

The Effects of a Writing Intervention on Fifth-Grade Student Achievement

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M.Ed., Valdosta State University, 2001
B.S., Georgia State University, 1994

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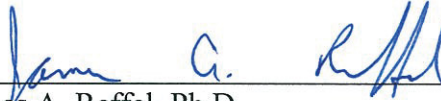
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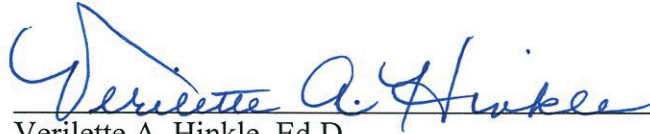


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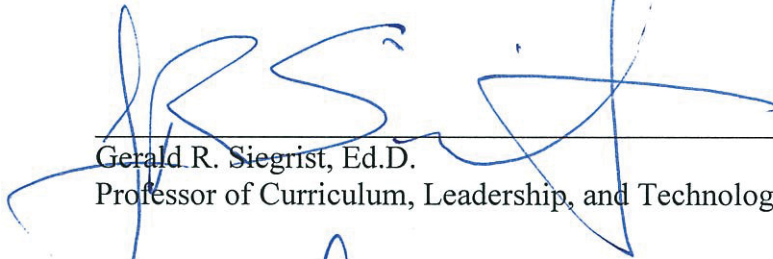
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Informed Consent

For purposes of a doctoral dissertation, I am requesting your consent to collect research in your district. Through Valdosta State University's Doctor of Education program, I am conducting research to examine student achievement in the area of writing among three schools in the Ware County School System: Ruskin Elementary, Waresboro Elementary and Wacona Elementary. The participants selected for this study were chosen due to demonstrated weaknesses in overall student achievement in the area of writing as measured by the Georgia Fifth Grade Writing Assessment and reported by the Georgia Department of Education. The research topic pertains to the effect of daily effective writing instruction and professional development on student achievement as measured by standardized test scores.

Data will be collected in the form of archival test scores and will be used in a dissertation study. The school system, schools, teachers and students will only be described in terms of demographics. In regards to test scores, individual schools, teachers, and students will not be identified or revealed at any time during or after the study. Throughout this study, privacy and confidentiality will be upheld. Upon completion of this study, all identifiable data will be destroyed.

Please indicate your consent by checking the appropriate statement and signing the space below. Upon your consent, I will be contacting your system level testing coordinator. Your assistance in this matter is greatly appreciated.

Sincerely,



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Doctoral Candidate

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As Superintendent of the school system providing participants and archival data for the purposes of this research, I give Jenny C. Barnes permission to study the effect of daily effective writing instruction and professional development on student achievement. I further understand that she will be using archival data, and I also give permission for her to have access to this information.

I do not give my consent for this study to be conducted.



Superintendent's Signature

8-13-12
Date

ABSTRACT

This purpose of this research was to examine a specific writing intervention and its effect on fifth-grade student achievement as measured by the Georgia Grade 5 Writing Assessment. All participants were fifth-grade students and teachers. The writing intervention examined was the researcher-developed Writing In School Every day (WISE) Writing program. This program is a writing intervention inclusive of pedagogy supporting the process approach to writing instruction, and research regarding professional learning and teacher collaboration. This research addressed two questions: Was there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not implement the WISE writing program? Was there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers participating in ongoing professional development while implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not participate in ongoing professional development while implementing the WISE writing program on a daily basis? The participating schools are located in a school district in southeast Georgia. Two schools served as the experimental group and one school served as the control group. The experimental group received identical writing programs. School A received ongoing professional learning and School B did not. School C did not implement the WISE writing program. Focus groups were conducted at each of the elementary schools to gather data related to program implementation. A quasi-experimental design was used in

this study. Each group's Georgia Grade 5 Writing Assessment scores were used for comparison among participants. An analysis of covariance using English Language Arts scores on the Criterion Referenced Competency Test (CRCT) was conducted to allow for differences among participants. Findings indicated no significant difference among groups when comparing scale scores, however categorical data comparisons revealed trends of increases among experimental groups. Data from focus groups revealed that teacher efficacy and student learning increased as a result of program implementation.

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First, without my husband Kevin, this journey would have never been possible. His unconditional love and stable and solid character are what sustained me throughout this process. As a working mother, this project would never have come to completion without the constant support of my children, Mary Catherine and Carter. They were my biggest cheerleaders and never made me feel guilty for the times I missed cheer competitions, ballgames, and other activities in order to pursue this goal. I am truly blessed and humbled to have such a wonderful and loving family.

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After much soul searching, it was Dr. Verilette Hinkle’s love and passion for curriculum that helped me to finally decide on my area of research. I sincerely thank her for her encouragement and for serving as a member of my committee, even post-retirement.

I owe special thanks to Dr. James Reffel, committee member and researcher, for his extensive knowledge, ability to explain statistics to a novice, and for his support throughout my study. I now know and understand more about ANCOVA, Chi Square, and scale data versus categorical data than I ever thought possible!

I would also like to thank Dr. Gerald Siegrist for giving of his time to serve on my committee. His insight and expertise greatly added to my study.

Finally, I am grateful for all my family, friends, and colleagues who encouraged me throughout this study. Without their love and support, I would not have been able to finish.

DEDICATION

It is with great love and admiration that I dedicate this study to my parents, Jimmy and Gayle Carter. They instilled in me, at a very young age, the value of an education and a “whatever it takes” attitude. Without their love and the sacrifices they made throughout my formative years, I would not be the person I am today.

Chapter I

INTRODUCTION

According to the Nation's Report Card, our nation's students are not faring well in writing, particularly our socio-economically disadvantaged subgroup (NAEP, 2007). This quandary was first reflected in the 2003 report *The Neglected "R"* by the National Commission on Writing in America's Schools and Colleges. This report asserted that the writing of students in the United States "is not what it should be" (p. 7). According to the National Center for Education Statistics (NCES, 2007), writing scores have improved in our nation's schools, but barely. In 2007, the latest year reported by NCES, of all students in eighth grade, 70% were not writing at the proficient level and the disadvantaged students fared even worse. The statistics for eighth-grade students in the state of Georgia participating in the NAEP writing assessment were equally as concerning as the national statistics. In 2007, of all participating Georgia students in eighth grade, 70% were not writing at the proficient level (NCES, 2007). This data indicated a severe writing deficiency nationwide, with Georgia contributing to that deficiency. Writing scores in the school system targeted for this study are reflective of the national and state data, with 30% of all students tested not writing at the proficient level (GDOE, 2010). According to research, a foundation for proficient writing must be established at the elementary level to garner future student success (Wollman-Bonilla, 2001), therefore this study focused on writing instruction of fifth-grade teachers and student achievement among fifth-grade students.

One of the most important tasks for teachers today is not only to ensure that all students learn, but to prepare all students to become independent thinkers and writers (Peterson, 2008). Langer and Applebee (1987) contended that good writing develops careful thinking and is the cornerstone of producing literate human beings. Writing, by its very nature, involves thinking at the very highest levels to include organizing, interpreting, evaluating and synthesizing prior knowledge and information into written composition (Newell, 2008; Langer & Applebee, 1987). It is common knowledge among educators that possessing the capacity to engage in this type of complex intellectual activity is the underpinning of student success in contemporary society (Gallagher, 2006). Unfortunately, due to accountability requirements set forth by the No Child Left Behind (NCLB) school reform plan, standards-based curricula and high-stakes testing have resulted in many classroom teachers focusing solely on the instruction of basic skills for the purpose of preparing students to perform well on state assessments, rather than focusing on providing meaningful learning experiences (Newmann, Bryk, & Nagaoka, 2001). Such a fact is at odds with the very heart of what NCLB mandates; that all students will learn and learn at high levels. Here, then, is still another complication for today's teachers, since the idea of all students learning at high levels was inconceivable to the pioneers of public education (Flinders & Thornton, 2009). The implications of this fact reveal that such directives as those set forth by NCLB are not only unprecedented, but somewhat at odds with the principles on which our nation's schools were originally founded. In other words, even though the structure of public education has not significantly changed since its inception, the expectations of today's educators have. As a result, many classroom teachers feel ill-equipped to deliver the type of instruction that

can ensure high levels of learning for all students across all academic areas, including writing instruction (Strickland et al., 2001).

Unlike middle school and high school teachers, elementary school teachers are generally expected to teach every subject area and writing is often the first content area to be neglected (Nagin, 2006). Moreover, in the book, *The Testing Trap: How State Writing Assessments Control Learning*, Hillocks, (2002) reported that many elementary school teachers, while having some knowledge of how to teach writing, feel ill-prepared to deliver effective writing instruction. His research found that teachers at all levels, primary through secondary, receive little or no training in the teaching of writing during their college coursework. Likewise, many teachers have reported a lack of sufficient time to improve and expand writing instruction due to the pressure to prepare for high-stakes tests and other curricular demands (Strickland et al., 2001). Veteran and beginning elementary teachers can feel inadequate when deciding how to teach writing to their students and, as a result, choose didactic approaches to instruction not reflective of authentic writing instruction (McCarthy, 2008). Didactic instruction focuses on presenting students with standards-based information and often requires rote memorization of information for assessments that call for short unelaborated answers (Lee, Smith, & Newmann, 2001). Writing is complex, and so is the instruction a teacher must provide in order to build independent thinkers and writers.

In the 1980s, Arthur Applebee conducted extensive research on the status of writing in American schools and found that students wrote infrequently, within a narrow range of genres from limited purposes (1986). According to Applebee's studies, most student writing revolved around direct instruction and involved writing without

composing, fill in the blank exercises, and seat work that was judged as right or wrong (1984). Although evidence from national assessments of writing by NAEP showed that 57% of teachers reported that writing process instruction and integrated reading and writing were central to their teaching (Nagin, 2006), making time for quality writing instruction and practice continued to be a real challenge for twenty-first century elementary school teachers.

As with students, teachers also need to be educated and supported in the effective delivery of writing instruction. At issue, thus, is how to best support teachers to deliver sound writing instruction that will help struggling students to develop the requisite knowledge about written language and strategies for producing proficient writing. One philosophy among leading educators on how to accomplish the task of building teacher capacity of writing instruction is through providing ongoing professional development and through the establishment of a Professional Learning Community (PLC) (Schmoker, 2011). There is little research to indicate that staff development or PLCs have a negative impact on school improvement or student achievement (Carpenter, 2000; Tienken, 2003), while a plethora of research is available to indicate their benefits. For example, a study examining public schools achieving considerable gains in overall school improvement, including student achievement, attributed much of the overall improvement to ongoing professional development, ongoing learning communities, and consistent collaboration (WestEd, 2000). Although the responsibility to adequately prepare teachers to provide effective writing instruction does rest in part with college teacher preparation programs, school districts must also provide support by giving priority to structures such as ongoing professional development and PLCs.

After years of poor writing scores, investigation was needed concerning effective writing instruction and achievement among fifth-grade students. Furthermore, investigation was needed concerning whether or not ongoing professional development and the establishment of PLCs can create the opportunity for teachers to ensure student learning and achievement in the area of writing. For the purposes of this study, writing achievement was measured by standardized test scores. Furthermore, the researcher studied the impact of ongoing professional development and PLCs on effective writing instruction of fifth-grade teachers and student achievement of fifth-grade students.

Statement of the Problem

Why are our students faring so poorly in the area of writing? Many theorists and educators attribute this problem to accountability reform, which requires measurements specifically of reading and math achievement, not writing, and contend this has resulted in a lack of emphasis being placed on writing in the classroom (Higgins, Miller, & Wegmann, 2007). Due to the heavy pressures of NCLB accountability, teachers have been greatly influenced in their delivery of instruction and often focused primarily on the academic areas measured by high-stakes standardized testing (McCarthy, 2008).

Recent research by Gilbert and Graham also strongly indicated that teachers lack the knowledge and skills necessary to confidently and effectively deliver writing instruction (2010). In their recent national study, 65% of fourth, fifth and sixth-grade elementary school teachers reported that their college teacher education program provided minimal to no preparation in the teaching of writing. Additionally, research conducted by Kiuahara, Graham and Hawkins (2009) found that 48% of high school teachers reported in-service training to be ineffective in preparation for the teaching of

writing. Teacher surveys from this research revealed that the majority of teachers did not rely on commercial writing curricula, but instead devised their own writing programs (Gilbert & Graham, 2010). Due to a lack of emphasis, direction and preparation regarding writing instruction, haphazard instructional methods for writing instruction are prevalent in elementary schools across the United States (Graham, MacArthur, & Fitzgerald, 2007). A skill that all children need to acquire for educational success is the ability to write (McCarthy, 2008). Collective research has clearly defended the idea that effective writing instruction not only increases achievement in written composition, but provides students with the tools they need to learn and achieve in all content areas (Applebee, 1986; Gilbert & Graham, 2010; Higgins et al., 2007). In the best interest of our students and educators, a problem that needed to be addressed is how to build teacher capacity of effective writing instruction so they can realistically and effectively accomplish moving authentic writing instruction to the forefront of the classroom *and* cover required standards.

Theoretical Framework

As discussed earlier, personal researcher experiences with writing instruction provided the initial theoretical framework for this study. In alignment with the described personal experiences and adding to the theoretical framework of this study is the extensive research done in this field. For example, the nation-wide crisis in writing prompted extensive research by Carl Nagin and the National Writing Project (2006). Nagin's investigation indicated that students need to write daily, across all academic areas, and revealed that schools must expand their writing curricula to involve daily writing in a wide range of writing tasks. Nagin's research found that effective writing

instruction and the practice of daily writing across the curriculum will not only create proficient writers, but will increase student achievement in all content areas. The underpinning of this research study is also the underpinning of the researcher-developed WISE writing program; the fundamental belief that good writing is central to educational success and that daily, effectively delivered writing instruction will result in a culture of proficient student writers. The framework of this study encompassed concepts across five domains of research: writing as the foundation to educational success, accountability and its impact on writing instruction, lack of teacher capacity to effectively teach writing, lack of support to build teacher capacity and efficacy in writing instruction, and what comprises effective writing instruction and how those components were used to by the researcher to develop the writing intervention used in this study, the WISE writing program.

