focused on small details (editing, spelling, minute facts), poor penmanship, lack of elaboration." When students focus on small details like spelling or handwriting, they can become overwhelmed, and their writing will be negatively impacted. This was observed in the writing intervention and it is why some students were able to demonstrate their understanding so much more when an adult took dictation from them or when they use speech-to-text (a voice typing option in google docs). When barriers to production are removed, some students can share their thoughts much more clearly.

In the student focus group, the students were asked about what halts their writing and which part of writing they found most difficult. Tommy, who had struggled with handwriting as long as he could remember, shared that the physical act of writing is challenging for him. Evan experienced similar difficulties with handwriting. Tommy received occupational therapy services

for years, as did Evan, though both continue to have difficulties forming their letters properly and using appropriate spacing. Mia shared that handwriting can really slow down her writing process, though her reasoning was different. “I know I have really nice handwriting but whenever I am handwriting I feel like this needs to be perfect and this needs to look really good and I take most of my time being very careful, erasing like a whole word if it doesn’t look good.” Most writing tasks in elementary school are pencil and paper tasks. This can be frustrating for students who struggle with handwriting. Tommy and Evan’s parents both talked about handwriting. Tommy’s mom shared, “He’s got really bad handwriting, so I think in third and fourth grade they were thinking it was more of a handwriting issue and resistance.” When a student struggles with handwriting, parents and teachers sometimes feel handwriting ability is a choice because children who struggle to write may be capable of producing legible writing, but it is much more effortful for them to do this. Writing stamina often becomes a concern as well. A lack of handwriting fluency stalls writing growth because students need writing automaticity to produce text quickly. If this process is flawed, their entire writing progress is impaired. Eventually a child could learn to type, and Tommy and Evan both have that accommodation, but realistically, many school tasks are pencil and paper tasks and it is not easily accommodated for. Most students must at least be able to handwrite short answer responses. It is frustrating for those students who struggle with handwriting because they will often write less than they could verbalize. At times, they might receive a lower grade because their foundational writing skills impact their production.

Spelling was a major concern among the students in the focus group. A preoccupation with spelling was even observed during the writing intervention. All of the students in the writing intervention struggled with spelling and it was clear that they were frustrated when they

couldn't immediately spell a word they wanted to use in their writing. In fact, some students would reduce their vocabulary in an effort to find a word they could spell. For example, a student may want to use the word "produce" but would instead choose to use the word "make" since they knew how to spell it. When asked about spelling, the students shared some interesting thoughts about how their spelling ability impacted their writing. Three out of five students self-reported that spelling was a major issue for them. Those students shared stories of stopping their writing process when they couldn't spell a word. Tommy was especially bothered when he couldn't spell a word. He shared that this frustrated him quite a bit and it would halt his progress entirely. In fact, if his handwriting was messy or if he misspelled a word, he would often erase the paragraph until there was a hole in his paper. His mother shared that Tommy is oddly a perfectionist, just without the skills to be successful at it yet. Tara reported great frustration when she could not spell a word. "So, I used to feel – I got like really stressed if I didn't get a word correct but now I've sort of gotten used to it. And I've gotten like a spell checker to help me with that which sometimes takes up a little bit of time. But I understand now that it's necessary just to sort of have it." Tara is prone to anxiety and stress. For her, spelling is a real issue. Her parents even purchased a spell checker for her.

The students in the writing intervention group were not the only students who struggled with spelling. In fact, in the survey, teachers reported that 43% of their students struggled with spelling. Spelling was reported as the most challenging writing skill for students at this elementary school. Invented spelling or asking students to write down as many of the sounds as they can in an unfamiliar word is often used. Some students are able to use this strategy more effectively than others. Some students require more direct and explicit spelling instruction. For these students, spelling is not intuitive. A lack of confidence with spelling greatly impacts

written production because it stops the flow of ideas and thoughts. The whole process can be brought to a stand still over a single word. For poor spellers, this can be truly frustrating.

It is challenging for students to write with fluency and automaticity when they are struggling with foundational skills. This will ultimately impact their writing organization and content because they are focusing on the building blocks of writing instead of building their content, structure or unique ideas. Each student in the writing intervention shared a struggle with handwriting, spelling or both. Some were more comfortable using invented spelling, while others struggled to write down a word when they knew it was not spelled correctly. Along with impacting content and production, a lack of confidence with foundational skills impacts confidence and vocabulary. A student who is struggling to spell a word may just pick an easier word if they know how to spell it.

### **The Frustration of Writing Difficulties**

When a student struggles with writing, this struggle is felt by parents, teachers and the student themselves. Students struggle with writing for a variety of reasons which include LDs and/or ADHD, as well as autism, physical impairments or cognitive disabilities. The frustration shared by parents is intense and emotional. The parents who participated in the focus group were educated, caring people with financial resources. Those parents revealed that they weren't sure what to do for their struggling writer. Teachers reported similar frustrations because they are not able to sit one-on-one with struggling students. Students reported feeling frustrated when they were unclear about how to complete a writing assignment. This frustration could lead to verbal outburst or anxiety.

Within special education, many students who struggle with writing alone do not qualify for services because of the subtests used to assess writing. The writing assessment scoring makes

it difficult for a student to score below the average range unless they have a truly significant difficulty. At this site, the school psychologist was interviewed to inquire about this phenomenon since many students do not meet eligibility for writing difficulties alone. He shared, “Just about anyone can score in the average range on the writing assessment.” This is concerning because not only is writing less of a focus in many classrooms, it is also less of a focus in special education and the assessments used to determine special education eligibility. The Woodcock Johnson IV, a commonly used academic assessment has three writing subtests (spelling, writing samples and writing fluency). These subtests do not directly assess handwriting, punctuation or paragraph writing. In the writing samples subtest, students are asked to write one sentence in response to a visual prompt and they are provided with explicit directions. This assessment does not mirror the openness of the writing curriculum or classroom writing tasks which commonly require short answer responses to texts. Thus, this frustration extends to special educators who are not able to fully assess a student’s writing ability or qualify students who may need support.

