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Teacher Self-Efficacy in Writing and Instructional Choices: A Correlational Study

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Concordia University (Portland)
College of Education
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Teacher Self-Efficacy in Writing and Instructional Choices:

A Correlational Study

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Dissertation submitted to the Faculty of the College of Education in partial fulfillment of the requirements for the degree of Doctor of Education in Teacher Leadership

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Abstract

This quantitative study focused on examining the relationship between teacher self-efficacy and their use of writing practices in teaching writing. Participants included elementary kindergarten through fifth grade teachers in a large school district in northeastern United States. The following research questions guided this study: Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction? Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction? Is there a statistically significant relationship between teaching self-efficacy factor of general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction? The study was conducted online and combined two previously used surveys. The results of this study indicated that there is a small but statistically significant correlation between both Teaching Efficacy and Personal Teaching Efficacy and the use of many instructional practices in writing. This study did not show any correlation between General Teaching Efficacy and any of the writing practices surveyed. There was no correlation between Teaching Efficacy and practices designed to connect writing to the home environment.

Keywords: self-efficacy, writing, instruction, elementary, teachers
Dedication

Dedicated to my husband, Joe.

Thanks for “making” me do this and for all your support and encouragement.

And to my sons, Ryan and Collin, who have become wonderful young men that I am proud of each and every day.
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To my mom, who never puts herself first and is always there for everyone.

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Chapter 1: Introduction

Writing is not a frill for the few, but an essential skill for the many.

—National Commission on Writing, 2003

Introduction to the Problem

Writing has long been regarded as an essential skill; it was one of the original three “R’s”—reading, writing, and ‘rithmetic. Despite this, writing has not always enjoyed prominent status in instruction. The writing alarm was sounded more than 40 years ago, when Why Johnny Can’t Write was published in Newsweek. Sheils (1975) asserted that schools were to blame for the number of college students enrolled in remedial courses, stating the “U.S. educational system is spawning a generation of semi-literates” (p. 58). The National Commission on Writing for America’s Families, Schools, and Colleges (2003) echoed this message: American students are not able to write proficiently. Nearly three quarters of eighth and twelfth graders scored below proficient on the 2011 National Assessment of Educational Progress (National Assessment for Educational Progress [NAEP], 2012). Colleges report that 20% of entering students are required to take at least one remedial course (National Center for Education Statistics [NCES], 2013). Students are not prepared to meet the demands of writing for school and beyond. This number varies greatly, with public two-year colleges enrolling a much larger percentage of freshmen in remedial courses (up to 42%) than four-year institutions (Johnson, 2008).

While the writing news has been bleak, there is a renewed interest in writing instruction. Writing is at the center of the curricula associated with Common Core State Standards [CCSS] (2010) and its affiliated assessments, Partnership for the Assessments of Readiness for College & Careers [PARCC] (2016) and Smarter Balanced Assessment Consortium [SBAC], (n.d.).
Common Core State Standards require that students increase the quantity and quality of their writing, and this is reflected in both assessments (CCSS, 2010; PARCC, 2016; SBAC, n.d.). Beginning in as early as fifth grade, students must “demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting” (CCSS, 2010, Standard 5.6). This implies that in addition to the motor skills necessary for typing, students must have writing competencies to compose ideas and editing skills to include correct punctuation, spelling and grammar. Further, this implies that students will have to write well to succeed on PARCC or SBAC even before they need to write for college or careers.

At the heart of this writing conundrum is the teacher. Teachers have the ability to shape learning. Teachers can make an important difference in the classroom (Nye, Konstantopoulos, & Hedges, 2004). Yet many teachers are not teaching writing using the best practices (Gilbert & Graham, 2010). For example, Soiferman, Boyd, and Straw (2010) examined the frequency with which teachers used the strategies that Graham and Perin (2007) found that improve students’ writing. Graham and Perin (2007) found that explicitly teaching writing strategies such as planning or revising had a significant effect size (0.82). However, in their study, Soiferman, Boyd, and Straw (2010) found that only about a third (35%) of teachers reported teaching planning strategies frequently, and one fifth seldom or never taught students how to plan. Similarly, only 24% of the teachers surveyed regularly taught revision strategies to their students, and 31% never taught revision. Soiferman, Boyd, and Straw (2010) found that while many teachers did employ the research-based techniques that Graham & Perin (2007) identified, none of the techniques were used frequently (identified by the authors as at least once per six days).
One underexamined factor in writing instruction is teacher self-efficacy; self-efficacy has been correlated with teachers’ beliefs about teaching writing (Graham, Harris, Fink, & MacArthur, 2001). Other researchers have found that teacher self-efficacy can impact instructional choices, such as the amount of time teachers devote to planning and delivering instruction (Wilkins, 2010). Research has shown that teacher self-efficacy impacts overall teacher effectiveness (Harward, Peterson, Korth, Wimmer, Wilcox, Morrison, Pierce, 2014). Further, teacher self-efficacy has been associated with teachers’ beliefs about teaching writing (Graham et al., 2001). In this study, I conducted a survey of teachers in order to find out their beliefs about their own efficacy in teaching writing as well as what instructional practices they use routinely.

**Background, Context, History, and Conceptual Framework for the Problem**

Writing instruction in American elementary schools has been neglected (National Commission on Writing for America’s Families, Schools, and Colleges, 2003). Although writing is necessary for success in college and the workforce, it still receives minimal attention in the classroom (National Commission on Writing for America’s Families, Schools, and Colleges, 2003). A number of reports have indicated that American students struggle with writing (National Center for Education Statistics, 2012; Writing and School Reform, 2006; Writing: A Ticket to Work . . . Or a Ticket Out, 2004; The Neglected "R": The Need for a Writing Revolution, 2003; Graham & Perin, 2007; Graham et al, 2012a).

Improving students’ writing reaches beyond composition and grammar; students are often assessed in other subjects through their ability to write about the subject. Research shows that a student’s writing ability can also impact his or her overall academic performance and grades, including reading and other content areas such as science or social studies (Abbott & Berninger,
A collection of research exists on what makes quality writing instruction (Cutler, & Graham, 2008; Gilbert & Graham, 2010; Graham & Harris, 2013; Graham, McKeown, Kiuhara, & Harris, 2012b; Graham, et al., 2001; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007; Hillocks, 1986; McCarthey & Ro, 2011). This includes spending extra time on writing instruction and providing explicit teaching in using the writing process in order for students to write a variety of genre for a variety of purposes. In addition, students are more successful in writing if teachers employing the gradual release of responsibility or scaffolding support to writers as they teach strategies, show students what great writing looks like through the use of mentor or model texts, and provide specific feedback to students about their writing. Students also need strong transcription skills, such as handwriting, keyboarding, spelling (Graham & Perin, 2007). Through providing instructional time in a variety of techniques, teachers can help students improve the quality of their writing (Cutler, & Graham, 2008; Gilbert & Graham, 2010; Graham & Harris, 2013; Graham, et al., 2012b; Graham, et al., 2001; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007; Hillocks, 1986; McCarthey & Ro, 2011).

One component of writing achievement that has been relatively unexplored is self-efficacy. While not as plentiful, research on theories of self-efficacy examines both students’ and teachers’ self-efficacy and its impact on achievement and performance. There is evidence that writing self-efficacy impacts students’ writing achievement as well as teachers’ expectations, confidence, and implementation of writing instruction (Ashton, 1985; Bandura, 1986; Bandura, et al. 2003; Gibson & Dembo, 1984; Graham, et al., 2001; Pajares, & Valiante,
My conceptual framework is founded in the theories of writing instruction and self-efficacy. The foundation of my beliefs about writing instruction is rooted in writing process theory and sociocultural theory of writing. Writing is a recursive, fluid process that requires planning, reviewing, and translating ideas into text. Writing is also a social activity; in addition to interacting with the audience, writers use literacy skills such as reading, listening and speaking; it also relies on interaction within a community of writers and careful “scaffolding” by teachers (Emig, 1971; Graves, 1983; Langer & Applebee, 1986; Vygotsky, 1962, 1978). Students’ writing is only one part of this equation; teachers’ self-efficacy is the other. I believe that teachers’ self-efficacy, particularly when it comes to writing, can have a strong influence on the amount and type of instruction they deliver. Self-efficacy theorists have found that self-efficacy is connected to one’s performance; specifically, it can be linked with teachers’ decision making in the classroom (Bandura, 1977; Tschannen-Moran & Johnson, 2011).

Statement of the Problem

In this study, I sought to address the following problem: many students do not receive adequate writing instruction, causing them to perform poorly on writing tasks. While writing skills are necessary in order for students to be successful post-graduation (National Commission on Writing, 2003), nearly 75% of eighth and twelfth graders scored below proficient in writing on the 2011 National Assessment of Educational Progress (NCES, 2012). Students’ writing achievement can improve when teachers use best practices in teaching writing (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). Further, self-efficacy has been demonstrated to impact overall teacher
effectiveness (Harward, et al., 2014). Teacher self-efficacy impacts their instruction, including the amount of time they plan and deliver instruction (Wilkins, 2010). In addition, teacher self-efficacy has been correlated with teachers’ beliefs about teaching writing (Graham et al., 2001).

Examining the relationship between teacher self-efficacy in writing instruction and their instructional choices can guide future professional development for elementary teachers of writing in order to improve their self-efficacy and selection of writing instructional techniques. Research suggests that the classroom practices of teachers with high self-efficacy and low self-efficacy differ (Graham, et al., 2001). High efficacy teachers report spending more instructional time having their students compose writing or teaching the writing process (such as planning, text organization, and revising) than their low-efficacy counterparts (Graham, et al., 2001). It is important to further develop understanding this relationship further will help educators to better understand how teachers’ self-efficacy impacts their inclusion of best practices in writing instruction. My goal was to gain a better understanding of what self-efficacy factors impact teachers’ selection of specific instructional techniques in writing instruction.

**Purpose of the Study**

The purpose of this study was to understand the relationship between teacher self-efficacy in writing and the amount of time they report using research-based methods for teaching writing for elementary classroom teachers in Watertown School District (a pseudonym to protect the privacy of participants). This study could help educators to better understand how teachers’ self-efficacy impacts their inclusion of best practices in writing instruction. It could also inform researchers and may provide guidance to professional developers in teacher preparation and support for teachers in the area of writing instruction.
In this study, I focused on two key areas of research: writing instruction and teacher self-efficacy. Writing has been the subject of a great deal of research during the past century, particularly since the 1960s. Research has identified best practices in writing instruction that have positive impacts on student achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). I used a survey to examine how frequently teachers reported using a variety of instructional techniques in their writing instruction, specifically the techniques that have been identified by previous research as practices that have been found in research to enhance student achievement in writing.

Research about self-efficacy is a rather new subject, and therefore there is not as much research available. There has been research that indicates that teacher self-efficacy has been demonstrated to impact overall teacher effectiveness (Harward, et al., 2014). When it comes to research on self-efficacy in specific subject areas, the pool of research is even smaller. Graham et al. (2001) found that teacher efficacy in writing influences the amount of time they spend teaching writing. There is also strong evidence that writing self-efficacy impacts writing achievement (Pajares, & Valiante, 1997; Pajares & Valiante, 2006; Ritchey, Coker, & Jackson, 2015).

Research Questions

The following research questions guided this study:

1. Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   - Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
Is there a statistically significant relationship between teaching self-efficacy factor of general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction?

**Rationale, Relevance, and Significance of the Study**

This study can help researchers to understand the connection between teacher self-efficacy in writing and how they proceed to teach writing in their classrooms. Examining the correlation between teacher efficacy and the choices they report in their writing instruction will enhance existing research. My study has added to the collective existing research focusing on content specific teacher efficacy, specifically teacher efficacy in writing. Despite research suggesting that writing is a critical skill and that students are not adequately prepared for the demands of writing in school, college, or beyond, American students still spend minimal time writing in classrooms; reports suggest that elementary students write as little as twenty-one to thirty-six minutes a day (Graham & Harris, 2009; National Commission on Writing, 2003). Researchers have conducted studies and meta-analysis on the practices of writing instruction and have identified practices that are associated with improved writing achievement (Graham & Perin, 2007; Graham et al., 2012a). Even when teachers are teaching writing, there is not sufficient evidence that they are consistently using methods that lead to high achievement (Soiferman, Boyd, & Straw, 2010).

While there has been a great deal of research on writing instruction, the research on self-efficacy is not as substantial. It does, however, indicate that teacher self-efficacy is contextual (Ashton & Webb, 1986; Bandura, 1977; Graham et al., 2001). It can vary according to the content area, the kind of activity, or other factors (Graham, et al., 2001). High self-efficacy has been correlated with the types of decisions that teachers make in the classrooms as well as their
overall efficacy in teaching (Harward, et al, 2014; Tschannen-Moran & Johnson, 2011). Teachers with high self-efficacy tend to spend more time planning, are better organized, are more motivated, and are more willing to try new ideas (Harward, et al, 2014; Graham et al., 2001; Tschannen-Moran & Johnson, 2011). My study took this research one step further to examine the instructional choices in a particular content area—writing—that teachers with high and low self-efficacy make.

The results of this study are significant because they could be used to inform future professional development or training for teachers in writing instruction. Because teacher self-efficacy is contextual, it is not a fixed element; since it is not fixed, it is possible to change or improve it. Improving teacher self-efficacy, or their perceptions of themselves as teachers of writing, could have a positive impact on teachers’ instructional choices. In addition, if a connection between teachers’ self-efficacy and their use of research-based methods is determined, it may help improve teachers’ self-efficacy and their use of research-based methods. By improving teachers’ use of research-based methods in teaching writing, it may lead to improved test scores in writing and improved writing achievement (Brindle, Graham, Harris, & Hebert, 2016; Graham & Perin, 2007).

**Definition of Terms**

For the purposes of this study, I used the following definitions.

*Elementary classroom teachers.* Teachers in kindergarten through fifth grade who are assigned a consistent homeroom of students and teach core academic subjects including mathematics, literacy, science, and social studies.
Self-efficacy. Self-efficacy is “an intellectual activity through which one formulates one’s beliefs about his or her ability to achieve a certain level of accomplishment” (Bandura, 1977, p. 193).

Personal efficacy. This refers to one’s personal beliefs that they have the skill and knowledge to be effective, a key factor in overall teaching effectiveness (Graham, et al., 2001).

General teaching efficacy. General teaching efficacy refers to factors that are often outside a teacher’s control, such as external factors including class size and composition.

Best practices in writing instruction. This refers to instructional practices or techniques that have been proven to be effective in previous research studies.

Writing process instruction. Writing process instruction is teaching students about the phases of the writing process, including pre-writing/planning, drafting, revising, editing, and publishing.

Writers’ Workshop. Writers’ Workshop is an instructional model in which students are guided to publish writing through various phases of the writing process. The teacher models and provides direct instruction via a mini-lesson, students have sustained time to write, and receive feedback from peers and the teacher in conferences.

Assumptions, Delimitations, and Limitations

Assumptions. In conducting this study, I have begun with several assumptions.

1. The Teacher Efficacy Scale for Writing (TESW, Graham et al., 2001) is a valid and reliable tool to measure teachers’ efficacy.

2. The Writing Practices Survey (WPS, Cutler & Graham, 2008) is a valid and reliable tool to measure teachers’ use of writing practices.

3. All participants are classroom teachers and will answer truthfully.
4. Teachers understand the terms and concepts in the survey.

5. Teacher participant responses do not include names or school names and will be held in strict confidence.

**Limitations.** There are several limitations associated with this study. One limitation was that teachers self-reported their beliefs and practices in the survey (Fowler, 2014). Therefore, the results are limited by the honesty of their answers. Surveys rely on participants to self-report practices, and there exists the danger that participants do not respond honestly (Fowler, 2014). For example, participants may respond in the way they believe seems most favorable or desired. Another limitation is the sampling method. The study was also limited by only sampling teachers from one district in one state rather than a random sampling over the entire state or United States. Further, because of nonprobability sampling, the demographics of the teachers, including race, gender, and background experience may not be indicative of the elementary teacher population as a whole (Fowler, 2014).

**Delimitations.** In addition to limitations, there were several delimitations because of the construct of the study. One delimitation was that I selected only teachers from the local district to participate. While this is an acceptable sampling method for correlational research (Adams & Lawrence, 2015), it may have caused the sample to not reflect the population of the whole population of elementary teachers. Another delimitation associated with this study was administering it online. Because it was administered online, participants were limited to only those who could access and selected to access via the survey link. However, teachers in this district each have access to a desktop computer, the internet, and email, minimizing this risk. Another delimitation for this study was the use of nonprobability sampling. While cluster sampling ensured that teachers from a wide demographic range of schools were included, it
makes the study subject to sampling bias (Fowler, 2014). I chose nonprobability sampling to ensure that the population of teachers that I surveyed represented the wide range of the diverse district, rather than one section.

**Summary**

Despite the importance of writing for students and workers, American students struggle with it and are not being prepared to meet the standards and be successful writers. American students struggle with writing on NAEP, with only about a quarter of students demonstrating proficiency, (NAEP, NCES, 2012). Students continue to have difficulty with writing when they get to college; 20% of freshman are required to take at least one remedial course (NCES, 2013). Previous legislation, including *No Child Left Behind*, emphasized basic reading and math skills but did not include standards for writing (No Child Left Behind, 2001). More recent legislation, including *Race to the Top* (Race to the Top Initiative, 2010) and *Every Student Succeeds Act* (ESSA, U.S. Department of Education, 2015), includes standards and assessment tools specifically addressing writing beginning in kindergarten, thereby requiring that writing be taught.

In this study, I examined the relationship between teacher self-efficacy in writing and teachers’ instructional choices in writing. Previous research has identified best practices in writing instruction that have positive impacts on student achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). There is also strong evidence that writing self-efficacy impacts writing achievement (Pajares, & Valiante, 1997; Pajares & Valiante, 2006; Ritchey, Coker, & Jackson, 2015). I am seeking to determine if there is a correlation between teachers’ self-efficacy and the choices they make in writing instruction.
This study is presented in five chapters. The first chapter introduces the topic, describes the problem that will be addressed, and provides the reader with an overview of the research. The second chapter includes the conceptual framework for this study and a comprehensive literature review of research related to self-efficacy (Bandura, 1977) and writing instruction (Calkins, 1994; Berninger, et al, 2002; Emig, 1971; Graham, MacArthur, & Fitzgerald, 2013; Graves, 1983; Langer & Applebee, 1986; McCarthey & Ro, 2011; Murray, 1982). Chapter 3 will outline and describe the methodology utilized. In Chapter 4, I will present an analysis of the findings of the study. Finally, Chapter 5 includes a discussion of the results as well as a conclusion.
Chapter 2: Literature Review

Introduction to the Literature Review

Writing is regarded as an essential skill, yet The National Commission on Writing for America’s Families, Schools, and Colleges (2004) reported that students are only able to demonstrate rudimentary writing skills. “What most students cannot do is write well. At least, they cannot write well enough to meet the demands they face in higher education and the emerging work environment.” (National Commission on Writing for America’s Families, Schools, and Colleges, 2003, p. 16). Assessment results using NAEP indicate the students are not prepared to meet the sophisticated demands of writing needed for college and careers. Many students are not prepared to meet the demands of writing for school and beyond.

New legislation such as Race to the Top and Every Student Succeeds Act has sparked renewed interest in writing (U.S. Department of Education, 2016; Race to the Top Initiative, 2010). writing in the K-12 classroom has once again received attention. Race to the Top legislation offered incentives for states for adopting rigorous Common Core State Standards (CCSS) and adopting one of the two associated assessments (Partnership for the Assessment for College & Careers or Smarter Balanced Assessment Consortium). The CCSS include rigorous standards in writing; to meet the Common Core State Standards’ goal of College and Career Ready students, students will need to be able to write, and to write well. As Graham & Perin stated, “Writing well is not just an option for young people—it is a necessity” (2007, p. 3). Writing is a key to meeting Common Core State Standards, which include an increased amount of time for writing as well as a specific guide for writing.

In his book Write Like This, Gallagher (2001) opens the first chapter by describing the writing expectations on the test for prospective California Highway Patrol officers. The test
includes a multi-paragraph writing sample as well as multiple choice items on grammar and usage. Gallagher states, “To become a CHP officer, your students will have to be able to write thoughtfully on demand, spell correctly, use mature vocabulary, demonstrate some style and sentence variety, avoid fragments and run-on sentences, and stay away from misplaced modifiers” (2001, p. 3). This example demonstrates that writing is an essential skill for any job for which we are preparing students, and students must be able to write clearly and coherently to be successful.

Writing is an important skill for students, and therefore is a critical skill for teachers to be able to teach well. There is a significant amount of research that identifies best practices in writing instruction that have positive impacts on student achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). There is also strong evidence that writing self-efficacy impacts writing achievement (Pajares & Valiante, 1997; Pajares & Valiante, 2006; Ritchey, et al., 2015).

While writing has been the subject of a great deal of research during the past century, research about self-efficacy is rather new and limited. When it comes to research on self-efficacy in specific subject areas, the pool of research is even smaller. Teacher self-efficacy has been demonstrated to impact overall teacher effectiveness (Harward, et al., 2014). Research has also identified best practices in writing instruction that have positive impacts on student achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). There is also evidence that writing self-efficacy impacts writing achievement (Pajares, & Valiante, 1997; Pajares & Valiante, 2006; Ritchey, Coker, & Jackson, 2015).
The underlying problem that I addressed in my study is that many American students are not adequately prepared for the demands of writing. Almost 75% of eighth and twelfth graders scored below proficient in writing on the 2011 National Assessment of Educational Progress (NCES, 2012). Effective writing instruction can improve students’ writing achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). Further, teacher self-efficacy can impact overall teacher effectiveness, (Harward, et al., 2014), the time they devote to planning and teaching writing (Wilkins, 2010), and their beliefs about writing (Graham et al., 2001).

This chapter is organized to include a comprehensive literature review on the topics of writing instruction and teacher self-efficacy. I began by describing my conceptual framework that forms the underpinnings of this research. I included a review of the research and methodological literature and a review of methodological issues that may be associated with my study. This was followed by a synthesis of research findings on writing instruction and teacher self-efficacy and a critique of previous research, and concludes with a summary of Chapter 2.

Conceptual Framework

My conceptual framework establishes the frame of reference that forms the basis for my study. The underlying variables that form the basis for this study include theories of writing instruction and self-efficacy. Theories of writing instruction focus on the writing process theory of writing (Emig, 1971; Graves, 1983), and the sociocultural theory of writing (Langer & Applebee, 1986; Vygotsky, 1962, 1978). Theories of self-efficacy include Bandura’s (1977) research linking self-efficacy to one’s performance and Tschannen-Moran and Johnson’s (2011) work connecting teacher self-efficacy with decision making in the classroom.
Theories of writing instruction. Writing is a complex, recursive activity; while writing, students need to constantly make frequent and multiple decisions across multiple domains and content areas (Bifuh-Ambe, 2013): How do I begin? How do I make that letter? What do I say about this topic? What should I include in paragraphs? The decisions that writers make in crafting a piece are endless (Fletcher & Portalupi, 1998; Newell, 2006; Pritchard & Honeycutt, 2006). Effective writers constantly review and revise their work as they are making these decisions (Flower & Hayes, 1984). Calkins (1986) describes writing as the “reflective interaction between the writer and developing text” (p. 20).