Research by McCarthy (2008) indicated that when the pressure to do well on standardized tests is high, the teachers' knowledge base becomes restricted by administrative directives indicating what should be taught. Of equal concern is the fact that when teachers have little knowledge of writing instruction and theory, the testing system tends to become the knowledge base for teaching writing (Hillocks, 2002). Applebee (1984) declared that writing instruction is in danger of failing and has been reduced to a set of formulaic procedures not supporting students in the learning process. Raising another red flag was research by Gilbert and Graham (2010) which found 65% of fourth, fifth and sixth-grade teachers having little to no depth of knowledge regarding the delivery of effective writing instruction. Educators need opportunities for collaborative, assisted professional development in order to become effective teachers of writing and to

create learning environments that will build proficient student writers (Patthey-Chavez, Matsumura, & Valdes, 2004). Research by DuFour, DuFour, Eaker, and Karhanek, (2004) and Schmoker (2011) found that PLCs are an ideal avenue for building teacher capacity of effective instruction and for increasing student achievement. New studies need to be generated investigating the relationship between effective writing instruction, ongoing professional development, PLCs, and student achievement in the area of writing. The goal is for this theoretical structure to allow this body of research to positively contribute to subsequent inquiries into the field of research in the area of effective writing instruction.

Purpose of the Study

The purpose of this study was to investigate the effect of daily effective writing instruction using the researcher-developed WISE (Writing In School Every day) writing program on student achievement on the Georgia Grade 5 Writing Assessment. The WISE writing program is a daily writing curriculum developed by the researcher that incorporates the process approach to writing instruction, while emphasizing scaffolding for genre-specific text structures, metacognitive awareness, and conferencing. This program was developed to build teacher capacity of writing instruction through ongoing professional development, to establish a PLC and to build independent, proficient student writers. Additionally, the WISE writing program was developed to equip students with the skills needed to fare well on standardized writing assessments. Deficiencies in writing achievement and research indicating limited teacher capacity of effective writing instruction warranted this investigation.

Research Questions

Overarching Question. Does daily writing instruction using the WISE writing program in two southeast Georgia elementary schools affect student achievement on the Georgia Grade 5 Writing Assessment?

Research Question 1. Is there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not implement the WISE writing program?

Research Question 2. Is there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers participating in ongoing professional development while implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not participate in ongoing professional development while implementing the WISE writing program on a daily basis?

Definition of Terms

Adequate Yearly Progress (AYP) – Adequate Yearly Progress is an area of the Accountability Profile determined by a series of performance goals that every school and state must achieve within a specified time frame to meet the 100% proficiency goal established by NCLB (GDOE, 2010).

Didactic Instruction – Didactic instruction focuses on presenting students with standards-based information and often requires rote memorization of information for assessments that call for short unelaborated answers (Lee et al., 2001).

Fifth-grade Student – For purposes of this study, the term fifth-grade student refers to students in the fifth grade in three elementary schools in a school system in southeast Georgia during the 2011-2012 academic year.

Georgia Grade 5 Writing Assessment – The Georgia Grade 5 Writing Assessment is a performance-based standardized achievement test administered to all fifth-grade students in the state of Georgia. Student writing samples are evaluated on an analytic scoring system to provide diagnostic feedback to teachers, students, and parents about individual performance (GDOE, 2010).

High-Stakes Test – High-stakes tests are standardized tests that are mandated by NCLB with important consequences such as promotion to the next grade, graduation from high school, and determining AYP for public schools. (McCarthy, 2008).

No Child Left Behind Act of 2001 (NCLB) – This act is the reauthorization of the Elementary and Secondary Education Act of 1965, a federal law affecting kindergarten through high school. The primary purpose of NCLB is to improve student achievement and reduce achievement gaps. All states are required to develop standards to educate all students to 100% proficiency by 2014 and to create a statewide accountability system (NCLB, 2002).

Professional Learning Community (PLC) – A Professional Learning Community consists of teams whose members work interdependently to achieve common goals within an organization (DuFour et al., 2004).

Process-Approach Writing – Process-approach writing is an approach to writing that views writing as an ongoing experience that is more than sitting down to write. This approach attends to what happens before, during, and after the writing process.

The Writing Process – The writing process includes prewriting, drafting, revising, editing, and publishing, with each stage having its own guidelines and procedures (Graves & Hansen, 1983).

Standardized Achievement Test – A standardized achievement test is a test that is developed using standard procedures and is then administered and scored in a consistent manner for all test takers. The standardization of test questions, directions, conditions of testing and scoring make test results comparable and allow equal, unbiased opportunities for students to demonstrate what they know.

Standards-Based Instruction – Standards-based instruction is a process for delivering, monitoring, and improving education in which all educational planning and implementation begins with state academic content standards. In a standards-based classroom, teachers start with the state standards as the basis for classroom instructional planning, rather than starting with a textbook or other classroom materials. Teachers select a unit of instruction that meets the standards, benchmarks, and indicators and use the standards to determine how the unit shall be designed, assessed, delivered, and evaluated (Hillocks, 2002).

Writing Proficiency – Writing proficiency is defined as performance on the NAEP, and it is measured by average scale scores. The Proficient level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter (NCES, 2003).

Procedures

The population of this study included all fifth-grade students and teachers from three elementary schools in a southeast Georgia school district. This population consisted of 11 teachers and 255 students. Permission to conduct this study was obtained from Valdosta State University Institutional Review Committee for the Protection of Human Subjects in Research and Research-Related Activities (IRB) (Appendix B), and the school district superintendent (Appendix A).

End-of-year Georgia Grade 5 Writing Assessment scores were compared between the participating schools. School A and School B received identical writing programs comprising the researcher-developed WISE writing program and initial professional development on program implementation. The researcher continued to work with School A by providing ongoing professional development in order to increase teacher capacity of effective writing instruction and student learning and achievement in writing. School B did not receive ongoing professional development. School C did not implement the WISE writing program. Previous year's averages on the Georgia Grade 5 Writing Assessment were compared to end-of-year assessment averages. The gains and/or losses of the assessments' averages between the two years were compared. Each group's fourth-grade English/language arts CRCT scores were used, and an analysis of covariance (ANCOVA) was conducted to adjust for existing differences in the participating groups. Focus groups were conducted to gain overall insights of teacher perceptions of WISE program implementation.

Significance of the Study

Because writing develops careful thinking and is the cornerstone of producing literate human beings, those involved in elementary education are charged with the task of developing a strong foundation for good writing in all students. Throughout the state of Georgia, strong emphasis has been placed on raising student achievement in writing. No research existed in one southeast Georgia school system on the effect of incorporating a specific writing program to build teacher capacity of writing instruction and to increase student learning in the area of writing as measured by the Georgia Grade 5 Writing Assessment.

It is the goal of this study to provide information on how to best cultivate effective writing instruction and increase student learning in the area of writing. Findings are expected to provide research-based data on the effects of the WISE writing program and ongoing professional development on teacher instruction and student learning in the area of writing. This study will present important information for school systems within the state of Georgia and other educational systems regarding the delivery of effective writing instruction and student learning. The educational significance of this study is to advance the knowledge of how to best cultivate effective writing instruction among teachers and increase student learning and achievement in the area of writing among fifth-grade students.

Limitations of the Study

The research contains some threats to external and internal validity of the study. Participation in this study was conducted on a voluntary basis. The teachers and students participating may or may not be representative of the population.

Instrumentation may be a threat to the validity of the study. Unreported data, data entry errors, or misreported data may have contributed to this (Gay & Airasian, 2000). Another danger to validity may be that all the participants were concentrated in three elementary schools in a school district in southeast Georgia, which may or may not be generalized to the population at large (Gay, 1996).

Organization of the Study

Throughout Chapter 1 of this quantitative study, the researcher provided an introduction, and presented the problem by providing background information and statistical information regarding writing scores at national, state, and local levels. Additionally, the researcher presented a theoretical basis for the study and further outlined the purpose of the study, research questions and a brief overview of the procedures that will be used to perform this research. Possible limitations and delimitations pertaining to the investigation were also discussed and operationally defined terms were explained. Finally, the significance of the study was justified and writing as a critical field was addressed, as were the NCLB accountability measures required by the state of Georgia. A review of literature is provided in Chapter 2. Chapter 3 provides an overview of the research processes and instrumentation used, and the data analysis of the study. Chapter 4 outlines the findings, including the data collection procedures and a summary of the findings. The final chapter provides discussion of the study, conclusions, implications and recommendations for further research.

Chapter II

REVIEW OF LITERATURE

The ability to write is critical for success both in school and in later life, however recent data from the National Assessment of Educational Progress (2007) showed no significant change among students scoring at or above the proficient level since 2002. Ensuring that all students develop high levels of literacy requires a focused effort among education stakeholders to improve teacher capacity of effective writing instruction and students' proficiency as readers, writers, and critical thinkers.

This review covers literature on writing as a foundation to educational success, followed by a description of the impact accountability and high-stakes testing has had on writing instruction in American public schools. The subsequent section provides an overview from the literature describing the components of effective writing programs and how those components apply to the researcher-developed WISE writing program. Finally, a synthesis of literature on professional learning and teacher efficacy is provided in order to examine the concerns regarding teacher capacity impeding effective writing instruction.

Writing as an Educational Foundation for Student Success

It is essential that all children acquire the ability to write, as it is a fundamental part of literacy and a skill that is vital for success in school and throughout life (Puma et al., 2007). The National Writing Project (NWP) (2003) asserted that writing is the

gateway to educational success and is vital to students learning to read, solve problems, and understand concepts across the curriculum. According to the NWP report, writing is also the currency of the new workplace and global economy where it often has to be produced instantly and effectively (2003). Reading and writing form the educational foundation of a 21st century global citizen. In multiple studies and policy reports, literacy is closely linked to success in almost every area of life (Puma, Tarkow, & Puma, 2007). In school, literacy and content learning are deeply intertwined; if one struggles as a reader or writer it impacts all other academic pursuits. Developing the literacy skills of emerging readers and writers is perhaps the single most important function of public education (Carnegie Council on Advancing Adolescent Literacy, 2010).

The researcher-developed WISE writing program came to realization through trial and error when, as a classroom teacher, it was discovered by the researcher that there was no specific writing curriculum available to teachers. Research shows that effective instruction in writing enhances student achievement in all content areas and that the ability to write well, across all academic areas, is essential to learning (Klein & Kirkpatrick, 2010). With no structured writing program in place, high self-efficacy resulted in what gradually culminated into the WISE writing program, a cohesive writing program built upon the research-based effective teaching practices described in this section.

Literacy activities, such as writing, are strongly tied to both thinking and learning. Students who can write effectively about a given subject matter will learn the material much more thoroughly than those who do not (Russell, 2001). Conversely, students are less likely to master key academic concepts when they lack the ability to write

proficiently and are not offered opportunities to participate in thoughtful writing activities (Allington, 2002). Traditionally, writing composition has been taught in isolation in the language arts content area, but writing is now recognized as vital to mastering all academic concepts (Nagin, 2006). When students use writing-to-learn strategies, they are more aware of language usage, have a deeper understanding of key concepts, move information to long-term memory more quickly, and show more complex thinking (Bransford, Brown & Cocking, 2000).

According to landmark research conducted by Janet Emig (1977), writing develops the higher-order thinking skills of analyzing, synthesizing, evaluating, and interpreting information. Emig contended that the very difficulty of writing is its virtue: it requires that students move beyond rote learning and simply reproducing information, facts, dates, and formulae. Instead, students must also learn how to question their own assumptions and reflect critically on an alternative or opposing viewpoint. Research by Emig is substantiated by George Hillocks' research reported in *The Testing Trap* (2002). Throughout his research, a case was made to support the benefits of writing to learn and revealed that effective writing instruction incorporates inquiry strategies such as collecting and evaluating evidence, comparing and contrasting to infer similarities and differences, explaining how evidence supports or does not support a claim, creating a hypothetical example to clarify an idea, and imagining a situation from a perspective other than one's own. When compared to other pedagogic approaches to learning, such as the perfunctory instruction that is common in today's standards-based classrooms (McCarthy, 2008), it is easy to see why effective writing instruction must be a strong

focus in current education. That writing has a substantial and powerful impact on student success in school and beyond cannot be ignored; it would be a blatant injustice to do so.

A powerful example of the positive effects of increased writing instruction as a means to student learning was exemplified in a recent study conducted by Harvard University researchers (Ferguson, Hackman, Hanna, & Ballantine, 2010). In 1999, Brockton High School, the largest school in Massachusetts, received test scores that were among the lowest in the state, and three out of four students dropped out of school. After the test scores were reported, a program was implemented that integrated reading and writing lessons into every subject area, even physical education. Student retention and test scores substantially increased in just two years, and by 2010, Brockton High School outscored 90% of Massachusetts schools. It was concluded that authentic writing instruction played a key role in the reported student achievement (Ferguson et al., 2010). Similar to the Massachusetts high school study were results documented in the state of Maine. As outlined in a national report by Persky, Daane, and Jin, the state of Maine significantly raised student achievement by focusing specifically on literacy and writing (2003). According to this report, between the early 1980's and 2002, the state of Maine increased achievement scores to the fourth highest among fifty states on the 2002 NAEP Writing Assessment. Nagin (2006) later reviewed this study and described the following findings as contributing to the increased student achievement:

1. Allowing curriculum flexibility
2. Recognizing teachers as professionals
3. Establishing professional learning communities
4. Developing a shared vision

5. Resisting top-down directives
6. Focusing on learning rather than assessing
7. Maintaining high teacher retention
8. Investing in ongoing professional development

Collective research in the area of writing as a means to learning has not only illuminated the versatility of effective writing instruction, but has also explained why its incorporation into all content areas is critical to increased student achievement.

However, research has also indicated that there is much to consider in order to ensure effective writing instruction in American public schools. First, the responsibility to teach students to become proficient writers and to incorporate writing in all subject areas must be shared at all levels of public education, not just high school. It takes time to build a culture of writing in a school system; it has to be introduced at the elementary level and continually built upon in all grades, kindergarten through twelfth grades (Graham, 2006).

An additional obstacle is that teachers are often ill-equipped to teach writing, thus students do not possess the skills needed to effectively create written composition in any content area, including language arts. Also, standardized testing often drives what is taught in schools (Langer, 2004). Although national and state standards emphasize writing in all content areas, writing is not an area specifically measured for AYP, and writing standards are often given little instructional time (Baker et al., 2009). Students who develop strong writing skills in elementary school acquire a valuable tool for learning, communication, and self-expression and fare better in subsequent grades than students who do not acquire such skills (Puma et al., 2007). Finally, an initiative to

improve writing must focus on more than just useful instructional strategies, but must also include investing in quality professional development for all teachers.

If writing is lauded as the integral component to student success in and beyond school, then barriers that impede effective instruction must be removed. In order to address such concerns, the WISE writing program was designed to increase teacher efficacy in writing instruction and to establish a foundation for proficient student writing at the elementary level. Building a culture of proficient student writers beginning in elementary school provides the basis needed to successfully incorporate writing-to-learn strategies in all content areas, at all grade levels (Peterson, 2008) and is the key to providing a foundation for success in life for all students.