During the parent focus group, the frustration and disappointment some of the parents felt was striking. One parent, whose child qualified for writing support much later than the other students in the intervention group, shared her feelings about her son’s writing ability:

I think it is way low. I think it is always a struggle. I think it’s very sad that he’s in fifth grade with his writing ability as it is. And I am kind of shocked because I feel like, I don’t even understand how it could be where it is. And that he can be in fifth grade. Like, I don’t know what happened. My eye was here and then I’m like – what!

This student has difficulty with handwriting, spelling and generating content. He is a student who openly shares his hatred of writing. For his mom, this is sad because he is unwilling to write and

he does not want help. At this point, writing is a completely frustrating experience. Another parent shared her daughter's difficulties with writing as being more emotional.

I feel for Tara, out of all the things, reading, being in class, writing is by far her hardest. And the one thing, if she is going to cry, it is going to be over writing. And I think it's because she is so verbal and she has a lot up here and she wants to be able to write it all and her – trying to figure out how to organize that is so frustrating. It is so frustrating.

This student is highly verbal and she has a high average IQ. Tara is a child who wants to do well, even though it is more difficult for her than for other students. She always puts forth a lot of effort. Tara is also a gifted verbal communicator, which makes this difficulty with written expression all the more frustrating.

Teachers were asked about their difficulties supporting struggling writers. They reported not being able to spend time with students one-on-one. One-on-one support was cited as the most effective intervention by the participating teachers. One teacher reported, "I sit down one-on-one. Just, read this to me. Does it make sense? If I walked up to you and said this, would you know what I am talking about?" While this approach is helpful, it does not provide the student with skills and strategies to take to their next writing assignment. Those students are going to remain dependent on teacher support. Another teacher reported, "About the only thing that has worked this year is 1:1 instruction in pre-writing strategies." Pre-writing strategies can support organization and structure, which can improve writing quality. If teachers are not able to provide support to their struggling writers, those students will likely end up frustrated by the writing process because they will not receive much positive feedback about their writing. This lack of encouraging feedback can further create reluctant writers. When asked about Tommy, his teacher shared:

He's not motivated to write. But, it is hard for him to write with a pencil. But even that, cause it's not even just writing. Everything across the board... he is a reluctant worker.

That's what I call him. I think there is inattention for sure. But I also know when he wants to do something, he does it.

This response was given in a frustrated tone. This teacher clearly believes this student could write better if he wanted to since she has seen him complete tasks he wanted to do in the past. Sometimes it is challenging to know if a student is struggling because they don't want to do something or because they truly do not know how to complete a task. This can be especially true for students with attention issues or difficulty with handwriting because those students can appear as though they are not trying their best or focusing. Additionally, these students can sometimes focus or write well. This is frustrating for everyone. If educators understood writing difficulties in greater detail, this frustration could be reduced.

During the writing intervention the researcher kept notes about the daily activities and how the students were progressing. These notes show the slow progression of one student going from completely hating writing to beginning to ask for help, then using the writing strategies and finally beginning to become proud of his writing. Tommy, a struggling writer with ADHD and handwriting difficulties, had been quite vocal about his hatred of writing. He told his mother that he was unhappy she had signed him up to participate in the intervention. When asked about the most difficult part of writing, he shared, "The writing." When asked about what he said to himself while writing, he stated, "I hate this." This negative self-talk and vision of himself as a writer had clearly impacted his self-efficacy. He responded to this frustration by trying to avoid writing. In fact, he expended massive amounts of energy saying, "No, no, no!" or climbing under a table to avoid writing. When given a writing task he would sometimes draw instead of write

and he required multiple prompts to begin writing or one-on-one teacher support. It is important to note that Tommy was qualified for writing support in fourth grade and he is currently in fifth grade. The rest of the group was qualified in first, second or third grade.

Another student, Evan, who had similar handwriting to Tommy did not express the same dislike of writing as Tommy did. They both experienced similar writing difficulties, but Evan was supported beginning in second grade. His teachers were aware that handwriting was difficult for him and they were careful about his self-esteem since he was sensitive about his handwriting. The message from his teachers was positive and his efforts were praised, while Tommy was asked to try harder. Perhaps because of the different approaches, Evan and Tommy have different feelings about their writing ability. Evan is more comfortable asking for help and he appears to enjoy writing more.

During the focus group all of the students shared that they found writing assignments difficult if they were given a topic they did not know much about or if they were unclear about what they should write.

The worst part about writing for me is when somebody tells you that you have to write and you have no idea what it is. For example, in class, if it's like a test and – pop quiz, you are going to write five paragraphs about this one person and you have no idea and I am like ugh, how am I supposed to do this.

This feeling was echoed by each student in the focus group. Henry, a struggling reader and writer with ADHD, shared, “Sometimes when I don’t understand my topic or I don’t know what my topic is... and that has happened to me a lot.” Evan shared, “The hardest thing for me is when I am given a topic and I don’t know much about it.” This idea of not knowing what to write about extends beyond just topic knowledge. Tara expressed frustration over not always understanding

what type of sentences to write. Even though the general education writing program is supposed to provide students with voice and choice, Tara still felt restricted. She expressed a desire for more freedom in her writing, but stated that she did not feel she was given this freedom in her classroom writing assignments. This revealed that the intention of Writer’s Workshop was not being felt by all participants.

