AN EXAMINATION OF THE EFFECT OF TEACHER PROFESSIONAL DEVELOPMENT AND TEACHER PRACTICES ON STUDENT WRITING ACHIEVEMENT

by

OLAYEMI LAWANSON

A CASE STUDY ANALYSIS

Submitted to the Faculty of Delaware State University in
Partial Fulfillment of the Requirements for the
Degree of Ed.D. in Educational Leadership
in the Department of Education

DOVER, DELAWARE

May 2017

This comparative case study is approved by the following Advisory Committee Members

Dr. Pat Carlson, Co-Chairperson, Department of Education, Delaware State University
Dr. Richard Phillips, Co-Chairperson, Department of Education, Delaware State University
Dr. Joseph Falodun, Committee Member, Department of Education, Delaware State University
Dr.Kisha Dorch, External Committee Member, Testing Coordinator, Frederick Douglass

DEDICATION

I dedicate this work to my family. First, to my husband and number one cheerleader, Humphrey, whose love and support have given me the freedom and confidence to pursue my dreams. Thank you for your unwavering commitment to my well-being. You are a great husband and I love you. I also dedicate this work to my children, Malcolm, Quincy and Shelby. You are my motivation and inspiration. You are the substance of things hoped for, and the evidence of things not seen. This dissertation is also dedicated to my parents. To my mother, Adesumbo Atinuke, who taught me to be a strong woman and to my father, Mudasiru Adio, who taught me the importance of integrity. Finally, I dedicate this work to in loving memory of my beloved grandmother, Mama Dugbe. You led me to Christ by example. Thank you for building in me a strong foundation of faith. I thank God for all of you.

ACKNOWLEDGEMENTS

My first acknowledgement is to my Lord and Savior Jesus Christ without whom none of this would be possible. He has been, and continues to be, the source of all my blessings. I acknowledge His leadership, guardianship and provisions in my life. He continues to position me for success in every area of life and I am eternally grateful.

I would also like to acknowledge my committee chairs and committee members, Dr. Carlson, Dr. Phillips, Dr. Falodun and Dr. Dorch. Thank you for investing your time and effort in me. Thank you for supporting me.

Finally, I would like to acknowledge my cohort members, Loida, Lisa and Charles. You each made the journey more enjoyable both literally and figuratively. I hope I have been as much a blessing to you as you have been to me.

**An Examination of the Effect of Teacher Professional Development
and Teacher Practices on Student Writing Achievement**

Olayemi Lawanson

Co-Chairs: Dr. Pat Carlson and Dr. Richard Phillips

ABSTRACT

The purpose of this study was to examine the effect of teacher writing focused professional development and teacher practices on student writing achievement. The researcher also examined the relationship between continuous teacher professional development and teacher writing practices. Using non-experimental, non-probability sampling, the researcher selected three pre-existing case studies in which the researchers investigated the outcome of professional development on teachers' writing content knowledge, writing and pedagogic proficiency. The studies also examined the effect of the professional development models on student achievement. Using a point-by-point comparative method, the researcher thoroughly analyzed and compared the three case studies in order to identify common thematic elements. Findings from the comparative analysis indicate that majority of the teacher participants' pedagogical and content knowledge increased as an outcome of professional development activities. The students of participating teachers also experienced increased writing academic achievement as an outcome of the teachers' participation in professional development.

TABLE OF CONTENTS

CHAPTER I- INTRODUCTION

1.1. Introduction

The urge for human beings to express their experiences, feelings and thoughts in some lasting form dates back to early forms of civilizations and cultures (Graham & Perin, 2007). These forms of expressions have sometimes been inscriptions on rocks, carvings in cuneiform, paintings in hieroglyphics and even writings in alphabets. Whatever form they take, this urge to write down things for others to read is both a way of transferring information from one person to another and a process of learning. Historically, writing has been widely used as a tool for communicating ideas. In addition, it has been thought to be a vehicle for improving student learning. (Quitadamo & Kurtz, 2007).