Impact of Accountability on Writing Instruction

In 1983, during the Reagan administration, the National Commission on Excellence in Education (NCEE) published *A Nation at Risk*, a report that ultimately depicted a crisis in American education. Not only did this report initiate a nationwide attitude of disdain toward American public schools, but it also marked the beginning of school accountability. During George W. Bush's presidential campaign, the NCLB school reform plan was used as a platform to the presidency, a plan that would require schools to close the academic performance gaps for minority and poor students (Knoll, 2007). The plan was signed into law on January 8, 2002 as a reauthorization of the 1965 *Elementary Secondary Education Act* (Guilfoyle, 2006), requiring schools to close the academic performance gaps for all students or suffer heavy consequences ranging from corrective action plans to school closures (Knoll, 2007). The NCLB Act also requires an implementation of statewide accountability systems to ensure that all groups of students

reach proficiency in the areas of reading and math by the year 2014. One critical concern is how to emphasize important content areas in classroom instruction, such as writing, which are not specifically measured for NCLB accountability, while also focusing on those areas which are specifically measured.

Now, almost 30 years after the publication of *A Nation at Risk*, and several presidents later, our nation's education system continues to endure heavy criticism, and accountability is no longer an education buzz-statement, but a household word. Everyone from teachers at school to moms at the soccer field can speak the language regarding high-stakes testing and accountability reform. According to Cankoy and Tut, one of the most important functions of American public schools is assessment of student achievement (2005). This idea seems to drive public education today, especially since the NCLB Act requires an implementation of statewide accountability systems.

“Teaching writing well remains one of the key tasks facing schools today as they work to meet increasingly high standards and expectations for learning” (Nagin, 2006, p. 6).

Although it is tempting for educators to neglect writing instruction in order to focus on high-stakes content areas, it is important to remember the intangible cross-curricular benefits of incorporating effective, authentic writing instruction into all content areas.

The GADOE (2010) stated that in order to determine a school's status, assessment results and state progress objectives must be reported by subgroups of poverty level, race, ethnicity, disability, and limited English proficiency. Assessment results from the Georgia CRCT determine actions ranging from school closures and corrective action for Georgia schools not making AYP, to state academic achievement awards for those schools meeting or exceeding the standards set forth by NCLB. Because of the clear-cut

and severe consequences that can result from NCLB, the assessments have been termed *high-stakes tests* (McCarthy, 2008). “In this culture, what gets measured is what gets done” (Guilfoyle, 2006, p. 4). Actually, NCLB does not require the use of standardized tests to measure AYP; however it does require the use of the same assessments for all students so long as the assessments are congruent with academic standards (McCarthy, 2008). This requirement, coupled with the fact that standardized assessment is a relatively inexpensive method of school reform, indicates a valid rationale for high-stakes testing. However, what has often been overlooked as a part of the cost of high-stakes testing is the impact it has on students, and in particular, on the kind of education they receive (Murphy, 2003). For a subject as litigious as high-stakes testing, there actually is limited empirical evidence on its effects. Paris, Lawton, Turner, and Roth described high-stakes testing as having low-validity of achievement because teachers are teaching to the test, and the tests simply measure students’ test-taking skills (1991). Moreover, the initial specific requirement of measuring only reading and math achievement for AYP has resulted in neglect of other important academic content areas, such as writing.

The Nation’s Report Card informs the public about the academic achievement of elementary and secondary students in the U.S. Report cards communicate the findings of the NAEP, a continuing and nationally representative measure of achievement in various subjects, including writing. As important as writing is for success both in school and in later life, recent data from the National Assessment of Educational Progress showed no significant change among students scoring at or above the proficient level since 2002, with 70% of all students scoring at the Below Basic or Basic achievement levels (2007). These data also indicated persistent and substantial achievement gaps among all selected

groups. Moreover, a 2006 data analysis conducted by Applebee and Langer reported a significant increase in time devoted to writing between 1978 and 2002, but found a steady and consistent decrease in instructional time between 2002 and 2005. This is the same time period during which the accountability measures tied to NCLB were being emphasized in all public schools across America. This reported decrease in writing instruction chronologically coincides with the implementation of NCLB accountability measures and clearly points out a possible correlation between the two. The Georgia Writing Assessment, designed specifically for Georgia public schools, is currently administered on an annual basis in all state public schools. According to the GDOE (2010), Georgia law (O.C.G.A., Section 20-2-281) requires that performance-based writing assessments be administered to all students in grades three, five, eight, and eleven.

The writing assessment for fifth-grade students consists of an evaluation of each student response to an assigned prompt representing three genres: narrative, informational, and persuasive. Students are assigned a topic and are allowed approximately 120 minutes to complete their essays. Writing topics are spiraled, therefore students must be prepared to write in all three genres. Georgia raters use a specific analytic scoring rubric comprised of predetermined criteria to assign a score that indicates the test rater's overall impression of the writer's command of the components making up the four domains of effective writing: Ideas, Organization, Style, and Conventions. Each domain consists of several components, or features, of writing within a particular domain. For example, the writer's ability to maintain focus on the assigned topic is a component of the Ideas domain. Scores in each domain range from 1 to 5, with

5 being the highest score. In order to obtain a total score for each student, domain scores are weighted and combined. In combining the domain scores, the Content score is given a weight of 40%; the other domains of Organization, Style, and Conventions are given a weight of 20% each. The total score is then converted to a three-digit scale score which represents the performance level of the writer: Does Not Meet (100-199), Meets (200-249), and Exceeds (250+).

While the implementation of the Georgia Writing Assessment may have resulted in an increased emphasis on writing instruction across the state, recent data have indicated that writing is an area that continues to suffer neglect in Georgia classrooms. According to data provided by the GDOE (2010), a four year trend in the writing scores for fifth-grade students in Georgia between 2007 and 2010 showed a slight increase in student performance between years one and two, with a consistent decrease in performance between the years two and four. In 2009-2010, Georgia fifth-grade writing scores showed an overall 5% decrease in student performance, with a decrease in every single subgroup, and with the Black and Native American subgroups having the greatest decrease of any subgroup. Additionally, of all students tested during the reported four year period, an average of only 8% exceeded the standards on the Georgia Fifth Grade Writing Assessment. In the southeast Georgia school system targeted for this study, the same four year trend indicated a 14% increase in fifth grade scores, however an average of 30% of all students still did not meet the standard for basic writing proficiency, and an average of only 8% of all students tested exceeded the standards. What is more, in 2009-2010, this same school system's fifth-grade writing scores showed an overall 2.2% decrease in student performance when compared to 2008-2009 scores (GDOE, 2010).

Extensive research by Hillocks contended that high-stakes writing tests adversely affect teachers' instruction and students' attitudes toward writing (2002). He concluded that the level of stakes in the assessment do not determine the impact of the assessment on teaching, and found that "it is not the stakes that matter so much, but the nature of the assessment itself. In most states, the assessment must be altered if writing and thinking are to flourish" (Hillocks, 2002, p. 206). In spite of endeavors to increase writing achievement in Georgia, data clearly indicated the focus did not yield the results indicative of independent writers and thinkers.

A worthy question is whether or not the Georgia Writing Assessment has adversely affected teachers' instruction as described by Hillocks due to the fact that Georgia writing assessments are not specifically regarded as a high-stakes test. While writing is not a content area specifically measured for AYP in Georgia elementary and middle schools, all Georgia students are required to pass an eleventh grade writing assessment in order to graduate high school; graduation rate is a key indicator for AYP status in all Georgia high schools (GDOE, 2010). As long as proficient writing is a requirement for graduation, writing achievement and AYP are strongly linked, and indirectly, the Georgia Writing Assessment is a test with high stakes.

Further increasing the risk of allowing high-stakes testing to drive instruction is the considerable research indicating the benefits of authentic writing instruction to all academic content areas. "Policymakers and school administrators, no less than teachers and parents, can only benefit from understanding current trends and issues in the teaching of writing and the vital role it can play in achieving quality and excellence in our classrooms across the disciplines" (Nagin, 2006, p. 5). Corroborating Nagin's

perspective is research by Hillocks that serves as a warning to the dangers of only teaching students to write in order to pass a writing assessment instead of teaching them the process to become proficient writers. The latter is what builds the foundation for writing to learn, which has been hailed as the ultimate benefit of writing in school.

It is imperative to investigate how Georgia educators can ensure student mastery of high-stakes academic content while also providing the instruction that cultivates the deep, higher order processes that will develop the independent thinking and writing skills our students need to be successful in society. In the book, *Teaching Adolescent Writers*, Kelly Gallagher asserted that teachers must be willing to move writing to the forefront of classroom instruction, even if it means covering less academic content over the course of one school year. It was her contention that teachers must resist the pressure to cover standards and must create extended writing time to truly teach students how to write (2006). “Twenty years from now I will not be concerned if my students have forgotten what foreshadowed Lenny’s death in *Of Mice and Men*, but I will be worried if they are unable to write effectively in the workplace or if they cannot compose letters to their congressional representatives” (p. 29). In order to prepare students for high-stakes testing, discussion of best instructional practices or forms of assessment has frequently created a separation between classroom instruction that enhances the mastery of the basic skills tested on standardized assessments and instructional approaches that aim at more ambitious intellectual work. This implies that a choice must be made of one practice over the other. However, research has documented that the pressure teachers may experience to choose didactic over effective writing instruction in order to prepare students to perform well on standardized assessments is unwarranted. A landmark study by

Newmann et al., (2001) analyzed the intellectual demands of more than 2,000 classroom writing and math assignments from more than 400 Chicago classrooms. This research concluded that assignments calling for more authentic intellectual work through interactive literacy-based learning significantly improved student scores on standardized tests. It also debunked theories advocating didactic writing instruction as a prerequisite to more complex, process writing instructional strategies.

That research has revealed the advantages to trading perfunctory teaching strategies for ones that include effective writing instruction cannot be viewed as a slight to the significant weight carried by high-stakes testing. Research has acknowledged the reality that in current public education, classroom teachers can endure heavy consequences if test results do not yield satisfactory student gains (Knoll, 2007).

However, as illustrated throughout this section, methods of teaching geared to testing are not generating students with the complex and careful thinking needed for high levels of learning across all academic areas. It is often said that teaching is a calling. In fact, a study on teacher empowerment overwhelmingly found that teachers inherently desire to do what is best for student learning (Enderlin-Lampe, 2002). This provides yet another reason why educators must embrace instructional strategies that will yield the complex and critical thinking that will not only equip students with the skills needed for successful high-stakes testing, but will also create proficient student writers with the ability to flourish in today's world.

Effective Writing Instruction and WISE

Much has been learned about effective writing instruction over the past 30 years, however the overall body of research in writing is relatively small and, as a result, there

actually is no scientifically based writing curriculum for adolescents (Graham & Perin, 2007). While more research is needed, existing research has made significant gains in scientifically identifying important factors that are vital to effective writing instruction. One such factor is that students must be offered frequent opportunities to write in order to become competent writers, and for their learning to be enhanced by writing (Nagin, 2006). This idea aligns with the foundation of the WISE writing program, that students must be provided with opportunities to write in school every single day, thus the name WISE (Writing In School Every day). Writing is a form of communication that allows written ideas to be expressed to an audience for a variety of purposes and is a skill that is important not only for success in school, but also for active participation in professional and social life. This is why the National Commission on Writing has called for a national initiative to improve writing instruction in American public schools (2006). While there has been a great deal of descriptive research about what constitutes effective writing instruction, more is needed regarding practical approaches to this critical process.

The U.S. Department of Education recently released a report utilizing collective research from the last 20 years to offer recommendations for the effective teaching of writing to elementary school students (2012). In this report, process writing was described as the recommended approach for teaching fundamental writing skills, developing critical knowledge of writing, and for creating a supportive writing environment.

Vital to the process writing approach is the writing process. An important fact is that the writing process is only one component of the process approach to writing, a detail that is sometimes confusing to educators (Troia & Graham, 2003). In other words, using

the steps to the writing process does not equate to teaching the process approach to writing. The writing process is comprised of specific steps to be used by a writer to navigate writing from conception to completion (Calkins, 1994; Culham, 2003; Troia & Graham, 2003). The first step of the writing process includes prewriting or brainstorming, which may include outlining ideas with a specific structure or genre in mind. The next phase involves drafting, which involves providing writing opportunities to encourage the free flowing of ideas, without the close attention to possible revisions. The freedom of the drafting phase enhances fluency, voice, word choice and depth of ideas, which are all domains of effective writing (Culham, 2005). The revising and editing steps prompt the writer to self-assess their composition and make needed revisions or grammatical corrections as required by the specific domains of effective writing. Perhaps the only linear aspect to the writing process is the last step, publishing. This step allows the writer to share and present completed composition in a format appropriate to the intended audience.

Describing the steps to the writing process reveals that it is not a linear process, but is recursive, allowing a writer to move back and forth between the steps as needed until completion (MacArthur, Graham & Fitzgerald, 2008). Just as the writing process is recursive, so is the process approach to the teaching of writing. This methodology includes writing instruction that is constantly modified relative to students' specific needs in the domains that characterize good writing (Patthey-Chavez et al., 2004). In other words, instruction must move from a product emphasis to a process emphasis, attending to what happens before, during, and in between the various steps of the writing process. This is a significant shift in teaching for many educators, as it is not characteristic of the

mechanical direct instruction typical of many standards-based classrooms (Nagin, 2006). Instead, the process approach to writing promotes critical thinking and problem solving and requires a teacher to frequently, thoughtfully, and skillfully scaffold and adapt instructional methods, materials, and expectations for optimal student performance (Troia & Graham, 2003).

Viewing writing as a social activity is another distinguishing characteristic of the process approach to writing instruction, emphasizing how students must write and publish for different audiences (Langer & Applebee, 1987). The very essence of establishing this context with students is by frequently providing students with authentic writing tasks and an audience external to their classroom (Galbraith & Rijlaarsdam, 1999). Research by Donald Graves supported the idea that writing is a social activity and found that writing for real audiences provides meaning for student writers and enhances the overall quality of their writing (1983). Another way to emphasize the social aspect of writing is by allowing a peer or teacher to respond to the text, known as collaborative revision (Galbraith & Rijlaarsdam, 1999). The unique feature of this activity is that the reader is required to think out-loud, giving direct insight to how the text may affect the thoughts and feelings of the audience.

The WISE writing program is based on the process approach to writing, but also includes many flexible strategies using mnemonic devices, rhymes, acronyms, and graphic organizers to teach background knowledge in writing and to assist students in the writing process. While the process approach to writing is recognized as the central component to effective writing instruction, research has also suggested that students benefit from instruction in the use of versatile writing strategies, especially when

instruction focuses on the mental processes and strategies that guide writers (Graham, 2006; Graves, 1983; Graves & Hansen, 1983). Cognitive Strategy Instruction in Writing (CSIW) and Self-Regulated Strategy Development (SRSD) are two writing interventions that have been extensively researched and found to improve the writing performance of student writers and promote development in children's strategic behavior, knowledge, and motivation when completing a writing task (Harris, Graham, & Mason, 2006). What makes CSIW and SRSD unique is that both interventions teach students general strategies and techniques that can be flexibly used throughout the writing process to improve overall writing quality. The strategies, for instance, provide students with mnemonic devices and graphic organizers that help students master the background knowledge needed to be a successful writer. The strategies also provide students with concrete ways to self-assess the quality of their writing as they work through the writing process.