### **Self-Regulation Strategy Development Improves Student Writing, Self-Efficacy and Motivation**

To examine the effects of a more structured writing intervention on the writing quality, self-efficacy and motivation of five students with LDs and/or ADHD, a group of five students participated in a writing intervention during their resource pull-out period for four weeks. The students were taught four days a week for 45 minutes each session. The 16 sessions strictly focused on Self-Regulation Strategy Development instruction. The students followed the schedule below.

Day One	Introduce program, set climate and give pre-assessment. The students were provided with background information about information writing. The teacher explained the skills needed for this type of writing.
Day Two	This phase is called Discuss It. The teacher introduced the writing process (POW, TIDE and Do What). These strategies are introduced to make the writing process easier and the students are encouraged to use positive self-

	<p>talk while using the strategies. POW refers to picking a prompt or pulling it apart, organizing and writing. TIDE refers to topic, important evidence, detailed examination and ending. The students are taught to use this strategy in their writing. Do What is a strategy which is used to make sure the students is answering the prompt. The students learned how to identify exactly how they should answer the prompt.</p>
Day Three	<p>Discuss It. Explain and practice detailed examination by learning about, identifying and writing detailed examination sentences.</p>
Day Four	<p>Discuss It. Explain and practice topic sentence/thesis statement by learning about, identifying and writing topic sentences.</p>
Day Five	<p>Discuss It. Introduce plan and organize by backwards mapping a paragraph using TIDE.</p>
Day Six	<p>Discuss It. Introduce revise and edit by using the strategies CUPS (used for editing) and ARMS (used for revising) and practicing.</p>

Day Seven	Discuss It. Continue revise and edit by practicing the strategies and revising and editing student writing samples.
Day Eight	Discuss It. Introduce self-talk by having students identify the self-talk they use for tasks they are good at. Show video of self-talk. Students fill out an organizer about their own self-talk.
Day Nine	Model It. Think aloud and self-regulation plan. The teacher models the writing process and making a self-regulation plan while the students take notes of the process. The group discusses it after the modeling.
Day Ten	Support It. Reflect and set goals. Students review their writing and write goals.
Day Eleven	Support It. Collaborative practice. The teacher writes a collaborative paragraph with the students.
Day Twelve	Support It. Collaborative practice. The teacher writes a collaborative paragraph with the students.

Day Thirteen	Independent Performance. Post assessment.  The teacher gives a post-assessment to measure growth.
Day Fourteen	Practice. Students compose informational writing and go through their self-regulation plans and the writing process.
Day Fifteen	Practice. Students compose informational writing and go through their self-regulation plans and the writing process.
Day Sixteen	Practice. Students compose informational writing and go through their self-regulation plans and the writing process.

Table 1 Intervention Schedule

At the end of this intervention the students participated in a focus group. All of the students had positive things to say about their writing, belief about their writing ability and their motivation. Their parents participated in a focus group near the end of the intervention and two of those parents had noticed positive changes in their child's writing which they attributed to the intervention. Additionally, students were administered a pre and post assessment to measure their writing growth. The pre and post assessment showed that student writing improved from 39% on the pre-assessment to 72% on the post-assessment. This is an increase of 33% after fourteen sessions of Self-Regulation Strategy Development instruction. This instruction taught students how to compose an informational writing piece, how to draft a paragraph, the elements of a paragraph and how to regulate their writing process. Self-Regulation Strategy Development increased student writing scores, beliefs about their writing abilities and motivation to write.

For the pre-assessment, the students were administered a below grade level informational writing task about bats. They were given a page of text about bats. Their task was to describe what bats can do. Overall, the students scored 39% when assessed using a rubric which evaluated the following areas (topic sentence, fact (3), details to support fact (3) sense of closure, rich vocabulary, linking words, handwriting, punctuation, spelling, and grammar). The table on the below shows how each individual student scored and which elements they missed

<b>Name</b>	<b>Score</b>	<b>Missing</b>
Mia	10	Topic sentence, details to support facts, one reason, linking words
Tara	14	Ending, vocabulary, grammar
Evan	8	Topic sentence, details to support facts, ending, linking words, punctuation
Henry	4	Topic sentence, details to support facts, third fact, ending, vocabulary, linking words, spelling
Tommy	3	Topic sentence, details to support facts, third reason, ending, vocabulary, linking words, handwriting,

		punctuation, spelling, grammar
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Table 2 Pre-Assessment Scores

At the completion of the writing intervention the students were administered a post-assessment which was more difficult than the pre-assessment. The post-assessment was an informational text about Steph Curry. The students were asked to describe the obstacles Steph Curry faced to become a professional basketball player. Two of the obstacles were clearly stated in the text, but the third obstacle required each student to infer a challenge Steph Curry faced from the text. During this post-assessment the students did ask clarifying questions. They also asked if they were on the right track and requested support typing their responses. This did not occur during the pre-assessment. Overall, the students scored 72% on the post assessment. The table below shows how each individual student scored and which elements they missed.

Name	Score	Missing
Mia	19	Vocabulary
Tara	16	Third reason and detail to support it (she did provide one but it did not relate directly to her task otherwise her score would be much higher)
Evan	15	Vocabulary, punctuation

Henry	10	Topic, third fact and detail, ending, linking words, punctuation
Tommy	12	Third fact and detail, ending, vocabulary, linking words

Table 3 Post-Assessment Scores

Overall, the students improved their scores by 33%. Individually they also improved their scores.

The following table shows each student's pre-assessment and post-assessment score and the increase each student made during the intervention.