Research suggests that writing improves thinking and contributes to the development of critical thinking because it requires an individual to make his or her ideas explicit and to choose among tools necessary for effective discourse (Kashani, Mahmud & Kalajahi, 2013; Quitadamo & Kurtz, 2007). As a result, writing has long been regarded as a useful tool of assessment and essay writing has become central to writing assessment from elementary education through post-secondary education (Campbell, Smith & Brooker, 1998; Gregg, Coleman, Davis and Chalk, 2007). Consequently, writing assessment is an integral part of our nation's evaluation and condition of the progress of education and student academic achievement (Nation's Report Card` 2012). In`recognition of the importance of writing to academic achievement, the U.S. Department of Education has conducted national assessments in writing and other content areas since 1969 to measure student performance at national and state level (U.S. Department of Education, 2012). Student average scores in writing increased slightly between 1998 and 2007

1

with eighth graders scoring 3 points higher in 2007 than in 2002 and 6 points higher than in 1998. Likewise, the average writing score for twelfth graders increased by 5 points in 2007 compared to the 2002 scores and was 3 points higher than in 1998 (U.S. Department of Education, National Center for Education Statistics, 2008). However, data show that the percentage of students performing at the proficient level in writing has shown no significant change since 2002 (U.S. Department of Education, 2012). Of the 24,100 eighth-graders and 28,100 twelfth-graders engaged in the 2011 writing assessment, only twenty-four percent or less than a quarter of students at both grades 8 and 12 demonstrated competency in writing. Data showed that 74% of the nation's eighth graders performed at the basic or below basic level. Likewise, 73% of the nation's twelfth-graders performed at the basic or below basic level.

In 2001, President George Bush implemented a plan to improve the quality of education and level of student academic achievement in the United States (Dorch, 2012). The plan, No Child Left Behind (NCLB), has consequently resulted in a heightened demand for accountability and assessment in public education (Peariso, 2011). The No Child Left Behind law which was an update of the Elementary and Secondary Education Act (1965) effectively scaled up the federal role in holding schools accountable for student outcomes. On December 10, 2015, President Obama signed into law the Every Student Succeeds Act (ESSA), the most recent reauthorization of the Elementary and Secondary Education Act (ESEA). Although ESSA has some major revisions to the former law, it continues the NCLB requirement that states have in place uniform academic content and achievement standards in reading or language arts and in mathematics and science. ESSA also continues the requirement that states administer assessments aligned with their standards to demonstrate student academic achievement.

Despite this increase in accountability, according to the most recent National Assessments of Educational Progress (NAEP) writing assessment, only 24% of students at the 8th and 12th grade levels performed at the proficient level in writing. In addition, according to College Board's latest AP score summary, the average mean score on the Language and Composition Exam has been below the readiness benchmark in the past five years. Although data shows that the average score on the composition exam increased slightly from 2.80 in 2015 to 2.88 in 2016, students are still below the readiness benchmark score of 3.0. (College Board, 2017) In the past five years the average score of students on this exam has remained in the 2.8 range (College Board, 2017), indicating that the nation's students are not college ready after high school. Studies on how to improve writing achievement have typically focused on instructional techniques and practices (Graham and Perin, 2007). In addition to instructional techniques and practices, researchers have noted the need to enhance teachers' skills through professional development (Valencia & Killion, 1989, Evans, 2002).

Teacher professional development is the process of constantly strengthening professional attainment, broadening academic knowledge, enhancing the professional skills, and improving teaching ability (Ji & Cao, 2016). Research suggests that professional development improves teachers' knowledge and pedagogy and enhances teachers' confidence to facilitate a positive attitude about student learning (Lin, Cheng and Wu, 2015).