Writing is a complicated and highly complex, cognitive activity that places multiple simultaneous demands on the student writer (Graham et al., 2007); therefore educators must dedicate considerable attention to identifying productive methods and approaches for the effective teaching of writing. For example, CSIW and SRSD researchers contend that to develop proficient writers, students must be taught strategies for writing in the various types of genre structures that are the foundation of well-constructed texts (Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Harris et al., 2006). Examples of specific writing genres include descriptive, narrative, informative, and persuasive, which are all genres typically included in standardized curricula. Since standardized curricula and writing assessments require students to compose in response

to genre-specific prompts (Hillocks, 1996), it seems commonsensical to include flexible strategies such as those from the CSIW and SRSD models as a means to effective writing instruction. This is not teaching to the test, but instead is equipping students with the skills needed to write for a variety of purposes and audiences, which is a necessary skill throughout life. Students who understand the relationship between different genres and writing purposes have an increased ability to think more critically about how to structure their writing, which leads to proficient writing and to success on timed standardized writing assessments (Higgins et al., 2007). While research has presented strong evidence regarding the negative impact of standardized testing on effective writing instruction, the requirement of such tests is a harsh reality.

The WISE writing program stands apart from other widely used writing programs in that the definitive goal of WISE is preparing students to become proficient, intrinsically motivated writers while simultaneously equipping them with the skills and knowledge necessary to write for a purpose *and* to succeed on standardized writing assessments. Students will always be expected to write for a specific purpose, whether in a standardized testing environment, as a classroom assignment, for college applications, or in the workplace. WISE not only emphasizes teaching students how and why it is important to write well; it also focuses on how to self-assess successes and failures in alignment with universal expectations for scholarly, graded or judged writing. Fortunately, research on CSIW and SRSD has revealed that effective writing instruction does not have to be compromised in order to equip students with the skills needed for testing success. Writing pedagogy geared towards student learning and a strong foundation for writing should forever be the measuring stick for effective writing

instruction, not student achievement. If the first is done well, the later will come at no extra cost.

As important as effective teaching strategies and methods are to creating a culture of proficient writers, if students are not offered frequent opportunities to engage in authentic writing activities, possessing effective teaching methods is for naught. While the need for increased writing instructional time has been emphasized by educational researchers, extensive data has revealed that it is not happening. First, according to the 2002 NAEP Reading Report Card, 69% of fourth-grade teachers reported spending 90 minutes or less per week on writing activities. Other national studies and assessments of writing over the past three decades have repeatedly shown that students spend too little time writing in and out of school. For example, Applebee and Langer (2006), in coordination with the National Study of Writing Instruction, analyzed existing data sets to determine the amount of time being devoted to writing instruction in America's schools. In 1978, nine percent of eighth-grade students reported that none of their time in English class was spent on writing instruction. In 2002, only four percent reported spending 0-10% of their language arts time on writing instruction, suggesting some increase across that time period. However, between 2002 and 2005, data showed a small but consistent decrease in the amount of time focused on writing instruction, with increases in the percentages for between 0 and 40% of time, and decreases in the percentages for 41% or more time. This data exposed a sharp contrast to the recommendations from the National Writing Commission, which suggested that schools should double the amount of instructional time spent on writing (2006). Notably, this

decrease in classroom writing opportunities directly coincides with the peak of high-stakes testing and AYP mandates as set forth by NCLB.

In 1979, an extensive study of writing instruction conducted by Arthur Applebee found that almost no classroom instructional time was dedicated to writing instruction. In fact, this early study reported that an average of only around three minutes was devoted to writing, which primarily consisted of introducing the assignment and asking students to start writing (Applebee, 1981). Thirty years later, Applebee examined extensive data collected by the NAEP from 260 middle and high schools. The data were used to determine the changes in the teaching of writing over a thirty-year period, including the amount of time devoted to writing instruction (Applebee & Langer, 2011). Shockingly, the analysis found that in a 50-minute period, students received on average just over 3 minutes of instructional time related to explicit writing strategies, or a total of 2 hours and 22 minutes in a 9 week grading period. Applebee and Langer attributed the lack of writing instruction time to constraints imposed by high-stakes tests. While much has been learned about writing instruction over the past three decades, this comparative data reveals that time spent on explicit writing instruction continues to be alarmingly low. The National Commission on Writing (2006) contended that the amount of time students spend on writing should be doubled, at the least, and that more out-of-school assignments should emphasize writing, including parents reviewing students' writing with them.

In alignment with this charge from the National Commission on Writing was a study conducted in a large suburban elementary school on the east coast. To address concerns regarding limited instruction time, it examined the impact of family involvement in early writing instruction (Wollman-Bonilla, 2001). Results from the

study demonstrated that even families considered less capable to play a role in providing extended learning in writing significantly contributed to the children's literacy. A different strategy, one emphasized in the WISE writing program for maximizing instruction time, involves combining grammar and writing instruction instead of treating the two as separate content areas. A recent research review validating this idea reported that teaching grammar skills in isolation has little impact on improving grammar usage and does not enhance the overall quality of student writing (Andrews et al., 2006). Further illustrating the benefits of integrating grammar and writing instruction was a study that examined the effectiveness of teaching sentence structure through writing instruction (Saddler, Asaro, & Behforooz, 2008). Sentence structure relates to the various combinations of subjects and predicates that result in a correctly constructed sentence.

Not only is student mastery of basic sentence structure assessed through high-stakes testing, it also improves the overall quality of writing and is a component of the conventions domain of effective writing (McCarthy, 2008). The study conducted by Saddler et al. found that directly teaching sentence combining as a writing intervention to students resulted in a deep understanding of basic sentence structures, improved the overall quality of written text, and enhanced reading rate and comprehension (2008). Converse to these findings, the teaching of grammar through writing instruction is not included as a component to popular approaches to writing such as Writer's Workshop (Calkins, 1986), even though there is considerable evidence that this approach can improve students' mastery of grammar skills and overall writing quality (Graham, Harris, & Mason, 2005). In essence, strategies such as family involvement and integrated

instruction can prove beneficial in providing a solution to the problem of limited instruction time that impedes the inclusion of explicit writing instruction.

To answer the call for increased opportunities for student writing, educators must be willing to implement innovative and progressive ideas. Donald Graves, a pioneer in writing research stated, "...if kids don't write every day, they're dead, and it's very hard to become a writer. If you provide frequent occasions for writing, then students start to think about writing when they're not doing it. I call it a state of constant composition" (1983, p. 79). The WISE writing program is heavily underpinned by the idea that explicit daily writing instruction is at the very heart of building a culture of competent student writers and that grammar should be taught in the context of real-world writing.

Despite that educational researchers have given substantial attention to writing instruction, and while there is a variety of well-researched writing programs available to educators, many school districts continue to have haphazard approaches to writing instruction (Hillocks, 2002), with some form of the process approach to writing instruction being the most prominent model for the teaching of writing in the United States (Patthey-Chavez et al., 2004). Writer's Workshop (Calkins, 1994) and 6 + 1 Traits of Writing (Culham, 2003) are two of the most popular and widely used program variants of the process approach to writing (Bangert-Drowns, Hurley, & Wilkinson, 2004). While these types of programs are designed to teach writing using the process approach, the instructional delivery of such programs is often missing the systematic, explicit and extended instruction that characterizes authentic process writing instruction (Harris et al., 2006). This is substantiated by extensive research conducted by Arthur Applebee, who contended the process approach to writing instruction was in danger of

failing and had been reduced to a set of formulaic procedures not supporting students in the learning process (1984). Many school districts and state agencies have recognized the benefits of the writing process approach since it has been largely adopted as the instructional standard for writing instruction. However, good intentions, alone, do not result in effective instruction, and as research and data have indicated, the current execution of this process is not working. With this in mind, it is important to acknowledge that effective writing instruction does not materialize because school leaders deem it as a priority, or set goals to improve student achievement; quality instruction becomes a reality when leaders devote resources to it (Pressley, Mohan, Raphael, & Fingeret, 2007). This is not only to include access to a strong curriculum, but also access to ongoing professional development to build teacher efficacy.

In the system-wide goals and objectives, the researcher's school system identified writing as a critical area needing improvement due to a trend of deficient writing scores. After years of having no specific writing program to guide classroom instruction, the 6 + 1 Traits of Writing model was adopted system-wide. While some professional development was provided to teachers on the use of 6 + 1 Traits of Writing, ongoing professional development was not offered. Additionally, most of the teachers reported that initial training did not result in building their capacity in the delivery of effective writing instruction, and left them feeling frustrated at the expectation to teach what they did not know. As a result of these experiences, the researcher-developed WISE writing program culminated.

In order to enable educators to apply effective instructional practices in ways to build proficient writers, continued professional development and collaboration must be

emphasized (Pressley et al., 2007). According to Tschannen-Moran and Hoy (2001), teacher efficacy refers to the extent which a teacher feels capable to help students learn. High self-efficacy positively impacts a teacher's choice of activities, level of efforts and determination with students. It also results in greater optimism to overcome challenging teaching situations because more personal responsibility is taken regarding successes and failures. Further validating this idea was a study by Ware and Kitsantas (2007) which found that teachers who report low self-efficacy often attribute their successes or failures to outside factors such as lack of resources. In hindsight, it is very likely that high self-efficacy in the area of writing instruction inevitably contributed to the development of the WISE writing program used in this study.

More in-depth research on teacher efficacy will be discussed in the subsequent section of this review; however, it is important to demonstrate in the current section the correlation between teacher efficacy and effective writing instruction. The fact that one is dependent upon the other also substantiates why an integral component of WISE is to raise teacher capacity and efficacy as a means to effective writing instruction. Senge (1990) advised that substantive cognitive changes must occur before we change our behavior and beliefs. He stated that new insights may not be implemented into practice because they conflict with deeply held internal images of how the world works, images that limit individuals to common and predictable ways of thinking and behaving.

Unfortunately, using rhetoric to suggest that effective writing instruction is being used and actually having it in place are two very distinct realities. Educational leaders must no longer pretend that using the words "effective writing" will bring it about, and

realize that the distinction of being a school with a culture of proficient writers must be earned.

Building Teacher Capacity and Efficacy in Writing Instruction

Why do teachers continue to devote little classroom time to writing, despite increased understanding regarding the value of effective writing instruction and the use of writing as a means to learning? As noted earlier, high-stakes testing has been cited as one major factor impeding effective writing instruction. Another factor that has been identified as contributing to this issue is the lack of teacher capacity in the fundamentals of writing instruction (Totten, 2005). Teacher efficacy is the extent to which a teacher feels capable to help students learn (Tschannen-Moran & Hoy, 2007), and is closely tied to teacher capacity of classroom pedagogy (Brindley & Schneider, 2002). Research on teacher efficacy maintains that successful teaching is dependent upon a teacher's confidence and requires more than possession of the latest knowledge and skills. When pedagogical understanding of content and instructional practices is low, teacher self-efficacy is low (Tschannen-Moran & Hoy 2007). Effort and persistence, goals and aspiration, and the overall quality of instruction are all influenced by the level of teacher efficacy (Tschannen-Moran, Woolfolk & Hoy, 1998).

In the preceding sections of this review, research was examined that identified high-stakes testing as a significant barrier to effective writing instruction. In the last thirty years, research has made many other important discoveries advancing the field of effective writing instruction; however teacher efficacy, as it relates to writing, is an area that has been largely ignored (Graham, S., Harris, K., Fink, B., & MacArthur, C., 2001). Justifying further examination of the relationship between teacher efficacy and writing

instruction is the fact that low teacher efficacy results in a belief system that outside barriers such as student poverty or a lack of teacher resources cannot be overcome in order to positively influence student performance (Ashton & Webb, 1986). When considering this, it can be reasonably argued that teachers with low self-efficacy are likely to view high-stakes testing as an insurmountable barrier to effective writing instruction. Because teachers will always face barriers such as high-stakes testing, and because writing is an essential life skill, the need to raise teacher capacity and efficacy in writing instruction cannot be ignored.

Professional learning and its impact on teacher efficacy and classroom instruction has long received substantial attention in the area of educational research. According to Guskey, professional development programs are systematic efforts to bring about change in the classroom practices, attitudes, and beliefs of teachers, and in student learning outcomes (2002). In general, professional development is traditionally viewed as vital to overall school improvement, however a longitudinal evaluation of research on this issue overwhelmingly found most professional development programs to be ineffective (Guskey, 2000). For a school to truly increase teacher effectiveness and student learning, then ongoing, thoughtful professional development must be a main priority (Stover & Glover, 2012). Workshops in which teachers sit and listen for hours to information from an administrator or consultant are not effective. Instead, sustained coaching and support over the course of many months is the new paradigm in effective professional development.

Guskey, a leader in professional development research, described the new perspective of what constitutes effective professional development as the significant

change occurring in teachers' attitudes and beliefs due to evidence of student learning (2002). While teachers desire professional development that expands their knowledge and skills of teacher pedagogy, their ultimate wish is to walk away with specific, concrete and practical ideas that directly relate to the real-world classroom (Fullan & Miles, 1992). In other words, teacher capacity and efficacy will be positively impacted when ongoing, sustained professional development of an instructional innovation results in evidence of student learning. Ongoing professional development is a vital component of the WISE writing program and is closely examined as part of the current study.

If effective professional development is no longer the workshop setting that has traditionally existed, then a shift must occur as to how educational leaders view what constitutes effective professional development. As noted earlier, writing has been identified on national, state and local levels as an area that must improve. However, the mere implementation of a structured writing program and providing short-term professional development that emphasizes only the mechanical aspects of the program will have little lasting impact if attention is not given to reshaping the organizational culture of the school (Schlechy, 1997). Organizational culture is the shared assumptions, beliefs and typical behaviors of a group and it influences the ways in which individuals interact in schools (Cleveland et al., 2012). This definition directly parallels Guskey's (2002) description of effective professional development and argues for a fresh perspective on how concerns of effective writing instruction should be addressed in public schools.

One specific aspect of WISE is to raise teacher capacity of effective writing instruction by providing ongoing professional development through the establishment of

a PLC focused specifically on writing. Fundamentally, a PLC consists of teams whose members work interdependently to achieve common goals within an organization (DuFour et al., 2004). Richard DuFour is widely recognized as a pioneer and leader in how to apply the principles of PLCs in schools. Throughout his extensive research, DuFour presented a strong case for the importance of establishing PLCs. He contended that Professional Learning Communities are vital to increasing teacher capacity in the delivery of effective instruction through standards-based curricula to ensure student learning and organizational growth.