Name	Pre-Assessment	Post-Assessment	Increase
Mia	50%	95%	45%
Tara	70%	80%	10%
Evan	40%	75%	35%
Henry	20%	50%	30%
Tommy	15%	60%	45%

Table 4 Increase in Post-Assessment Scores

Data from this chart shows that all students improved their writing (with ranges from 10% to 45% with an average of 33%). The student who improved only 10% did actually include the required elements on her post-assessment, but her third fact and detail deviated from the prompt, so points were deducted. When this was pointed out she was disappointed, but she did not make this same error in subsequent writing sessions.

During the focus group students reported increased motivation and self-efficacy. This shift in attitude and belief was observable during the intervention as well. They began to ask for support and they wanted to share their writing. Once the students understood their writing was

scored on the elements they had been taught, they all became highly motivated to earn a high score. They continued to ask for help and they read their writing to peers or to their teacher for feedback as well as starting to ask to practice writing. When asked if the students would like to continue the writing program they all responded with a clear yes. Henry said, “Yes, I would love to. I feel like it will get a lot easier.” The students were asked if they thought they were good writers. Responses varied from a lot to a little. Tommy shared that he sometimes feels like a good writer. This was a huge shift from his prior hatred of writing and his feeling of failure. Tara said, “I feel like a good writer in most ways. There are just sometimes when I don’t feel my grammar is good enough. And I need to get better on that.” Henry shared, “Well, I am a good writer, it’s just sometimes I feel really bad about my writing. Or if my teacher likes it but I don’t like it. And then sometimes when I like it, my teacher doesn’t like it.” Evan responded with, “Sometimes. I am a better writer when I know my topic.” Mia, the most confident writer of the group shared, “I think I am a really good writer because I know a lot of vocabulary words, I know a lot of structure and I know how to put voice into my writing and I feel like a really good writer.” Mostly, the students shared positive views of themselves as writers, even if they were noting areas to improve upon. Instead of stating that they were terrible writers or giving up, they provided thoughtful and honest responses which showed that they had reflected upon their own writing abilities.

When asked about how they felt about the intervention, Tommy, who openly told everyone how much he detested writing, shared, “It is easy. No, it’s okay, I like it.” Tara shared, “I like the method that we have worked on here more. Definitely this program makes a lot more sense to me in the fact that TIDE makes a lot of sense because that way I can actually know when I do things in my writing.” This comment was significant because the purpose of this

writing approach is to provide clarity and structure. Tara preferred to follow a writing structure because then she knew what she needed to do. Evan explained that this approach fit the needs of the entire group. “I think it’s not easy, but it’s not like super challenging. It’s like good because we are all learning, so it is not too easy for any of us. And it is not too hard for any of us.” This statement was perhaps the most significant because it implies that this instruction is able to meet students in their zone of proximate development because it was neither too hard nor too easy. Each student agreed that their writing had improved as a result of the intervention, which was important because feeling like a better writer will often lead to better writing. Positive feedback builds motivation and self-efficacy.

Parents also shared positive feelings about the intervention when asked during the focus group. Henry’s mom was asked about her son’s writing and she shared, “I think recently, because of what we are doing, it’s been really good for him. I can see that he is a little more interested in it...So I kind of feel like he is going to be better with writing than he was with reading.” Henry’s motivation and self-efficacy increased and continues to increase. Improvement in this area is key because when students believe in themselves and their own abilities, amazing changes can occur.

## **Conclusion**

When beginning the literature review for for this study, there were many important areas of research which had not been linked together to explain writing underachievement. Exploring struggling writers led to discovering what causes this struggle, the emotional impacts of this struggle and how to best teach struggling writers. The findings brought all of this together to create a greater understanding of the circumstances creating this problem as well as ways to move forward and support all students. The findings varied and many areas needed to be

examined separately and then brought together to create a complete picture of why students struggle to write, especially those with LDs and/or ADHD. For this reason, the findings contain many separate elements which ultimately fit together to answer the question of why students have difficulty with written expression. The findings revealed that Writer's Workshop does not meet the needs of all students. This method works for those students who intuitively understand how to communicate their thoughts through writing, while students who struggle with foundational skills or who do not learn without direct and explicit instruction or who have attention issues or LDs do not make the expected and necessary progress to their education. Those students will not meet proficiency standards in writing, perhaps ever, and this will impact their educational and professional career.

According to the findings of this study, many students at this school are not meeting writing standards as elementary school students. This gap will likely continue to widen as they progress through school and the writing demands will increase. This lack of proficiency is directly related to Writer's Workshop instruction, teachers not feeling fully prepared to teach writing, few accommodations being given for struggling writers, students lacking fluency with foundational skills, such as handwriting and spelling, and students with LDs and/or ADHD. Writing underachievement creates frustration for students, teachers and parents. Presently, there is not a clear solution to writing struggles which quickly resolves this frustration, but there are effective interventions for struggling writers. This study proved that Self-Regulation Strategy Development improves student writing quality, self-efficacy and motivation among students with LDs and/or ADHD. This is critical knowledge because Writer's Workshop does not meet the needs of each student, but supplemental methods, such as Self-Regulation Strategy

Development, can change student writing, which can ultimately improve academic outcomes for students with learning differences as well as their typically developing peers.

## Chapter Five: Implications

The findings of this study reveal that the Writer's Workshop approach to teaching writing is not meeting the needs of LDs. Additionally, a large number of typically developing students struggle with Writer's Workshop and writing in general. Students must have fluency with handwriting, spelling and be able to organize their thoughts on paper in order to write well. Despite the fact that writing is a difficult skill to master, it is very important students learn how to write well. Most academic assessments require strong writing skills and both blue and white collar jobs require writing. Additionally, students will email, text and send written communication in their personal lives as well.