Since student achievement has been linked to teacher practice (Limbrick, Buchanan, Goodwin and Schwarcz, 2010), one can argue that student achievement in writing is directly affected by the quality of the teaching of writing. Researchers have acknowledged the important role that teachers' knowledge of content and in particular their "pedagogical content knowledge"

have on their practice and on student learning (Evans, 2002; Limbrick et al., 2010) and several studies have argued that the achievement of students, even those traditionally viewed as "at risk," is positively related to teachers' knowledge. Although some have noted that connections between teachers' knowledge and students' achievement are still inconclusive, others are generally agreed on the fact that effective teachers possess knowledge about their students, have content knowledge of the subject, and have pedagogical content knowledge, which includes explicit and purposeful teaching (Limbrick et al., 2010). While there exists a large body of research on the effect of professional development on student academic achievement and the pedagogical knowledge required for reading, the content knowledge for writing and the pedagogical content knowledge for writing have not received as much attention. However, according to Fleischer (2004), writing is very complex by nature and learning to write can be challenging not only for students but also for teachers. Many teachers struggle with the ability to integrate new knowledge about writing into their classrooms and therefore studies have suggested that this has become a factor in students' difficulty in writing and students' poor writing achievement. Subsequently, many teachers are frightened of writing and unsure of themselves and writing (Fleischer, 2004; Limbrick et al., 2010). If this is the case, this study supposes that it is no wonder then that writing achievement continues to remain low.

However, when teachers engage in professional development that encourages them to question their beliefs and practices, their knowledge and confidence about teaching increases (Limbrick et al., 2010). Studies have noted that after the training of professional development programs, teachers improved their classroom performance as their teaching became more communicative, organized, attentive to students' needs, and principled (Lin, Cheng & Wu,

2015). In a longitudinal study to examine the effect of professional development on teachers' instruction, researchers Desimone, Porter, Garet, Yoon and Birman (2002) found that professional development that focused on specific instructional practices increased teachers' use of those practices in the classroom. Using a purposefully selected sample of 207 teachers from 30 schools in five states, the authors examined features of teachers' professional development and its effects on changing teaching practice in mathematics and science from 1996-1999. Through the use of longitudinal data, researchers were able to document teaching practice in science and mathematics before and after a professional development activity and to examine the extent to which changes in teaching practice are predicted by participation in that activity. The study results suggest that professional development focused on specific instructional practices increases teachers' use of those practices in the classroom.

In a 2015 mixed methods study, researchers Lin, Cheng and Wu (2015) investigated the connection between a teacher professional development program and student learning. In this two-year study, researchers used the Readers' Theater Teaching Program (RTTP) for professional development as an example to investigate how participants applied their new knowledge and skills learned from RTTP to their teaching practice and how the impact influenced students' reading fluency. In this case study of two teachers and their 69 students, researchers collected data from multiple sources of evidence as a way to ensure construct validity. These data included a pre-professional development interview, pre/post subject matter exams, teacher interviews, surveys, classroom observations, and students' Reading Fluency Test. Results suggest that in contrast to their counterparts who did not undergo the training, participants applied knowledge and skills learned from the program to their teaching practice.

Results further suggest that after undergoing the professional development program, the teachers experienced professional growth and improved their classroom performance. Teachers were able to apply their new knowledge and skills to design and implement curriculum and enhance students' learning ability as well.

Even so, there is little evidence that these measures alone lead to increased student performance (Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, and Beechum, 2012). In addition to content knowledge and academic skills, researchers have suggested that certain non-cognitive factors are crucial to students' academic performance (Duckworth & Quinn, 2009). Such non-cognitive factors include concepts such as perseverance, grit and social skills ((Farrington et al., 2012).