In an analysis of PLCs, DuFour et al., described the key to building a true Professional Learning Community as allowing educators to work as members of research teams and thus to become scientists who continuously develop their intellectual and investigative capacities (2004). Their research greatly strengthens the idea that teachers are the experts to turn to for answers on how to ensure student learning. For example, science teachers are less prepared to teach writing than language arts teachers, as subject-matter content is central to the science discipline, whereas writing is considered a central element in language arts teacher preparation programs (Kiuvara et al., 2009). This means, in effect, that schools do not necessarily need to seek outside training for organizational improvement, but need to provide support from within their own vast community of experts.

DuFour et al. contended that “Building a school’s capacity to learn is a collective rather than an individual task. People who engage in collaborative team learning are able to learn from one another and thus create momentum to fuel continued improvement” (2004, p. 116). Supporting the idea behind PLCs was results from a study that examined

the effects of a professional development program in the teaching of writing (Blau, Cabe, & Whitney, 2004). The professional development program focused on teacher collaboration, practice, and coaching to measure the effective teaching of writing and student achievement as compared to teachers not participating in professional development. The goal of the professional development was to transform the culture of schools, increase the expertise and professionalism of teachers, and improve the academic literacy skills of students.

The participating teachers experienced the following: a series of full-day workshops led by teachers from the South Coast Writing Project; regular participation in inquiry groups focused on collaboration of ideas, reflective practice and lesson design; teacher observations of exemplary writing teachers; discussion of classroom practices through the use of reflective journals; and regular collaborative teaching with teachers from the South Coast Writing Project. The study indicated that participating teachers made important changes in their teaching and treated writing as a process in a confident and competent manner. The study also found that participating teachers' student achievement in writing improved significantly more than comparison teachers' when measured holistically and analytically. The design of this study was in strong alignment with the views of Schlechy (1997) and Guskey (2000), which suggested tackling concerns regarding writing instruction by concentrating on school culture and the nature of professional development, not by focusing on concrete teaching.

Such ideas and strategies are typically regarded as a means to broad-spectrum school improvement, and are not found as specific components of popular writing programs such as Writers' Workshop (Calkins, 1994) or 6 + 1 Traits of Writing (Culham,

2003). Congruently, the WISE writing program is not based upon concrete teaching strategies typical to widely used writing programs, but instead focuses on student learning and raising teacher efficacy as the means to effective implementation of writing instruction.

Current research implores educational leaders to challenge conventional ideas for improving writing by replacing one-dimensional approaches with more comprehensive approaches that include addressing organizational culture and quality professional development as the avenue for raising teacher efficacy and student achievement. Even so, the fact that many teachers feel ill-equipped to effectively teach writing is still often ignored. Many current recommendations on how to address writing instruction in schools merely outline what knowledge teachers should impart to students in order to improve writing. This was evidenced in a recent educator's practice guide, a 109 page report prepared for the U.S. Department of Education by the Institute of Education Science (2012). The guide, titled *Teaching Elementary School Students to Be Effective Writers*, was published to "bring the best available evidence and expertise to bear on current challenges in education" and to give specific recommendations for addressing the challenges (p. 2). While the report's recommendations were certainly reflective of many research-based effective writing strategies, not one single recommendation addressed concerns of low teacher-efficacy or the lack of teacher preparedness in the area of writing instruction. Instead the report focused on the importance of teaching writing and outlined what teachers "should do" to teach their students to write proficiently. For example, one recommendation included the statement, "Teachers should integrate writing and content-area instruction wherever possible in order to maximize instructional time and give

students more writing practice” (p. 17). While this recommendation includes an important facet of effective writing instruction, how will teachers who have limited knowledge of effective writing pedagogy be successful?

Self-efficacy is a situation-specific determinant of behavior rather than a global personality trait (Pajares, 2006). Pajares pointed out that it should not be assumed that teachers who lack efficacy in writing instruction will also lack efficacy in other content areas. Samuel Totten, the director of the Northwest Arkansas Writing project conducted a survey that illuminated why many may feel ill-equipped as writing teachers (2005). The survey was sent to 104 college teacher preparation programs from every state in the nation and asked whether their programs included a separate writing course for teacher candidates. Only four of the survey respondents required a separate course in process-writing for all preservice teacher candidates, and another four only required such a course for English teachers.

Similarly, in a study examining teacher empowerment, it was frequently reported that teachers had not been adequately trained to perform certain mandated instructional tasks that were outside their areas of certification (Enderlin-Lampe, 2002). Bandura, who is the father of Self Efficacy Theory, asserted that individuals will not persist in or even attempt certain actions if they feel they lack the skills needed, even when they comprehend that a certain action will result in the desired behaviors of others (1982). It is irresponsible of college teacher preparation programs not to value writing courses as a teacher preparation requirement, especially in light of research that has indicated teachers feel short-changed by this curricular exclusion.

Moreover, new teachers cannot be expected to incorporate writing across the curriculum, in history, foreign languages, home economics, science, physical education, art, and social science, as recommended by the National Commission on Writing, when they are not taught writing pedagogy in their college courses. If it is public school's responsibility to provide the necessary resources for existing teachers to improve writing instruction, whose responsibility is it to prepare our future teachers?

That many educators feel unprepared to teach writing upon entering the teaching profession is cause for serious concern. Research has indicated that many teachers report not being taught how to teach writing in their college courses (Graves, 2002; Hillocks, 2002; Totten, 2005). The National Commission on Writing stated that American education will never realize its potential until a writing revolution occurs (2003). As one of the recommendations to initiate this revolution, the commission charged universities to advance common expectations by requiring all prospective teachers to take courses in how to teach writing. The commission further recommended that states should require successful completion of a course in writing theory and practice as a stipulation to teacher licensing.

A recent study illustrated the effectiveness of including a writing methods course in a college teacher preparation program by examining the experiences of 42 early childhood preservice teachers (Morgan, 2010). The study found that after completing the course, preservice teachers felt more confident and capable in themselves as writers and as writing teachers and were able to specifically identify and use certain salient writing strategies integral to teaching process-oriented writing. The preservice teachers also articulated and demonstrated growth in understanding about themselves as writers and

teachers of writers. If teachers do not feel efficacious in a particular aspect of writing, then it is reasonable to expect that they will not attempt or persist in attempts to effectively teach writing, no matter what is required by an effective writing program or recommended by educational directives (Bandura, 1982; Panjares, 2006). This realization adds credence to the vision of requiring writing methodology courses in college teacher preparation programs. As determined by research, teachers have considerable power in either building efficacy beliefs in others through positive encouragement or weakening self-efficacy through negative judgments (Tschannen-Moran & Hoy, 2007); therefore students of teachers with low self-efficacy in writing instruction will also develop or maintain low self-efficacy. With this in mind, the lack of writing courses in teacher preparation colleges must be addressed with a sense of urgency to avoid breeding a culture of students with low self-efficacy in writing.

If it is the responsibility of public education to prepare students to be competitive in a global society, then preparing our teachers in effective writing instruction should be a top priority in all schools, especially considering the findings from a recent study by The National Commission on Writing (2004). The report was based on survey responses from 120 major American corporations employing nearly 8 million people. The results revealed that employers annually spend billions of dollars correcting writing deficiencies and concluded that writing is a “threshold skill” for hiring and promotion among salaried employees in today’s workplace. Taking this into consideration, writing is not only a skill essential to educational success, but to securing and maintaining employment. It is more important than ever for all educational stakeholders to adopt a “whatever it takes” attitude in regards to teaching our students to write well. Indeed it is essential for

educational leaders to promote effective writing with a curriculum that includes instructional practices that will build students' literacy skills through strategy- based lesson plans and practical suggestions for teachers. However it is more important to realize that efforts to implement a quality writing curriculum will be in vain if not approached from the standpoint that teacher capacity, teacher efficacy, professional development, and school culture collectively form the foundation to any writing initiative's success.

Chapter III

METHODOLOGY

When deciding how to emphasize writing instruction in classrooms across America, there are multiple dimensions to consider in estimating how much attention should be given. These dimensions include instructional time directly focused on writing, the frequency with which students are asked to write, the variety and difficulty of the assignments that are given, and how to build teacher capacity in best practices for effectively delivering writing instruction (Applebee & Langer, 2006). Few educators are trained in their college teacher preparation programs to teach writing, especially elementary and content area teachers. In addition, educators are becoming increasingly concerned about the pressures associated with high-stakes testing reform. Because writing involves thinking at the very highest levels and is the underpinning of student success in contemporary society, it is imperative that a foundation for proficient writing be established in all elementary classrooms.

This chapter will explain the methodology used in this study, ethical considerations, a description of the participants, research design, instrumentation, data collection and sample, and finally, a descriptive analysis is provided. The purpose of this study was to determine the effect of the WISE writing program on student achievement as measured by the Georgia Grade 5 Writing Assessment. This quasi-experimental study used a post-test-only control-group true experimental design.

Research Questions

Overarching Question. Does daily writing instruction using the WISE writing program in two southeast Georgia elementary schools affect student achievement on the Georgia Grade 5 Writing Assessment?

Research Question 1. Is there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not implement the WISE writing program?

Research Question 2. Is there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers participating in ongoing professional development while implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not participate in ongoing professional development while implementing the WISE writing program on a daily basis?

Ethical Considerations

Archival data was gathered and used in this research. All information was kept secure until the research was completed to ensure confidentiality. The school district superintendent approved this study and was aware of the anonymity of the participants (Appendix A). This project was reviewed for approval by the VSU Institutional Review Committee for the Protection of Human Subjects in Research and Research-Related Activities (IRB) (Appendix B).

Participants

For the purpose of this study, participants were fifth-grade students and teachers from three elementary schools in a southeast Georgia school district during a full academic school year. Fifth-grade students and teachers were chosen because fifth grade is a gateway testing year and is the first year a standardized writing assessment is administered that is scored by state raters. The school system was chosen because the researcher was employed as a writing instructional coach and was knowledgeable of weaknesses in student achievement in the area of writing and was also aware of the lack of teacher capacity to deliver effective writing instruction in certain elementary schools in the district. The three elementary schools were chosen due to several factors, the most important one being similar demonstrated weaknesses in student achievement in writing as evidenced by trends in poor writing scores on the Georgia Fifth Grade Writing Assessment. Other factors included similarities in demographic makeup and fulltime enrollment count of each of the schools.

At the onset of this study, the school district had a total enrollment of 5, 646 students in grades Pre-K through twelfth grades (GDOE, 2012). Of all students enrolled in the district during this academic year, 67% received free or reduced lunch, 13% were students with disabilities, 55% were White, 37% were Black, 5% were Hispanic and 3% were Multiracial. According to the Georgia Department of Education (GDOE, 2012), in the school system used for this study, district writing scores increased over a four year span when focusing solely on the percentage of students who met or exceeded the standards on the Georgia Grade 5 Writing Assessment. More specifically, between 2009 and 2012, there was a 9% increase, from 76% to 85%, in the number of students who met

or exceeded the standards on the state-wide writing assessment. However, when focusing on the mean scale scores during this same four year span, scores only increased four points, from 211 to 215. These data reveal that even though more students passed the assessment by meeting the minimum score requirement, the overall quality of writing did not improve significantly.

Of the three schools participating in the study, School A implemented the WISE writing program without ongoing staff development. During the academic school year of the current study, School A had an average overall fifth-grade enrollment of 71 students divided among three fifth-grade teachers. The teachers at School A had an average of 12.51 years of teaching experience. Of all students enrolled in School A, 84% received free or reduced lunch, 12% were students with disabilities, 52% were White, 34% were Black, 9% were Hispanic and five percent were Multiracial. Of the 74 fifth-grade students tested on the Georgia Fifth Grade Writing Assessment during the previous academic year, 32% did not meet the standard for passing, 62% met the standard for passing, and 5% exceeded the standard for passing. The mean scale score for School A during the 2010-2011 school year was 208, with the highest domain score being in Style with a score of 2.80 and the lowest domain score being in Conventions with a score of 2.59.

School B implemented the WISE writing program while receiving ongoing staff development. During the academic year of the current study, School B had an average overall fifth-grade enrollment of 71 students divided among three fifth-grade teachers. The teachers at School B had an average of 17.67 years of teaching experience. Of all students enrolled in School B, 75% received free or reduced lunch, 10% were students

with disabilities, 54% were White, 34% were Black, 8% were Hispanic and 3% were Multiracial. Of the 65 fifth-grade students tested on the Georgia Fifth Grade Writing Assessment during the 2010-2011 academic year, 41% did not meet the standard for passing, 54% met the standard for passing, and 5% exceeded the standard for passing. The mean scale score for School B during the previous academic year was 205, with the highest domain score being in Style with a score of 2.77 and the lowest domain score being in Ideas with a score of 2.60.

School C was the control school and did not implement the WISE writing program. During the academic year of the current study, School C had an average overall fifth-grade enrollment of 105 students divided among five fifth-grade teachers. The teachers at School C had an average of 15.62 years of teaching experience. Of all students enrolled in School C, 84% received free or reduced lunch, 12% were students with disabilities, 52% were White, 34% were Black, 9% were Hispanic and 5% were Multiracial. Of the 102 fifth-grade students tested on the Georgia Fifth Grade Writing Assessment during the academic year previous to this study, 23% did not meet the standard for passing, 70% met the standard for passing, and 7% exceeded the standard for passing. The mean scale score for School C was 209, with the highest domain score being in Organization with a score of 2.86 and the lowest domain score being in Conventions with a score of 2.69.

This study focused solely on rising fifth-grade students and their fifth-grade teachers in three elementary schools in a southeast Georgia rural school district. The total number of students included in the study was 255 and 11 fifth-grade teachers were

included. Additionally, 2 writing instructional coaches' and 2 principals' responses were included in the focus group results of the study.

Design of the Study

This quasi-experimental study used archival data and focus group responses. The archival information enabled the researcher to review post assessments of each school. The use of existing archival data is a logical starting point for data collection and can be used to make comparisons when compiled over a period of time (Calhoun, 1994). According to Calhoun, archival data provides easy access to disaggregated scores which can provide for valid comparisons from school to school, student to student, and in more specific areas such as race, gender population, and socioeconomic status. The focus groups were much more exploratory in nature and allowed the researcher to generalize and triangulate information, which added support to the statistics obtained from archival data used to answer the research questions in the study (Tashakkori & Tiddlie, 2003).