Educators understand that some students require more direct and explicit instruction in reading and math, but writing instruction has not been widely studied. The Writer's Workshop approach is a whole language approach to writing which is based on the idea that allowing students to be immersed in a writing environment with many opportunities to practice the writing process will lead to proficiency. For some students, this is not the case. Many students perform better when given more direct strategy instruction. This study found that students with LDs and/or ADHD improved their writing quality, self-efficacy and motivation when taught using the evidence-based Self-Regulation Strategy Development method, which teaches strategies for writing and self-regulation instruction. Students improved their writing in all aspects when they were taught strategies to write an informational paragraph of writing. Additionally, they learned how to regulate themselves and their feelings about writing. For some students this was more challenging. Self-regulation is an important skill for students with LDs and/or ADHD to learn because they are typically not effective self-regulators and self-regulation can increase their academic performance.

There were similarities and differences between the literature review and the findings. The similarities included: the importance of foundational skills; the weaker aspects of the Writer's Workshop approach; the writing struggles of kids with LDs and/or ADHD; teachers feeling as though their teacher preparation programs did not prepare them to teach writing; the overall lack of support and information about struggling writers; and the effectiveness of Self-Regulation Strategy Development. Self-Regulation Strategy Development instruction improved the writing, self-efficacy and motivation of students with LDs and/or ADHD. This was perhaps the most exciting similarity between the literature review and the findings because it suggests that this instructional method is effective for students who struggle with writing. For example, Self-Regulation Strategy Development resulted in significant writing improvements in over 30 studies (Graham & Harris, 2003; Wong, Harris, Graham & Butler, 2003). Graham and Harris conducted a series of Self-Regulation Strategy Development studies with the support of The Center on Accelerating Student Learning (2005) in which their studies illustrated that Self-Regulation Strategy Development improves the writing performance of struggling writers, especially when peer support is included. This study further added to support this claim about the effectiveness of Self-Regulation Strategy Development on the writing of students with LDs and/or ADHD because the case study students improved their writing quality by 33% and they also improved their self-efficacy and motivation.

An additional similarity between the literature review and the findings were the factors which contributed to writing difficulties. Cutler and Graham found that 28% of teachers reported that their preparation to teach writing was poor or inadequate (2008) while this study found that 81% of teachers did not remember writing being covered in their teacher preparation program. This was a substantial amount of teachers who did not believe they were prepared to teach

writing. To address this, writing needs to become just as important as reading or math at the teacher preparation level. Making writing instruction important at the teacher preparation level will change this problem because teachers will better understand how to teach students to write.

Difficulty with foundational skills leading to writing underachievement was a finding in both the literature review and the findings. Graham and Harris reported that 18% of students had difficulty with handwriting and 26% had difficulty with spelling (2005). In this study, teachers reported that 16% of students struggled with handwriting and 43% struggled with spelling. The number of students struggling with spelling is substantially higher in this study, which should be noted as an area for improvement at this site, but handwriting difficulties remain fairly consistent. This finding illustrates the significance of foundational skill instruction and implies that more time should be spent developing these skills. At this school site spelling instruction could become more of a priority. Spelling is often a struggle for students with LDs and/or ADHD according to both this study and Beringer (1999) who found that having to think about handwriting or spelling while writing taxes a student's working memory which will negatively impact their writing. The more fluency students have with spelling, the more fluent their writing will become.

Another similarity between the literature review and the finding was the writing difficulties for students with LDs and/or ADHD. Students with ADHD are at risk for developing difficulties with writing (Mayes & Calhoun, 2006) and students with LDs experience writing difficulties across all areas of writing (Graham, Collins & Rigby-Wills, 2017). This struggle was identified in the findings as well. This connection should further alert educators about this problem. Educators should be on the look out for writing difficulties within this population

because evidence suggests that they will experience difficulties. This difficulty often begins in early elementary school when students are learning how to form letters and spell words.

On a more positive note, both this study and the literature tells us that writing interventions work. Researchers found that writing interventions improved the writing of students with LDs (Gillespie & Graham, 2014). This study also showed that Self-Regulation Strategy Development was effective instruction for students with LDs and/or ADHD. This is great news for educators looking to reduce the achievement gap between high and low performing students while providing equitable educational opportunities for all students. This equity is necessary because, as was found in the study and the literature, most teachers report making little to no adaptations for struggling writers (Graham & Harris, 2005). This is not because teachers do not want to help struggling writers, but more because they are not sure how to help their students without providing one-one-one support, which is difficult to provide when teaching an entire class.

A finding which both differed and aligned with the literature review was the ineffectiveness of Writer's Workshop for all students. Some studies from the literature review named process writing, which is essentially Writer's Workshop, as effective for both students with LDs and typically developing students, while other studies claimed it did not help struggling writers make meaningful gains (Troia, Lin, Monroe & Cohen, 2009; Harris & Graham, 2013). It is important to consider the impacts of Writer's Workshop upon all students due to its popularity. Writer's Workshop is one of the most popular ways to teach writing (Graham & Sandmel, 2011) though there is little data regarding its effectiveness. Graham, Harris and Santangelo (2015) recommended Writer's Workshop for students with LDs, though they had identified a lack of research about students with LDs and writing in general. Contrastingly,

Troia, Lin, Monroe and Cohen (2009) found that good writers demonstrated significant growth in the quality of their writing when taught Writer's Workshop, while poor writers did not make significant gains. Additionally, Graham and Sandmel (2011) found that Writer's Workshop did not improve motivation among students. Graham, Harris and Santangelo included Writer's Workshop in a list of effective interventions based upon recommendations from previous research, while Troia, Lin, Monroe and Cohen based their findings on their own study findings. This study found that Writer's Workshop may be effective for most students, but there are a percentage of students who will struggle with writing. Additionally, some teachers who currently teach Writer's Workshop have questions about the effectiveness or appropriateness of this method.