The concept of grit, passion and persistence for long-term goals, has been identified as an important element of the successful attainment of long-term goals (Duckworth, Peterson, Matthews and Kelly, 2007; Cross, 2014). According to Duckworth and Quinn (2009) grit is what allows a select group to sustain effort in the pursuit of a goal. It has also been shown to predict achievement in challenging domains over and beyond measures of talent (Duckworth, Peterson, Matthews and Kelly, 2007). In particular grit entails the capacity to sustain both effort and interest in projects that take time to complete (Cross, 2014; Duckworth, Peterson, Matthews and Kelly, 2007: Duckworth and Quinn, 2009). Research suggests that deliberate practice characterized by focused and planned solitary training activity coupled with immediate informative feedback and subsequent correction can be a predictor of achievement in academic skill (Duckworth, Kirby, Sukayama, Berstein, & Ericsson, 2011).

Another non-cognitive factor identified by researchers is social skills/interactions

6

(Farrington et al., 2012). Based on the socio-cognitive model of writing (Flower & Hayes, 1981), studies have suggested that the teaching of writing has shifted from a focus on teaching grammar and purely mechanical aspects to socio-cultural models such as creating supportive environments that use dialogue to shape students' thinking as they write, employs teachers and knowledgeable writers as models and recognizes approximations as success in addition to using strategies for planning, editing and revising and publishing and sharing with audiences (Flower & Hayes, 1981; Van Kraayenoord, Miller, Moni & Jobling, 2009).

Various studies have examined the effect of student-teacher relationships and the experience of strong connections to adults, which have been consistently linked to long-term academic success of students (Allen, Gregory, Mikam, Lun, Hamre & Pianta, 2013). It has been suggested that cognitive processing is much more effective if close teacher–child relationships are involved. (Ahnert, Milatz, Kappler, Schneiderwind, & Fischer, 2013).

In order to increase the writing skills of America's students, further attention needs to be given to understanding the effect of professional development of teachers on students' writing. Additionally, attention needs to be given to the practices of said teachers both as instructors and practitioners and its impact on students' writing achievement.

1.2. Statement of the Problem

It has been noted that the need for writing in the 21st century has increased in frequency and efficiency (Nation's Report Card, 2011). Consequently, "the need for effective writing instruction and assessment is more relevant than ever" (p 3). Unfortunately, citing data from National Assessment of Educational Progress Writing Assessment results, studies show that student writing achievement is the most depressed major skill area for students in the United

States and has been so since 1984. (Rochester, 2014). In its most recent report on the U.S students' writing achievement, the U.S. Department of Education notes that less than a quarter percentage of U.S. students demonstrated the "ability to accomplish the communicative purpose of their writing" (p. 1).

The National Commission on Writing, in its report "The Neglected 'R' – The Need for a Writing Revolution" (2003), assert that "American education will never realize its potential as an engine of economic growth until a writing revolution puts language and communication in their proper place in the classroom" (p. 3). Researchers have suggested that one possible reason for this dearth in writing achievement is the lack of teaching skills on the part of teachers since teachers are one of the key factors in delivering instruction that leads to the development of competent literacy learners (Van Kraayenoord et al., 2009). Many teachers are frightened of writing and unsure, themselves, about the process of writing, or how to integrate new knowledge about writing into their classroom practice (Fleischer, 2004). Furthermore, it has been noted that teachers frequently do not have the meta-language for writing (Limbrick, Buchanan, Goodwin, & Schwarcz, 2010).

Consequently, teachers find it difficult to articulate their understandings about the types, functions, and process of writing. Teachers do not always know what they need to know. The lack of teacher knowledge has been implied as a factor in students' difficulties in writing.

Among its many suggestions for change, the National Commission on Writing (2003) called for comprehensive and sustained pre-service and in-service training for all teachers. This comparative case study analysis uncovers the potential positive effect that teacher professional development and teacher practices can have on student writing achievement.