A post-test-only control-group design was used in this study. The students and teachers from School C were designated as the control group. This aided in eliminating the threats to internal validity, except for mortality and history. Maturation was removed by considering each group during a simultaneous time frame. Instrumentation threats were controlled because all groups would be affected equally, even if there were unreliability in the instrumentation. The more threats removed, the less likely questions will be raised about the experimenter's ability to conclude that the intervention affected the outcome and can be trusted to be the reason for the observed effect (Campbell & Stanley, 1963).

Limitations of the Study

Threats to internal validity. Random sampling was not used in the study, thus purposive sampling was used to select rising fifth-grade students and their teachers from all three schools. This differential selection of subjects was a threat to internal validity. According to Creswell (2006), mortality may threaten the internal validity of this investigation because participants who drop out of the study may have a significant effect on the results. History can become a threat to validity because events can occur that disproportionately influence the results beyond the experimental treatment (2006). Although all experimental group teachers received initial training and identical writing programs, it is assumed by the researcher that all teachers implemented instruction according to the lessons and with fidelity.

Another possible threat to the internal validity of this investigation may be the varying maturation of writing abilities of the students and teachers participating in the study. Finally, the Hawthorne effect, a reactive arrangement, could pose a further threat to the internal validity (Huck, 2000). Because teachers were aware of the nature of the study, those participating in the experimental groups may have worked harder to perform than teachers in the control group, and vice-versa.

Threats to external validity. One possible threat to the external validity of this study is population validity. Because the population of this research study only included fifth-grade students and teachers in three schools in a school district in southeast Georgia, replications are needed to determine the extent to which this study can be generalized to other populations. Additionally, all schools being located in southeast Georgia could pose a threat to ecological validity if applying the study to other geographical locations

(Ary, Jacobs, & Razarich, 1996). Tashakkori and Tiddlie pointed out that information derived from focus groups is vulnerable to issues such as the effect of being watched, possible domination of discussion by a few participants, the difficulty in generalizing results of small groups, and low measurement validity (2003).

Delimitations. Deliberate limitations for this study included selecting only fifth-grade students as participants. Fifth grade is a gateway testing year and is the first year a standardized writing assessment is administered. A further delimitation is selecting only three elementary schools from a school system in southeast Georgia to participate in the study. This will allow the researcher to compare collected testing data of the schools participating.

Instrumentation

The purposes of the Georgia Student Assessment Program are to measure student achievement of the state mandated curriculum, to identify students failing to achieve mastery of content, to provide teachers with diagnostic information, and to assist school systems in identifying strengths and weaknesses in order to establish priorities in planning educational programs.

The two state testing instruments used for assessments in this study were the Georgia Grade 5 Writing Assessment and the Georgia Criterion-Referenced Competency Test (CRCT). Designed specifically for Georgia public schools, the Georgia Grade 5 Writing Assessment is currently administered on an annual basis in all state public schools. According to the GDOE (2010), Georgia law (O.C.G.A., Section 20-2-281) requires that performance-based writing assessments be administered to all students in grades three, five, eight, and eleven. The State Writing Assessment Core Development

and Advisory Committees assisted the GDOE in developing the writing component of the student assessment program. The committees for each grade are comprised of educators with expertise in the instruction of writing skills and writing assessments. The goal of the Writing Assessment Core Development and Advisory Committees and the GDOE is to create developmentally appropriate assessment procedures to enhance statewide instruction in the language arts. Moreover, statewide writing assessments serve the purpose of improving writing and writing instruction.

The writing assessment for fifth-grade students consists of an evaluation of each student response to an assigned prompt representing three genres: narrative, informational, and persuasive. Students are assigned a topic and are allowed approximately 120 minutes to complete their essays. Writing topics are spiraled, therefore students must be prepared to write in all three genres. The raters, who independently score each student composition, are trained to understand and use the standardized scoring system.

A scoring rubric is used to assign a score that indicates the test rater's overall interpretation of the writer's command of the components making up the four domains of effective writing: Ideas, Organization, Style, and Conventions. Each domain consists of several components, or features, of writing within a particular domain. For example, the writer's ability to maintain focus on the assigned topic is a component of the Ideas domain. Scores in each domain range from 1 to 5, with 5 being the highest score. In order to obtain a total score for each student, domain scores are weighted and combined. In combining the domain scores, the Content score is given a weight of 40%; the other domains of Organization, Style, and Conventions are given a weight of 20% each. The

total score is then converted to a three-digit scale score, ranging from 100 – 350, which represents the performance level of the writer.

Scale scores are used so that the scores from one edition of the writing assessment may be equated to, or have the same meaning as scores from other editions of the assessment. By converting raw scores to scale scores, adjustments may be made for any small differences between the various assessment editions of the Grade 5 Writing Assessment. A scale score of 200 or higher is required to meet the state standard, and a scale score of 250 or higher is required to exceed the state standard.

According to the GDOE (2012), the CRCT is a criterion-referenced assessment that measures how well a student has mastered the skills described in the Georgia Performance Standards (GPS) and is used to gauge the quality of education throughout the state. Georgia law, as amended by the *A+ Education Reform Act of 2000*, requires that all students in grades one through eight take the CRCT in the content areas of reading, English/language arts, and mathematics. Students in grades three through eight are also assessed in science and social studies. To establish validity, and as a part of meeting federal requirements for state standards and assessment systems, the CRCT was peer reviewed by a team of external experts in the fields of standards and assessments. This team was convened by the U.S. Department of Education and considered evidence in the areas of content and academic achievement standards, technical quality, alignment, inclusion, and scoring and reporting. The CRCT was found to meet nationally recognized professional and technical standards for assessment programs. Reliability of the CRCT is provided by two measures: Cronbach's alpha and the Standard Errors of Measurement (SEM). Results for Cronbach's alpha are interpreted to estimate that all

scores are a good representation of a students' performance and are reliable (.858 to .932) in a range of 0 to 1. Conditional Standard Errors of Measurement (CSEM) are used to define a range of 'cut scores' within which the students are meeting or exceeding performance. CSEM's are calculated using Hambleton and Swaminathan's procedure and formula (GDOE, 2012).

The Georgia fifth-grade writing scores were used to compare differences among the three participating groups. Writing scores for the 2011 and 2012 academic years from all three participating schools were collected from the Georgia Student Longitudinal Data System (SLDS). Data from SLDS were inserted into a Microsoft Excel spreadsheet and all identifying information was coded to ensure that all participants remained anonymous. CRCT data were initially received as a text file with raw data then, using the CRCT data extraction tool provided by the GDOE, were imported to an Microsoft Excel spreadsheet. Students' English/language arts scores were recorded and used as baseline data. All identifying information was coded to ensure that all participants remained anonymous.

An important step in the study was to detail the ways teachers made instructional decisions when implementing the WISE writing program, to identify what teachers were doing for writing instruction when using the WISE writing program, and to identify their perceptions of the WISE writing program. The focus groups conducted for use in this served as a qualitative data collecting source to provide insight into how teachers implemented the WISE writing program and to add strength to the results of the overall study. Data from the focus groups also allowed the researcher to determine the perceptions of the participating teachers regarding the implementation of the WISE

writing program at the designated schools. Using analytic induction, specific questions were not asked of participants.

Focus groups using analytic induction encourage open discussion among participants instead of using specific questions, and begin only with the researchers' deduced propositions and is a procedure for verifying theories based on qualitative data (Patton, 2002). Focus groups of this nature are not only ideal for descriptive studies, but are also useful in the exploration of intangible aspects of a situation, or to seek explanation and provide data for testing hypotheses (Kelley, Clark, Brown, & Sitzia, 2003). Data from the focus groups were collected by the researcher after permission was obtained from the district superintendent and each elementary principal. The information from each school was then analyzed inductively to identify patterns and categories, summarized by the researcher and added to the study.

The Statistical Package for the Social Sciences (SPSS) software program, version 17.0, was used for further calculations and statistical analysis of quantitative data. The Georgia Grade 5 Writing Assessment scores and CRCT data were exported into SPSS and reorganized in accordance with the SPSS software design. Collected information included the following variables: (a) Georgia Grade 5 Writing Assessment scale scores, (b) CRCT English/language arts scale scores, and (c) categorical data from the Georgia Grade 5 Writing Assessment.

Data Collection

Correspondence requesting permission to conduct the study was sent to the school system superintendent and permission was received. Archival data from the GDOE, as made available at the district level, were collected for use in this study. The school

system receives raw data in a Microsoft Excel spreadsheet which can be manipulated for reporting purposes using the data extraction tool provided by the state department of education. Permission to access these data was also granted from the school system superintendent.

Participants meeting the criteria for this study were fifth-grade students and their fifth-grade teachers, who were in their respective schools during one full academic school year. By examining existing data and school summary reports that are a matter of public record, the researcher determined which subjects met the criteria listed above.

The independent variable in this study for School A was the implementation of the researcher-developed WISE writing program by all fifth-grade teachers at the beginning of the academic school year. The independent variable for School B was the implementation of the researcher-developed WISE writing program by all fifth-grade teachers at the beginning of the same academic year, while also receiving ongoing professional development regarding the implementation of the writing program. Both School A and School B received initial professional development in the implementation of the writing intervention, but only School B received ongoing professional development throughout the school year. The purpose for implementing the WISE writing program in School A and School B was to provide a systematic, cohesive and effective writing curriculum that also encompassed and supported the English/language arts Georgia Performance Standards and to measure the impact of the writing intervention on student achievement in the area of writing. School C served as the control group and did not implement the WISE writing program during the academic year.

Initial professional development was a first step to program implementation, with ongoing professional learning provided throughout the school year to School B. The purpose of providing the initial training was to review and familiarize teachers with the writing intervention prior to its implementation and was conducted during a scheduled staff development day over a 4-hour period. During this learning session, a copy of the WISE writing program was distributed to each participant and all aspects of the program were reviewed by the researcher. The training format allowed for time to address any questions or concerns posed by participants.

The second phase of initial training was conducted after school over a 90 minute period and the researcher modeled an actual lesson and various techniques and strategies from WISE, while the teachers participated in a manner that would be expected of fifth-grade students. As the final component of initial training, all participants visited the researcher's classroom on three different occasions to observe WISE lessons being taught to fifth-grade students. Participants were allowed to video lessons, take notes, and move about the classroom during instruction. Each visit was followed by a question and answer session between the researcher and participants. This initial training allowed each participant to begin implementing the WISE writing program with some degree of prior knowledge of the intervention.

Too often, canned writing curricula are implemented in elementary schools and teachers receive no ongoing professional development to address intangible, but vital aspects involved in effectively delivering writing instruction (Hillocks, 2002). This idea supported the primary purpose for including ongoing professional learning as part of the research study. The design of the study allowed the researcher to explore to what degree

ongoing professional learning would build teacher capacity and efficacy in the instruction of written composition as measured by a standardized test. The ongoing professional learning consisted of the following:

- For redelivery purposes, weekly 3-hour work sessions between the researcher and the writing instructional coach from School B were held, during which the following occurred: all upcoming lessons were reviewed and modeled by the researcher; questions and concerns from the participants were addressed; general knowledge of effective writing instruction was shared, in the form of research articles, and professional discourse.
- The researcher provided training on how to implement writing pretests and posttests each nine weeks in order to obtain data that allowed for data-driven instruction of writing.
- The researcher provided training to School B participants on how the Georgia Grade 5 Writing Assessment is scored, on how writing content domains are weighted, and how to read and effectively score student writing using the Georgia 5th Grade Writing Rubric.
- The researcher provided training to School B participants on how to analyze school writing data from the state department.
- The researcher made monthly visits to School B for round table discussions regarding program implementation.
- The Researcher made monthly visits to fifth-grade classrooms at School B to model teacher-student writing conferences.

- The Researcher periodically visited fifth-grade classrooms at School B to observe the teachers implementing lessons from the WISE writing program and conferenced and offered feedback to teachers regarding the instruction observed.
- Using *Internet 2* live-streaming capabilities, a joint Publishing Party was held each nine weeks between the researcher's school and School B. During the Publishing Parties, fifth-grade students from each school listened and watched as various students shared and celebrated completed writing pieces and success stories regarding their experiences with writing. Following each Publishing Party, students from the researcher's school sent cards to individual students at School B in order to congratulate and praise their hard work in writing.
- The researcher engaged in frequent email correspondence between the instructional coach, principal and teachers to discuss questions, concerns and successes regarding the implementation of the writing intervention.

Additionally, the researcher and the principal of the researcher's school collaborated with School B's principal so the co-teaching model used by the researcher's school could be replicated at School B. This included examining School B's Full Time Enrollment (FTE) count and student segments in order to fund and utilize an existing resource teacher as the writing instructional coach for School B. Next, scheduling at School B was examined so that a co-teaching schedule could be built that would allow each third, fourth and fifth-grade class to receive weekly writing instruction from the instructional coach and the regular classroom teacher. Finally, for redelivery purposes, the researcher provided ongoing weekly professional learning sessions with School B's writing instructional coach during which all upcoming lessons were reviewed and modeled by the researcher,

student work samples were examined, questions and concerns were addressed and general knowledge of effective writing instruction was shared.

Opportunities for collaboration and co-teaching with skilled teachers are vital to improving low teacher efficacy in any content area, including writing (Pajares, 2006). WISE is based on the key idea that efforts to build proficient writers for increased student achievement are futile without components of ongoing professional learning and teacher collaboration. It was this unique collaboration and co-teaching component of the WISE intervention that was reported by participants as being significantly beneficial to their growth as writing teachers. Focus groups were also used to determine the participants' overall perceptions of the WISE writing program and any issues and factors that may have influenced implementation. Greene (2007) contended that the use of research methods such as focus groups allow the researcher to triangulate results to form a comprehensive whole. The data collected from the focus groups were summarized by the researcher and added to the study in order to more thoroughly address the specific research questions of the study.

Sample

Of the subjects examined within one southeast Georgia school system, 3 schools and 11 teachers met the requirements for this study. A total of 11 teachers, 2 principals and 2 instructional coaches participated in the survey. A total of 255 fifth-grade students participated in the study.

Descriptive Analysis

In this study, the researcher examined the effect of the WISE writing program, a researcher-developed writing intervention, on student achievement as measured by the

Georgia Grade 5 Writing Assessment. Two schools, School A and School B, received the writing program and professional development in initial program implementation. School B received ongoing professional development throughout the writing program implementation (treatment), while School A did not. School C served as the control group and did not implement the intervention. Additionally, each group's fourth-grade English/language arts CRCT scores were used, and an analysis of covariance (ANCOVA) was conducted to adjust for existing differences in the participating groups. The ANCOVA supported the researcher in neutralizing the effect of other variables that may have been present (Huck, 2000).