Writing process theory. The concept of process writing instruction was introduced by Emig (1971), who studied the composition processes of twelfth graders. Emig (1971) viewed writing as a cognitive process that fell into three stages. These stages are not linear steps, but are rather recursive, fluid stages upon which writers spend differing amounts of time (Elbow, 1973; Emig, 1971; Flower & Hayes, 1984). Flower and Hayes (1984) studied the decision making of effective writers and added that writing is a cognitive process. They found that writing is a set of distinctive thinking processes in which writers go through intricate, goal-directed thinking involving long term memory, planning, reviewing, and translating thoughts into text (Flower & Hayes, 1984).

During the 1970s through the 2010s, a number of researchers have further confirmed the importance of teaching writing as a process over a product. Murray (1972) believed that writing should be about discovering language, not racing to complete a particular product. “Instead of teaching finished writing, we should teach unfinished writing, and glory in its unfinishedness” (Murray, 1972, p. 11). Graves (1973) added that writing process and products may be influenced by other variables, such as background knowledge and gender. One of Graves’ students, Lucy
Calkins, was an early proponent of the writing process method. She participated in Graves’ National Institute of Education and completed her dissertation on a longitudinal case study of student writing experiences. Calkins’ (1982) study found that when a student received instruction in revising, writing improved. Calkins’ has continued to refine and develop her theory of writing workshop (Calkins 1982, 1983, 1986, 1994). Both Calkins (1982) and Murray (1972) emphasized revision in the writing process.

By the 1980s, writing process instruction had taken hold in classrooms as the primary model for writing instruction (Pritchard & Honeycutt, 2008). According to the National Council of Teachers of English’s (2004) statement on writing, one learns to write by writing using the writing process model. Effective writing instruction should allow students opportunities to choose writing activities, plan for their writing, write their drafts, revisit and reread those drafts to revise and strengthen, and share their writing with others (National Council of Teachers of English, 2004). Research has demonstrated that writing process instruction has had a positive impact on student achievement; students who received instruction using a writing process methodology demonstrated higher achievement in writing than students who received more traditional instruction, such as worksheets (Bruno, 1983; Goldstein & Carr, 1996).

Calkins (1983, 1986) went on to propose organizing writing process instruction through a workshop approach because she believed that writing process instruction is the central model in a Writers’ Workshop. The Writers’ Workshop model (Atwell, 1987; Calkins, 1994; Fletcher & Portalupi, 2001; Graves, 1983) has been a prevailing theoretical model utilizing writing process theory in elementary writing instruction since the early 1980s (Pritchard & Honeycutt, 2008). Calkins’ Writers’ Workshop utilized a mini-lesson in which the teacher instructed on a particular skill or part of the writing process as well as individual conferences as a way for teachers to
scaffold learning (Calkins, 1994). This model focuses on teaching the process of writing over crafting particular types of products. In a Writers’ Workshop, students are provided with time to engage in the stages of the writing process. Allowing students to have sustained time to work on writing allows them to be completely immersed and absorbed in the flow of their intellectual work (Csikszentmihalyi, 1990).

**Sociocultural theory of writing.** Another strong influence on this conceptual framework is the sociocultural theory of writing. Sociocultural theory sees writing as more than merely transcribing thoughts on paper. Prior (2006) describes the sociocultural theory of writing as “a mode of social action, not simply a means of communication” (p. 58). Writing is not a lone endeavor; according to Langer and Applebee (1986), learning literacy skills is a social activity. “It is through the social interchange that language is mediated and learning takes place” (Langer & Applebee, 1986, p. 174). Vygotsky and Luria emphasized the importance of cultural mediation in human development (Prior, 2006). Vygotsky viewed writing as being rooted in the functions of memory and problem solving (Prior, 2006). According to Vygotsky, writing was as the external manifestation of one’s memories (Prior, 2006).

The learning of language skills, including writing, occurs implicitly (Prior, 2006). Teachers support the development of these skills through what Bruner (1978) calls “scaffolding.” Through careful scaffolding, teachers or other adults provide support for learners—giving extra support in a new skill and gradually releasing control of the skill over to the learner (Bruner, 1978, cited in Langer & Applebee, 1986). Pearson and Gallagher (1983) described this as the gradual release of responsibility—modeling a skill, then guiding students in practicing it, and finally watching in their independent application of the skill. Good writing instruction capitalizes on this social nature of writing through taking advantage of social interaction between
teacher and students. Schunk (2003) has demonstrated that children learn from models, both positive and negative ones.

**Theories of self-efficacy.** Bandura (1977) pioneered the concept of using one’s beliefs about self-efficacy to assess one’s performance. Bandura’s theory is that one’s expectations of future performance strongly influence whether performance will be successful (Pajares & Valiente, 2006). Bandura (1977) defines self-efficacy as “an intellectual activity through which one formulates one’s beliefs about his or her ability to achieve a certain level of accomplishment” (p. 193). His theory is that a person’s beliefs about his or her self-efficacy are more powerful than their actual abilities. According to Bandura (1986), what students think, believe, and feel strongly affects their success. Self-efficacy influences choice, action, effort and perseverance (Bandura, 1986). In fact, Bandura (1977) suggests that an over-inflated self-efficacy, or overestimating one’s abilities, is useful because it can lead to greater effort and perseverance. For students, self-efficacy affects their writing, choices, effort, and perseverance. It can also become a self-fulfilling prophesy: believing they are better makes writers put forth more effort, write more, and then, in turn, they become better writers (Pajares & Valiante, 1997).

Self-efficacy can also impact a teacher’s performance. A number of researchers have described the impact of teacher self-efficacy on instruction and student performance (Ashton, 1985; Bandura, 1986; Bandura, et al., 2003; Gibson & Dembo, 1984; Graham, et al., 2001). Teacher self-efficacy is defined as a teacher’s personal beliefs that he or she has the skill and knowledge to be effective (Graham, et al., 2001). “Teachers sense of self-efficacy, or their confidence that they can perform the actions that lead to student learning, is a particularly powerful construct, as it is one of the few teacher characteristics that reliably predicts teacher practice and student outcomes” (Ross, 1992, p. 385). This is important because teacher self-
efficacy is correlated with teachers being more organized, willing to try new ideas, and less critical of student errors (Graham et al., 2001). Teacher self-efficacy has also been connected to increased motivation in teachers (Tschannen-Moran & Johnson, 2011). Teachers with high self-efficacy are more willing to try new teaching techniques in order to reach students, while those with a low sense of self-efficacy are more likely to blame external factors, such as their students or the curriculum, for lack of success (Tschannen-Moran & Johnson, 2011).

Teacher feelings of efficacy are highly contextual; they can vary in different circumstances such as subject, type of instructional activity, or composition of class (Graham, et al., 2001). Tschannen-Moran and Johnson, (2011) identified several factors that can influence teacher self-efficacy. The context in which one teaches is one factor. This may include the amount of resources available, the quality of the curriculum, the stage of a teacher’s career, and even other teachers’ attitudes (Tschannen-Moran & Johnson, 2011). The composition of a teacher’s class also affects teacher-efficacy; student factors such as their perceived abilities, motivation, or socio-economic status may affect teachers’ perceptions of their self-efficacy (Graham, et al., 2001).

When it comes to literacy or writing instruction, there is limited research to show correlation with self-efficacy. Wilkins (2010) found that teacher’s attitudes toward a subject, such as science or mathematics, impacts how much time they spent planning and teaching that subject. Wilkins (2010) also found that writing is not a favorite subject of the teachers he surveyed; it is logical that teachers who do not care for writing do not spend much time planning or teaching it. Further, self-efficacy has been identified as a variable accounting for individual differences in teacher practice and student outcome (Graham, et al., 2001; Grainger, 2005).
Some research has also demonstrated that greater teacher self-efficacy correlates to greater achievement in reading (Armor et al., 1976).

In their 2011 study, Tschannen-Moran and Johnson examined teacher efficacy in literacy instruction. They found that teacher self-efficacy is “multifaceted” and “based on various sets of subskills” (p. 756). Tschannen-Moran and Johnson (2011) found no significant differences in teacher self-efficacy for literacy based on gender, race, or years of experience. However, they did find that teacher preparation and participation in quality professional development was correlated to teacher self-efficacy (Tschannen-Moran & Johnson, 2011). They also found that school based factors, such as resources available to teachers or the support systems within the school, influenced their self-efficacy (Tschannen-Moran & Johnson, 2011). Interestingly in their study, general teacher self-efficacy (such as in classroom management) was not necessarily related to literacy self-efficacy (Tschannen-Moran & Johnson, 2011).

In teachers of writing, the instructional practices of teachers with high self-efficacy vary greatly from those with low self-efficacy (Graham et al., 2001). High self-efficacy teachers devoted more time to writing and spent more time teaching the writing process and grammar than their low self-efficacy counterparts (Graham et al., 2001). Whereas, teachers who lack self-efficacy tend to over-emphasize the rote mechanics, or “surface features” of writing over content and creativity; these include lower level writing skills such as spelling grammar, punctuation, rather than higher level content (Grisham & Wolsey, 2011).

The act of writing itself can have a positive impact on teachers and their teaching. Grainger (2005) states, “Through becoming personally involved, thinking, and feeling their way forward as writers they can gain insight into practices which can help them develop both as teachers and as writers” (p. 77). Some studies found that primary teachers were generally
confident in their ability to teach writing and help students improve their writing, but they were less confident in meeting the needs of struggling writers (Gilbert & Graham, 2010; Graham, et al., 2001). Teachers who engage in professional development that includes opportunities to write, reflect, and respond or interact with peers, such as The National Writing Project, improve in their self-efficacy in writing. (Grainer, 2005; Harward, et. al., 2014; Locke, Whitehead & Dix, 2013; Wood & Lieberman, 2000). As Reid (2009) states, “all teachers need to be not only practitioners but also conscious learners in the field” (p. W200).

Teachers’ self-efficacy, or their personal beliefs that they have the skill and knowledge to be effective, is a key factor in overall teaching effectiveness (Bandura, 1993; Graham, et al., 2001). Studies have demonstrated that high efficacy teachers produce better results than low efficacy teachers (Darling-Hammond, 2000). Teachers’ positive self-efficacy has been found to be correlated with being more organized, willing to try new ideas, and less critical of student errors (Graham et al., 2001). Further, teachers’ self-efficacy has been found to impact their instructional choices as well as student achievement (Ashton, 1985; Bandura, 1986; Bandura, et al. 2003; Gibson & Dembo, 1984; Graham, et al., 2001). However, teachers’ feelings of efficacy are highly contextual; teachers may have different feelings about their personal effectiveness based on subject, type of instructional activity, or composition of class (Graham, et al., 2001).

Bandura (1977) found that people’s personal beliefs about their own efficacy is impacted by four influences: mastery learning, vicarious experience, verbal persuasion, and their physiological state. Mastery learning, or one’s perception of how successful one’s effort is, is the most powerful influence (Bandura, 1977). For teachers of writing, their own background knowledge, professional development, and personal writing experiences can affect their self-efficacy. Vicarious influence occurs when one watches someone else’s successes or failures
(Bandura, 1977). Teachers can be affected by vicarious influences when they listen to colleagues describe their experiences with writing (Bandura, 1977). Verbal persuasion involves telling someone they will be successful. Providing positive encouragement to teachers of writing can have a positive impact on their willingness to try new techniques or ideas. Finally, physiological states, such as anxiety or confidence, can also affect one’s self-efficacy (Bandura, 1977). Self-efficacy has been found to have a positive impact on writing outcomes; the effect is a greater predictor of writing success than even greater than aptitude or previous performance (Pajares & Valiente, 2006). Writing anxiety or apprehension has been correlated with poor writing outcomes, but can be overcome when writers have positive self-efficacy in writing (Pajares et al., 1999, Pajares & Valiente, 1997, 1999, 2006).

**Review of Research Literature and Methodological Literature**

**Importance of writing.** Why is writing so important? First, writing skills (or lack thereof) can have a significant impact on students’ entire academic performance. First, there is a strong reciprocal relationship between reading and writing. Reading and writing both rely upon the same cognitive processes—domain/content knowledge, knowledge about language, knowledge of the features of written language, and procedural knowledge (Fitzgerald & Shanahan, 2000). The National Commission on Writing for America’s Families, Schools, and Colleges has issued a number of reports drawing attention to the critical need to improve writing instruction (2003, 2004, 2005). Even before this, Sheils (1975) posed the provocative “Why Johnny Can’t Read” and criticized the state of writing instruction, lamenting the fact that even among the best-educated, writing skills have appeared to decrease.

Tierney and Shanahan (1996) found that providing students with instruction in writing can improve their reading abilities, and providing instruction in reading can improve their
writing. Abbott & Berninger (1993) found strong correlations between phonological and orthographic knowledge in young readers and writers. At the most basic word level, a student’s word recognition skills are predictive of both their spelling and writing (Abbott & Berninger, 1993). Other research has also found that spelling ability impacts writing fluency (Graham, Berninger, Abbott, Abbott, & Whitaker, 1997).

Writing skills are closely associated with reading comprehension and understanding of domain or content knowledge. Berninger, et al. (2002) found that when students had high levels of reading comprehension, they also demonstrated strong writing composition skills. Writing about a topic has a small but positive impact on students’ understanding of it (Bangert-Drowns, Hurley, & Wilkinson, 2004; Graham & Perin, 2007). Studies have shown different measures of school learning are improved by writing (Bangert-Drowns, et al., 2004). Therefore, writing ability affects students’ grades across content areas (Graham, Harris, & Hebert, cited in Graham, et al., 2012b).

The reciprocal nature of reading and writing also deepens students’ understanding about language. Being a reader allows a writer to anticipate questions that a reader might have (Fitzgerald & Shanahan, 2000). Similarly, being a writer allows a reader to have a deeper understanding of what a writer is intending to communicate (Fitzgerald & Shanahan, 2000). Providing instruction that includes both reading and writing improves students’ enjoyment of both (Anderson & Briggs, 2011; Fitzgerald & Shanahan, 2000). The integrated nature of the knowledge required for reading and writing allows students to tap into shared knowledge of the world around them, how stories and texts work, and word knowledge in order to develop their skills in reading and writing (Fitzgerald & Shanahan, 2000). In addition, Langer & Applebee (1986) found correlations between reading and writing in awareness and intentional use of
strategies, such as predicting, questioning, or summarizing. Through writing about a text, students are able to form new understandings, make connections, and develop new interpretations of what an author meant (Langer & Applebee, 1986).

The importance of writing does not end with graduation; writing is critical in college and the workplace. The report Writing: A Ticket to Work...Or a Ticket Out (2004) described a survey of 120 American corporations. Survey results indicated that writing is essential for workers to get hired and promoted; poor writing skills often prevented people from getting jobs (National Commission on Writing, 2004). Many employers report that writing is a “threshold skill” that is used when hiring and promoting workers (Graham & Perin, 2007; National Commission on Writing, 2003). With 20% of college freshman taking remedial courses, it is clear that high school graduates are not prepared for the demands of college-level writing or the writing expectations of the workforce (NCES, 2013).

Neglected writing. Despite being one of the three “R’s”, writing has been a second-class subject for many years. Simply put, writing has not been a priority in instruction (Graham & Perin, 2007). From 2001 into the early twenty first century, writing has not been emphasized in elementary school curricula (McCarthey, 2008); this coincides with the adoption of No Child Left Behind (NCLB, 2001). Under NCLB, students were assessed and school progress was judged based on basic reading skills assessments; writing was not included in many of the state assessments. In schools across the United States, what is tested on standardized assessments frequently often equals what is taught (Branch-Brioso, Dervarics, Powell, & Roach, 2008; Posner, 2004; Scott, 2005). Teachers often spend instructional time on what is tested and neglect other subject areas (Booher-Jennings, 2006). That means that in the No Child Left Behind era, literacy instruction focused on basic reading skills with some comprehension instruction.
When *No Child Left Behind* was enacted in 2000, the emphasis in schools became basic reading skills; writing was not tested so therefore it was often pushed to the side.

The curricular neglect of writing has had an impact on the quality and quantity of writing instruction. This lack of attention to writing begins early; in a survey of elementary teachers, Cutler and Graham (2008) found a wide disparity in the amount of time that elementary students spent writing. In many classrooms, students write as little as 25 minutes a day; much of that time spent on completing writing assignments rather than direct writing instruction (Gilbert & Graham, 2010). Indeed, Grisham and Wosley (2011) stated that the "paucity of time allotted to writing in K-6 classrooms became painfully obvious" (p. 360).

One reason such little time is spent in writing instruction may be that many teachers report that they do not feel competent in teaching writing; they feel they lack knowledge, skills, and confidence to teach writing (Grisham & Wolsey, 2011). Teachers report having little training in college or little professional development in teaching writing (Gilbert & Graham, 2010; Graham et al., 2001). Many teaching candidates report only a few sessions in one or two classes focusing on how to teach writing (Grisham & Wolsey, 2011; Reid, 2009).

Standardized assessments also indicated that students do not demonstrate adequate writing skills. On the 2011 National Assessment of Educational Progress (NAEP), the most recent report, only 25% of eighth and twelfth graders scored proficient on writing, and only 3% wrote at an advanced level (NCES, 2012). The results from Common Core-related assessments are similar; the Partnership for the Readiness for College & Careers Assessment (PARCC), in 2016, offered a combined literacy score that included a significant writing portion. In Maryland, 33.7% of students across the state met or exceeded expectations, and just over 4% exceeded them (Maryland State Department of Education, 2016). Nationally, 33.6% of third graders met
expectations, while 3.5% exceeded them; in fourth grade 33.6% met standards, and 7.5% exceeded them, and in fifth grade, 37.2% met standards and 3.3% exceeded them (ParccOnline.org, 2015). American students appear to be at risk when it comes to writing.

Researchers have described a number of research-based best practices for writing instruction in elementary grades. These practices include process writing instruction, increased instruction in writing, using mentor texts, teaching a variety of genre, using pre-writing activities, self-regulation strategies, instruction in text structure, transcription skills (e.g. handwriting, keyboarding, spelling), creativity/imagery instruction, forming specific product goals, and providing specific feedback when assessing writing (Gilbert & Graham, 2010; Graham & Harris, 2013; Graham, et al., 2012b; Graham, et al., 2001; Graham, et al., 2012b; McCarthey & Ro, 2011). These practices serve as the cornerstone for examining the correlation between teachers’ self-efficacy in writing and their choice of instructional practices.

**Writing instruction: A history.** During the 20th and early 21st century, writing instruction has taken many paths, alternately emphasizing one of what Hawkins and Razali (2012) called the “3 P’s—Penmanship, Product, and Process.” Throughout its history, writing instruction has alternately focused on transcriptional skills (e.g. penmanship and spelling), the writing process (including prewriting, drafting, revising, editing, and publishing), and specific writing products (e.g. the five-paragraph essay) (Berninger & Chanquoy, 2012; Hawkins & Razali, 2012). From the late 1800s to the beginning of the twentieth century, writing emphasized “correctness and clarity” (Nystrand, 2006, p. 15). Institutions like Harvard made writing a cornerstone skill in their new curricula—emphasizing clarity, grammar, and proper usage as a “social grace” necessary to prepare their students to be citizens in an industrial society (Nystrand, 2006, p. 15). It was generally assumed that writing was merely transcribing spoken
thoughts into written words (Hawkins & Razali, 2012). Penmanship was also powerful—it was believed that one’s penmanship reflected one’s status (Hawkins & Razali, 2012). Writing instruction and instructional manuals reflected this belief and emphasized motor skills and letter formations through copying models (Hawkins & Razali, 2012). Emphasis on what is called handwriting in the early twenty first century has slowly waned, although still exists in some classrooms (Hawkins & Razali, 2012).

By the 1930s and 40s, there was a change in how writing was taught; penmanship lost its prominence and attention turned to correctness of components like syntax, spelling, and punctuation (Hawkins & Razali, 2012). In 1935, the National Council for Teachers of English (NCTE) condemned what they called the “reign of red ink” and called for authentic teaching and learning of writing, real world experiences. This meant that instruction was beginning to attend to the actual products of writing—the words on the page. By the 1950s, another change was brewing for writing instruction, influenced by research focusing on educational psychology. Lessons focused on behavioral objectives based on the works of Watson, Pavlov, Thorndike, and Skinner, and mastery of specific skills (Hawkins & Razali, 2012). Writing instruction, curricula, and teaching methods emphasized teaching minute measureable skills (Hawkins & Razali, 2012).

In the 1980s, the movement toward writing process instruction took hold (Calkins, 1986; Goodman, 1986; Graves, 1983). This theory emphasized teaching students the process of crafting writing. Writers’ Workshop and professional development movements such as the National Writing Project gained popularity (Harward, et al., 2014). Calkins (1983, 1986) proposed organizing writing process instruction through a workshop approach. Writing process instruction was embedded into the Writers’ Workshop model (Calkins 1994; Graves, 1983;
Murray, 1982). The Calkins’ Writers’ Workshop became the cornerstone of the Teachers College Reading and Writing Project and *Units of Study: Writing*, which emphasize deep study of each type of writing. In the 2010s, many teachers ascribed to the philosophy of writing process instruction (Calkins, 1983; Graves, 1983; Murray, 1976), and many basal writing programs utilize the process writing approach.

More recently, writing instruction has been influenced by technological developments, a more global society, and legislative influences (MacArthur et al., 2008). Advances such as Email, word processing, text to speech software and hypermedia (e.g. the internet) have had an impact on students’ writing (MacArthur, 2008). Some studies have found that including word processing in writing instruction has moderate positive effects on both the length and quality of students’ writing (Bangert-Drowns, 1993). More research must be done to determine the overall effect of various technological tools on students’ writing (MacArthur, 2008).

**Writing process instruction.** Writing process instruction through a Writers’ Workshop is popular in most elementary classrooms; Cutler and Graham (2008) reported that 75% of teachers they surveyed used a process writing approach, which is common in a Writers’ Workshop. The best practices found in research are compatible with writing process instruction. In addition to including instruction in writing process, a Writers’ Workshop typically includes teacher modeling, guided practice, and feedback from peers and the teacher (Calkins, 1986). The Writers’ Workshop model also embraces the Sociocultural theory of writing—allowing students to collaborate and provide feedback to peers and including scaffolded support for students in the process (Langer & Applebee, 1986; Vygotsky, 1962, 1978).

In addition to utilizing a Writers’ Workshop that infuses best practices in writing instruction, a number of other practices have been found to improve the quality of student
writing. First, the amount of time that students spend writing and being instructed in writing needs to be increased (Gilbert & Graham, 2010). Students in grades 4-6 average 25 minutes per day writing a paragraph or more; (Gilbert & Graham, 2010). Graham et al. (2012b) found that increasing the amount of time that students wrote led to improved writing quality. Graham, Bollinger, Olson, D’Aoust, MacArthur, McCutchen, and Olinghouse (2012a) agreed that at least one hour per day should be devoted to writing, beginning in first grade.

Direct instruction in the various states of the writing process, particularly pre-writing/planning, enhances students’ writing. As described in previous sections, writing process instruction, particularly in a Writers’ Workshop, is an effective model for writing process instruction. Students need to be taught specific strategies for each stage of the writing process (Graham et al., 2012a; Graham et al., 2012b). For example, strategies such POW for planning (Pick ideas, Organize, and Write to say more), sentence imitation, an author’s chair, and peer revising are effective in improving the quality of student writing (Graham et al., 2012a).

Within teaching the writing process, students should also be taught to craft a variety of genre for a variety of writing purposes (Gilbert & Graham, 2010; Graham et al., 2012a). Gilbert and Graham (2010) found that frequently students are assigned a variety of multi-paragraph writing tasks, but few of those are narratives. In order to be effective writers, students must have experiences writing to describe, to inform, to persuade, and to narrate stories (Common Core State Standards Initiative, 2010).