8

1.3. Background of the Problem

According to the most recent National Assessment of Educational Progress (NAEP) report, only 24% of students at the 8th and 12th grade level performed at the proficient level in writing in 2011(U.S. Department of Education, 2012). More alarming is the fact that this signals a 2%-6% decline in student writing achievement (National Center for Education Statistics, 2012). In 2002, 24 %-31% of students at the 4th, 8[th,] and 12th grade levels performed at the proficient level. A close examination of existing data reveals a downward trend in students' writing achievement between elementary and high school. Results from 1998 to 2011 consistently show a decline in average score and proficiency level of students between the 8th grade and 12th grade. For example, in 1998, 2002, 2007 and 2011, students in the 4th and 8th grades demonstrated an increased average score from 150 in 1998 to 153 in 2002 and 156 in 2007, whereas the average score for 12th graders went from 150 in 1998 down to 148 in 2002 and 153 in 2007, a 3 to 5 point decrease from 8th grade to 12th grade (U.S. Department of Education, 2012). Additionally, SAT scores at both the national and state levels equally demonstrate poor performance on the writing component of that exam ((U.S. Department of Education, National Center for Education Statistics, 2016). In 2012, the average score for writing dropped 1 point to 488; at the time, it the lowest since writing was added to the exam in 2006. Between 2005–06 when the SAT writing section was introduced and 2014–15, the writing average score decreased by 13 points from 497 to 484.

Consequently, students are not adequately prepared for higher education and therefore not fully equipped to meet the demands of college (Graham and Perin, 2007). A study by the American College Testing Service (2005) showed that between one third and half of high school

students with aspirations for higher education did not meet readiness benchmarks for college level writing (Graham and Perrin, 2007). At least a quarter of the many students who start their education at community colleges enroll in remedial writing courses (National Center for Education Statistics, 2003). And according to Graham and Perin (2007), remedial enrollments appear to underestimate the number of students who actually need help.

The lack of proper writing skills has also been linked to students' inability to engage in critical higher order thinking and learn effectively in the college setting (Campbell, Smith & Brooker, 1998; Quitadamo and Kurtz, 2007). Writing within disciplines is thought to require deeper analytical thinking that is closely aligned with critical thinking (Quitadamo and Kurtz, 2007).

With the explosion of electronic and wireless communication, writing skills are also becoming increasingly essential in the workforce (Graham & Perin, 2007). According to the National Commission on Writing (2005) most public and private employers report that writing proficiency has become critical in the workplace, directly affecting hiring and promotion decisions (Graham & Perin, 2007). However, due to poor writing skills about 30% of employees in the public and private sector require on the job training in basic writing skills. It is estimated that state governments spend $221 million annually on writing skill training while private companies spend an estimated $3.1 billion (National Commission on Writing, 2005).

In order to improve writing proficiency in secondary education, adequately prepare students for critical thinking and success in higher education and conserve valuable resources by preparing a workforce that is fully equipped with the proper writing skills, it is imperative to identify factors that will ensure an increase in the nation's writing proficiency.

1.4. Purpose of the Study

The purpose of this causal comparative case study analysis was to examine the effect of teacher writing, specific professional development and teacher practices on students' writing achievement.

1.5. Need for the Study

There is a large body of literature on the importance of writing as a means of enhancing learning and improving critical thinking skills (Bangert-Drowns, Hurley & Wilkinson, 2004; Quitadamo and Kurtz, 2007; Graham & Perrin, 2007; Campbell, Smith & Brooker, 1998). In an experimental control group study of biology students, results indicated students from the writing group outperformed their non-writing peers in critical thinking, analysis and inferencing skill (Quitadamo & Kurtz, 2006).

And, although it has been suggested that deficiencies in adolescent writing are not so much related to problems with mechanics and basic skills as they are to higher thinking (Campbell, Smith & Brooker, 1998), an extensive body of research exists on instructional methods/strategies and best practices for writing instruction (Gregg, Coleman, Davis, & Chalk, 2007; Graham & Perrin, 2007; Quitadamo & Kurtz, 2007; Berry & Mason, 2012). In a meta-analysis for the Carnegie Corporation of New York researchers Graham and Perin (2007) identified 176 studies from which policymakers and educators can draw conclusions and make recommendations (Graham & Perin, 2007).