Possible scores on the Georgia Grade 5 Writing Assessment range from 100 to 350. A scale score of less than 200 does not meet the state standard, a scale score of 200 or higher is required to meet the state standard and a scale score of 250 or higher is required to exceed the state standard. Possible scores on the English/language arts CRCT generally range from 650 to 900 or above. Scores at or above 850 indicate a level of performance that exceeds the state standard, scores from 800 – 849 indicate a level of performance that meets the state standard, and scores below 800 indicate a level of performance that does not meet the state's minimum level of proficiency.

Summary

The quantitative data collected in this research was useful in determining the possible impact of the WISE writing program on student achievement in the area of writing. The qualitative data obtained from focus groups allowed the researcher to gain insight regarding participants' overall perceptions of program implementation and to add to the overall examination. The educational significance of this study is to advance the

knowledge of how to best cultivate effective writing instruction among teachers and increase student learning and achievement in the area of writing among fifth-grade students.

Chapter IV

RESULTS AND ANALYSIS OF DATA

The purpose of this study was to determine the effect of daily writing instruction using the WISE writing intervention on student achievement. The findings are organized according to the research questions posed in the first chapter. Descriptive statistics are followed by an analysis of covariance (ANCOVA) for each research question. Categorical data were added to address both research questions. Using analytic induction, focus groups were conducted and the collected data were summarized by the researcher.

Research Question 1. Is there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not implement the WISE writing program?

When comparing mean scale scores, School B students ($n = 77$) scored 7.15 points higher ($M = 210.36$) than School A students ($n = 66$; $M = 203.21$) and 11.08 points higher than School C students ($n = 112$; $M = 199.28$) on the Georgia Grade 5 Writing Assessment. Additionally, School A students ($n = 66$) scored 3.93 points higher ($M = 203.21$) than School C students ($n = 112$; $M = 199.28$). Means and standard deviations are shown in Table 1.

Table 1

Descriptive Statistics: Georgia Grade 5 Writing Assessment

School	Mean	N	Std. Deviation
School A: WISE	203.21	66	28.305
School B: WISE + Professional Development	210.36	77	24.902
School C: No Intervention	199.28	112	45.880
Total	203.64	255	36.505

An analysis of covariance (ANCOVA) was calculated to test for significant differences between the three participating schools. Georgia Grade 5 Writing Assessment scale scores were used as the dependent variable. There was not a significant effect between groups when using scale scores from the English/language arts CRCT as the covariate, $F = 1.421$, $p < .05$, $p = .243$.

Research Question 2. Is there a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers participating in ongoing professional learning while implementing a daily writing intervention and the writing achievement scores of fifth-grade students whose teachers did not participate in ongoing professional learning while implementing a daily writing intervention?

When comparing mean scale scores, School B students ($n = 77$) scored 7.15 points higher ($M = 210.36$) than School A students ($n = 66$; $M = 203.21$) and 11.08 points higher than School C students ($n = 112$; $M = 199.28$) on the Georgia Grade 5 Writing Assessment. Additionally, School A students ($n = 66$) scored 3.93 points higher ($M =$

203.21) than School C students (n = 112; M = 199.28). Means and standard deviations are shown in Table 2.

Table 2

Descriptive Statistics: Georgia Grade 5 Writing Assessment

School	Mean	N	Std. Deviation
School A: WISE	203.21	66	28.305
School B: WISE + Professional Development	210.36	77	24.902
School C: No Intervention	199.28	112	45.880
Total	203.64	255	36.505

An analysis of covariance (ANCOVA) was calculated to test for significant differences between the three participating schools. Georgia Grade 5 Writing Assessment scale scores were used as the dependent variable. There was not a significant effect between groups when using scale scores from the English/language arts CRCT as the covariate, $F = 1.421$, $p < .05$, $p = .243$.

Categorical data were added to address both research questions. Descriptive statistics were used to report the differences in the percentage of students who met the minimum requirement for passing for each participating school. Among fifth-grade students from School A, 79% of all students earned the minimum score for passing the Georgia Grade 5 Writing Assessment. School B had 86% of its students to pass, and School C had 72% of its fifth graders to pass the assessment. School B, which implemented the WISE intervention while receiving ongoing professional learning had seven percent more students to pass the writing assessment than School A, which

implemented the intervention without ongoing professional learning. Also, School B had 14% more students to pass the writing assessment than School C, which did not implement the WISE intervention.

School A, that implemented the WISE intervention without ongoing professional learning had seven percent more students to pass the writing assessment than School C, which did not implement the intervention. Additionally, School A had seven percent less students to pass the assessment than School B, which implemented the intervention while receiving ongoing professional learning (see Table 3).

Table 3

Descriptive Statistics: Performance Level on Georgia Grade 5 Writing Assessment

School	Does Not Meet	Meets or Exceeds	Total
School A: WISE	21%	79%	100%
School B: WISE + Professional Development	14%	86%	100%
School C: No Intervention	28%	72%	100%
Total	21%	79%	100%

Categorical data were also examined to report differences in the percentage of students who passed the Georgia Grade 5 Writing Assessment using a comparison from two consecutive academic school years. Both schools that implemented the WISE intervention had percentage increases in the overall number of students who passed the Georgia Grade 5 Writing Assessment when compared to scores from the academic year previous to the current study. School A had a 12% increase in the number of students meeting minimum requirements for passing and School B had a 27% increase in the

number of students meeting the minimum requirements for passing. School C, the school that did not implement the intervention, had a 5% decrease in the overall number of students who passed the Georgia Grade 5 Writing Assessment when compared to scores from the academic year previous to the current study (see Table 4).

Table 4

Descriptive Statistics: Performance Level Increases on the Georgia Grade 5 Writing Assessment (between Two Consecutive Academic Years)

School	Year 1: Meets or Exceeds	*Year 2: Meets or Exceeds	Difference
School A: WISE	67%	79%	+12%
School B: WISE + Professional Development	59%	86%	+27%
School C: No Intervention	77%	72%	-5%

**Indicates the year of WISE Implementation*

Focus groups were held with the teachers from School A and School B. The purpose was to gain insight of teachers' overall perceptions of the program implementation. Participants included all fifth-grade teachers, principals and instructional coaches who were employed at each of the three participating elementary schools during the current year of research. Participants included all fifth-grade teachers, principals and instructional coaches who were employed at each of the three participating elementary schools during the current year of research. A total of 15 educators participated in the focus groups, including 11 teachers, 2 principals, and 2 instructional coaches. Responses of focus group participants revealed several themes which provided information regarding overall perceptions of the WISE intervention. The several themes

emerged including student learning, teacher efficacy, professional learning, time management and concrete instructional strategies (see Table 5).

Table 5

Participants' Perceptions of WISE Implementation

Themes	Frequency	Sample Comments
Concrete Strategies	50	"...never knew teaching writing was concrete." "I know how to write, but I was never taught how to teach writing" "...hard to explain to students...seemed so loosey goosey."
Professional Learning	18	"...never had any workshops on teaching writing...just cutesy stuff..." "...we got trained on 6+1 one time, but never got any support after that one day...I still didn't know what to do." "WISE professional learning... made the difference for me...it made sense." "I loved getting to co-teach with [instructional coach]...teachers don't get to do that enough." "...now I get what a PLC or school culture is... before it was...edu-babble."
Teacher Efficacy	37	"I love teaching writing now that...I feel like I know what I am doing." "...students know when a teacher doesn't know about something...it's embarrassing..." "...the concrete strategies really made me understand how to feel confident in teaching...now I get it." "I don't ever remember being taught how to teach writing in college or in workshops...why is that?" "I am in college...and [WISE] has helped me be a better writer" "I never knew there was a difference...between the writing process and process writing. [WISE] broke it...down for me so it made...sense."
Time Management	7	"It's hard to fit it all in." "We need more time...for writing instruction." "...conferencing with the students is...important...but it takes so much time." "I feel pressure to teach...grammar skills outside of writing...because of the CRCT." "I am...getting to writing every day...no matter what...because I see the value...my students are engaged...they love writing."
Student Learning	42	"My students are writing like never before...the tricks and strategies really helped them...understand." "...they needed it to be

Table 5 (*continued*)

Themes	Frequency	Sample Comments
Student Learning	42	<p>“My students are writing like never before...the tricks and strategies really helped them...understand.” “...they needed it to be concrete.” “...now they know how to revise...before they just looked like...blank stares...when I asked them to revise.” “... [Students] don’t complain and dread writing like before...” “We are...so excited, the kids are so excited about our scores...we didn’t dream they would increase...so much in just one year.”</p>

During discussions, all teachers reported feeling more knowledgeable and confident as writing teachers due to WISE program implementation. One question was proposed to explore what specific aspects of WISE stood out as particularly successful or challenging to teachers during program implementation. Of the total number of participants, six of the eleven teachers articulated that a lack of concrete strategies had always been a specific barrier to their writing instruction, and that WISE removed that barrier. Once these responses were shared, the majority of the other teachers verbalized that they also found the concrete writing strategies in WISE to be a significant factor that led to increased student understanding in writing and to increased efficacy in their instruction of writing.

On the other hand, 72% of the teachers interviewed expressed that in spite of WISE program effectiveness, they often found it challenging to fit daily writing instruction into their classroom schedules. All the teachers agreed that teaching writing the “right way” requires substantial time, and often feel they are neglecting other content areas in order to devote the time needed to be effective teachers of writing. In response to this area of discussion, both Instructional Coaches indicated that longevity of program

implementation would result in teachers becoming more proficient in maximizing instructional time to include daily writing instruction. With that being said, the majority of teachers agreed that it did get easier to maximize instructional time as the year progressed and as they became more confident in their abilities as writing instructors.

Both principals stated that as they observed writing instruction throughout the year, they had witnessed increased efficacy among all teachers in their delivery of instruction and in time management. Both principals also indicated their own efficacy regarding writing instruction had substantially increased and that WISE program implementation would continue the following school year. The principal from School A shared how important it is for the school leader to have a sound knowledge base of a curricular initiative in order to gain teacher buy-in. This, she admitted, had very likely been a barrier to effective writing instruction in her school.

All teachers, the instructional coach, and the principal from School B commented on the value of receiving ongoing professional learning throughout program implementation. The principal stated that this aspect emphasized that writing was important and helped it become part of the school culture. The instructional coach from School B indicated that, while she knew support was available if needed, that having a planned course of professional learning throughout program implementation would have enhanced program implementation and been a tangible reminder of writing as a priority to overall school improvement measures. In essence, the focus group discussions indicated increased teacher efficacy, increased student learning, and high satisfaction with program implementation among all participants.

Summary

Chapter 4 presented the data analysis and findings of the study. Data were organized under two main research questions and evaluated through statistical analysis of archival data and focus group responses. Descriptive statistics and analysis of covariance (ANCOVA) were used to evaluate group differences. Focus group responses were evaluated to analyze teacher perceptions of program implementation. Analysis and findings addressed the two research questions of the study.

After thorough analysis of the findings in this study, the WISE writing intervention had no significant impact on student achievement as measured by scale scores on the Georgia Grade 5 Writing Assessment. However, an analysis of categorical data on the same assessment indicated positive gains in overall student performance when compared to categorical scores from the year previous to the current study. Examination of focus group responses indicated overall satisfaction with WISE program implementation in regards to increased teacher efficacy, student learning, and student achievement. Chapter 5 will discuss these findings as well as provide recommendations for future research on the topic of increasing student achievement and teacher efficacy in the area of writing.

Chapter V

SUMMARY AND DISCUSSION

According to The Nation's Report Card, an average of 70% of all students enter high school without the skills needed to write proficiently (NCES, 2007). Writing scores at the national, state, district and school levels have strongly indicated writing as an area for improvement (NCES, 2007; GDOE, 2010). "Good writing develops careful thinking and writing is the cornerstone of producing literate human beings" (Applebee, 1986, p. 95). While creating proficient writers is vital to student success, teachers often feel they lack the knowledge and skills necessary to deliver effective writing instruction. In fact, in an extensive national study, 65% of grade 4-6 elementary teachers reported that in their college teacher education program they received minimal to no preparation to teach writing (Gilbert & Graham, 2010). After research in the field revealed such findings as low teacher efficacy and low student achievement in writing, both the National Commission on Writing (2003) and the U.S. Department of Education (2012) issued recommendations for improving writing instruction by better preparing our Nation's teachers.

In the state of Georgia, teachers are required to teach writing, and all Georgia students are required to take an annual standardized writing assessment in fifth and eighth grades, in eleventh grade in order to meet graduation requirements, and as part of college entrance exams (GDOE, 2010). Considerable criticism is often aimed at states requiring

one-shot standardized writing assessments, suggesting more authentic forms of assessment such as student portfolios (Hillocks, 2002). However, research has also found that standardized writing assessments can have a significant positive impact on student achievement because the tests force teachers to focus on writing instruction, an instructional area that is easily neglected due to the pressures of high-stakes testing and accountability measures required by the NCLB Act (Strickland et al, 2001). On the other hand, both proponents and opponents of standardized writing assessments generally do agree on the idea that haphazard instructional methods for writing instruction are prevalent in schools across the United States (Graham, MacArthur, & Fitzgerald, 2007). A study by Hillocks (2002) revealed that teachers were encouraged to “just do whatever you can to get [students] to write more,” since the belief among educators is that elaboration of ideas is the most important criterion for passing writing assessments (p. 87).

Repeatedly, research has examined process writing instruction and described it as the recommended approach for teaching fundamental writing skills (USDOE, 2012). Process writing involves moving instruction from a product emphasis to a process emphasis, and is much more involved and complex than only encouraging students to elaborate on ideas (Calkins, 1994; Culham, 2003; Troia & Graham, 2003; MacArthur, Graham & Fitzgerald, 2008). The very act of writing is a complex process that requires thinking at the very highest levels (Jensen, 1993) justifying the importance of providing support for teachers in effective writing instruction.

Even though some have contended that ongoing professional learning has a minimal impact on increased student achievement (Carpenter, 2000; Tienken, 2003),

others examinations have indicated strong links between the two areas. For example, several studies examined public schools that achieved gains specifically in writing and literacy; the schools attributed much of the improvement to ongoing professional learning (WestEd, 2000; Carpenter, 2000; Tienken, 2003; Schmoker, 2011). Even when an emphasis was placed on writing through standardized testing requirements and other initiatives, little was accomplished in the way of creating proficient writers until the lack of teacher capacity to deliver sound instruction was addressed through ongoing and focused professional learning.

Research has indicated a strong relationship between increased teacher efficacy and focused professional learning (Guskey, 2000; Stover, 2012). In the last thirty years, much has been examined in the field of effective writing instruction; however teacher efficacy, as it relates to writing, is an area that has been largely ignored (Graham et al., 2001). The purpose of this study was to investigate the effect of daily effective writing instruction using the researcher-developed WISE (Writing In School Every day) Writing program on student achievement, as measured by the Georgia Grade 5 Writing Assessment.