Research also points to the use of models to improve students’ writing (Dorlfman & Cappelli, 2007; Graham & Perin, 2007). Students can study models through the use of mentor texts, or authentic pieces of literature or nonfiction that allow them to read closely and emulate in form, style, or technique (Culham, 2014; Fletcher, 2011). Students critically analyze strong
examples of writing in order to emulate their characteristics, patterns, or sentence structures in their own writing (Culham, 2014; Fletcher, 2011). Culham (2014) and Fletcher (2011) argue for the importance for using mentor texts. According to Culham (2014), using mentor texts encourages students to read like writers, think deeply and critically about text, and deepen their understanding of the connection between the reading and writing processes.

Research on effective writing instruction indicates moderate evidence that instruction in transcription skills (e.g. handwriting, keyboarding, spelling), improves student outcomes in writing (Gilbert & Graham, 2010; Graham et al., 2012a; Graham & Perin, 2007). While most teachers feel that teaching these skills are important, they indicate that they teach handwriting and keyboarding sparingly (Gilbert & Graham, 2010). Teaching students to fluently and automatically hold a pencil, form letters, spell, and type allows the writer to focus on more complex thinking. Typing is equally important; current assessments including NAEP (National Assessment of Educational Progress), PARCC (Partnership for the Assessment of Readiness of College and Careers), and SBAC (Smarter Balanced Assessment Consortium) are administered online beginning in third grade in many states, requiring students to word process complete writing pieces. Graham & Perin (2007) found that teaching word processing was particularly effective in grades 4–12. Word processing has been also found effective in younger grades as well; Beck and Fetherston (2003) found that students using word processors in year three (second grade) produced writing that better quality writing using a standard rubric, had improved mechanics, and were more motivated to remain on tasks.

**Teacher preparation and writing.** Writing is clearly a critical skill, yet many teachers are not adequately prepared to teach it well (Chambless & Bass, 1986; Darling-Hammond, 2000). The lack of attention to writing is not merely in textbook programs or curricula; there is
also little attention to it in teacher preparation programs or in professional development offered to teachers. Teachers report minimal preparation for teaching writing in college (Brindle, Graham, Harris, & Hebert, 2016); writing was not included in assessments under NCLB (Harward, et al., 2014). Research has shown that pre-service teachers had little formal instruction on how to teach writing, including on process writing (Chambless & Bass, 1986; Grisham, & Wolsey, 2011). Gilbert and Graham (2010) found that over two thirds of teachers surveyed reported that they received minimal preparation to teach writing. Directly teaching both novice and experienced teachers has a positive impact on the quality of their writing instruction as well as the time they spend teaching writing (Gilbert & Graham, 2010). Even after college, many teachers still report little professional development on writing in their school districts (Grisham & Wosley, 2011).

Training can improve teachers’ proficiency in and attitude toward teaching writing (Bifuh-Ambe, 2013; Reid, 2009). Wood & Lieberman (2000) also found that quality professional development can improve teachers’ writing abilities and teaching competence. Too often, teacher training in writing is overly general, infrequent, and doesn’t meet teachers’ needs (Wood & Lieberman, 2000). “Incredibly, however, the professional development of in-service teachers remains shamefully neglected in too many places” (Wood & Lieberman, 2000, p. 256). According to Bifuh-Ambe (2013), professional development should be differentiated in order address needs of teachers, not be one-size-fits all. Her study also found that teachers preferred interactive, reciprocal professional development that included peer and expert conversations over “Sit and Get” lectures (Bifuh-Ambe, 2013).

More recent movements in teacher preparation for writing include opportunities for teachers to engage in the writing process themselves, collaborate with colleagues, and reflect
upon their own processes and learning (Darling-Hammond, 2000). One example is the National Writing Project. Wood and Lieberman (2000) state that participation in The National Writing Project “changes how teachers think about their professional identities and responsivities, and therefore, how they go about their work” (p. 257). “Teachers should participate as members of the community by writing and sharing their writing” (Reid, 2009, p. 35). In order for teachers to be able to model and provide specific, useful feedback to students on their writing, they must have a deep understanding of what it takes to produce quality writing (Wood & Lieberman, 2000). This deep understanding is developed through engaging in writing.

**Review of Methodological Issues**

There has been a significant amount of research devoted to writing and writing instruction. According to Abbot, Amtmann, and Munsen (2008), many of the quantitative studies in writing were conducted with a relatively small number of students. However, several significant meta-analyses have been conducted on writing instruction. Meta-analyses are effective tools in research; according to Adams and Lawrence (2014), “A meta-analysis is a more statistically sophisticated version of a literature review in that a meta-analysis uses the statistical results and sample sizes of past studies to synthesize results” (p. 36). Meta-analyses do not produce or analyze new data, but examine previous research in order to find commonalities. A meta-analysis is a strong choice for examining best practices for writing instruction because “it provides an estimate of a treatment’s effect under conditions that typify studies in the literature” (Bangert-Drowns, Hurley, & Wilkinson, 2004, p. 34). Meta-analyses allow researchers to increase the sample size, therefore decreasing the possibility of Type 1 or Type 2 errors. In addition, a meta-analysis allows researchers to examine effect sizes across studies that included specific student populations. Many studies cited by Graham (2008) focus
on specific groups of students such as poor writers, students with learning disabilities, or high achievers. A meta-analysis can determine if the results of one of these studies with a small, targeted population has been repeated with other populations.

In *Teaching Elementary Students to Be Effective Writers*, Graham et al. (2012a) examined 118 studies in order to identify practices that teachers should use to guide students to create quality writing, eventually using 34 studies within the meta-analysis. They employed a panel which thoroughly analyzed studies using the What Works Clearinghouse [WWC] procedures (Graham, et al., 2012a). Their research yielded 34 studies that both matched the causal validity standards of the WWC and were relevant to the study (Graham, et. al., 2012a). The strength of this and other meta-analyses is the fact that there are multiple studies to support the findings. Each recommendation was supported by at least 5 different studies.

In addition to this practice guide, Graham has collaborated in other valuable meta-analyses. *Writing to Read: Evidence for How Writing Can Improve Reading* provides evidence that explicitly teaching writing can have a positive, reciprocal effect on reading and other learning as well (Graham & Hebert, 2011). Graham, et al. (2012b) confirmed findings of Graham and Perin (2007) in their meta-analysis of 115 studies to examine best practices for writing instruction for students in the elementary grades. However, meta-analyses have limitations. Much of the research on student writing has been conducted with targeted groups, such as highly effective teachers or students with special needs or learning disabilities (Graham, 2008). Factors such as teacher preparation and professional development, gender, race, or years of experience may impact teacher self-efficacy. While these studies can be informative, studies with specific groups do not represent all groups and are therefore not necessarily generalizable to the overall student population.
There have been qualitative and quantitative studies conducted on writing and writing instruction. It is difficult to conduct true experiments with randomized participants including a control and experimental group in classrooms (Abbott, Amtmann, and Munsen, 2008). For example, it is often difficult to randomly assign children to instructional groups because of other factors that influence grouping (Fowler, 2014); these factors may include as behaviors, specialized needs, and outside supports available. Unlike writing, which has been an object of research for many years, the study of teacher efficacy is rather new. The study of teacher efficacy emerged when the RAND organization started questioning teachers about their beliefs and perceptions (Armor, et al., 1976). Other researchers soon began to expand the simple, two-item scale in order to measure teacher efficacy (Gibson & Dembo, 1984; Tschannen-Moran et al, 1998). Researchers generally agree that teacher efficacy has two distinct components: general teaching efficacy and personal teaching efficacy. Previous studies have looked at overall efficacy, and few have examined teacher efficacy specific to content area subjects (Graham et al, 2001). Graham et al. (2009) stated that writing research has “largely ignored” teachers’ feelings of efficacy (p. 178).

Studies on teacher efficacy have typically included surveying teachers, and sometimes have also been mixed-method, combining observation of teachers with surveys. Bifuh-Ambe (2013) used pre-and post-assessments of teachers’ attitudes before and after a ten-week course on writing. Pajares and Valiente (1997) conducted a quantitative analysis of fifth graders, surveying them about their attitudes and beliefs and examining their writing samples. They found that with students, self-efficacy had an impact on writing efficacy that was independent of writing aptitude. Ritchey et al. (2015) conducted a qualitative study in which they surveyed first through third grade teachers using Graham, Harris, MacArthur, and Fink’s (2002) Writing
Orientation Scale and examined student writing samples using a curriculum-based writing assessment administered three times in a school year. They found that teachers’ efficacy did have an impact on student achievement.

**Synthesis of Research Findings**

Several themes emerged in the research on writing instruction. First, writing instruction is important yet neglected (The Neglected "R”, 2003). While many American students do not demonstrate adequate skills in writing, writing is a critical skill throughout school, college, and beyond (National Center for Statistics, 2013; National Commission on Writing, 2007). Elementary students do not spend adequate time writing, and elementary teachers do not spend adequate time modeling, guiding, and instructing students in how to write better (Cutler & Graham, 2008; Grisham & Wosley, 2011). While the research has found only minimal evidence that increasing the amount of instructional time to writing increases writing achievement (Graham et al, 2012b, Graham & Perin, 2007), teaching students specific strategies and skills requires time.

Another theme within the research is that there are teaching practices in writing that are associated with higher student achievement in writing (Graham, et al., 2012b; Graham, MacArthur, & Fitzgerald, 2013). Students need to receive explicit instruction in specific writing strategies, such as planning, and specific writing skills, such as spelling, handwriting, or word processing (Graham et al, 2012b, Graham & Perin, 2007). Explicitly teaching students writing strategies increases their writing performance (Graham, 2008). Similarly, teaching students specific skills such as handwriting or word processing, can have a moderate effect on writing achievement (Graham & Perin, 2007; Graham et al., 2012b).
The Writer’s Workshop combines two prominent theories of writing instruction: Writing Process Theory and Sociocultural Theory. In this model, teachers provide explicit instruction in strategies and skills through mini-lessons (Atwell, 1987; Graves, 1983). Students have time and opportunities to engage in the writing process in order to write a variety of products for a variety of purposes (Atwell, 1987; Calkins, 1994; Graves, 1983). Students benefit from collaborating, getting feedback, and conferencing with their teacher and peers to discuss, revise, and improve their writing (Calkins, 1994). The Writers’ Workshop and teaching process writing have become a popular structure for teaching writing, but these are not used consistently across schools, classrooms, and districts (Pritchard & Honeycutt, 2003).

A Writers’ Workshop model incorporates a number of research-based practices for teaching writing (Atwell, 1987; Calkins, 1994; Fletcher & Portalupi, 2001; Graves, 1983). Some of the best practices identified include directly teaching strategies, sentence combining, prewriting activities, utilizing the process writing approach, studying models, transcription skills (i.e. spelling, handwriting), word processing, self-assessment, peer collaboration, inquiry activities, and summarization (Graham, et al., 2012a; Graham, MacArthur, & Fitzgerald, 2013). In addition to best practices, research has identified practices that are associated with poor student performance or achievement in writing, most notably, direct, traditional grammar instruction (Graham & Perin, 2007).

The importance of the role of the teacher and his or her self-efficacy is another theme in recent research. Teachers make decisions each and every day about how much time to spend on writing, what methods to use to teach students, how to model and guide their progress, and what feedback to provide. Studies have found that teacher self-efficacy has a positive effect on their instructional decisions (Ross, Cousins, & Gaddalla, 1996; Tschannen-Moran, Hoy, & Hoy,
The teacher is an element in instruction. Teachers’ sense of self-efficacy, or their confidence that they can perform the actions that lead to student learning, is a particularly powerful construct, as it is one of the few teacher characteristics that reliably predicts teacher practice and student outcomes (Ross, Cousins, & Gaddalla, 1996; Tschannen-Moran, Hoy, & Hoy, 1998; Tschannen-Moran & Johnson, 2011).

Despite the importance of the role of teachers, teachers often do not feel prepared to teach writing or have confidence in their own abilities to teach writing (Chambless & Bass, 1996; Gilbert & Graham, 2010; Grainger, 2005). Grisham and Wosley (2011) found that little attention has been given to writing in teacher training programs, but that providing instruction to pre-service teachers resulted in application of the concepts during lesson planning and implementation. In other words, teaching teachers about how to teach writing improves their teaching of writing.

Harward, et al. (2014) identified several reasons teachers struggle with teaching writing. These include time constraints, classes that include students with varying needs, and tensions between content and conventions as hindrances to effective writing instruction. They further indicated that teachers need quality professional development that addresses these (Harward, et al., 2014). Beginning with the RAND study, researchers have slowly begun to put forth research and theory about the role that self-efficacy has on teachers. The RAND study found a correlation between teacher efficacy and reading achievement in minority students (Armor et al., 1976). Following the RAND research, Bandura (1977) conducted his research on self-efficacy with learners as well as instructors. Children who have belief in themselves, or high self-efficacy, score perform better in academic tasks such as mathematics and writing (Bouffard-Bouchard, Parent, & Laviree, 1991).
A number of researchers have created various scales and surveys for evaluating teacher efficacy, including the RAND measure (Armor et al., 1976), Teacher Locus of Control (Rose & Medway, 1981), Teacher Efficacy Scale (Gibson & Dembo, 1984), and Bandura’s Teacher Efficacy Scale (1986). Researchers have found that there are two distinct components of teacher efficacy: personal and general teaching efficacy (Gibson & Dembo, 1984; Graham, Harris, Fink & MacArthur, 2001).

**Critique of Previous Research**

Existing research includes qualitative and quantitative studies, as well as several meta-analyses examining multiple studies. Qualitative studies have focused on case studies and surveys of teacher practices, including Graves’ research team funded by the National Institute of Education (Graves, 1984). Under Graves’ influence, Calkins’ (1982, 1983) study found that when a student received instruction in revising, writing improved. While this early qualitative study lacked the validity checks that are used in modern research, Calkins’ work has been extremely influential in developing theories of writing instruction (Pritchard & Honeycutt, 2008). Qualitative research studies tend to have small sample sizes and yield results that are not generalizable (Harward, et al., 2014; Reid, 2009; Ritchey Coker, & Jackson, 2015, Wood & Liebermann, 2010), and can be hard to replicate because of the small sample size (Adams & Lawrence, 2014). Quantitative studies often examine students’ writing performance on standardized assessments or surveys of teachers.

Another type of research present in the literature is meta-analyses. Meta-analyses are particularly powerful; these are statistical tools that allow a researcher to examine multiple studies at once, calculating effect size in similar studies (Lipsey & Wilson, 2001). Adams and Lawrence (2014) described meta-analysis as secondary research in which the author compiles the
statistical results and sample sizes of past studies to synthesize results. Meta-analyses are helpful in examining what research has been done as well as what gaps exist in current research. A flaw in meta-analysis is that the author of it selects information that supports his theory; therefore, other relevant information may be omitted (Adams & Lawrence, 2014).

Much research in elementary instruction relies on self-reporting by teachers. Studies have shown that teacher self-reporting of instructional practices are generally accurate (Graham, et al., 2001). However, it is important to note that relying on teacher surveys does not necessarily provide a clear and accurate picture of what is happening in classrooms. Teacher responses may be influenced by other factors, including wanting to answer “correctly” or wanting to please an authority figure. Some of the studies on writing instruction reviewed relied on a limited number of teacher participants (Gilbert & Graham, 2011; Grainger, 2005). Small numbers of participants make it difficult to generalize results. To ensure external validity, the study must include a large sample in order to be able to generalize the results.

Another concern with current research in writing instruction is: What exactly is effective writing instruction? There are a wide range of teacher activities that are referred to as “best practices” or are regarded as effective. To be deemed “effective,” a practice must effect positive change for students in other studies. The lists of best practices vary from study to study and from author to author. Researchers have not agreed upon a single list of practices that should be employed in all classrooms. For the purpose of this study, I am using best practices that were identified in multiple studies, including Cutler & Graham, 2008; Graham, et al., 2012a; Graham, et al., 2012b; Graham et al., 2001; Hillocks, 1986.

The study of teacher self-efficacy also has methodological issues. Armor et al. (1976), Bandura (1986), and Tschannen-Moran et al. (1998), have reported correlations between teacher
self-efficacy and instructional practices as well as student outcomes. Research also clearly indicates that teachers’ self-efficacy—their perceptions of themselves as writers or teachers of writing—has an effect on their self-reported instructional practices. Further research has demonstrated that teacher self-efficacy is situational—that is, it can be changed by outside factors as well as by subject or teaching context (Graham, et al., 2001; Tschannen-Moran, Hoy, & Hoy, 1998; Wilkins, 2010). Previous research has examined teacher self-efficacy in science, special education, mathematics, and literacy (Tschannen-Moran, Hoy, & Hoy, 1998; Wilkins, 2010). Few studies have been done on teacher self-efficacy and writing instruction, particularly at the elementary level (Graham, et. al., 2001). Tschannen-Moran, Hoy, and Hoy (1998) identify some of the critical issues facing the study of teacher self-efficacy. Current research does not indicate whether teacher efficacy can be effectively identified using a single instrument, whether multiple instruments should be used, or whether the definition of efficacy need to be refined.

**Chapter 2 Summary**

Despite the importance of the skill of writing, writing has been neglected in elementary instruction from the 1980s to 2010s. When *No Child Left Behind* was enacted in 2000, the emphasis in schools became basic reading skills; writing was not tested so therefore it often did not receive instructional attention. Cutler and Graham (2008) found a wide disparity in the amount of time that elementary students spent writing; many wrote for as little as 25 minutes per day. Less than 33% of all students performed at or above the “proficient” level in writing on the 2007 National Assessment of Educational Progress (NAEP) Writing Assessment. (Salahu-Din, Persky, & Miller, 2008, quoted in Graham & Perin, 2008). The status of writing has changed with the adoption of Common Core State Standards and their accompanying tests (Graham & Harris, 2013). The standards heavily emphasize writing, including specific text types and
connecting writing to reading (Common Core State Standards Initiative, 2010). Writing demands for elementary students are high; fifth graders are expected to type a cohesive essay that is two pages long in a single sitting (CCSS, 2010). Because writing is a key component of the assessments connected to CCSS, writing is again being addressed in elementary schools (Graham & Harris, 2013).

Recent legislation and adoption of the Common Core State Standards have led to a renewed interest in writing instruction. Research has identified effective instructional practices in writing instruction, but these are not used consistently in classrooms (Cutler & Graham, 2008; Gilbert & Graham, 2010; Graham, et al., 2012b; Graham, et al., 2001; Graham & Harris, 2013; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007; Hillocks, 1986; McCarthey & Ro, 2011). Teacher self-efficacy affects not only instructional choices, but also student outcomes. Writing instruction is critical, but receives minimal instructional attention (National Commission on Writing for America’s Families, Schools, and Colleges, 2003;2004; 2005). Teacher self-efficacy is an important factor in effective teaching, including the teaching of writing. Teacher self-efficacy can impact instructional choices and time spent planning and teaching a subject. Teachers report that they have not had sufficient training in specifically how to teach writers (Chambless & Bass, 1986; Grisham, & Wolsey, 2011). They had little training in their college coursework (Brindle, et al., 2016), and even less through professional development opportunities while they are teaching (Chambless & Bass, 1986; Grisham, & Wolsey, 2011).

This literature review has demonstrated both the importance and neglect of writing instruction. Evidence has also shown that teacher self-efficacy is a powerful component in student achievement, and that there is a lack of evidence that teachers have a strong sense of self-
efficacy when it comes to literacy and writing instruction. Therefore, it can be argued that it is important to examine ways to improve teachers’ self-efficacy in writing instruction in order to improve student achievement in writing. Based on this review of literature, which develops a unique conceptual framework using instructional theories of writing as well as social cognitive theory of human development, there is sufficient reason for thinking that an understanding the impact that teacher self-efficacy has on writing instruction would yield socially significant findings.

The purpose of this study was to examine whether teachers’ self-efficacy with regard to writing has a statistically significant effect on their use of instructional writing practices. This is important because there is a vast amount of research that identifies best practices in writing instruction that have positive impacts on student achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). There is also evidence that writing self-efficacy impacts writing achievement (Pajares, & Valiante, 1997; Pajares & Valiante, 2006; Ritchey, et al., 2015). This study can help to correlate high self-efficacy for teachers of writing with use of best practices in writing instruction in order to inform future professional development.
Chapter 3: Methodology

Introduction to Chapter 3

In this chapter, I describe the purpose of the study, research questions, hypotheses, research design, target population, sampling method (power) and related procedures, instrumentation, data collection, operationalization of variables, data analysis procedures, limitations and delimitations of the research design, internal and external validity, expected findings, and ethical issues.

My conceptual framework that established my frame of reference in approaching this study include theories of writing instruction and theories of self-efficacy. Theories of writing instruction focus on the writing process theory of writing (Emig, 1971, 1977; Calkins, 1986; Graves, 1983), and the sociocultural theory of writing (Langer & Applebee, 1986; Vygotsky, 1962, 1978). Writing is a complex activity that requires a series of decisions to be made by the writer. Theorists (Emig, 1977; Calkins, 1986, 1994; Graves, 1983; Murray, 1982) suggested that writing is a recursive process in which writers plan, draft, and revise writing into a finished product. The Writers’ Workshop model (Atwell, 1987; Calkins, 1994; Fletcher & Portalupi, 2001; Graves, 1983) is a prevailing theoretical model utilizing writing process theory that has been used in elementary writing instruction since the early 1980s (Pritchard & Honeycutt, 2008). Sociocultural theory of writing suggests that writing is not a lone endeavor; according to Langer and Applebee (1986), but instead learning literacy skills is a social activity. Through social interaction, learning occurs (Langer & Applebee, 1986). Teachers can support learners in their acquisition of language skills by providing modeling—both positive and negative models (Schunk, 2003). They can also support learners through scaffolding, or gradually providing less and less support and guidance (Bruner, 1978).
These two theories, Writing Process Theory (Emig, 1977; Calkins, 1982; Murray, 1982; 1983) and Sociocultural Theory (Vygotsky, 1962, 1978) provide the underpinnings for the best practices for writing instruction that improves students’ writing achievement that have been identified in research (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, et al., 2012b; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). In several meta-analyses, Graham and others have made recommendations based on these findings (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, et al., 2012b; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007). Increasing the amount of time that students spend writing and receiving instruction in writing improves the quality of students’ writing (Gilbert & Graham, 2010; Graham et al., 2012a; Graham et al., 2012b). Graham et al. (2012a) suggested at least an hour per day beginning in first grade. Direct instruction in the various states of the writing process, particularly pre-writing/planning, enhances students’ writing (Graham et al. 2012a; Graham et al., 2012b). Research has also found that teaching students to craft a variety of genre for a variety of writing purposes, sentence imitation and peer revision are effective practices (Gilbert & Graham, 2010; Graham et al., 2012a). Using models such as authentic texts or teacher created samples has also been found to improve students’ writing (Dorlfman & Cappelli, 2007; Graham & Perin, 2007). Finally, there is moderate evidence that direct instruction in transcription skills (e.g. handwriting, keyboarding, or spelling), improves student outcomes in writing (Gilbert & Graham, 2010; Graham et al., 2012a; Graham & Perin, 2007).