One key difference between the literature review and the finding was the finding about the social and emotional impacts of writing struggles. Data collected from students, parents and teachers highlighted this difficulty again and again. Writing is frustrating and all participants shared feelings of uncertainty about how to solve the problem of overcoming negative emotional reactions and fear of writing difficulties. The intervention group was made up of motivated, bright students who all had experienced general education teachers and involved, educated, resourceful parents. Despite this, many of the students participated in negative self-talk about themselves as writers or they lacked motivation to complete writing assignments. This is a significant problem which has not previously been addressed. The rates of anxiety among students is increasing so it is important to consider how to support students in multiple ways to avoid negative social emotional outcomes or academic failure. Social and emotional well being has been an important topic in this area because the community has experienced a few teenage suicides in recent years. While those suicides are unrelated to this study, it does bring awareness

to social and emotional health and it encourages educators to be mindful of supporting students who may need additional support. One way to support students is to prevent anxiety and stress by providing them with appropriate instruction before they develop negative feelings about an area of weakness.

While previous studies have highlighted the importance of foundational skills from the teacher's point of view, the intervention students actually reported spending a lot of time thinking about foundational skills such as handwriting and spelling as they wrote. These thoughts led to some anxiety and negative self-talk if they could not write neatly or if they did not know how to spell a word they wanted to use in their writing. The students linked their ability to use foundational skills to their overall writing ability. All of the students in the group reported that handwriting and spelling did and could halt their writing process. This was quite frustrating for them since the Writer's Workshop approach typically advocates invented spelling and many teachers ask students to handwrite. In fact, the *Units of Study* curriculum shows examples of handwritten student text with sentences added or removed.

During the intervention, the students often asked how to spell unfamiliar words. The suggestion of spelling the word to the best of their ability was often verbally rejected and the students became frustrated when they could not spell a word. Most students would wait until the teacher helped them. Sometimes the students actually used a less sophisticated vocabulary word instead of struggling to spell a less familiar word. Students who had difficulty with handwriting strongly preferred typing or using dictation to handwriting. In fact, even the students with neat handwriting expressed a preference for typing. This implies that finding solutions to handwriting or spelling concerns or perhaps providing more direct instruction in these areas may support writing progress overall. One simple solution would be to encourage all students to type their

writing. This would both improve their typing skills and serve to avoid frustration since even students who can write neatly complained that focusing on neat handwriting took a lot of their energy.

During a teacher interview, one teacher reported that the students performing in the middle range of her class were actually the ones struggling the most with writing. After the interview the teacher thought more about this and shared that most students actually struggle with writing structure and organization. In response to the interview and her own reflections, she began to teach her students how to write a basic paragraph and then a five paragraph essay using a more structured approach. Weeks later all of her students learned this skill. This implies that direct instruction works for all students. Self-Regulation Strategy Development is effective for both general and special education students and the findings from this study further confirm this statement. Even more, this study showed that Self-Regulation Strategy Development can be added to writing instruction to improve student outcomes. Before this direct and explicit instruction, the students did not understand writing structure or how to write a paragraph. After a few weeks of direct instruction, they did. Previous Self-Regulation Strategy Development research has focused on one group of students instead of a mixture of students. Those who do not have a LD and/or ADHD will likely learn a structured approach quickly. They could then take that structure and use it in Writer's Workshop.

### **Implications for Practice and Policy**

This study contributes to the overall gap in knowledge about writing underachievement, especially for students with LDs and/or ADHD. These students represent a vulnerable population which is often not considered by researchers or curriculum directors. As a result, many schools are adopting the Writer's Workshop approach which does not meet the needs of many students.

Interestingly, the Writer's Workshop approach is not evidence-based. Despite this, Writer's Workshop has been widely used since the 1980s and it has increased in popularity recently. This increase may be due to the writing demands of the CCSS.

This study contributes to information about the effectiveness and appropriateness of Writer's Workshop. If educators understand that Writer's Workshop does not meet every student's needs, they can adopt additional strategies such as Self-Regulation Strategy Development for those students who require more direct and explicit instruction. Not surprisingly, students learn differently. It is important for educators and administrators to understand this. Since there is such little data about writing and writing learning disabilities - struggling writers are often overlooked.

Most of the findings from this study were expected, but a few stood out as surprising. The first surprise was the number of students who struggle with writing. It was expected that students with LDs and/or ADHD would struggle but the survey results and teacher interviews revealed that a large population of students were struggling writers. Writing requires many skills concurrently interacting and it may be the hardest thing that students do. Despite this difficulty, educators must teach writing because writing is essential to academic and professional success. The number of students who struggle with writing is also a bit surprising since this particular school has dedicated so much instructional time and resources to the teaching of writing. Each classroom has writing curriculum and all of the teachers have attended professional development. Given this investment in Writer's Workshop and the excitement around it, one would expect more students to demonstrate writing proficiency. The findings show that writing underachievement is not only a special education problem. Writing underachievement impacts many students and many of those students will never receive special education services or

intervention services for writing. For this reason, it is important to have writing interventions in place within the general education classroom.

Despite the clear need for writing interventions, the survey results, teacher interviews and the literature review show that few adaptations are being made for struggling writers. In fact, the most common intervention cited was one-on-one instruction, which is not a practical intervention in a classroom of over twenty students. Of course, most students would benefit from one-on-one instruction, but this is not a realistic accommodation. Teachers clearly need easier-to-use strategies to support all of their students.