Overview of the Study

Three elementary schools in a rural southeast Georgia school system were compared using end-of-year Georgia Grade 5 Writing Assessment scores. Several factors determined the selection of the three schools, the most important one being similar demonstrated weaknesses in student achievement in writing as evidenced by trends in poor writing scores on the Georgia Grade 5 Writing Assessment. Other factors included similarities in demographic makeup and fulltime enrollment count of each of the schools.

School A and School B received identical writing programs, the researcher-developed WISE writing program, and initial professional development on program implementation. The researcher continued to work with School A, providing ongoing professional development in order to examine a possible relationship between teacher capacity of effective writing instruction and student learning and achievement in writing. School B did not receive ongoing professional development. School C did not implement the WISE writing program. Focus groups were conducted at each of the elementary schools in an attempt to gather data related to program implementation.

Scale score data and categorical performance level data for this quasi-experimental study were collected through the use of the Georgia Grade 5 Writing Assessment, a test required by the state of Georgia that was designed to enhance statewide instruction in the language arts and to serve the purpose of improving writing and writing instruction. Scale score data were also collected through the use of the Georgia Criterion-Referenced Test (CRCT), a test that measures how well a student has mastered the skills described in the state curriculum. Scores from the Grade 5 Writing Assessment were used to compare achievement differences among participants. For the purposes of this study, only the English Language Arts portion of the CRCT was used. A total of 255 fifth- grade students and 11 fifth-grade teachers participated in this study.

Finally, data were collected through focus groups of educators within each school. Open-ended discussions were held to determine the participants' overall perceptions of the WISE writing program and any issues and factors that may have influenced implementation (Appendix C). Participants included all fifth-grade teachers, principals and instructional coaches who were employed at each of the three participating

elementary schools during the current year of research. A total of 15 educators participated in the focus groups, including 11 teachers, 2 principals, and 2 instructional coaches.

An analysis of covariance (ANCOVA) was calculated to test for significant differences between participating schools. Scale scores on the Georgia Grade 5 Writing Assessment and English Language Arts scale scores from the CRCT were used for this analysis. Additionally, categorical scores from the Georgia Grade 5 Writing Assessment were reported using descriptive statistics.

Using analytic induction, focus groups were conducted and the collected data were summarized by the researcher. Conducting focus groups using analytic induction, a procedure for verifying theories based on qualitative data, encourages open discussion among participants, as discussions begin only with the researchers' deduced propositions (Patton, 2002). Focus groups of this nature are not only ideal for descriptive studies, but are also useful in the exploration of intangible aspects of a situation (Kelley, Clark, Brown, & Sitzia, 2003). The same questions were proposed to all participants to guide the discussions and the researcher served as the moderator, keeping the groups focused and engaged. The information gathered was analyzed inductively, tracked, coded and used to describe emerging themes for participants.

Summary of Findings

Research Question 1 examined whether there was a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not implement the WISE

writing program. An ANCOVA was calculated using the Georgia Grade 5 Writing Assessment scale scores as the dependent variable. There was no significant effect among comparison groups when comparing scale scores from the Georgia Grade 5 Writing Assessment and using students' English Language Arts CRCT scores as covariate, $p < .05$, $p = .243$.

Research Question 2 examined whether there was a statistically significant difference between writing achievement scores of fifth-grade students who were taught by teachers participating in ongoing professional learning while implementing a daily writing intervention and the writing achievement scores of fifth-grade students whose teachers did not participate in ongoing professional learning while implementing a daily writing intervention. An ANCOVA was calculated using the Georgia Grade 5 Writing Assessment scale scores as the dependent variable. There was no significant effect among comparison groups when comparing scale scores from the Georgia Grade 5 Writing Assessment and using students' English Language Arts CRCT scores as covariate, $p < .05$, $p = .243$.

Categorical data were added to address both research questions. Descriptive statistics were used to report the differences in the percentage of students who met the minimum requirement for passing for each participating school. School A had 79% of all students to meet the minimum requirements for passing the Georgia Grade 5 Writing Assessment while School B had 86% meet the requirements for passing, and School C had 72% to meet the requirements for passing. School B, which implemented the WISE intervention while receiving ongoing professional learning had seven percent more students to pass the writing assessment than School A, which implemented the

intervention without ongoing professional learning. Also, School B had 14% more students to pass the writing assessment than School C, which did not implement the WISE intervention.

School A, that implemented the WISE intervention without ongoing professional learning had seven percent more students to pass the writing assessment than School C, which did not implement the intervention. Additionally, School A had seven percent less students to pass the assessment than School B, which implemented the intervention while receiving ongoing professional learning.

Descriptive statistics were also used to report differences in the percentage of students who passed the Georgia Grade 5 Writing Assessment when comparing categorical data from two consecutive academic school years. Both schools that implemented the WISE intervention had percentage increases in the overall number of students who passed the Georgia Grade 5 Writing Assessment when compared to scores from the academic year previous to the current study. The school that did not implement the intervention had a decrease in the overall number of students who passed the Georgia Grade 5 Writing Assessment when compared to scores from the academic year previous to the current study.

Focus group discussions were used to gain insight of teachers' overall perceptions of program implementation. Responses indicated that all teachers felt more knowledgeable and confident as writing instructors due to program implementation. Specific discussions occurred on how utilizing concrete writing strategies in WISE increased student understanding in writing. Specifically mentioned as particularly helpful was the strategy of teaching basic structure of writing genres for increased student

learning and teacher efficacy. Additionally, a pattern emerged in responses indicating that the concrete strategies used in WISE led to increased efficacy in writing instruction. Another pattern that formed during discussions was that high student engagement occurred when teaching WISE lessons. Collective responses also produced a theme indicating that students enjoyed, and were motivated by the raps, songs, and mnemonic devices that were used to build background knowledge regarding the writing process.

A distinct pattern that repeatedly occurred in the discussion among School B, which received ongoing professional learning, was that the professional learning and co-teaching aspect of the program was crucial to successful program delivery and increased teacher efficacy. While all teachers agreed that daily writing instruction is vital to student learning, they also indicated the challenge of fitting instruction into an already packed curriculum, often feeling rushed and unable to give as much feedback to students as they would have liked. Both principals reported that program implementation would continue into the next school year. In essence, focus group discussions showed a strong pattern of responses indicating increased teacher efficacy, and increased student learning, revealing a theme of high satisfaction with program implementation among all participants.

Discussion

The research questions in this study examined the effect of daily writing instruction on student achievement. The first research question examined differences between writing achievement scores of fifth-grade students who were taught by teachers implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not implement the WISE writing

program, as measured by the Georgia Grade 5 Writing Assessment. The second question examined differences between writing achievement scores of fifth-grade students who were taught by teachers participating in ongoing professional development while implementing the WISE writing program on a daily basis and the writing achievement scores of fifth-grade students whose teachers did not participate in ongoing professional development while implementing the WISE writing program on a daily basis.

No significant differences were noted in scale scores on the Georgia Grade 5 Writing Assessment among the three participating schools. There are numerous possible reasons no significance was found in this comparison. A testing instrument other than the Grade 5 Writing Assessment may have been more ideal for detecting differences among groups. According to Nagin (2006), self-assessment of strengths and weaknesses, strategies used to improve writing, and progress and goals for writing can be used by students to demonstrate their learning. He suggested that providing such information should be an integral component of writing assessment. Research also indicated that the best way to judge student growth in writing is through the use of student portfolios containing multiple writing samples completed throughout an academic year, versus one-shot standardized writing tests (Hillocks, 2002). These ideas suggest that perhaps the Georgia Grade 5 Writing Assessment could have been a testing instrument that was not sensitive to measuring the actual student learning that resulted from the implemented intervention. Assessments other than the State writing assessment could be used with this study design, as well as more than one instrument to measure student achievement and its relationship to ongoing professional learning and teacher efficacy. Further research is

needed to provide more conclusive evidence regarding the effect of the WISE writing intervention as measured by the Georgia Grade 5 Writing Assessment.

Another point worth considering when reflecting on the results of this study is whether or not one academic year provided sufficient time for the intervention to yield its full impact. The design of this study measured student achievement after the WISE intervention was implemented for only one academic year. This could indicate that neither of the schools implemented the program long enough for teachers or students to use it fluently and with ease. Research by Thompson and Thompson (1991) found that new curricula initiatives are often not pervasive enough to have an impact on student achievement. They contended that new programs are often implemented before current programs have had sufficient time and opportunity to have a positive effect. Writing by its very nature is complex and requires years of practice to raise teacher efficacy in instruction and to build a strong foundation of writing in students (Jensen, 1993).

Although there was no statistically significant difference in Grade 5 Writing Assessment scores when comparing scale score differences, there were notable increases in student performances when analyzing categorical data among participating groups. Justifying this type of analysis is the fact that the state of Georgia uses categorical performance data from the Grade 5 Writing Assessment to measure school achievement gains in writing (GDOE, 2012). Among the schools implementing the WISE intervention, categorical performance levels indicated promising gains in student achievement when comparing the scores from the year of the current study to the scores from the year previous to the current study. The school implementing the intervention while also receiving ongoing professional learning fared best on the assessment, a finding

that aligns with focus group responses that indicated the professional learning component of WISE was crucial to increased teacher efficacy in writing instruction.

Currently in the state of Georgia, achievement gains in writing are measured by comparing differences between scores from two consecutive school years, even though it is comparing two different groups of students (GDOE, 2012). In the current study, when categorical scores of participants were compared in this manner, School B, the school that received ongoing professional learning during program implementation, showed the greatest increase; School A, the school that implemented the intervention without ongoing professional learning showed the second largest increase; and School C, the control school, showed a decrease in the percentage of students passing the Grade 5 Writing Assessment (see Table 3). While it is important to remember that comparing scores from two different groups of students may not provide the most statistically sound analyses of true student achievement (Patton, 2002), the data compared for the purposes of this study were a promising indicator of continued growth and could signify a positive step towards improving mean scale scores.

According to Morgan (2010), there is a direct correlation between the level of teacher efficacy and the level of student learning. Stover (2012) contended that for a school to truly increase teacher effectiveness and student learning, then ongoing, thoughtful professional development must be a main priority. The theories of Morgan and Stover both coincide with the fact that the school that received ongoing professional learning while implementing the WISE intervention is also the school that had the most teachers to report increased efficacy, the greatest percentage increase during a two-year testing span, and the most students to pass the Georgia Grade 5 Writing Assessment. In

essence, this may imply that through WISE program implementation, progress can be made toward increased student achievement in writing.

Implications for Future Practice

The purpose of this study was to determine the effects of a writing intervention on fifth-grade student achievement. Quantitative data gathered from this examination along with responses from focus group discussions indicated that practitioners in the field need to focus on several areas in regards to the effective delivery of writing instruction. First, apparent in the data was the need to provide opportunities for ongoing, purposeful professional learning and teacher collaboration when writing initiatives are implemented. Additionally, data suggested the implementation of writing initiatives inclusive of concrete teaching strategies as effective in raising student achievement in writing and teacher efficacy in writing instruction. Also, quantitative data and focus group discussions showed that an increase in time devoted writing instruction must occur in order to increase student learning and teacher efficacy in writing pedagogy. Finally, focus group responses supported research in the field and revealed a call for more rigorous federal and state requirements regarding college teacher preparation courses in writing instruction.

Recommendations for Further Research

Ultimately, additional investigations, which examine longitudinal data, are necessary in order to better determine student achievement as a result of the WISE intervention. Also, implementing the intervention in more schools would provide greater insight into the impact of WISE and would allow the research findings to be generalized to a greater population of students. Research of this nature would add to the reliability of

the study and to the reliability of the Georgia Grade 5 Writing Assessment as a measure for writing achievement. During focus group discussions, both principals reported that WISE program delivery would continue into the next academic year. This will provide an ideal opportunity for further investigation of the impact of WISE on student achievement from a more longitudinal perspective.

In the current study, teacher perceptions were investigated after WISE program implementation, while student opinions were not gathered. A more accurate picture might be gleaned if examinations of teacher and student perceptions are gathered both before and after program implementation. Also, mastery charts for student learning could be utilized to show progress in students' knowledge of writing strategies and overall writing abilities. This could be an important area for further investigation in order to obtain additional empirical data on the differences in teacher efficacy and student learning through means other than a single standardized writing assessment.

Research by Langer and Applebee (2006) along with findings by the National Commission on Writing (2004) indicated that many teachers neglect writing instruction due to classroom time constraints. This point also was made during focus group discussions when teachers reported the challenges of fitting daily writing into classroom instruction. Further examination is needed regarding time management issues of classrooms teachers in order to find solutions to the problem of how to fit daily writing instruction into busy classroom schedules. One component of the WISE intervention is combining writing instruction across other academic content areas in order to maximize instructional time. Considering that research has indicated the learning value of writing across the curriculum (Graham, et al., 2005; Andrews et al., 2006; McCarthy, 2008;

McCarthy, et al., 2008), more research in this area is warranted and timely. Finally, because professional learning and school culture are not typically regarded as components of writing initiatives (Stover & Glover, 2012), it is recommended that additional research be conducted in this area, as well.

Conclusion

While writing theorists have disagreed on certain aspects regarding how to best instruct students to become good writers, that writing is a cornerstone to learning and to becoming a productive member of society is one point on which they continue to agree (Langer & Applebee, 1987; Gallagher, 2006; Peterson, 2008). The importance of writing as a means to learning is one reason why Georgia, along with 48 other states, recently adopted the Common Core Standards (National Governor's Association, 2008). The Common Core Standards are national standards that make up a curriculum heavily underpinned by writing and literacy in all content areas, with the overall goal of preparing students to be college and career ready upon completion of high school (National Governor's Association, 2008). In order to reach that goal, students must receive foundational writing skills during the early elementary years (Gilbert & Graham, 2010). Educational stakeholders must have a sense of urgency in continuing research that examines writing and how to best prepare our young students to become proficient writers and, ultimately, college and career ready.

Literacy is critical to becoming a competitive and productive member of the global economy, highlighting why studies in this field are timelier than ever and must continue. Moreover, as educational leaders continue to focus on improved writing in order to fully prepare our students for the future, then factors determining the level of

teacher competency to teach writing must also continue to be examined. Undeniably, it is quality teaching that will ultimately position children to compete successfully in the global economy. This is a responsibility that cannot be taken lightly by education stakeholders. Clearly, it is more important than ever to continue this body of research so that our nation's teachers will be confident in delivering the effective writing instruction our students need and deserve.

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Appendix A
Superintendent's Approval

Appendix B
IRB Approval

Appendix C
Focus Group Questions

The following questions were proposed to guide focus group discussions:

- How did WISE differ from how you previously implemented writing instruction in your classroom?
- What specific aspects of WISE stood out as particularly successful or challenging?
- How has this experience affected your perspective regarding the teaching of writing?
- How has this experience affected your students' perspective of writing?