Teacher self-efficacy has been shown to impact overall teacher effectiveness (Bandura, 1986; Harward, et al., 2014). High self-efficacy teachers devoted more time to writing and spent more time teaching the writing process and grammar than their low self-efficacy counterparts (Grisham & Wolsey, 2011). Teachers who lack self-efficacy tend to over-emphasize the rote
mechanics, or “surface features” of writing over content and creativity; these include lower level writing skills such as spelling grammar, punctuation, rather than higher level content (Grisham & Wolsey, 2011).

In this study, I sought to address the following problem: many students do not receive adequate writing instruction, causing them to perform poorly on writing tasks. Despite the importance of writing skills, nearly 75% of eighth and twelfth graders scored below proficient in writing on the 2011 National Assessment of Educational Progress (NAEP, National Center for Education Statistics, 2012). Students’ writing achievement can improve when teachers use best practices in teaching writing (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, et al., 2013; Graham & Perin, 2007). Teacher self-efficacy has been shown to impact overall teacher effectiveness (Harward, et al., 2014). Teacher self-efficacy impacts their instruction, including the amount of time they plan and deliver instruction (Wilkins, 2010). Further, teacher self-efficacy has been correlated with teachers’ beliefs about teaching writing (Graham et al., 2001).

Two elements of teacher efficacy have been identified by previous researchers (Gibson & Dembo, 1984; Graham et al., 2008; Tschannen-Moran et al., 1998). Personal self-efficacy refers to teachers’ belief in their own capabilities with regard to teaching writing. General teaching efficacy is a second component of teacher efficacy; it includes external factors that teachers consider outside their control, such as class size and composition.

Examining the relationship between teacher self-efficacy in writing instruction and their instructional choices can guide future professional development for teachers of writing in order to improve their self-efficacy and selection of writing instructional techniques. This could help educators to better understand how teachers’ self-efficacy impacts their inclusion of best
practices in writing instruction. My goal was to enhance understanding of what self-efficacy factors impact teachers’ selection of specific instructional techniques in writing instruction.

**Purpose of the Study**

The purpose of this study was to understand the relationship between teacher self-efficacy in writing and the instructional choices that elementary classroom teachers in Watertown School District (a pseudonym) make in teaching writing. The results of this study may be used to help educators to better understand how teachers’ self-efficacy impacts their inclusion of best practices in writing instruction. It also may be used by researchers, who may use the results as they prepare future teacher preparation and support for teachers in the area of writing instruction.

Many American students’ writing is not proficient on NAEP and other measures (NCES, 2012; Partnership for the Assessment of Readiness for College & Careers, 2016). Writing has been identified as a critical skill necessary in order for students to be able to communicate successfully (National Commission on Writing, 2003). Further, teachers’ self-efficacy has an impact on teachers’ instructional decisions, including how much they plan and how much time they spend instructing a subject (Graham, et al., 2001; Wilkins, 2012). It is my theory that many teachers do not have self confidence in teaching writing; therefore, they do not consistently use research based practices that can help improve students writing.

Despite being identified as a critical skill, writing has historically been neglected in national reform efforts. *No Child Left Behind* emphasized basic reading skills, but did not address writing at all (NCLB, 2001). It was not until *Race to the Top* was enacted in 2010 that writing was given national attention in reform efforts (Common Core State Standards Initiative, CCSS, 2010). As part of *Race to the Top*, states were encouraged to adopt the Common Core
State Standards (CCSS, 2010). These standards were developed by the National Governor’s Association (NGA) and the Council of Chief State School Officers (CCSSO). The developers began with expectations for college and career readiness and back mapped the skills all the way to kindergarten. Essential skills included literacy, including reading and writing. To meet Common Core State Standards, students in as early as kindergarten are expected to write argumentative/opinion pieces, informational texts, and narratives that are not only well-crafted, but also infuse text based evidence and content knowledge (Common Core State Standards Initiative, 2010). Common Core State Standards are bringing much needed attention to writing in elementary schools.

**Research Question**

The following research questions guided this study:

1. Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   - Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   - Is there a statistically significant relationship between teaching self-efficacy factor of general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction?

**Hypotheses**

My assertion was that teachers with high self-efficacy in writing are more likely to use best practices in writing instruction more frequently than teachers with low self-efficacy. The null hypothesis for this study was that there is no relationship between teacher self-efficacy in
writing and instructional choices in writing. The alternate hypothesis was that there is a statistically significant relationship between teacher self-efficacy in writing and instructional choices in writing.

For the first sub-question, my assertion was that teachers with high personal self-efficacy in writing are more likely to use best practices in writing instruction more frequently than those who report low personal self-efficacy in writing. The null hypothesis for this sub-hypothesis was that there is no relationship between teachers’ personal self-efficacy in writing and instructional choices in writing. The alternate hypothesis was that there is a statistically significant relationship between teachers’ personal self-efficacy in writing and instructional choices in writing.

For the second sub-question, my assertion was that teachers who report high general efficacy in writing are more likely to use best practices in writing instruction more frequently than those who report low personal efficacy in writing. The null hypothesis for this sub-hypothesis was that there is no relationship between teachers’ reported general efficacy in writing and instructional choices in writing. The alternate hypothesis was that there is a statistically significant relationship between teachers’ general efficacy in writing and instructional choices in writing.

Overall teacher effectiveness has been demonstrated to be affected by teacher self-efficacy (Harward, et al., 2014). Previous researchers have also identified best practices in writing instruction that have positive impacts on student achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, et al., 2013; Graham & Perin, 2007). There has not been research connecting teacher self-efficacy with instructional practices associated with higher student achievement in writing. “Often overlooked, however, is the intersection between
teachers’ skills and knowledge and their beliefs” (Graham, et al, 2001, p. 178). Creating a better understanding of teacher self-efficacy in writing and their use of specific writing practices, may inform researchers and lead to positive changes in teacher preparation and support for teachers in the area of writing instruction.

Previous researchers (Gibson & Dembo, 1984; Graham et al., 2008; Tschannen-Moran et al., 1998) have distinguished between two factors in teacher efficacy. Personal self-efficacy refers to teachers’ perception of their own capabilities with regard to teaching writing. General teaching efficacy includes external factors, such as class size and composition. Cutler and Graham (2008) organized writing practices into categories: Support Student Writing, Teach Basic Writing Skills, Teaching Writing Process, General Instructional Procedures, Motivation, Assessment, Home Environment, and Extend Writing to Content Areas.

**Research Design**

The variables in this study were teacher self-efficacy and writing instructional practices. Within the category of teacher-self efficacy, previous research has identified two factors: personal teaching efficacy and general teaching efficacy (Gibson & Dembo, 1984; Graham et al., 2001). Within writing instructional practices, Graham et al. (2001) identified categories: supporting student writing, teaching basic writing skills, teaching the writing process, general instructional procedures, motivating students, assessment, students’ home environment, and extending writing to content areas.

The participants in this study were elementary (Kindergarten through Fifth Grade) classroom teachers in Watertown School District. I used nonprobability sampling; this is appropriate when conducting a correlational study (Adams & Lawrence, 2014). I anticipated
that the demographics of teachers in the sample would not differ significantly from those in the overall district.

This study utilized an online survey of teachers and quantitative correlational research. Surveying is an appropriate tool for examining teachers’ beliefs and practices. Previous research has found relationships between teachers’ self-reported instructional practices and their observed practices (Graham et al., 2002; Lane et al., 2009; Lipson, Mosenthal, Daniels, & Woodside-Jiron, 2000; Olinghouse, 2006; Troia, Lin, Cohen, & Monroe, 2011). This minimizes one type of error commonly associated with survey research, which is errors associated with inaccurate answers. Surveys can provide insight into teachers’ thinking, including their feelings about their personal competency and also their use of different teaching techniques.

An advantage of teacher surveys is that they are easily administered and analyzed (Fowler, 2014; Graham, et al., 2001). To ensure validity and reliability, I use surveys that were previously created (Cutler, & Graham, 2008; Graham, et al., 2001). Fowler (2014) identifies advantages and disadvantages of internet surveys. Advantages include low cost, quick turnaround, and high cooperation rate (Fowler, 2014). However, there are some disadvantages; these include being limited to samples of internet users, and the need for email addresses (Fowler, 2014). Because I am surveying elementary teachers in a district which relies on email communication, the targeted respondents have both internet access and valid email addresses, minimizing the risk of this drawback.

First, I selected survey instruments including the Writing Practices Survey by Cutler and Graham (2008) and the Teacher Efficacy Scale for Writing by Graham, et al. (2001). I created an online survey combining these surveys with demographic questions. After securing the appropriate permissions from the local school district, I selected 20 schools representing the
broad demographic of the county using a nonprobability sampling method. I contacted principals in those schools, describing the study and requesting their permission to contact elementary classroom teachers in their buildings. After principals had agreed, I emailed teachers in those schools requesting their participation, obtaining informed consent via the introduction email and first page of the survey. Once teachers agreed to participate, I emailed the link to the survey for them to complete. The surveys took approximately 20 minutes and were predicted to be returned within two weeks. After the surveys were returned, I completed a correlational and regression analysis.

**Target Population, Sampling Method (power) and Related Procedures**

The target population for this study was elementary teachers, from kindergarten through fifth grades in Watertown School District. In order to ensure that the participants closely represented the general population of elementary teachers, I utilized nonprobability sampling of elementary classroom teachers in Watertown School District. “Nonprobability sampling is a perfectly fine and common method of sampling” when the goal is to examine relationships rather than describe a population (Adams & Lawrence, 2014, p. 128). Therefore, because this is a correlational study, it is acceptable to use nonprobability sampling to select participants. The sample of teachers was chosen based on quota and convenience. First, teachers were selected by quota because I will only contact elementary classroom teachers to participate. My study also used convenience sampling, because teachers will have to volunteer to take the time necessary to participate. In order to avoid Type I and Type II errors, I determined that a sample size of 320 teachers would allow ensure a confidence level of 95% with a margin of error of 5%.

The setting of this study was a large, diverse district in northeastern United States, Watertown School District. The district includes 79 elementary schools, 19 middle schools, and
11 high schools. The schools in the district are geographically and demographically diverse, ranging from inner-city to rural, from high poverty to affluent, and from ethnically diverse to nearly homogeneous. Overall, the district is 0.3% American Indian, 12.7% Hispanic/Latino, 0.2% HI/Pacific Islander, 3.6% Asian, 20.5% African American, 56.7% White, and 6% Multiracial (Maryland State Department of Education, 2016). In addition, 38.3% of students receive free and reduced meals (FARMS), 7% have Limited English Proficiency (LEP), and 9.4% have Individualized Education Plans (IEPs) (Maryland State Department of Education, 2016). In the district, there are 3,927 teachers working in elementary schools. It is important to note that this population for the district A includes all elementary teachers; some of those specialize in areas such as Music, Physical Education, or other subjects and do not teach literacy and/or writing. Sixty percent have advanced professional certificates, and 28% have standard professional certificates. Less than two percent are conditionally certified (Maryland State Department of Education, 2016).

Among individual schools, demographics vary greatly, with wide differences in geographical location (e.g. suburban, rural, or urban), diversity, economic status, number of highly qualified teachers, and other factors. Therefore, in order to ensure that the study included teachers from across the large district, I used nonprobability sampling. I selected 20 schools from across the district representing diverse demographics within student populations.

I contacted the school district in December 2016 to obtain the proper permissions and complete the required forms. In January 2017, I contacted principals at 20 elementary schools in this district, requesting permission to contact classroom teachers in their school in order to email them the survey. The principal contact letter (delivered via email) can be found in Appendix B.
The 20 schools were selected to represent a variety of schools from across the district, varying in geographic location, size of school, student demographics, and other details.

According to the Maryland Department of Education (MSDE, 2015), there were approximately 1,854 elementary (Kindergarten through fifth grade) teachers in the district. Of those teachers, 83% are female and 17% are male, 83% are white, 9% are Black or African American, 3% are Asian, 2% are Hispanic, 2% are two or more races, and less than 1% are American Indian or Pacific Islander (MSDE, 2015). This is similar to the overall demographics of elementary teachers in the United States; 80% are white, 7% are black, and 8% are Hispanic (U.S. Department of Education, 2016). A sample size of 320 ensures a confidence level of 95% and a margin of error of 5%.

Instrumentation

In August 2016, I contacted Steve Graham, co-author of the Teacher Efficacy Scale for Writing (TESW, Graham, Harris, Fink & MacArthur, 2001, based on Gibson & Dembo, 1984), and the Writing Practices Survey (WPS, Cutler & Graham, 2008), and obtained permission to use them. The permission email can be found in Appendix A.

**Teacher Efficacy Scale for Writing.** To examine teachers’ perceived self-efficacy in teaching writing, I used the Teacher Efficacy Scale for Writing (TESW, Graham, Harris, Fink & MacArthur, 2001, based on Gibson & Dembo, 1984). Graham, et al. (2001) revised the Teacher Efficacy Scale developed by Gibson & Dembo (1984) to create a scale that would measure teacher efficacy specifically in writing. This survey includes 16 questions using a Likert scale format asking teachers to indicate their feelings about a variety of statements. Graham, et al. (2001) used 16 of the 30 items from the original survey, selecting only the items that scored a factor loading of .45 on the original factor analysis.
A factor analysis for the original survey by Gibson and Dembo (1984) identified two factors, labeled as personal teaching efficacy (referring to self-perception of one’s teaching) and general teaching efficacy (referring to outside factors that may influence one’s effectiveness in teaching). The authors of the scale have confirmed both convergent and discriminate validity (Gibson & Dembo, 1984; Tschannen-Moren, et al., 1998). Graham et al. (2001) report estimates of reliability the TESW range from 0.75–0.81 for personal teaching efficacy and from 0.64–0.77 for general teaching efficacy (Tschannen-Moren, et al., 1998). Items 1, 3, 5, 6, 7, 9, 10, 12, 14, and 15 were associated with personal efficacy; items 2, 4, 8, 11, 13, and 16 were more representative of general teaching efficacy (Graham et al., 2001). Sample items on the TESW include, “If I try really hard, I can help students with the most difficult writing problems,” and “The influence of a student’s home experience on writing can be overcome by good teaching.” This survey can be found in Appendix D.

Writing Practices Survey. To examine teacher teachers’ use of various instructional practices in writing, I used the Writing Practices Survey (WPS, Cutler & Graham, 2008). This study includes 37 questions and asks teachers to report how often they use a variety of practices, such as writing prompts, peer conferences, and modeling writing strategies. Cutler and Graham’s survey used a Likert scale developed by Pressley, Rankin, and Yokoi (1996) that included the following markers: 1 __ never, 2 __ several times a year, 3 __ monthly, 4 __ several times a month, 5 __ weekly, 6 __ several times a week, 7 __ daily, and 8 __ several times a day.

Within writing practices, Cutler and Graham (2008) have organized these practices into broad categories: Support Student Writing, Teach Basic Writing Skills, Teaching Writing Process, General Instructional Procedures, Assessment, Home Environment, and Extend Writing to Content Areas. Cutler and Graham (2008) categorized the items in the following manner: 11
items related to supporting student writing of specific products (coefficient alpha 0.78), six focused on teaching basic writing skills (coefficient alpha 0.84), four focused on teaching writing process (coefficient alpha 0.85), three addressed general instructional procedures (coefficient alpha 0.62), five focused on promoting motivation (coefficient alpha 0.70), four addressed assessment (coefficient alpha 0.75), four were about the students’ home environment (coefficient alpha 0.81), and three were about extending writing to content areas (coefficient alpha 0.83). The Writing Practice Survey questions can be found in Appendix C.

**Demographic and descriptive information.** In this portion of the survey, I used a version of *Demographic and Descriptive Information*, adapted from Cutler and Graham, 2008 and Graham et al., 2001. These questions focused on basic demographic information about respondents, and also included questions about general practices in the classroom. General demographic questions asked participants to identify characteristics including, but not limited to, gender, ethnicity, and years of experience. Demographic questions also included information about the school and classroom demographics, including but not limited to the number of students in particular ethnic groups, the number who receive special education, and the number who receive free and reduced meals. The items on the demographic portion of the survey will be used to compare the participants to the overall targeted population of elementary teachers within Watertown School District.

In addition to the questions developed by Cutler and Graham (2008), I added several demographic questions that address unique characteristics in this district. These include: *Do you use a commercial program to teach writing, handwriting, spelling or any other aspect of composing?*; *Please indicate which subjects you teach: all subjects, departmentalized: math, departmentalized: language arts, or other* and *How much time do your students spend engaged
These additional questions gathered additional information to help get a better picture of teacher respondents. Questions from this portion of the survey can be found in Appendix B.

**Data Collection**

For this study, I collected quantitative data gathered from teacher responses to Likert-scale items via an online survey using Qualtrics. A survey was an appropriate tool to address both questions in this study. The first question for this study was: *Is there a statistically significant relationship between teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction?* The second research question is: *Is there a statistically significant relationship between teaching self-efficacy factors of personal self-efficacy and general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction?* These tools were appropriate to select because they provided simple and clear questions for teachers to report their practices. Both tools have reliability and validity information provided by the authors of the studies (Cutler & Graham, 2008; Graham et al., 2001). The TESW provided data about the first variable, teachers’ personal and general teaching efficacy in writing. The WPS provided data about the frequency that teachers reported using instructional practices.

The items were assigned values based on an interval scale. All data was exported to an Excel spreadsheet for statistical analysis. Previous studies using surveys (Cutler & Graham, 2008; Graham et al., 2001) used paper surveys that were mailed to participants that included a small monetary gift for participation. This study used the questions from previously used instruments but in an online format that is user-friendly for teachers. There are several advantages to using an online tool over a paper survey. First, a computer can aid an analyzing
the data, often finding patterns or inconsistencies that are difficult to see (Fowler, 2014). These advantages are offset by disadvantages, such as the necessity for lead time to ensure that the data collection is error-free (Fowler, 2014). To address the potential problem, I had several colleagues take a sample version of the online survey as a pilot. Eight educators with a background in elementary reading/literacy took the survey to provide feedback. Since I was using prepared surveys, the feedback focused on format, ease of use, and clarity of directions rather than specifics about any questions. I was able to make adjustments to formatting to eliminate any confusions or difficulties.

**Operationalization of Variables**

In this study, I sought to establish a correlation between two variables: teacher efficacy and their use of best practice in writing instruction. The variables in this study were teacher self-efficacy in writing instruction and frequency in using writing instructional practices. Within the category of teacher-self efficacy, previous research has identified two factors: personal teaching efficacy and general teaching efficacy (Gibson & Dembo, 1984; Graham et al., 2001). Within writing instructional practices, Graham et al. (2001) identified categories: supporting student writing, teaching basic writing skills, teaching the writing process, general instructional procedures, motivating students, assessment, students’ home environment, and extending writing to content areas.

**Operational definitions.** For the purposes of this study, I used the following operational definitions.

**Self-efficacy.** Self-efficacy is “an intellectual activity through which one formulates one’s beliefs about his or her ability to achieve a certain level of accomplishment” (Bandura, 1977, p. 193). Self-efficacy refers to a teacher’s belief that he or she has the skills necessary in
order to positively impact student achievement. Self-efficacy will be measured using a numeric code based on an interval scale ranging from one to six with items on the TESW (Graham, et al., 2001).

**Personal efficacy.** This refers to one’s personal beliefs that they have the skill and knowledge to be effective, is a key factor in overall teaching effectiveness (Bandura, 1977; Graham, et al., 2001). Personal efficacy was measured using items on the TESW using items such as, “If I try really hard, I can help students with the most difficult writing problems.” It was measured using a numeric code based on an interval scale ranging from one to six with items which had a factor loading of 0.45 or higher for personal teaching efficacy on the TESW (Graham, et al., 2001).

**General teaching efficacy.** General teaching efficacy is a component of teacher self-efficacy that refers to factors that are often outside a teacher’s control, such as external factors including class size and composition. General teaching efficacy was measured using items on the TESW such as, “If parents would do more in writing with their children, I could do more.” It was measured using a numeric code based on an interval scale ranging from one to six with items which had a factor loading of 0.45 or higher for general teaching efficacy on the TESW (Cutler & Graham, 2008).

**Best practices in writing instruction.** This refers to instructional practices or techniques that have been proven to be effective in previous research studies. The WPS was used to survey teachers on how often they use a number of practices in teaching writing. Best practices in writing instruction were measured using items on the WPS portion of the survey instrument. Participants were asked to report how often they use particular practices when teaching students to write, such as revising, modeling, or requiring peer responses. Responses on the Writing
Practices Survey (Cutler & Graham, 2008) were scored using a numeric code based on an eight-point interval scale.

Data Analysis Procedures

Descriptive statistics were collected for each of the instruments in this survey. Tools within Qualtrics, combined with Microsoft Excel, were used to organize and analyze data. Each of the surveys included in this tool use Likert scales. Teacher self-efficacy were measured via the Teacher Efficacy Scale for Writing (TESW, Graham, et al., 2001) using a numeric code based on an interval scale ranging from one to six with items. Teachers’ use of writing practices were measured via the Writing Practices Survey (WPS, Cutler & Graham, 2008) using a numeric code based on an interval scale ranging from one to eight.

First, a correlation coefficient was found to examine the correlation between Teacher Self-Efficacy in teaching writing and instructional Writing Practices. Results were used to determine if there was a correlational relationship between Teacher Self-Efficacy in writing and instructional practices in teaching writing. Second, a correlational study was conducted to determine if there were specific demographic characteristics which correlate with high teacher self-efficacy in writing.

I used a scatterplot to graph the relationship between Personal Efficacy and the frequency with which teachers reported using each of the practices on the Writing Practices survey. Next, I found the Pearson’s $r$ correlation coefficient to determine the linear relationship between teacher Personal Self-Efficacy and the frequency with which they utilized practices on the Writing Practices Survey. I then repeated the procedure to find the correlation between General Teaching Efficacy and teachers’ reported use of items on the Writing Practices Survey. Once a significant relationship was determined using Pearson’s $r$, I completed a linear regression to
determine the extent to which teacher efficacy may be used to predict particular uses of writing instructional strategies. Finally, using regression analysis, I tested the hypotheses about factors that predicted the frequency of use of research-based writing practices.

**Limitations and Delimitations of the Research Design**

**Limitations.** First, teachers self-reported their beliefs and practices in the survey. Therefore, the results are limited by the honesty of their answers. Surveys rely on teachers to self-report practices, and there exists the danger that teachers respond in the way they believe seems most favorable or desired. While research does indicate that teachers’ self-reported practices are similar to those observed (Graham et al., 2002; Lipson, et al., 2000; Troia, et al., 2011), there is the danger that teachers respond in a way they think will be what is desirable to the researcher or respond in a way that they believe makes them appear stronger as teachers. Also, simply the fact that teachers report using a technique frequently does not mean that they use the technique well. In this study, I am not exploring the quality of the writing instruction; I was only looking at whether they reported using instructional methods.

Another limitation was the sampling method. The study was limited by only surveying teachers from one district in one state rather than a random sampling over the entire state or United States. Further, because of nonprobability sampling, the demographics of the teachers, including race, gender, and background experience were not indicative of the elementary teacher population in the district as a whole. With a targeted sample size of 320, there was a 95% margin of error, which is within acceptable range.

**Delimitations.** One delimitation was that I selected only teachers from the local district to participate. While this was an acceptable sampling method for correlational research, it may cause the sample to not reflect the population of the population of elementary teachers within the
state or as a whole. Another delimitation associated with this study was that it was administered online. Because it was administered online, participants were limited to only those who could access and selected to access via the survey link. However, teachers in this district each have access to a desktop computer, the internet, and email, minimizing this risk (Fowler, 2014).