Another surprise from the study was the importance of foundational skills. Many studies pointed to the importance of developing handwriting and spelling skills before learning how to develop writing organization or higher level writing skills. This suggests that more instructional attention should be paid to developing these foundational skills, perhaps before students are even asked to produce writing. Students who struggle with foundational skills in elementary school will typically have difficulty writing and their writing will be judged to be of poorer quality than their peers. The importance of foundational skills also suggests that special educators should spend time working on these skills during their specialized academic instructional time. Students are usually referred for an occupational therapy assessment when the IEP team has concerns about handwriting. Even if a student qualifies for those services, the services are typically once or perhaps twice a week. This may not be enough instructional time to fully develop these skills. For this reason, all educators should take responsibility for teaching foundational skills. Some students will learn these skills without much direct instruction, while other students will not learn these skills without direct instruction.

A new insight to add to the conversation and literature about struggling writers is the social and emotional consequences of writing underachievement. This area has not been widely explored, though the consequences are significant. Some students grow to despise writing and those students will find overcoming their negative feelings about writing difficult, even when given appropriate instruction. This frustration and feeling of hopelessness extends to teachers and parents. There is much more information for parents and teachers about how to support students struggling in math or reading. This isn't because reading and math difficulties occur more often, it is simply that more information is available about these topics. For this reason, many teachers and parents are left without a plan to help their struggling writer. As a result, students become discouraged when they are not able to write as their peers do. This discouragement can and does lead to more serious academic and personal consequences since writing is included in most academic areas. The severity of these personal and academic consequences points to the need for early writing intervention.

There is a lot of information teachers and administrators can gather from this study. This study makes a clear case for adding more direct and explicit writing strategies which focus on self-regulation during Writer's Workshop. The inclusion of these strategies will meet the needs of more learners and hopefully reduce the achievement gap between weak and strong writers. This district is committed to equity and preparing students for college or careers. Writing is an essential skill for both areas. It is critical to teach students how to write according to their learning style and educators know that students learn differently. Students with LDs and/or ADHD, as well as some typically developing students, learn best with direct, explicit and sequential instruction. This instruction can easily be added to the existing writing program at this school site. The result of adding strategy instruction is increased writing proficiency rates.

Students would be better prepared to enter their career or college with the skills needed. Access to appropriate education is an equity issue because all students should be provided with instruction which matches their needs. This study and multiple studies from the literature review illustrate that students with LDs and/or ADHD learn how to write when taught how to write using the Self-Regulation Strategy Development method.

Based upon this information, schools should adopt Self-Regulation Strategy Development strategies to support struggling writers. Additionally, special educators and intervention teachers should be trained in Self-Regulation Strategy Development and this instruction should be given to all struggling writers. Teachers may want to consider adding it to their writing instruction as a proactive measure to catch all students before they may need intervention or even special education services. This would place less of a burden upon special educators and all students would be more successful. Self-Regulation Strategy Development instruction is basically just using differentiation in the classroom, which is what all teachers do as it is. Teachers could teach the Writer's Workshop mini lesson, pull a small group of struggling writers three days a week and work with those students on Self-Regulation Strategy Development while the other students write quietly. This specific strategy has been successfully implemented in one of the Self-Regulation Strategy Development studies (Graham & Harris, 2005). With the inclusion of multiple strategies, a teacher could meet the needs of more students.

For this change to be implemented successfully it should be mandated by school administration or the school district or the special education department. The addition of Self-Regulation Strategy Development could provide special education students with more equitable instruction. General education teachers are provided with writing curriculum and professional development, while special education teachers are often left with no curriculum or training. This

practice is inequitable and results in poorer outcomes and instruction for special education students. Those students are the neediest and most vulnerable students in the entire school. If the emphasis is on preparing all students to meet writing proficiency standards, multiple strategies are logical, since students learn differently.

### **Limitations of the Study**

This study has many limitations due to time limitations and resources. With an extended timeline this study could have considered more data, used a larger sample size and considered other school sites or practices. This additional data could have increased the strength of the findings or provided an alternative perspective, perhaps from a school which does not teach Writer's Workshop. This study is biased naturally because of the perspective of the researcher and the environment in which the study took place. Every person has bias and it is impossible to eliminate this from a qualitative study. Each participant brought their bias and opinions to the study whether they were aware of it or not. Efforts were made to avoid bias during data analysis which allowed for discrepant data to appear. The researcher remained open to outcomes during the coding and data review. Research bias and positionality naturally impacted the study in many ways. The researcher was not just the researcher, but the teacher who taught Self-Regulation Strategy Development to the intervention group. This impacted all of the findings. Also, the researcher is particularly interested in writing and enjoys teaching writing, which the students could have noticed during the intervention. Comfort and enjoyment of a subject will impact the instruction as will the personal relationship the researcher had with all the participants.

Many perspectives are missing from the study. Those perspectives include general education students, administrators, teachers from lower grades, students in lower grades and students and teachers from diverse backgrounds since all of the participants were white and

middle class. This additional perspective could have changed the findings because multiple perspectives could have illustrated varying viewpoints or areas of research. The inclusion of multiple perspectives could only improve the findings of the study. Also, this school site teaches Writer's Workshop, which is why Writer's Workshop was explored. This study did not explore a combination of Writer's Workshop and traditional writing instruction. It would be interesting to see how other schools teach writing in order to determine the writing proficiency rates of students taught using a more traditional method. This could be interesting to explore for special education student writing proficiency rates as well. This school site and its surrounding area are primarily white and middle class. This naturally eliminates other perspectives such as other cultures or socioeconomic groups. Other schools in the district have much more diverse populations. It would be interesting to see how those schools feel about Writer's Workshop since they only adopted it this school year and those schools have different demographics. The other elementary schools have more English language learners and more students from lower socioeconomic backgrounds. This group of students may experience different outcomes when taught using the Writer's Workshop approach.