The use of nonprobability sampling was another delimitation for this study. While cluster sampling ensured that teachers from a wide demographic range of schools were included, it makes the study subject to sampling bias (Fowler, 2014). I chose nonprobability sampling to ensure that the population of teachers that I surveyed represented the wide range of the diverse district, rather than one section.

Surveys also have the risk of non-sampling errors, such as nonresponse or respondent error. One type of possible error is nonresponse, in which not enough people from a sample population submit responses (Fowler, 2014). Nonresponse errors occur when a respondent does not respond one or more questions in a survey. To avoid nonresponse errors, all items were marked as required, forcing respondents to answer in order to continue. Another type of non-sampling error is respondent error, which occurs when the respondent does not answer accurately, either due to a mistake, deception, or laziness (Fowler, 2014). Surveys are also subject to measurement error. This will be minimized by using previously used instruments that have confirmed reliability and validity.

In this study, I was seeking to understand the correlation between factors. First, I looked for a correlation between teacher self-efficacy in writing and teachers’ self-reported instructional practices in writing. Second, I was seeking to identify a correlation between demographic characteristics of teachers and self-efficacy in writing. A limitation of a correlational study is
that while it can identify if a correlation exists, it cannot indicate causation—that one factor causes another (Adams & Lawrence, 2015).

**Internal and External Validity**

In order to reduce threats to internal validity, I selected survey instruments with established validity. The *Teacher Efficacy Scale for Writing* (TESW) has been found by its authors to demonstrate internal consistency of the items on the survey (Graham, et al., 2001). The authors of the scale have confirmed both convergent and discriminate validity (Gibson & Dembo, 1984; Tschannen-Moren, et al., 1998). Estimates of reliability for this instrument range from 0.75– 0.81 for personal teaching efficacy and from .064– 0.77 for general teaching efficacy (Tschannen-Moren, et al., 1998).

On the *Writing Practices Survey* (WPS, Cutler & Graham, 2008) questions related to supporting student writing of specific products (coefficient alpha 0.78), six focused on teaching basic writing skills (coefficient alpha 0.84), four focused on teaching writing process (coefficient alpha 0.85), three addressed general instructional procedures (coefficient alpha 0.62), five focused on promoting motivation (coefficient alpha 0.70), four addressed assessment (coefficient alpha 0.75), four were about the students’ home environment (coefficient alpha 0.81), and three were about extending writing to content areas (coefficient alpha 0.83).

Cutler and Graham (2008) categorized the writing practices items in the following manner: eleven items related to supporting student writing of specific products (coefficient alpha 0.78), six focused on teaching basic writing skills (coefficient alpha 0.84), four focused on teaching writing process (coefficient alpha 0.85), three addressed general instructional procedures (coefficient alpha 0.62), five focused on promoting motivation (coefficient alpha 0.70), four addressed assessment (coefficient alpha 0.75), four were about the students’ home
environment (coefficient alpha 0.81), and three were about extending writing to content areas (coefficient alpha 0.83). The Writing Practice Survey questions can be found in Appendix G.

It was not feasible to utilize randomization or a control group because this study is correlational, not experimental, so this study does not include an independent or dependent variable. I ensured external validity by selecting a sample size of 320 teachers; this will ensure a confidence level of 95% with a margin of error of 5%. The items on the demographic portion of the survey will be used to compare the participants to the overall targeted population of elementary teachers within Watertown School District.

**Expected Findings**

In this study, I expected to find that there was a significant, positive relationship between teachers’ Personal Self-Efficacy in writing and the amount of time they spend teaching writing. I also anticipated that teachers with high Personal Self-Efficacy devote more time to specific practices in writing instruction that are considered in previous research to be best practices. Teachers with high self-efficacy in writing spend more time using the best practices listed in the Writing Practices Survey than their colleagues with low self-efficacy. Further, I expected that specific demographic characteristics of teachers, such as their reported quality of undergraduate preparation to teach writing, years of experience, or departmentalization to teach only literacy, will have a positive correlation with high teacher self-efficacy in writing.

By establishing that there was a correlation between teachers’ self-efficacy in writing and the deliberate choices they make in their writing instruction, I have provided information that may guide researchers, professional developers, literacy coaches, administrators, and university professors in improving teacher self-efficacy and their choices in writing instruction. By providing information that can aid in improving teacher self-efficacy, I can increase the
likelihood that teachers will devote more overall instructional time to writing and more time specifically using teaching techniques that are grounded in research.

Previous research has indicated that teacher self-efficacy impacts overall teacher effectiveness (Harward, et al., 2014). Research has also identified best practices in writing instruction that have positive impacts on student achievement (Cutler, & Graham, 2008; Gilbert, & Graham, 2010; Graham, et al., 2013; Graham & Perin, 2007). These results should confirm previous researchers’ theories connecting teacher self-efficacy and their instructional choices. A number of factors in both personal and general teacher self-efficacy may be improved, therefore improving overall writing instruction. Both Personal and General Teaching Efficacy may be improved with professional development.

**Ethical Issues in the Study**

This study involved little risk of ethical issues and minimal risk to participants. Minimal risk means that “the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in everyday life or during the course of routine physical or psychological examinations or tests” (Office for Human Research Protections, 2009). However, when conducting research with human participants, every possible risk must be considered to ensure participants’ safety and well-being.

Teachers were advised of the parameters of the study in the introduction to the survey and gave informed consent through their participation. Informed consent was obtained via the introduction page of the survey. Respondents were able to answer “Yes” or “No” to the following questions: *Do you agree to the above terms? By clicking Yes, you consent that you are willing to answer the questions in this survey.* The informed consent introduction page includes the purpose of the research study, how much time the survey should take, possible
benefits and risks to the respondents, ways that confidentiality will be maintained, the right to stop participation in the middle of the survey, a confirmation that the results will not be shared with teachers’ principals, and my contact information. Respondents who click “No” will be redirected out of the survey. The survey is clear and straightforward, and there is no deception used. Because the survey was administered online, I collected some basic demographic information about participants. I distributed the survey via email, so data included participants’ names and email addresses. Also, Qualtrics tracks the IP address for computers used in taking the survey. The fact that this basic demographic information will be collected and stored will be reported to participants in the introduction.

In this study, I examined the variables of teacher self-efficacy in writing and use of effective teaching practices using a correlational design, as it may be unethical to manipulate the variables (Adams & Lawrence, 2014). It would be unethical to purposely require teachers to use teaching practices that are considered ineffective, or to not use the identified best practices found in research.

One potential risk was the potential for respondents to be identified and associated with their responses (Fowler, 2014). The survey does not collect teachers’ names or school names. Although Qualtrics does record IP addresses, these were not associated with specific participant responses. All information collected remains completely confidential. Participation was strictly voluntary; I selected to contact teachers directly rather than asking their administrators to forward the link to avoid any coercion or sense that participation was required. While respondents were asked general demographic information, the survey did not include names, names of schools, or contact information. As a principal in this district, my role as supervisor
could possibly have influenced teachers’ participation or responses. Therefore, I did not include any teachers in my school as part of the survey to avoid a conflict of interest.

Another ethical issue in survey research is the nature of the questions (Fowler, 2014). The questions themselves in this survey did not present any ethical concerns. None of the questions addressed anything of a sensitive nature. The information was not shared with the district or with school administrators of the schools involved on the off chance that demographic information may help identify teachers. Access to the data could be another ethical issue with survey research is access to the data (Fowler, 2014). I am the only person with access to data which is collected, stored, and analyzed via Qualtrics. Data was exported to Statistical Package for the Social Sciences (SPSS), which was then used to complete statistical analyses.

In addition to risks, there were also benefits to participating in this survey. There were benefits to the field of writing instruction because this study may guide future professional development in writing instruction. Also, there may be benefits to society; through identifying a correlation between teacher self-efficacy and their instructional choices in writing, I can provide information that can help improve writing instruction, therefore improving students’ writing achievement. This is important because writing is an essential skill for members of society (Graham & Perin, 2007; National Commission on Writing, 2003).

**Chapter 3 Summary**

The purpose of this study was to understand the relationship between teacher self-efficacy in writing and the amount of time teachers report using research-based methods for teaching writing for elementary classroom teachers in Watertown School District. It was designed to help researchers, trainers, and educators to better understand how teachers’ self-efficacy impacts their inclusion of best practices in writing instruction.
The following research questions guided this study:

1. Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   - Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   - Is there a statistically significant relationship between teaching self-efficacy factor of general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction?

My assertion was that teachers with high self-efficacy in writing are more likely to select best practices in writing instruction frequently than their low-efficacy peers. In this study, the alternate hypothesis was that there is a statistically significant relationship between teacher self-efficacy in writing and instructional choices in writing.

In this study, I utilized a survey of teachers and quantitative correlational research. An online survey was administered through a nonprobability sampling of elementary classroom teachers in one large school district in northeastern United States. A nonprobability method was used to select elementary classroom teachers from the local school district both for convenience and purpose. By selecting previously created tools in the survey, I have minimized the risk to internal validity. This study involved little risk of ethical issues and minimal risk to participants. The information garnered from this study can be used to better understand how teachers’ self-efficacy impacts their writing instruction and inform professional development for elementary classroom teachers. The results of this study will be discussed in Chapter 4.
Chapter 4: Data Analysis and Results

Introduction

In this chapter, I reported the data, including the statistical analysis, as related to the research questions that guided my study. In this study, I utilized an online survey of teachers and quantitative correlational research to examine the relationship between teacher efficacy and the amount of time teacher spend using specific practices in writing instruction. Additionally, I examined the relationship between personal teaching efficacy and the amount of time teachers spent using specific practices in writing instruction and general teaching efficacy and the amount of time teachers spent using specific practices in writing instruction.

The following research questions guided this study:

1. Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   a. Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   b. Is there a statistically significant relationship between teaching self-efficacy factor of general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction?

The variables in this study were teacher self-efficacy and writing instructional practices. Within the category of teacher-self efficacy, previous research had identified two factors: Personal Teaching Efficacy and General Teaching Efficacy (Gibson & Dembo, 1984; Graham et al., 2001). Within writing instructional practices, Graham et al. (2001) identified categories:
supporting student writing, teaching basic writing skills, teaching the writing process, general instructional procedures, motivating students, assessment, students’ home environment, and extending writing to content areas.

For this study, I collected quantitative data gathered from teacher responses to Likert-scale items via an online survey using Qualtrics. After obtaining permission from the IRB and Watertown District (a pseudonym to protect the privacy of participants) in February 2017, I emailed principals to obtain permission to contact their teachers and participate in the survey. Initially, I emailed 20 principals, and 19 replied in the affirmative that I could contact teachers. A challenge in data collection was that the school system’s email system captured a sample email sent via Qualtrics as spam. While this prohibited me from uploading emails to Qualtrics and sending out a mass email and required me to email teachers directly from my district account, it may have boosted participation because it verified for participants that I was a district employee and someone with a local connection.

After two weeks, I received less than 40 responses. I contacted my district and obtained permission to expand my study to more schools. I received permission from the district and eventually from 61 out of 77 elementary school principals in district (I did not email principals from two early childhood centers, which only have PreK and K students and did not include my own school to avoid potentially biasing my teachers). Several principals wanted to see the survey; I made a copy of it in Qualtrics and emailed them a link to the copy so it would not taint the results by having them accidentally respond to questions.

By April 2017, I had emailed the survey to a total of 1,367 teachers in the 61 schools; 423 teachers participated, and 264 completed the entire survey and were included in my study. Because I had to expand the scope of the survey to more schools, it took longer to collect data.
Originally, I had planned for data collection to take three to four weeks; it actually took just over three months.

**Description of the Sample**

In this study, I targeted a population of teachers in a Watertown, a district in the Northeastern section of the United States. Of the population of elementary teachers in the district, 83% were female and 17% were male, 83% were white, 9% are Black or African American, 3% were Asian, 2% are Hispanic, 2% were two or more races, and less than 1% were American Indian or Pacific Islander (MSDE, October 2015). This was similar to the most recently reported overall demographics of elementary teachers in the United States; 80% are white, 7% are black, and 8% are Hispanic (U.S. Department of Education, 2016).

According to the Maryland State Department of Education (MSDE, 2015), there were 1,854 teachers who worked in elementary schools in the district in 2015. This included classroom teachers, special educators, reading specialists, pre-kindergarten teachers, and cultural arts teachers (art, music, physical education, and media specialists). My study only included classroom teachers in kindergarten through fifth grades (K–5) who were responsible for core academic instruction (e.g. Language Arts, Math, Science, Social Studies). This was a total population of 1,667 teachers. The demographics of the sample included fewer males, African Americans, and Asians than the overall population. Only 2.3% of the respondents were male, compared to 17% of the district elementary teachers. Also, 91.3% of the respondents were white, compared with 83% of the population. Demographic information is found in Table 1.

The sample population of teacher respondents had a range of background experiences (Table 2). For the sample population of K–5 teachers, 71.2% of the teachers held Master’s degrees, 26.5% held Bachelor’s degrees, and 2.3% held doctorates. Most of the teachers
surveyed (65.9%) had at least eight years of teaching experience. Only 15.2% of the teachers
surveyed had three years or less teaching experience, 18.9% had between 4 and 7 years of
experience, 31.4% had 8–15 years of experience, 29.2% had between 16–25 years of experience,
and 5.3% had more than 25 years of teaching experience.

Table 1

<table>
<thead>
<tr>
<th>Teacher Participant Demographics</th>
<th>District</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>17%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Female</td>
<td>83%</td>
<td>97.7%</td>
</tr>
<tr>
<td>White</td>
<td>84%</td>
<td>91.3%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>9%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Asian</td>
<td>2%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Participants were asked to rate the quality of preparation to teach writing they received in
their teacher certification program. The majority indicated that their teacher preparation
programs were “adequate” in addressing writing (47.4%). Another 20.1% rated their teacher
preparation programs in writing as “very good” (16.3%) or “excellent” (3.8%). About one third
of participants rated their teacher preparation programs in writing as “poor” (24.6%) or
“inadequate” (7.6%). The majority of teachers surveyed (83.3%) taught all of the core academic
subjects in elementary grades (Language Arts, Math, Science, Social Studies). Another 7.2%
taught only Language Arts, and the rest of those surveyed taught varying combinations of Math,
Science, Social Studies, and Language Arts. Respondents were fairly evenly divided with
respect to grades taught. Kindergarten teachers accounted for 18.9% of respondents. This was
followed by teachers in first grade (12.9%), second grade (17.4%), third grade (18.2%), fourth
grade (16.7%), and fifth grade (15.9%).
The survey also included questions about the participants’ school settings. The mean number of students in a classroom was 22.7. The mean number of students who receive free and reduced meals is 8.7. Teachers also reported data about the ethnic backgrounds of the students in their class (Table 3). Two respondents reported numbers of students that were impossible in an elementary setting (e.g. 48 or 74 students in a classroom; 35 African American students in a classroom). In elementary classrooms in this district, the maximum class size is typically less than 33 students. This error may be attributed to a respondents’ error in reading or understanding the question. Respondents that teach multiple classes due to departmentalization may have listed all of the students that they teach in a day, not just their homeroom class.

Unreasonable numbers were replaced with the group mean to calculate descriptive statistics.

Teachers were asked to assess the overall writing achievement of all the students in their classroom. Of the teachers surveyed, only 4.5% indicated that their students are above average writers (writing more than 1 grade level above their current grade placement). The majority of participants (76.1%) rated their students as average writers (writing at their grade level or within 1 grade level plus or minus their current grade placement). A significant number (19.3%)
described their students as below average writers (writing more than 1 grade level below their current grade placement).

Table 3

<table>
<thead>
<tr>
<th>Question</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many students are in your classroom?*</td>
<td>13</td>
<td>33</td>
<td>22.5</td>
<td>3.66463</td>
</tr>
<tr>
<td>How many children in your class are: White*</td>
<td>0</td>
<td>28</td>
<td>13.3</td>
<td>6.78876</td>
</tr>
<tr>
<td>How many children in your class are: Black or African American*</td>
<td>0</td>
<td>25</td>
<td>4.9</td>
<td>4.41001</td>
</tr>
<tr>
<td>How many children in your class are: American Indian or Alaska Native</td>
<td>0</td>
<td>1</td>
<td>.03</td>
<td>.17175</td>
</tr>
<tr>
<td>How many children in your class are: Asian</td>
<td>0</td>
<td>5</td>
<td>.7</td>
<td>.98844</td>
</tr>
<tr>
<td>How many children in your class are: Native Hawaiian or Pacific Islander</td>
<td>0</td>
<td>12</td>
<td>.2</td>
<td>.87454</td>
</tr>
<tr>
<td>How many children in your class are: Other</td>
<td>0</td>
<td>18</td>
<td>3.3</td>
<td>3.64419</td>
</tr>
<tr>
<td>How many children in your classroom received Free and Reduced Lunch?*</td>
<td>0</td>
<td>25</td>
<td>8.5</td>
<td>6.32455</td>
</tr>
</tbody>
</table>

*Two respondents reported numbers of students that were impossible in an elementary setting (e.g. 48 or 74 students in a classroom). Unreasonable numbers were replaced with the group mean to calculate descriptive statistics.

Teacher participants were also asked to report whether they use a commercial program to support their writing instruction (Table 4). No program was used by 26.5% of the teacher respondents. The most popular program used by teachers surveyed was Lucy Calkins’ Units of Study: Writing, which was used by 68.9% of respondents. Other program reported included Benchmark, Handwriting Without Tears, and McMillan McGraw-Hill Treasures. A small number of respondents (2.5%) stated that they used multiple programs to teach writing.
Table 4

<table>
<thead>
<tr>
<th>Program</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>70</td>
<td>26.5%</td>
</tr>
<tr>
<td>Lucy Calkins’ Units of Study: Writing</td>
<td>182</td>
<td>68.9%</td>
</tr>
<tr>
<td>Benchmark</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Handwriting Without Tears</td>
<td>3</td>
<td>1.5%</td>
</tr>
<tr>
<td>Treasures</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Note: 8 respondents indicated that they used more than one program listed above

Summary of the Results

Research Question 1. I began my analysis with the overall research question: Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction? Overall Teaching Efficacy was found to have a statistically significant correlation at the 0.01 level (2-tailed) with the following categories of writing practices: supporting student writing ($r = 0.243$); teaching basic writing skills ($r = 0.191$); teaching writing processes ($r = 0.258$); general instructional practices ($r = 0.205$); promoting motivation ($r = 0.255$); assessing student writing ($r = 0.233$); and extending writing to content areas ($r = 0.197$). A statistically significant correlation was not found for overall teaching efficacy and the practice of writing in the home environment ($r = 0.104$).

Because a statistically significant relationship was found in seven out of the eight categories for writing, the null hypothesis was rejected and the alternate hypothesis, that there was a statistically significant relationship at the 0.01 level (2-tailed), between Overall Teaching Efficacy in writing and instructional choices in writing, was accepted.

To determine the linear relationship between the two variables of Teaching Efficacy and Writing Practices, I obtained a score for Teaching Efficacy by determining the mean score of the
16 survey items associated with *Teaching Efficacy* (TE). These items were identified by Graham, Harris, Fink, and MacArthur (2001). The Teaching Efficacy Scale for Writing has both convergent and discriminate validity as well as reliability confirmed by its authors (Gibson & Dembo, 1984; Tschannen-Moren, et al., 1998). I found the mean frequencies with which each of the eight category of writing practices identified by Cutler and Graham (2008) was utilized. A Pearson’s $r$ Correlation Coefficient identifies a linear relationship between two variables (Adams & Lawrence, 2014), so it is the appropriate test to examine this research question. I determined the linear relationship between Teacher Efficacy and the frequency with which they utilized categories of practices on the writing practices portion of the survey.

To ensure validity and reliability, I used surveys that were previously published and reported internal consistency, convergent and discriminate validity (Cutler, & Graham, 2008; Gibson & Dembo, 1984; Graham, et al., 2001; Tschannen-Moren, et al., 1998). The Teaching Efficacy Scale for Writing has both convergent and discriminate validity as well as reliability confirmed by its authors (Gibson & Dembo, 1984; Tschannen-Moren, et al., 1998). The internal reliability for the items relating to the categories on the *Writing Practices Survey* were confirmed by the authors (Cutler & Graham, 2008). Threats to internal validity for this study includes attrition; while 424 participants began the survey, only 264 completed it in its entirety. To reduce this threat, I did not include incomplete surveys in my data.

**Research sub-question 1.** I conducted further analyses to determine the answer to my first sub-question: *Is there a statistically significant relationship between the teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?* PTE was found to have a statistically significant correlation at the 0.01 level (2-tailed) with the following categories of writing practices: supporting student
writing \( r = 0.260 \); teaching basic writing skills \( r = 0.169 \); general instructional practices \( r = 0.246 \); promoting motivation \( r = 0.266 \); and extending writing to content areas \( r = 0.258 \).

Personal Teaching Efficacy was found to have a medium correlation with the categories teaching writing processes \( r = 0.307 \) and assessing student writing \( r = 0.301 \). A statistically significant correlation was not found for writing in the home environment \( r = 0.061 \). Because a statistically significant relationship was found in seven out of the eight categories for writing, the null hypothesis was rejected and the alternate hypothesis, that there was a statistically significant relationship at the 0.01 level (2-tailed) between Personal Teaching Efficacy in writing and instructional choices in writing, was accepted.

To determine the linear relationship between the two variables of Personal Teaching Efficacy and Writing Practices, I obtained a score for Personal Teaching Efficacy by determining the mean score of the ten survey items associated with Personal Teaching Efficacy \( (PTE) \). These items were identified by Graham, Harris, Fink, and MacArthur \( (2001) \). I found the mean frequencies with teachers reported using each of the eight category of writing practices identified by Cutler and Graham \( (2008) \). A Pearson’s \( r \) Correlation Coefficient identifies a linear relationship between two variables \( (Adams & Lawrence, 2014) \), so it is the appropriate test to examine this research question. I determined the linear relationship between Personal Teacher Efficacy and the frequency with which they utilized categories of practices on the writing practices portion of the survey.

To ensure validity and reliability in relation to this sub-question, I used surveys that were previously published and reported internal consistency, convergent and discriminate validity \( (Cutler, & Graham, 2008; (Gibson & Dembo, 1984; Graham, et al., 2001; Tschannen-Moren, et al., 1998) \). The Teaching Efficacy Scale for Writing has both convergent and discriminate
validity as well as reliability confirmed by its authors (Gibson & Dembo, 1984; Tschannen-Moren, et al., 1998). Estimates of reliability for the TESW range from 0.75–0.81 for personal teaching efficacy (Tschannen-Moren, et al., 1998). The internal reliability for the items relating to the categories on the Writing Practices Survey were confirmed by the authors (Cutler & Graham, 2008).

Research sub-question 2. I conducted further analyses to determine the answer to my second sub-question: Is there a statistically significant relationship between the teaching self-efficacy factor of General Teaching Efficacy and the amount of time teachers spend using specific practices in writing instruction? GTE was not found to have a statistically significant correlation at the 0.01 level (2-tailed) with any of the categories of writing practices. Pearson’s $r$ Correlation Coefficients for each of the categories are: supporting student writing ($r = 0.037$); teaching basic writing skills ($r = 0.069$); teaching writing processes ($r = 0.003$); general instructional practices ($r = -0.001$); promoting motivation ($r = 0.046$); assessing student writing ($r = -0.024$); writing in the home environment ($r = 0.072$); and extending writing to content areas ($r = -0.025$). Because a statistically significant relationship was not found in any of the eight categories for writing, the null hypothesis is accepted and the alternate hypothesis, that there was a statistically significant relationship between General Teaching Efficacy and Writing Instructional Practices, is rejected.

To determine the linear relationship between the two variables of General Teaching Efficacy and Writing Practices, I obtained a score for General Teaching Efficacy by determining the mean score of the six survey items associated with General Teaching Efficacy (GTE). These items were identified by Graham, Harris, Fink, and MacArthur (2001). I found the mean frequencies with which each of the eight category of writing practices identified by Cutler and
Graham (2008) was utilized. A Pearson’s $r$ Correlation Coefficient identifies a linear relationship between two variables (Adams & Lawrence, 2014), so it is the appropriate test to examine this research question. I determined the linear relationship between General Teacher Efficacy and the frequency with which they utilized categories of practices on the writing practices portion of the survey.

To ensure validity and reliability in relation to this sub-question, I used surveys that were previously published and reported internal consistency, convergent and discriminate validity (Cutler, & Graham, 2008; Gibson & Dembo, 1984; Graham, et al., 2001; Tschannen-Moren, et al., 1998). The Teaching Efficacy Scale for Writing has both convergent and discriminate validity as well as reliability confirmed by its authors (Gibson & Dembo, 1984; Tschannen-Moren, et al., 1998). Estimates of reliability for the TESW from .064–0.77 for general teaching efficacy (Tschannen-Moren, et al., 1998). The internal reliability for the items relating to the categories on the Writing Practices Survey were confirmed by the authors (Cutler & Graham, 2008).

**Detailed Analysis**

To organize and analyze the results, I used tools within Qualtrics, combined with IBM SPSS Statistical Software package. I used Pearson’s $r$ to determine if there was a linear relationship between overall Teacher Efficacy (TE) Personal Teaching Efficacy (PTE), and General Teaching Efficacy (GTE) and teachers’ frequency of use of writing strategies as well as the direction and strength of any relationship. I used a scatterplot (Figure 1; also see Figures 2–9 in Appendix E) to graph the relationship between overall Teaching Efficacy (TE) and the frequency with which teachers reported using each of the practices on the Writing Practices Survey (WPS). Next, I found the Pearson’s $r$ correlation coefficient to determine the linear
relationship between teacher personal self-efficacy and the frequency with which they utilized practices on the Writing Practices Survey. I then repeated the process of graphing a scatterplot and finding the Pearson’s $r$ correlation coefficient for PTE and Writing Practices (WP) and GTE and WP. Scatterplots for the correlations between overall Teaching Efficacy and each of the eight writing practices are found in Appendix F.

![Scatterplot of Mean Teaching Writing Process and Teacher Efficacy](image)

**Figure 1:** *Scatterplot of Mean Teaching Writing Process and Teacher Efficacy*

**Research question 1.** To test my assertion that teachers with high self-efficacy in writing were more likely to use best practices in writing instruction more frequently than teachers with low self-efficacy, I obtained a score for overall *Teaching Efficacy* by determining the mean score of *Teaching Efficacy* (TE), which included all of the items on the Teacher Efficacy Scale for Writing (TESW). I found the mean frequencies with which each writing practice was utilized (Table 2). I found a Pearson’s $r$ Correlation Coefficient to determine
whether there was a linear relationship between the two variables (Teaching Efficacy and each of the categories of Writing Practices).

Overall Teaching Efficacy was found to have a statistically significant correlation at the 0.01 level (2-tailed) with the following categories of writing practices: supporting student writing \( (r = 0.243) \); teaching basic writing skills \( (r = 0.191) \); teaching writing processes \( (r = 0.258) \); general instructional practices \( (r = 0.205) \); promoting motivation \( (r = 0.255) \); assessing student writing \( (r = 0.233) \); and extending writing to content areas \( (r = 0.197) \). A statistically significant correlation was not found for overall teaching efficacy and the practice of writing in the home environment \( (r = 0.104) \). Table 5 includes the correlations for Teacher Efficacy, Personal Teaching Efficacy, and General Teaching Efficacy with the categories of writing practices. Appendix E includes tables of correlations between efficacy and each of the specific writing practices within the categories in the survey. Because the correlation was statistically significant in seven out of eight of the writing practices categories, the alternate hypothesis was confirmed and the null hypothesis was rejected.

**Research sub-question 1.** To test my assertion for the first sub-question, that teachers with high personal self-efficacy in writing were more likely to use best practices in writing instruction more frequently than teachers with low self-efficacy, I obtained a score for Personal Teaching Efficacy by determining the mean score of the items associated with Personal Teaching Efficacy (PTE). This included items C1-1; 2-1; 3-1; 3-2; 4-1; 5-1; 5-2; 6-2; 7-2 and 8-1. I found the mean frequencies with which each category of writing practices was utilized by the respondents, reported in Table 5. PTE was found to have a statistically significant correlation at the 0.01 level (2-tailed) with the following categories of writing practices: supporting student writing \( (r = 0.260) \); teaching basic writing skills \( (r = 0.169) \); general
instructional practices ($r = 0.246$); promoting motivation ($r = 0.266$); and extending writing to content areas ($r = 0.258$). A medium correlation was found between *Personal Teaching Efficacy* and the practices teaching writing processes ($r = 0.307$) and assessing student writing ($r = 0.301$). A statistically significant correlation was not found for PTE and the practice of writing in the home environment ($r = 0.061$). Because a statistically significant relationship was found in seven out of the eight categories for writing, the null hypothesis was rejected and the alternate hypothesis, that there was a statistically significant relationship at the 0.01 level (2-tailed) between *Personal Teaching Efficacy* in writing and instructional choices in writing, was accepted.

**Research sub-question 2.** To test my assertion for the second sub-question, that teachers with high *General Teaching Efficacy* (GTE) in writing are more likely to use best practices in writing instruction more frequently than teachers with low self-efficacy, I obtained a score for General Teaching Efficacy by determining the mean score of the items associated with *General Teaching Efficacy* (GTE). This included items C 1-2; 2-2; 4-2; 6-1; 7-1; 8-2. It is important to note that only six of the items on the Teacher Efficacy Scale for Writing were associated with *General Teaching Efficacy*. This is a very limited sample, and may not be enough to generalize results to other populations.

I found the mean frequencies with which each writing practice was utilized by the respondents reported in Table 5. GTE was not found to have a statistically significant correlation at the 0.01 level (2-tailed) with any of the categories of writing practices. Pearson’s $r$ for each of the categories are: supporting student writing ($r = 0.037$); teaching basic writing skills ($r = 0.069$); teaching writing processes ($r = 0.003$); general instructional practices ($r = -0.001$); promoting motivation ($r = 0.046$); assessing student writing ($r = -0.072$); writing in the home
environment \((r = -0.025)\); and extending writing to content areas \((r = 0.258)\). Because a statistically significant relationship was not found in any of the eight categories for writing, the null hypothesis is accepted and the alternate hypothesis, that there was a statistically significant relationship between General Teaching Efficacy and Writing Instructional Practices, is rejected.

Table 5

*Correlations between Frequency of Writing Activities and Teaching Efficacy*

<table>
<thead>
<tr>
<th>Type of Writing Activity</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>General Teaching Efficacy (GTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting Student Writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.260**</td>
<td>.037</td>
<td>.243**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.544</td>
<td>.000</td>
</tr>
<tr>
<td>Teaching Basic Writing Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.169**</td>
<td>.069</td>
<td>.191**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.006</td>
<td>.261</td>
<td>.002</td>
</tr>
<tr>
<td>Teaching General Writing Processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.307**</td>
<td>.003</td>
<td>.258**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.960</td>
<td>.000</td>
</tr>
<tr>
<td>General Instructional Practices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.246**</td>
<td>-.001</td>
<td>.205**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.986</td>
<td>.001</td>
</tr>
<tr>
<td>Promoting Motivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.266**</td>
<td>.046</td>
<td>.255**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.454</td>
<td>.000</td>
</tr>
<tr>
<td>Assessing Student Writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.301**</td>
<td>-.024</td>
<td>.233**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.699</td>
<td>.000</td>
</tr>
<tr>
<td>Home Environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.061</td>
<td>.072</td>
<td>.104</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.322</td>
<td>.242</td>
<td>.093</td>
</tr>
<tr>
<td>Extending Writing to Content Areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.258**</td>
<td>-.025</td>
<td>.197**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.690</td>
<td>.001</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
Chapter 4 Summary

This study focused on quantitative data gathered from teacher responses to Likert-scale items via an online survey using Qualtrics. Permission was obtained from 61 out of 77 elementary principals in the district; 264 teachers out of the 1,367 teachers emailed completed the entire survey, which was a completion rate of 19.3%. The overall targeted population was 1,667, so with a confidence level of 95%, the margin of error was 5.42%.

Data was exported for analysis to the Statistical Package for the Social Sciences (SPSS). I found descriptive statistics, and found the mean score for overall Teaching Efficacy (TE), Personal Teaching Efficacy (PTE) and General Teacher Efficacy (GTE) by finding the mean scores of the items associated with each. I found the Pearson’s r correlation coefficient to determine the linear relationship between teacher overall Teaching Efficacy and the frequency with which respondents reported utilizing practices on the Writing Practices Survey. I repeated the correlational analysis to find the Pearson’s r for Personal Teaching Efficacy and each of the Writing Practices and General Teaching Efficacy and each of the Writing Practices.

Results indicate a statistically significant correlation at the 0.01 level (2-tailed) between both Overall Teaching Efficacy and Personal Teaching Efficacy and the following categories of writing practices: supporting student writing, teaching basic writing skills, teaching writing processes, general instructional practices, promoting motivation, assessing student writing, and extending writing to content areas. The null hypothesis was rejected and the alternate hypothesis, that there is a statistically significant relationship between overall Teaching Efficacy (TE) and Writing Instructional Practices, was accepted. The null hypothesis was also rejected and the alternate hypothesis for the first sub-question, that there was a statistically significant
relationship between \textit{Personal Teaching Efficacy} (PTE) and Writing Instructional Practices, was accepted.

A statistically significant correlation was not found for overall \textit{Teaching Efficacy} or \textit{Personal Teaching Efficacy} (PTE) and the practice of Writing in the Home Environment. Further, there was not a statistically significant correlation between \textit{General Teaching Efficacy} (GTE) and any of the eight categories of Writing Practices included in the survey. The null hypothesis was accepted, and the alternate hypothesis, that there was a statistically significant relationship between \textit{General Teaching Efficacy} and Writing Instructional Practices, was rejected.
Chapter 5: Discussion and Conclusion

Introduction

In this chapter, I will summarize the results, discuss those results, as well as discuss the results in relation to the literature. I will also describe the limitations associated with my study and the implications of the results for practice, policy, and theory for educators. Finally, I will make recommendations for further research and draw conclusions about my study. Previous chapters described the problem that I intended to investigate: many students do not receive adequate writing instruction, causing them to perform poorly on writing tasks. In addition, many teachers do not feel confident in teaching writing. Therefore, the purpose of this study was to aid in understanding the relationship between teacher self-efficacy in writing and the amount of time they report using research-based methods for teaching writing for elementary classroom teachers in a particular school district. Examining the relationship between teacher self-efficacy in writing instruction and their instructional choices can guide future professional development, curriculum development, and policies for elementary teachers of writing in order to improve their self-efficacy and selection of writing instructional techniques. My goal was to get a better understanding of the impact that self-efficacy factors have on teachers’ selection of specific instructional techniques in writing instruction.

Summary of the Results

In this study, I examined the relationship between teacher self-efficacy in writing instruction and the instructional choices that teachers make in writing. I began by conducting an extensive literature review in Chapter 2, which described relevant research in the literature related to best practices in writing instruction and to teacher self-efficacy. Despite the importance of writing skills and its emphasis in Common Core State Standards, writing has long
been a neglected part of the curriculum (Graham & Harris, 2013; Common Core State Standards Initiative, 2010). Many researchers have identified effective teaching practices for writing instruction, but these are inconsistently used by teachers (Cutler & Graham, 2008; Gilbert & Graham, 2010; Graham, et al., 2012b; Graham, et al., 2001; Graham & Harris, 2013; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007; Hillocks, 1986; McCarthey & Ro, 2011). Teacher self-efficacy has also been found in literature to be a key component to student achievement; often teachers feel they often do not feel prepared to teach writing or lack confidence in their own abilities to teach writing (Chambless & Bass, 1996; Gilbert & Graham, 2010; Grainger, 2005). Higher teacher self-efficacy has been linked to improved planning and organization (Chambless & Bass, 1996; Gilbert & Graham, 2010; Grainger, 2005).

In Chapter 3, I detailed the methodology used. For this study, I utilized a survey of teachers and quantitative correlational research. I created an online survey that combined two surveys (Cutler, & Graham, 2008; Graham, et al., 2001) using Likert scales to gain insight into the relationship between teachers’ beliefs about their own efficacy and their use of best practices in writing instruction. The survey was administered via Qualtrics and used nonprobability sampling of elementary classroom teachers in Watertown school district. The following research questions guided this study:

1. Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction? 
   • Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
• Is there a statistically significant relationship between teaching self-efficacy factor of general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction?

In Chapter 4, I discussed the results of the study. Results indicate a statistically significant correlation at the 0.01 level (2-tailed) between both overall Teaching Efficacy (TE) and Personal Teaching Efficacy (PTE) and the following practices: supporting student writing, teaching basic writing skills; teaching writing processes, general instructional practices, promoting motivation, assessing student writing, and extending writing to content areas. A statistically significant correlation was not found for overall Teaching Efficacy or Personal Teaching Efficacy (PTE) and the practice of Writing in the Home Environment. There was not a statistically significant correlation found between General Teaching Efficacy (GTE) and any of the categories of Writing Practices included in the survey.

I used a scatterplot (Figure 1) to graph the relationship between overall Teaching Efficacy (TE) and the frequency with which teachers reported using each of the practices on the Writing Practices Survey (WPS). Next, I found the Pearson’s r correlation coefficient to determine the linear relationship between teacher personal self-efficacy and the frequency with which they utilized practices on the Writing Practices Survey.

Research question 1. I began my analysis with the overall research question: Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction? My results showed that overall Teaching Efficacy had a statistically significant correlation at the 0.01 level (2-tailed) with the following categories of writing practices: supporting student writing (r = 0.243); teaching basic writing skills (r = 0.191); teaching writing processes (r = 0.258); general instructional practices
promoting motivation ($r = 0.205$); assessing student writing content areas ($r = 0.233$); and extending writing to content areas ($r = 0.197$). This study did not demonstrate a statistically significant correlation for overall Teaching Efficacy and the practice of writing in the home environment ($r = 0.104$). This relationship indicates that teachers with higher scores in overall self-efficacy in writing are more likely to use the practices in the survey more frequently than their peers who have lower overall scores in self-efficacy in writing.

Overall Teaching Efficacy had the strongest correlation with teaching writing processes ($r = 0.258$). This effect is small or mild, but statistically significant. This indicates that teachers with high overall Teaching Efficacy are more likely to model writing strategies for students, teach students organizational skills, and to teach specific strategies for planning and revising writing more frequently in instruction. These include teaching students to use graphic organizers, strategies to plan writing, and strategies for revising writing. These techniques have been supported by previous researchers as having a positive effect on student writing achievement (Cutler, & Graham, 2008; Gilbert & Graham, 2010; Graham, et al., 2012b; Graham, et al., 2001; Graham & Harris, 2013; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007; Hillocks, 1986; McCarthey & Ro, 2011). My results also show that there is not a statistically significant relationship between overall Teaching Efficacy and supporting writing in the home environment ($r = 0.061$). This indicates that there is not a large difference in frequency in using home-school practices between teachers who report that they have high overall teaching efficacy and those that have low overall teaching efficacy.

**Research sub-question 1.** I continued my analysis with the first sub-question: *Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?* The results
of my study showed similar correlations between *Personal Teaching Efficacy* and the categories of writing instructional practices. *Personal Teaching Efficacy* had a statistically significant correlation at the 0.01 level (2-tailed) with the following categories of writing practices: supporting student writing \((r = 0.260)\); teaching basic writing skills \((r = 0.169)\); general instructional practices \((r = 0.246)\); promoting motivation \((r = 0.266)\); and extending writing to content areas \((r = 0.258)\). Personal teaching efficacy had a stronger correlation with teaching writing processes \((r = 0.307)\) and assessing student writing \((r = 0.301)\). Results of my study did not show a statistically significant correlation for *Personal Teaching Efficacy* and the practice of writing in the home environment \((r = 0.061)\). This relationship indicates that teachers with higher scores in Personal Teaching Efficacy in writing are more likely to use the practices in the survey more frequently than their peers who have lower overall scores in self-efficacy in writing.

*Personal Teaching Efficacy* had the strongest correlation with teaching writing processes \((r = 0.307)\). This indicates that teachers with high *Personal Teaching Efficacy* are more likely to model writing strategies for students, teach students organizational skills, and to teach specific strategies for planning and revising writing, such as the use of graphic organizers, strategies to plan writing, and strategies for revising writing. Previous researchers have identified these techniques as having a positive effect on student writing achievement (Cutler, & Graham, 2008; Gilbert & Graham, 2010; Graham & Harris, 2013; Graham, et al., 2012b; Graham, et al., 2001; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007; Hillocks, 1986; McCarthey & Ro, 2011).

In addition, *Personal Teaching Efficacy* had a moderate statistically significant correlation to assessing student writing \((r = 0.301)\). Teacher participants reported using techniques such as having the teacher monitor writing progress, having the student monitor
writing process, using portfolios, and using rubrics. Graham et al. (2012b) recommended in a meta-analysis that teachers use methods such as using rubrics, monitoring writing, and encouraging students to self-monitor.

Table 6

Descriptive Statistics for General Teaching Efficacy

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std. Error of Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Even a good writing teacher may not reach many students.</td>
<td>3.16</td>
<td>.092</td>
<td>3.00</td>
<td>2</td>
<td>1.503</td>
<td>2.259</td>
<td>.200</td>
</tr>
<tr>
<td>The hours in my class have little influence on students’ writing performance compared to the influence of their home environment.</td>
<td>2.53</td>
<td>.082</td>
<td>2.00</td>
<td>2</td>
<td>1.339</td>
<td>1.794</td>
<td>.665</td>
</tr>
<tr>
<td>If students are not disciplined at home, they are not likely to accept any discipline during the writing period.</td>
<td>2.95</td>
<td>.089</td>
<td>3.00</td>
<td>2</td>
<td>1.448</td>
<td>2.097</td>
<td>.314</td>
</tr>
<tr>
<td>A teacher is very limited in what he/she can achieve because a student’s home environment is a large influence on his/her writing achievement.</td>
<td>2.77</td>
<td>.078</td>
<td>3.00</td>
<td>2</td>
<td>1.262</td>
<td>1.593</td>
<td>.421</td>
</tr>
<tr>
<td>The amount a student can learn in writing is primarily related to family background.</td>
<td>2.27</td>
<td>.074</td>
<td>2.00</td>
<td>1</td>
<td>1.201</td>
<td>1.443</td>
<td>.816</td>
</tr>
<tr>
<td>If parents would do more in writing with their children, I could do more.</td>
<td>3.91</td>
<td>.083</td>
<td>4.00</td>
<td>4</td>
<td>1.341</td>
<td>1.797</td>
<td>-.360</td>
</tr>
<tr>
<td>Total for all Items for General Teaching Efficacy</td>
<td>2.9306</td>
<td>.05386</td>
<td>2.9167</td>
<td>3.50</td>
<td>.87519</td>
<td>.766</td>
<td>.450</td>
</tr>
</tbody>
</table>

*Items scored using a Likert Scale from 1-6; 1= strongly disagree; 6= strongly agree.
Research sub-question 2. In my study, I did not find a statistically significant correlation between General Teaching Efficacy and any of the categories of writing practices. Six items, C1-2, 2-2, 4-2, 6-1, 7-1, and 8-2, were associated with General Teaching Efficacy. Pearson’s $r$ Correlation Coefficients for each of the categories for General Teaching Efficacy are: supporting student writing ($r = 0.037$); teaching basic writing skills ($r = 0.069$); teaching writing processes ($r = 0.003$); general instructional practices ($r = -0.001$); promoting motivation ($r = 0.046$); assessing student writing ($r = -0.072$); writing in the home environment ($r = -0.025$); and extending writing to content areas ($r = 0.258$).

Descriptive statistics for General Teaching Efficacy can be found in Table 7. Responses indicate that the mean response is that teachers who were surveyed “disagree slightly, more than disagree” with statements in the survey.

Discussion of the Results

The results of my study are similar to findings in other research. Teacher efficacy has a small or mild correlation with many of the teaching practices that have been found by researchers to be associated with student achievement in writing. Previous researchers have linked teachers’ self-efficacy to being more willing to try new teaching techniques to reach students (Tschannen-Moran & Johnson, 2011), this is particularly important in the era of Common Core State Standards. High self-efficacy is correlated with strong teacher organization, being less critical of student errors and increased teacher motivation (Graham et al., 2001; Tschannen-Moran & Johnson, 2011). Previous researchers have found that teachers with a low sense of self-efficacy are more likely to blame external factors, such as their students or the curriculum, for lack of success (Tschannen-Moran & Johnson, 2011). These external factors are
those that were associated with *General Teaching Efficacy*; my study did not confirm previous research.

More recent research has affirmed the need to continue to do research on teacher efficacy, specifically in writing instruction. Troia and Graham (2016) examined teacher beliefs about writing in the Common Core State Standards era. They found that teachers who felt that they were more prepared to teach writing had higher personal teaching efficacy in writing and also had more positive attitudes toward state standards. In addition, Newton, Leonard, Evans, and Eastburn (2012) found that stronger content knowledge, in mathematics in particular, was positively related to personal teaching efficacy in that content area.

**Research question 1. Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction?** The results of my study indicated that there was a small but statistically significant relationship between seven out of eight of the categories of writing practices (all but writing and the home environment) and overall Teacher Efficacy. Teachers who had higher overall self-efficacy in writing were more likely to use the practices surveyed more frequently than their low-efficacy peers.

Overall *Teacher Efficacy* had a small but statistically significant relationship with supporting student writing ($r = 0.243$). Graham et al. (2012b) included several of these practices that support student writing in *Teaching Elementary School Students to Be Effective Writers: A Practice Guide*. This guide outlined suggested practices for elementary writing instruction that were rooted in research, including teacher conferences, planning writing, writing prompts, revising, helping peers with writing, peer conferences, and dictation (Graham et al., 2012b).
Graham and Perin (2007) also noted the effectiveness of teaching students to plan and organize writing as well as using computers in improving student writing achievement.

The results of my study also indicate that there is a correlation between overall Teaching Efficacy and more frequent teaching of basic writing skills \((r = 0.191)\), such as spelling, grammar, capitalization, punctuation, handwriting, and sentence construction. My study does not, however, delve into how teachers taught these skills, only that they were spending time addressing the skills instructionally in the classroom. This is significant because previous research indicates that traditional methods of teaching grammar (e.g. worksheets) are negatively correlated with student achievement in writing (Graham et al., 2012b; Graham & Perin, 2007). Correlations between overall Teaching Efficacy and most other categories of writing instruction were similar, with all categories except connecting to home environment showing mild or small effect sizes. This suggests that higher efficacy teachers are using many of the practices in the survey more frequently, not only the best practices that have been demonstrated to increase student writing achievement.