### **Direction for Future Research**

There are many ways this research can be expanded and elaborated. The effectiveness of Writer's Workshop has not been widely researched in both the special and general education population. This research could provide better information for curriculum directors or school districts to review when adopting writing curriculum. It would also potentially benefit the Writer's Workshop approach since many districts want to purchase evidence-based curriculum. If Writer's Workshop were further examined, they might be inclined to include additional strategies for struggling writers. Also, it would be valuable to explore how Writer's Workshop

prepares students for college and career. Also, Writer's Workshop is not currently taught at the middle and high school in this district. It would be interesting to explore why students in elementary school are learning an approach which is not used beyond fifth grade. Another area to explore would be how other schools teach writing. Maybe there are other approaches which are effective for students. This study could be replicated for various age groups or disabilities groups. Students with Autism often struggle with written expression and self-regulation. Perhaps Self-Regulation Strategy Development could be helpful with this population as well. It would be worthwhile to find out how many students have a WLD since this information is not known. This data could reveal that writing underachievement impacts more students than educators realize. Because foundational skills are so critical, it could be helpful to explore evidence-based handwriting or spelling interventions. Ideally, special educators would possess information about each disability and its corresponding intervention and they would implement that intervention with fidelity. This practice alone could lead to substantial student growth.

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## Appendix A Teacher Survey Questions

Can you please describe how your teacher preparation program prepared you to teach writing?

Do you feel that your teacher preparation program prepared you to teach writing effectively?

Which writing method do you currently teach?

Do you teach writing using evidence-based practices?

Do you teach writing strategies for planning?

Do you teach writing strategies for revising?

Do you teach writing strategies for editing?

Do you teach students how to write summaries of texts?

Do you allow students to collaboratively write with their peers?

Do your students set goals for their writing?

Do you allow students to use a word processor for their writing assignments?

Do you teach sentence combining skills?

Do you teach writing using a process writing approach?

How much do your students participate in content specific research before beginning their writing assignments?

Do you teach students prewriting strategies?

Do you include models of "good" writing in your writing instruction?

How would you rate your writing abilities?

How many students do you think struggle with writing in your class?

How difficult do you feel it is to teach struggling writers?

Do you wish you knew more strategies to support struggling writers?

Do you feel that writing RTI would be helpful at your school?

Can you describe some of the writing interventions you have used with struggling writers?

How effective were those interventions?

How many students in your class struggle with handwriting?

How many students in your class struggle with spelling?

How many students in your class struggle with writing organization?

Do you feel that your students who struggle with attention, also struggle with writing?

How many of your students would you describe as proficient writers?

Can you please describe a student you have taught who has struggled with writing?

## **Appendix B Parent Survey Questions**

Do you know the writing program your child's school is using? If so, which one?

Do you feel that your child can write at a proficient level?

Do you feel your child's writing instruction has prepared them to write proficiently?

Does your child enjoy writing?

How does your child feel about themselves as a writer?

Can you describe your child's writing struggles?

What interventions have you tried at home?

What interventions have been tried at school?

What interventions have been most helpful?

Does your child have difficulty with focus or attention?

Do you feel your child's attention level impacts their writing? How?

How would you describe your child's spelling?

How would you describe your child's handwriting?

How would you describe your child's sentence formation?

Do you feel that your child needs support with self-regulation during difficult tasks?

Does your child engage in positive self-talk?

What would you like to see for your child in terms of their writing?

## **Appendix C Teacher Interview Questions**

How did you feel about your preparation to teach writing?

Was it incorporated in the reading instruction?

How do you feel about or how would you describe the current writing program?

Are there other programs that you've liked more?

And have you taught at this school your whole teaching career?

What other programs have they used for writing?

Do you think Lucy is able to reach every learner in your classroom?

What percentage of the class is able to take that content and really run with it?

And then, for the 25%, what are some common characteristics of those kids?

And what are some other things that you notice about them as students?

And do you notice that kids who struggle with attention or focus have more difficulty with writing?

And then if they are able to produce writing, is there anything you notice about the writing?

Do you think that inattention creates trouble with writing or it's separate?

How many kids are in that 25%? And is it all aspects of writing they are having difficulty with?

And then what interventions have been the most successful for them?

And do you feel like that's possible for you to give?

What do you notice specifically about your student that you would describe as his difficulties with writing?

Do you think those kids feel better about themselves as writers?

**Appendix D Parent Focus Group Questions**

How do you feel about your child's writing ability?

What role is attention playing in your child's writing?

How do you feel about the current writing curriculum?

## **Appendix E Student Focus Group Questions**

How do you feel about writing?

What do you think is the hardest part of writing?

How much do you think about spelling when you are writing?

Do you think it slows you down?

Do you want to write things correctly?

Does it bother you when you don't know how to spell something?

So will you stop in the middle of your writing and look up a word?

So, you will stop when you have misspelled something because the computer will let you know?

Do you think that takes up some of your energy for writing?

What do you think of Lucy Calkins?

What don't you like about it?

What is hard about it?

Do you feel motivated by the current writing program in your classroom?

Do you think you are a good writer?

What do you think about the writing we have done?

What do you like about it?

Would you want to continue learning this way?

Do you feel like your writing has improved?

Do you think that you are somebody who has difficulty focusing on things?

**Appendix F IRB Approval Letter**

DOMINICAN  
UNIVERSITY  
of CALIFORNIA

November 28, 2018

Katie Ludin  
50 Acacia Avenue  
San Rafael, CA 94901

Dear Katie,

On behalf of the Dominican University of California Institutional Review Board for the Protection of Human Participants, I am pleased to inform you that your proposal entitled *Writing Underachievement* (IRBPHP application #10718) has been approved.

In your final report or paper please indicate that your project was approved by the IRBPHP and indicate the identification number.

I wish you well in your very interesting research effort.

Sincerely,



Randall Hall, PhD  
Chair, IRBPHP