There was a small but statistically significant correlation between teaching writing processes and overall Teacher Efficacy \((r = 0.258)\). Teachers with higher overall Teacher Efficacy were more likely to frequently use the practices in the survey that were associated with teaching writing processes include modeling writing strategies, teaching text organization, strategies for planning, and strategies for revising. The results of my study also indicate that there is a small but statistically significant correlation between overall Teacher Efficacy and more frequent teaching of general instructional practices \((r = 0.205)\), such as using mini-lessons, multi-goal lessons, and reteaching skills, techniques recommended by Graham and Perin (2007). Mini-lessons, teaching lessons that address multiple goals, and reteaching students in small
groups are a key component of a Writer’s Workshop, the predominant theoretical model rooted in writing process theory (Atwell, 1987; Calkins, 1994; Fletcher & Portalupi, 2001; Graves, 1983). Calkins (1994) model of Writer’s Workshop was used by 68.9% of teachers who were surveyed, making it more likely that teachers would use the teaching techniques associated with this model.

Overall Teaching Efficacy showed a mild or small correlation with more frequent use of techniques for promoting motivation in writing ($r = 0.255$). To promote motivation, teachers reported that they had students share writing with a peer, modeled their enjoyment or love of writing, published student writing, read their own writing, or had writing centers in their classroom. Graham et al. (2012b) described ways to promote motivation, such as publishing students’ writing and creating an engaged community of writers.

The results of my study also indicate that there is a correlation between both overall Teaching Efficacy and Personal Teaching Efficacy and more frequent use of assessment techniques. The correlation between Personal Teaching Efficacy and assessment was slightly stronger ($r = 0.301$). Items related to assessment include the teacher monitors writing progress, student monitors writing progress, using portfolios, and student use of rubrics. Portfolios and holistic tools such as rubrics have been popular in assessing writing since the late 1980s because they are more student centered and encourage student reflection and growth over time (Huot & Neal, 2008). No correlation was found between overall Teacher Efficacy and supporting writing in the home environment ($r = 0.104$).

A small but statistically significant correlation was found between overall Teaching Efficacy and more frequent use of writing to extend learning in content areas ($r = 0.197$). Common Core State Standards have emphasized the need for writing in the content areas
(reading, mathematics, science, social studies) as writing is a necessary skill for college and career readiness (Common Core State Standards Initiative, 2010; Graham & Harris, 2013). In Writing Next, Graham and Perin (2007) found a small but significant effect for cross-curricular writing. This cross-curricular writing included writing to support reading, and reading to support writing. Students’ understanding of content areas such as science, social studies, and language arts improves when they respond to text in writing (Graham & Hebert, 2011). Similarly, reading can improve students’ writing skills (Graham & Hebert, 2011).

**Research sub-question 1.** Results of my study demonstrate similar correlations between Personal Teacher Efficacy and the categories of writing instructional practices as with overall Teaching Efficacy and those categories. Slightly higher correlations were found between Personal Teacher Efficacy and supporting student writing \((r = 0.260)\), teaching writing processes \((r = 0.307)\), general instructional practices \((r = 0.246)\), promoting motivation \((r = 0.266)\), assessing writing \((r = 0.301)\), and connecting writing to the content areas \((r = 0.258)\). Teaching basic writing skills had a lower (small but statistically significant) correlation with Personal Teacher Efficacy \((r = 0.169)\) than it did with overall Teacher Efficacy \((r = 0.191)\).

*Personal Teaching Efficacy* had the strongest correlation with teaching writing processes to students \((r = 0.307)\) and assessing student writing \((r = 0.301)\). The items related to the category teaching writing processes included model writing strategies, text organization skills, strategies for planning, and strategies for revising. This aligns with previous research by Graham et al. (2001), which found that teachers with high efficacy report spending more instructional time having their students compose writing or teaching the writing process (such as planning, text organization, and revising) than their low-efficacy counterparts (Graham, et al., 2001). Dyson and Freedman (2003) reviewed research on process writing, and found that students who
were instructed in applying the writing process scored higher on NAEP (National Assessment for Education Progress).

The results of my study also indicate that there is a correlation between *Personal Teaching Efficacy* and more frequent use of assessment techniques. The correlation between *Personal Teaching Efficacy* and assessment was slightly stronger ($r = 0.301$). Items related to assessment include the teacher monitors writing progress, student monitors writing progress, using portfolios, and student use of rubrics. Portfolios and holistic tools such as rubrics have been popular in assessing writing since the late 1980s because they are more student centered and encourage student reflection and growth over time (Huot & Neal, 2008). Results of this study demonstrated that there was no correlation between overall *Personal Teaching Efficacy* and supporting writing in the home environment.

**Research sub-question 2.** The results in this study for the final research sub-question were different from the other two research questions. I did not find a statistically significant correlation between *General Teaching Efficacy* and any of the categories of writing practices. Pearson’s $r$ Correlation Coefficients for each of the categories are: supporting student writing ($r = 0.037$); teaching basic writing skills ($r = 0.069$); teaching writing processes ($r = 0.003$); general instructional practices ($r = -0.001$); promoting motivation ($r = 0.046$); assessing student writing ($r = -0.072$); writing in the home environment ($r = -0.025$); and extending writing to content areas ($r = 0.258$). Items associated with *General Teaching Efficacy* included:

- Even a good writing teacher may not reach many students.
- The hours in my class have little influence on students’ writing performance compared to the influence of their home environment.
• If students are not disciplined at home, they are not likely to accept any discipline during the writing period.

• A teacher is very limited in what he/she can achieve because a student’s home environment is a large influence on his/her writing achievement.

• The amount a student can learn in writing is primarily related to family background.

• If parents would do more in writing with their children, I could do more.

Each of these items relate to the importance of family influence or student behavior over that of the teacher. The practices reported by teachers in this study were not significantly impacted by external factors such as the students’ home environment or behavior. This may indicate that teachers who participated in the survey believe in their ability to affect positive change in students’ writing. It is positive to note that teachers that had lower self-efficacy overall or lower personal self-efficacy did not see students’ backgrounds as an impediment to helping them improve their writing.

Ancillary findings. In addition to the findings related to the research questions in this study, several other interesting themes emerged. Connecting writing to the home environment was the one practice that was consistent among all overall Teaching Efficacy, Personal Teaching Efficacy, and General Teaching Efficacy. Results of my study indicate that overall Teacher Efficacy, Personal Teaching Efficacy, and General Teaching Efficacy did not show a correlation with connecting writing to the home environment. Descriptive statistics reported in Table 9 (see Appendix E) indicate that with regards to the practices related to connecting to the home environment, respondents used the techniques described “several times a month.” The mean for responses for all four items was 2.35, and skewness and kurtosis indicate that there was little
variance between responses. Teachers of high- and low- self efficacy did not report that they did things like assign writing homework, enlist parents to help with writing at home, listen to students’ writing, or communicate with parents about students’ writing progress. Approximately half of the respondents reported that they “never” assigned writing homework (48.1%), had students write at home with parental help (50%), or have parents listen to students writing (54.5%).

Several practices were inconsistently used among teachers. A substantial number of participants reported never using several of the techniques in survey; 15.9% of the respondents reported never engaging students in peer conferences. Many respondents also reported that they never used portfolios (42%) or taught handwriting (28%). Also, rather significantly, 43.9% use computers at least once a week to support writing instruction and 16.3% of teachers overall reported that they never had students use computers to support their writing.

**Supporting student writing.** There were some differences in supporting student writing based on whether teachers reported using Lucy Calkins’ Units of Study: Writing (UoSW) as their writing program versus teachers who reported using no program. For example, while 82.6% of the respondents reported using teaching conferences at least several times a month with students, 5.3% of the non-program teachers reported that they never held teacher conferences (compared with 0.5% of UoSW teachers). Also, 76.5% of UoSW teachers supported student writing through planning and 65.6% through revising at least once per week, compared with 61.8% and 52.6% of the non-program teachers. Teachers in this study reported using planning and revising more frequently than in previous studies; Soiferman, Boyd, and Straw (2010) found that 35% of teachers reported teaching planning strategies frequently, and 20% seldom or never taught students how to plan. Further, Soiferman, et al., (2010) found that only 24% of the teachers that
they surveyed regularly taught revision strategies to their students, and 31% never taught revision. While 72.3% of teachers overall reported to having peers help each other with their writing, 9.2% of the non-program teachers said that they never have peers help with writing. Interestingly, teachers who did not use a writing program were more likely to use computers to support writing instruction at least once a week (53.9% compared to UoSW group, 41.0%).

**Basic writing skills.** The majority of teachers reported using the basic writing skills practices identified in the survey at least once per week: 67.8% taught spelling, 69.7% taught grammar, 43.2% taught handwriting, and 61.7% taught sentence construction skills. Overall, 28.4% of teachers in the survey reported that they never teach handwriting and 9.8% report that they never teach spelling. This number varies according to whether teachers use a writing program. For teachers who use UoSW, 32.2% never teach handwriting and 12% never teach spelling. For teachers who do not use a program, 21.1% report that they never teach handwriting and 5.3% report that they never teach spelling.

**Teaching writing process.** Most teachers responded that they used the strategies included in teaching the writing process at least one time per week: 81.8% modeling writing strategies; 68.20% text organization skills; 65.90% strategies for planning, and 61.70% taught strategies for revising. The use of writing process techniques varied according to whether teachers used UoSW for writing. Teachers were more likely to model writing strategies daily if they used UoSW (42.6%) than those who used no program (31.63%). Also, teachers who used UoSW were more likely to teach text organizational skills at least once a week (72.1%) over those who did not use a program (62.1%). Finally, 65.6% of teachers who used UoSW reported teaching students how to revise at least once per week, while 56.2% of non-program teachers did.
General instructional procedures. Mini-lessons are a key technique of a Writer’s Workshop, and they were used by 83.7% of all teachers in the survey at least once a week (see Table 9 in Appendix E). Slightly more UoSW teachers used mini-lessons at least once a week (87.4%) than their non-program peers (80.2%). More than half of teachers who responded reported that at least once a week they use multi-goal lessons (51.1%) or reteach skills (65.9%). A larger percentage of teachers who did not use a program (2.6%) reported that they never retaught writing skills; only 0.5% of UoSW teachers reported never reteaching writing skills.

Promoting motivation. More than half of teachers in the survey reported that they used the motivational practices of having students share writing with a peer (59.8%), modeled their enjoyment or love of writing (61.7%), read their own writing (56.8%), or had writing centers in their classroom (69.7%). Far fewer teachers published student writing on a regular basis; only 25% published at least once a week, and 79.9% published at least once a month. Differences were also noted between UoSW and non-program teachers; far more non-program teachers published at least once a week (31.6%) than Calkins teachers did (23%). Far more UoSW teachers read their own writing to students; 62.3% read at least once a week; 47.4% of non-program teachers read their own writing at least once a week.

Assessment. Differences were also noted in how UoSW teachers and teachers who do not use programs utilized assessments. While 69.3% of all teachers reported that students self-monitor their writing at least once per week, 73.2% of UoSW teachers reported doing so, and 64.5% of non-program teachers did. Portfolio assessments for writing were not utilized frequently; 41.7% of teachers surveyed said that they never used portfolios to assess writing. Of the non-program teachers, 51.6% reported that they never used portfolios while 38.8% of the UoSW group reported that they never used portfolios. Nearly half of the teachers surveyed
(45.5%) reported that they had students use rubrics at least once a week to assess their writing and 81.4% reported that they used rubrics with students several times per month.

**Home environment.** Forty eight percent of participants “never” assigned writing homework. Teachers did communicate more frequently about students’ progress; 63.6% reported communicating with parents about students’ writing progress “several times a year.” Further, 50% “never” had students write at home with parental help and 54.5% “never” enlisted parents to listen to their child’s writing. As Table 8 indicates, none of the practices listed to support writing in the home environment were used routinely by teachers in this study. My literature review found limited research examining writing and the home environment. Research on homework in general does not show that homework is beneficial to elementary students; Cooper, Robinson, and Patall (2006) found no statistically significant correlation at the elementary level between homework time and achievement. This indicates that assigning writing for homework may not increase writing achievement.

The other aspect to connecting writing to home environment is enlisting parental support. Over 70% of the teachers surveyed in this study indicated that they communicate students’ progress to parents “several times a year” (63.6%) or “never” (6.8%). Only 20.4% reported that they communicated with parents about students’ writing progress at least several times a month. This compares to other researchers, who have noted that teachers often do not initiate contact with parents unless there is a problem (Allington & Cunningham, 2002). Teachers in this study did not make overt, consistent contact with families to enlist them in supporting the writing program or their children’s writing progress.

**Extending writing to content areas.** More than 60% of the total teachers surveyed indicated that they extended writing to the content areas at least once a week (cross-curricular
Differences between groups also indicated that the UoSW group engaged students more frequently in cross-curricular writing and writing to support reading; 66.2% reported cross-curricular writing at least once a week, compared to 50% of the non-program group. Also, 80.3% of the UoSW group reported reading to support writing at least once a week; of the non-program group, 65.8% used reading to support writing at least once a week.

Table 7

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing homework</td>
<td>2.54</td>
<td>2.00</td>
<td>1</td>
<td>1.888</td>
<td>.921</td>
</tr>
<tr>
<td>Students write at home with parental help</td>
<td>2.33</td>
<td>1.50</td>
<td>1</td>
<td>1.749</td>
<td>1.112</td>
</tr>
<tr>
<td>Parents listen to students' writing</td>
<td>2.01</td>
<td>1.00</td>
<td>1</td>
<td>1.510</td>
<td>1.622</td>
</tr>
<tr>
<td>Communicate with parents about students' writing progress</td>
<td>2.53</td>
<td>2.00</td>
<td>2</td>
<td>1.140</td>
<td>1.601</td>
</tr>
<tr>
<td>Mean—all items related to Home Environment</td>
<td>2.35</td>
<td>2.0000</td>
<td>1.25</td>
<td>1.23151</td>
<td>1.283</td>
</tr>
</tbody>
</table>

*Items scored using a Likert Scale from 1–8; 1 = never; 2 = several times a month; 8 = several times a day

Discussion of the Results in Relation to the Literature

The results of this study relate to the community of practice, the literature, and the community of scholars. The overall problem that was the focus of my investigation was how many students do not receive adequate writing instruction, causing them to perform poorly on writing tasks. Despite the fact that Common Core State Standards and its associated assessments call for more attention to rigorous writing, this has not yet translated to higher scores on
standardized assessments (National Center for Education Statistics, 2012). On the most recently reported NAEP Writing Assessment (2011), only 27% of eight- and twelfth-graders scored proficient or higher; this reinforces that students do not have writing skills necessary for college and careers (National Center for Education Statistics, 2012). The question remains: How do we get teachers to adopt practices that are associated with higher student writing achievement? One way is to improve the quality of writing instruction is through improving teacher self-efficacy. This study was designed to address this problem by focusing on how teachers’ beliefs and attitudes, or self-efficacy, toward writing impacts their daily choices in writing instruction.

Community of practice. In this study, I found that teachers with high-efficacy who responded to the survey were more likely to use the practices listed in the study more frequently. The results of this study are consistent with other surveys of teaching practices, including Cutler and Graham (2008), Gilbert and Graham, (2010), Pressley, Rankin, and Yokoi, (1996), and Troia, and Graham, (2016). This study confirms previous research that demonstrated a correlation between self-efficacy and use of effective instructional practices. A number of previous researchers have established that teacher self-efficacy is correlated to more effective practices, such as more time planning, better organization, and more time teaching a subject (Harward, et al., 2014; Graham et al., 2001; Wilkins, 2010). This study did not find a correlation between general teaching efficacy and use of any of the instructional practices in the survey. Tschannen-Moran & Johnson (2011) also found that general teacher self-efficacy (such as in classroom management) was not necessarily related to literacy self-efficacy. In other words, teachers are not daunted by factors such as students’ background or behaviors.

While this study did not examine the number of minutes that teachers devoted to overall writing instruction or to any of the practices identified, the results do indicate that more attention
toward writing is warranted. Gilbert and Graham (2010) found elementary students wrote for less than a half hour per day, and spent most of that time completing assignments rather than in direct writing instruction, such as the methods and techniques included in this survey.

**Literature.** This study aligns with the literature in the field of writing instruction and teacher self-efficacy. In my study, I used quantitative research and teacher surveys, which were consistent with previous literature. The survey used in my study included surveys created by Cutler and Graham (2008) and Graham, Harris, Fink, & MacArthur (2001). Results confirm previous studies that indicate that teachers do not use some of the practices that are associated with writing achievement consistently.

The literature suggests that teachers with high self-efficacy tend to exact higher student achievement, but much of the literature related to teacher self-efficacy does not address writing specifically. Graham et al. (2001) specifically examined the relationship between teacher self-efficacy and instruction and found that self-efficacy does impact choices that teachers make in planning and instructional delivery as well as their personal beliefs about writing.

**Community of scholars.** This research is also beneficial to the community of scholars. My study has a unique aspect to it because it was delivered during the age of Common Core State Standards in writing. Further, my study targeted a specific group of educators: K–5 elementary teachers in one specific school district. It is my belief that teacher self-efficacy in writing is a key element in improving writing achievement. Therefore, I believe that improving teacher self-efficacy can have a positive impact on student achievement. The results of my study have shown that teacher self-efficacy does have a small, but significant, correlation with selecting to use specific techniques in writing. Many of the techniques included in the survey are associated with greater writing achievement (Cutler, & Graham, 2008; Dorlfman & Cappelli,
Therefore, it is possible that improving teachers’ self-efficacy in writing may have a positive impact on student writing achievement.

The results of my study indicated differences in the frequency of use of specific instructional techniques in writing instruction based on whether teachers used Lucy Calkins’ Units of Study: Writing as a program or whether they used no program at all. Generally, UoSW teachers were more likely to use many of the techniques, such as mini-lessons, peer conferences, teaching students planning and revising, modeling writing strategies, organizational skills, modeling their enjoyment of writing, reading their own writing, having students monitor their own writing, cross-curricular writing, and writing to support reading. Non-program teachers were more likely to report that they never used some techniques, such as teacher conferences, having peers help with writing, peer conferences, portfolios, or reading to support writing. UoSW teachers are also less likely to identify their students as writing below grade level than their non-program peers.

Limitations

This study had several limitations that may have impacted results. One limitation of the study is the honesty of teacher participants’ answers and the fact that teachers self-reported their beliefs and practices in the survey (Fowler, 2014). Research does indicate that teachers’ self-reported practices are similar to those observed (Graham et al., 2002; Lipson, et al., 2000; Troia, et al., 2011). The only way to be certain that the practices that teachers reported are congruous to those in practice is through observation.

Another limitation is that this study merely examined the reported frequency with which teachers reported doing the listed activities. The study did not include observations of teachers
to determine whether their reported activities matched the actual ones in the classroom. In addition, the study examined the frequency of time that teachers devoted to these activities, not the quality of the actual lessons. It also did not address the total amount of time devoted to writing instruction overall or to the individual practices listed. Previous researchers have noted that there is a difference in the instructional delivery between highly effective and less effective teachers (Graham et al., 2009).

This study is further limited by the completion rate, which was 19.3%. As I discussed in Chapter 4, the rate was rather low, possibly due to the survey length, the reluctance of teachers to click on links in emails from a stranger, and the timing of the survey when there was a high teacher workload. I increased the scope of my original proposal to invite a larger number of teachers to participate, but still only received responses from 264 teachers, fewer than the targeted number of 320. The effect of this limitation was minor; the results of this study still had a confidence level of 95%, the margin of error was 5.42%.

**Implication of the Results for Practice, Policy, and Theory**

The results of this study have implications for practice, policy and theory, although they are not necessarily generalizable. This study was rooted in theories of writing instruction and self-efficacy. Theories of writing instruction focus on the writing process theory of writing (Emig, 1971; Graves, 1983), and the sociocultural theory of writing (Langer & Applebee, 1986; Vygotsky, 1962, 1978). Theories of self-efficacy include Bandura’s (1977) research linking self-efficacy to one’s performance and Tschannen-Moran and Johnson’s (2011) work connecting teacher self-efficacy with decision making in the classroom.

**Implications for practice.** While the effect size was small, teacher efficacy did have a statistically significant impact on teachers’ use of writing practices. This indicates that more
attention should be given toward teachers’ attitudes or personal feelings about subjects they teach, particularly writing. Teachers need guidance on what the best practices in writing instruction are. For example, high- and low-efficacy teachers reported using techniques to improve basic writing skills, such as spelling, handwriting, capitalization, punctuation, and grammar. However, other researchers have noted that traditional means of teaching grammar have a negative effect on student writing achievement (Graham & Perin, 2007). This makes one wonder if teachers are applying the “more is better” philosophy rather than systematically selecting methods and techniques.

**Implications for policy.** With the high stakes associated with students’ writing achievement through assessments related to Common Core State Standards, it is important for school systems and policy makers to explore every avenue possible in improving writing instruction. Results of the 2011 NAEP indicate that slightly more than a quarter (27%) of eighth- and twelfth-graders perform at or above Proficient on the Writing Assessment, (National Center for Education Statistics, 2012). Writing has been the subject of more attention with the adoption of Common Core State Standards and its’ associated assessments (Graham & Harris, 2013). Writing is also a critical skill for students to be prepared for college, careers, and beyond (Common Core State Standards Initiative, 2010). Writing demands under new Common Core State Standards are rigorous; fifth graders are expected to type a cohesive essay that is two pages long in a single sitting (Common Core State Standards Initiative, 2010). It is essential to have teachers who are prepared and feel comfortable teaching writing. Despite the adaption of the standards, American students are not performing satisfactorily in writing. Furthermore, teachers who have higher personal teaching efficacy for writing have more positive attitudes toward state standards in the Common Core State Standards era (Troia & Graham, 2016). Educational
policies should address ways to improve teacher self-efficacy in writing, perhaps through undergraduate programs, professional development or adoption of strong writing programs that are research-based.

**Implications for theory.** It is equally vital to continue to explore best practices in writing instruction so we can give teachers clear blueprints for how to improve writing achievement. Previous researchers have identified practices that have been associated with student writing achievement. These include increasing the amount of time writing (up to an hour a day), direct instruction in the various states of the writing process, particularly pre-writing/planning, teaching students to craft a variety of genre for a variety of writing purposes, sentence imitation, peer revision, using models such as authentic texts or teacher created samples, and direct instruction in transcription skills (e.g. handwriting, keyboarding, or spelling) has had a positive impact on writing achievement (Cutler, & Graham, 2008; Dorflman & Cappelli, 2007; Gilbert, & Graham, 2010; Graham et al., 2012a; Graham et al., 2012a; Graham, MacArthur, & Fitzgerald, 2013; Graham & Perin, 2007).

While this study confirmed a connection between teacher self-efficacy and writing practices, the correlation was mild or small. Previous researchers have found that teacher self-efficacy can impact the choices they make planning and delivering instruction as well as their overall beliefs about writing (Harward, et al., 2014; Graham et al., 2001; Wilkins, 2010). The literature devoted to self-efficacy and teaching writing is limited, and worthy of further exploration.

**Recommendations for Further Research**

The results of this study showed a small or minimal correlation between teacher efficacy and the use of instructional practices. There are numerous possibilities for extending and
refining this research focusing both on self-efficacy and on writing instructional practices. It would be beneficial to the educational community, administrators, and professional developers to know exactly what has the most impact on improving teacher self-efficacy.

More research on writing instruction would also be beneficial. First, my study did not ask teachers to identify the amount of time (in minutes) that teachers devoted to overall writing instruction or any of the techniques. Graham & Hebert (2011) recommended that one way to improve students’ writing is to increase the amount of time that they write. Graham et al. (2012b) recommended that beginning in first grade, students should write for an hour each day, including instruction targeted to writing strategies, planning, and processes. These researchers cite minimal evidence that this is effective, but it warrants further examination to determine if increasing the time devoted to writing instruction improves students’ writing achievement.

Given the lack of attention to connecting writing to the home environment, future research focusing on how to improve this area would be warranted. It would be helpful to administrators, professional developers, and teacher trainers to understand why teachers do not enlist family support for writing. Possible reasons for exploration include focus on other subjects or priorities, teachers’ lack of confidence in explaining students’ strengths and needs to parents, or teachers’ unwillingness to enlist support because of “over-helping” by parents who complete writing assignments for their children.

I recommend future research to examine the relationship between teacher efficacy, writing achievement, and making connections with the home environment. As I noted previously, there is scant research on writing and the home environment. Also, more research to examine the precise methodology teachers use in teaching writing, through a qualitative study, observations, or videotaping. This study only asked teachers to select how frequently they used
a particular technique, such as mini-lessons. It was left to the interpretation of the teacher what they meant by a mini-lesson. Also, it was unknown whether the teacher’s use of the strategy was effective.

Another avenue for future research would be to examine if using a particular program or model for writing instruction has a positive impact on teacher efficacy or writing achievement. There are numerous models for Writer’s Workshop as well as many commercial programs. Teachers in this study reported using Lucy Calkins’ Units of Study: Writing, Benchmark Writing, and Treasures Writing, three commercially available programs that address writing process, content, and products. Future research could examine if teachers were thoroughly trained in and consistently used one of these programs, whether it improved their writing self-efficacy.

In addition to writing programs, teacher self-efficacy in writing may be impacted by the quality of their professional development or training. Nearly one third (32.2%) of the teacher surveyed in this study indicated that their preparation for teaching writing was “poor” or “inadequate.” Teachers’ proficiency in and attitude toward writing can be improved by training. (Bifuh-Ambe, 2013; Reid, 2009; Wood & Lieberman, 2000).

Future research on types and frequency of professional development would inform the educational community and professional developers. Another avenue for exploration is how the act of writing itself can impact teachers’ self-efficacy in writing. For example, programs such as The National Writing Project, which provide opportunities for teachers to write, reflect, and respond or interact with peers have been shown to improve teachers’ self-efficacy in writing (Grainer, 2005; Harward, et. al., 2014; Locke, Whitehead & Dix, 2013; Wood & Lieberman,
Future research could aid in using models that allow teachers to engage in writing and discourse to deepen their understanding and skills in writing.

Conclusion

This study focused on examining the relationship between teacher self-efficacy and their use of writing practices in teaching writing. The following research questions guided this study:

1. Is there a statistically significant relationship between overall teacher self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   - Is there a statistically significant relationship between teaching self-efficacy factor of personal self-efficacy and the amount of time teachers spend using specific practices in writing instruction?
   - Is there a statistically significant relationship between teaching self-efficacy factor of general teaching efficacy and the amount of time teachers spend using specific practices in writing instruction?

My study can help to clearly connect teachers’ self-efficacy in writing with their use of best practices that improve students’ writing achievement. This study has yielded results that can be used by professional developers, administrators, or future researchers in order to provide guidance in creating professional development or training for teachers in writing instruction and to increase teachers’ self-efficacy, thereby increasing their capacity to teach writing and increasing student achievement. Because a connection between teachers’ self-efficacy and their use of research-based methods was determined, this may help improve teachers’ self-efficacy and their use of research-based methods. By improving teachers’ use of research-based methods in teaching writing, it may lead to improved test scores in writing and improved writing achievement.
Methodology. In order to answer these questions, I used an online survey that combined two previously used surveys. Quantitative data was gathered via Qualtrics and SPSS in order to find the Pearson’s $r$ correlation coefficient for Teaching Efficacy, Personal Teaching Efficacy, and General Teaching Efficacy and each of the eight categories of writing practices. Two hundred sixty-four teachers completed the entire survey; with an overall targeted population of 1,667, this allowed a confidence level of 95% and a margin of error of 5.42%. The study was limited to elementary classroom teachers in one district, and there was only a completion rate of 19.3%. Therefore, the results are not generalizable to the overall population of elementary teachers.

Research question 1. My analysis found that there was a small but significant correlation between overall Teaching Efficacy and the use of most writing instructional practices in the survey. This confirmed my hypothesis that teachers with high self-efficacy in writing are more likely to use best practices in writing instruction more frequently than teachers with low self-efficacy. Teachers who feel that they have the tools needed help students be successful in writing are more likely to be motivated to teach writing, try various teaching techniques, and are more likely to be tolerant of students’ mistakes in their writing (Graham et al., 2001; Tschannen-Moran & Johnson, 2011).

Research sub-question 1. Results of my study indicated that there was a small but significant correlation between overall Personal Teaching Efficacy and the use of most writing instructional practices in the survey. My results allowed me to confirm my hypothesis that teachers with high personal self-efficacy in writing are more likely to use best practices in writing instruction more frequently than those who report low personal self-efficacy in writing. Teachers who feel that they have the tools needed help students be successful in writing are more
likely to be motivated to teach writing, try various teaching techniques, and are more likely to be tolerant of students’ mistakes in their writing (Graham et al., 2001; Tschannen-Moran & Johnson, 2011).

**Research sub-question 2.** General Teaching Efficacy was not found to be correlated with any of the instructional practices for writing. In addition, I did not find a correlation between overall Teaching Efficacy or Personal Teaching Efficacy and the practice of connecting writing to the home environment. This refutes my hypothesis for the second sub-question, that teachers who report high general efficacy in writing are more likely to use best practices in writing instruction more frequently than those who report low personal efficacy in writing. A surprising note was that teachers of high- and low-efficacy did not report using techniques to connect writing and the home environment. Teachers reported that they rarely used the practices listed, with over half of them using the practices only “several times a year” or “never.”

As a result of this study, I can conclude that teacher efficacy has a small impact on the instructional choices they make in writing, but it is not the only factor. It is important to continue to examine writing instruction to determine the best ways to prepare students for the demands of writing in college, careers, and more. As the National Commission on Writing (2003) articulately stated, “Writing is not a frill for the few, but an essential skill for the many.”
References


Tracy, K. N., & Headley, K. N. (2013). "I never liked to read or write": A formative experiment on the use of a nonfiction-focused writing workshop in a fourth-grade


Appendix A: Demographic & Descriptive Information

Adapted from Cutler & Graham, 2008; Graham et al., 2001.

1. Please select your gender
   - male
   - female

2. Please select your ethnicity:
   - Hispanic
   - Black
   - White
   - Asian
   - Other

3. Education level
   - Bachelor’s
   - Bachelor’s + Master’s
   - Master’s + Doctorate

4. How many years have you taught?
   - 0-3 years
   - 4-7 years
   - 8-15 years
   - 16-25 years
   - >25 years

5. What grade(s) do you currently teach?
   - Kindergarten
   - First
   - Second
   - Third
   - Fourth
   - Fifth

6. How many children are in your classroom?

7. How many children in your classroom receive a free or reduced lunch?
   - Don’t know

   How many children in your class are:

8. Hispanic
9. White
10. Black
11. Asian
12. Other
13. How many children in your class receive special education services?

14. What is your assessment of the overall writing achievement levels of all students in your classroom?

- ☐ students are **above average** writers (writing more than 1 grade level above their current grade placement)
- ☐ students are average writers (writing at their grade level or within 1 grade level plus or minus their current grade placement)
- ☐ students are below average writers (writing more than 1 grade level below their current grade placement)

15. Rate the quality of preparation to teach writing you received in your teacher certification program.

- ☐ Exceptional
- ☐ Very good
- ☐ Adequate
- ☐ Poor
- ☐ Inadequate

16. Do you use a commercial program to teach writing, handwriting, spelling or any other aspect of composing?

Which program

17. Please indicate which subjects you teach:

- ☐ all subjects
- ☐ departmentalized: math
- ☐ departmentalized: language arts
- ☐ other

18. How much time do your students spend engaged in writing instruction and tasks each week?
# Appendix B: Writing Practices Survey

Writing Practices Survey (Cutler & Graham, 2008). Used with permission.

<table>
<thead>
<tr>
<th>Check how often you use the following practices with students:</th>
<th>Never</th>
<th>Several times</th>
<th>Once a month</th>
<th>Several times</th>
<th>Once a week</th>
<th>Several times</th>
<th>Daily</th>
<th>Several times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support student writing</td>
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<td>1. Graphic organizers</td>
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<td>2. Teacher conferences</td>
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<td>3. Planning</td>
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<td>4. Writing prompts</td>
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<td>5. Revising</td>
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<td>6. Helping peers with writing</td>
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<td>7. Peer conferences</td>
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<td>8. Computers</td>
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<td>9. Dictation</td>
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<td>Teach basic writing skills</td>
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<td>10. Spelling skills</td>
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<td>11. Capitalization skills</td>
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<td>12. Grammar skills</td>
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<td>13. Punctuation skills</td>
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<td>14. Handwriting skills</td>
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<td>15. Sentence construction skills</td>
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<td>Teaching writing process</td>
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<td>16. Model writing strategies</td>
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<td>17. Text organization skills</td>
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<td>18. Strategies for planning</td>
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<td>19. Strategies for revising</td>
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<td>General instructional procedures</td>
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<td>20. Mini-lessons</td>
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<td>21. Multi-goal lessons</td>
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<td>22. Reteach skills</td>
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<td>Promoting motivation</td>
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<td>23. Sharing writing with a peer</td>
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<td>24. Modeling enjoyment or love of writing</td>
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<td>25. Publishing</td>
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<td>26. Teacher reads own writing</td>
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<td>27. Writing centers</td>
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<td>Assessment</td>
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<td>28. Teacher monitor writing progress</td>
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<td>29. Student monitor writing progress</td>
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<td>30. Portfolios</td>
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<td>31. Student use of rubrics</td>
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<td>Home environment</td>
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<td>32. Writing homework</td>
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<td>33. Students write at home with parental help</td>
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<td>34. Parents listen to students’ writing</td>
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<td>35. Communicate with parents about students’ writing progress</td>
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<td>Extend Writing to Content Areas</td>
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<td>36. Cross-curricular writing</td>
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<td>37. Writing to support reading</td>
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<td>38. Reading to support writing</td>
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</table>
### Appendix C: Teacher Efficacy Scale for Writing

Teacher Efficacy Scale for Writing (Graham, Harris, Fink & MacArthur, 2001, based on Gibson & Dembo). Used with permission.

Please indicate the degree to which you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly</th>
<th>Moderately</th>
<th>Disagree</th>
<th>Agree slightly; more than disagree</th>
<th>Moderately</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When students’ writing performance improves, it is usually because I found better ways of teaching that student.</td>
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<td>2. Even a good writing teacher may not reach many students.</td>
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<td>3. If a student did not remember what I taught in a previous writing lesson, I would know how to increase his or her retention in the next lesson.</td>
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<td>4. The hours in my class have little influence on students’ writing performance compared to the influence of their home environment.</td>
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<td>5. If a student masters a new writing concept quickly, this is because I knew the necessary steps in teaching this concept.</td>
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<td>6. If I try really hard, I can help students with the most difficult writing problems.</td>
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<td>7. When a student does better than usual in writing, it is because I exerted a little extra effort.</td>
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<td>8. If students are not disciplined at home, they are not likely to accept any discipline during the writing period.</td>
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<td>9. When a student is having difficulty with a writing assignment, I would have no trouble adjusting it to his or her level.</td>
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<tr>
<td>10. The influence of a student’s home experience on writing can be overcome by good teaching.</td>
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<td>11. A teacher is very limited in what he/she can achieve because a student’s home environment is a large influence on his or her writing achievement.</td>
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<td>12. If one of my students could not do a writing assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.</td>
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</table>
13. The amount a student can learn in writing is primarily related to family background.

14. If a student becomes disruptive and noisy during writing time, I feel assured that I know some techniques to redirect him/her quickly.

15. When students’ writing performance improves, it is usually because I found more effective teaching approaches.

16. If parents would do more in writing with their children, I could do more.
### Correlations between Frequency of Specific Writing Activities (Support Student Writing) and Teaching Efficacy

<table>
<thead>
<tr>
<th>Type of Writing Activity</th>
<th>General Teaching Efficacy (GTE)</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean: Support student writing</td>
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<tr>
<td>Pearson Correlation</td>
<td>.037</td>
<td>.260**</td>
<td>.243**</td>
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<tr>
<td>Sig. (2-tailed)</td>
<td>.544</td>
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<tr>
<td>Graphic organizers</td>
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<tr>
<td>Pearson Correlation</td>
<td>.072</td>
<td>.094</td>
<td>.131*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.243</td>
<td>.127</td>
<td>.033</td>
</tr>
<tr>
<td>Teacher conferences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.014</td>
<td>.216**</td>
<td>.190**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.822</td>
<td>.000</td>
<td>.002</td>
</tr>
<tr>
<td>Planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.040</td>
<td>.233**</td>
<td>.165**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.520</td>
<td>.000</td>
<td>.007</td>
</tr>
<tr>
<td>Writing prompts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.080</td>
<td>.033</td>
<td>.086</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.195</td>
<td>.590</td>
<td>.163</td>
</tr>
<tr>
<td>Revising</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.031</td>
<td>.107</td>
<td>.112</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.613</td>
<td>.084</td>
<td>.070</td>
</tr>
<tr>
<td>Helping peers with writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.031</td>
<td>.220**</td>
<td>.205**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.619</td>
<td>.000</td>
<td>.001</td>
</tr>
<tr>
<td>Peer conferences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.046</td>
<td>.176**</td>
<td>.180**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.453</td>
<td>.004</td>
<td>.003</td>
</tr>
<tr>
<td>Computers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.014</td>
<td>.188**</td>
<td>.146*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.816</td>
<td>.002</td>
<td>.018</td>
</tr>
<tr>
<td>Dictation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.005</td>
<td>.081</td>
<td>.064</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.933</td>
<td>.189</td>
<td>.302</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)*
Table 9

Correlations between Frequency of Specific Writing Activities (Teaching Basic Writing Skills) and Teaching Efficacy

<table>
<thead>
<tr>
<th>Type of Writing Activity</th>
<th>General Teaching Efficacy (GTE)</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean: Teaching basic writing skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.069</td>
<td>.169**</td>
<td>.191**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.261</td>
<td>.006</td>
<td>.002</td>
</tr>
<tr>
<td>Spelling skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.038</td>
<td>.046</td>
<td>.066</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.541</td>
<td>.456</td>
<td>.286</td>
</tr>
<tr>
<td>Capitalization skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.018</td>
<td>.165**</td>
<td>.151*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.766</td>
<td>.007</td>
<td>.014</td>
</tr>
<tr>
<td>Grammar skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.018</td>
<td>.175**</td>
<td>.158*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.775</td>
<td>.004</td>
<td>.010</td>
</tr>
<tr>
<td>Handwriting skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.125*</td>
<td>.078</td>
<td>.156*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.043</td>
<td>.206</td>
<td>.011</td>
</tr>
<tr>
<td>Sentence construction skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.051</td>
<td>.239**</td>
<td>.236**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.405</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)
Table: 10

*Correlations between Frequency of Specific Writing Activities (General Instructional Procedures) and Teaching Efficacy*

<table>
<thead>
<tr>
<th></th>
<th>General Teaching Efficacy (GTE)</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean: General instructional procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.003</td>
<td>.307**</td>
<td>.258**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.960</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Mini-lessons</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.013</td>
<td>.268**</td>
<td>.214**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.831</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Multi-goal lessons</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.015</td>
<td>.208**</td>
<td>.162**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.807</td>
<td>.001</td>
<td>.008</td>
</tr>
<tr>
<td>Reteach skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.029</td>
<td>.141*</td>
<td>.138*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.644</td>
<td>.022</td>
<td>.025</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)**

*Correlation is significant at the 0.05 level (2-tailed)
Table: 11

*Correlations between Frequency of Specific Writing Activities (Promoting Motivation) and Teaching Efficacy*

<table>
<thead>
<tr>
<th>Activity</th>
<th>General Teaching Efficacy (GTE)</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean: Promoting motivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-0.001</td>
<td>0.246**</td>
<td>0.205**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.454</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Sharing writing with a peer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.004</td>
<td>0.207**</td>
<td>0.175**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.945</td>
<td>0.001</td>
<td>0.004</td>
</tr>
<tr>
<td>Modeling enjoyment or love of writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.039</td>
<td>0.174**</td>
<td>0.173**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.529</td>
<td>0.005</td>
<td>0.005</td>
</tr>
<tr>
<td>Publishing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.090</td>
<td>0.174**</td>
<td>0.210**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.145</td>
<td>0.005</td>
<td>0.001</td>
</tr>
<tr>
<td>Teacher reads own writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.030</td>
<td>0.161**</td>
<td>0.156*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.625</td>
<td>0.009</td>
<td>0.011</td>
</tr>
<tr>
<td>Writing skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.019</td>
<td>0.289**</td>
<td>0.254**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.763</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)**

*Correlation is significant at the 0.05 level (2-tailed)*
Table: 12

_Correlations between Frequency of Specific Writing Activities (Assessment) and Teaching Efficacy_

<table>
<thead>
<tr>
<th></th>
<th>General Teaching Efficacy (GTE)</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean: Assessment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.024</td>
<td>.301**</td>
<td>.233**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.699</td>
<td>.000</td>
<td>.001</td>
</tr>
<tr>
<td><strong>Teacher monitors writing progress</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.012</td>
<td>.267**</td>
<td>.231**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.851</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Student monitors writing progress</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.068</td>
<td>.286**</td>
<td>.189**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.274</td>
<td>.000</td>
<td>.002</td>
</tr>
<tr>
<td><strong>Portfolios</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.005</td>
<td>.139*</td>
<td>.112</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.931</td>
<td>.024</td>
<td>.070</td>
</tr>
<tr>
<td><strong>Student use of rubrics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.001</td>
<td>.190**</td>
<td>.158*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.990</td>
<td>.002</td>
<td>.010</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
Table: 13

*Correlations between Frequency of Specific Writing Activities (Home Environment) and Teaching Efficacy*

<table>
<thead>
<tr>
<th></th>
<th>General Teaching Efficacy (GTE)</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean: home environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.072</td>
<td>.061</td>
<td>.104</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.242</td>
<td>.322</td>
<td>.093</td>
</tr>
<tr>
<td>Writing homework</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.039</td>
<td>.048</td>
<td>.068</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.526</td>
<td>.440</td>
<td>.269</td>
</tr>
<tr>
<td>Students write at home with parental help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.061</td>
<td>.027</td>
<td>.066</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.326</td>
<td>.667</td>
<td>.282</td>
</tr>
<tr>
<td>Parents listen to students' writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.090</td>
<td>.037</td>
<td>.096</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.145</td>
<td>.553</td>
<td>.119</td>
</tr>
<tr>
<td>Communicate with parents about students' writing progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.035</td>
<td>.096</td>
<td>.105</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.570</td>
<td>.121</td>
<td>.088</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)**

* Correlation is significant at the 0.05 level (2-tailed)
Table: 14

*Correlations between Frequency of Specific Writing Activities (Extending Writing to Content Areas) and Teaching Efficacy*

<table>
<thead>
<tr>
<th></th>
<th>General Teaching Efficacy (GTE)</th>
<th>Personal Teaching Efficacy (PTE)</th>
<th>Overall Teaching Efficacy (TE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean: Extend writing to content areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.025</td>
<td>.258**</td>
<td>.197**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.690</td>
<td>.000</td>
<td>.001</td>
</tr>
<tr>
<td>Cross curricular writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.008</td>
<td>.187**</td>
<td>.150*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.897</td>
<td>.002</td>
<td>.014</td>
</tr>
<tr>
<td>Writing to support reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.085</td>
<td>.236**</td>
<td>.135*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.170</td>
<td>.000</td>
<td>.028</td>
</tr>
<tr>
<td>Reading to support writing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.019</td>
<td>.255**</td>
<td>.226**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.760</td>
<td>.000</td>
<td>.000</td>
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</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)**

* Correlation is significant at the 0.05 level (2-tailed)
## Appendix E: One Way ANOVA

Table: 15

**One Way ANOVA Test: Overall Teaching Efficacy**

<table>
<thead>
<tr>
<th>Type of Writing Activity</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support Student Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>10.29392281</td>
<td>10.29392281</td>
<td>11.20671979</td>
<td>0.000934614*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Within Groups</td>
<td>240.6598744</td>
<td>0.918549139</td>
<td>1.058171649</td>
<td>0.014487104*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Total</td>
<td>250.9537972</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching Basic Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>14.29048078</td>
<td>14.29048078</td>
<td>6.058171649</td>
<td>0.014487104*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Within Groups</td>
<td>618.0257313</td>
<td>2.358876837</td>
<td>1.058171649</td>
<td>0.014487104*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Total</td>
<td>632.3162121</td>
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<tr>
<td>Teaching Writing Process</td>
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</tr>
<tr>
<td>Between Groups</td>
<td>8.445061406</td>
<td>8.445061406</td>
<td>5.308396491</td>
<td>0.022005726*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Within Groups</td>
<td>416.8125144</td>
<td>1.590887459</td>
<td>1.058171649</td>
<td>0.014487104*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Total</td>
<td>425.2575758</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>General Instructional Procedures</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>18.97158738</td>
<td>18.97158738</td>
<td>12.94832113</td>
<td>0.00038276*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Within Groups</td>
<td>383.8764766</td>
<td>1.465177392</td>
<td>1.058171649</td>
<td>0.014487104*</td>
<td>3.877196162</td>
</tr>
<tr>
<td>Total</td>
<td>402.848064</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*The result is significant at p < .05*
Table: 15 continued

*One Way ANOVA Test: Overall Teaching Efficacy*

<table>
<thead>
<tr>
<th>Type pf Writing Activity</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting Motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>14.13577737</td>
<td>14.13577737</td>
<td>9.472206398</td>
<td>0.002307468*</td>
<td>3.877196162</td>
</tr>
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*The result is significant at p < .05*
Appendix F: Scatterplots

Figure 2. Scatterplot of Supporting Student Writing and Overall Teaching Efficacy

Figure 3. Scatterplot of Teaching Basic Writing Skills and Overall Teaching Efficacy
Figure 4. Scatterplot of Teaching Writing Process and Overall Teaching Efficacy

Figure 5. Scatterplot of General Instructional Processes and Overall Teaching Efficacy
Figure 6. Scatterplot of Promoting Motivation and Overall Teaching Efficacy

Figure 7. Scatterplot of Writing Assessment and Overall Teaching Efficacy
Figure 8. Scatterplot of Connecting Writing to Home Environment and Overall Teaching Efficacy

Figure 9. Scatterplot of Writing in Content Areas and Overall Teaching Efficacy
Appendix G: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does “fraudulent” mean?

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

What is “unauthorized” assistance?

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

• Use of unauthorized notes or another’s work during an online test
• Use of unauthorized notes or personal assistance in an online exam setting
• Inappropriate collaboration in preparation and/or completion of a project
• Unauthorized solicitation of professional resources for the completion of the work.
Statement of Original Work

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University Portland Academic Integrity Policy during the development and writing of this dissertation.

2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the Publication Manual of The American Psychological Association

Beth Anne Burke

Digital Signature

Beth Anne Burke

Name (Typed)

August 13, 2017

Date