Despite this trend various reports indicate that many students are not meeting basic writing standards (National Commission on Writing, 2011, 2010; Graham & Perin, 2007). There is little to no rigorous evidence that these measures in and of themselves are likely to lead many

more students to writing proficiency (Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, & Beechum, 2012).

Researchers have suggested the need to improve the education of students by upgrading the skills of teachers. Some such studies have focused on programs like Readers' Theater Teaching Program (RTTP) for professional development as an example to inquire how participants applied their new knowledge and skills learned from their teaching practice (Lin, Cheng, & Wu, 2015). In addition, they have also focused on how such impact influenced students' reading fluency and the effect of the use of an inquiry model that focused on increasing teachers' pedagogical practice through enhancing their knowledge about writing (Lin, Cheng, & Wu, 2015).

Recent studies have shown that non-cognitive factors such as perseverance, grit and social relationships are critical for improved educational outcomes (Farrington et al., 2012; Duckworth et al., 2011). Such studies have focused on academic achievement as measured by students' overall GPA (Cross, 2014), success on academic competition such as the National Spelling Bee (Duckworth et al., 2011), and achievement of difficult goals (Cross, 2014; Duckworth, Peterson, Matthews & Kelly, 2007).

This proposed study seeks to close the gap in literature by examining the effect of non-cognitive factors as measured by teachers' sustained professional development and writing practices on students' writing achievement.

1.6. Significance of Study

Many high school graduates lack writing skills necessary for success in higher education (Graham & Perin, 2007). According to the U.S. Department of Education at least a quarter of

new students in community colleges enroll in remedial courses (National Center for Education Statistics, 2003).

Prior research has investigated the effects of writing instruction on groups of students across the full range of ability (Graham & Perin, 2007) Researchers have also suggested various techniques for improving classroom instruction to address the serious problem of writing difficulty (Novick, 1962; Campbell, Smith & Brooker, 1998; Quitadamo & Kurtz, 2006; Graham & Perin, 2007). However, although the nation has made some progress in improving the achievement of its elementary school students, adolescent literacy levels have remained stagnant (Graham & Perin, 2007; National Center for Education Statistics, 2012). Researchers have also identified non-cognitive factors affecting student academic achievement. Factors such as teachers' content knowledge and pedagogical knowledge, social interaction, teacher practices, student relationship, perseverance and grit have been identified as possible factors affecting students' achievement at all levels of education.

There exists, however, a gap in writing research in the area of non-cognitive factors as they affect students' writing skills, especially teacher professional development and practice. According to existing literature, quality instruction is predicated on teachers' knowledge of content and is highly predictive of students' achievement. It has also been suggested that teachers' knowledge and confidence about teaching increases when teachers engage in professional development that encourages them to examine their beliefs and practices. Although there is a plethora of research on the effect of teacher professional development, research is limited on teachers' professional development and practices in relation to writing outcomes. This study aims to close this gap by investigating the extent to which writing specific professional

development and teachers' practices affect students' writing achievement with the hope of providing educators and educational leadership with tools for improving students' writing achievement across the nation.

1.7. Relevance to Educational Leadership

In 1983, the National Commission for Excellence in Education issued a report titled A Nation at Risk (U.S. Department of Education, 1983) in which it identified the need for improvement and educational reform in public schools. This ushered in the first wave of the accountability movement and increased pressure to create and implement accountability systems at the federal and state levels. In 1994, a second wave of reform began through legislation called The Goal 2000: Educate America Act (Peariso, 2011). This Act and the Improving America's Schools Act, a reauthorization of ESEA of 1965 set goals for standards based and outcome based education reforms. Despite these initial accountability efforts, "American schools in general produced the worst achievement results at the third highest expenditures among economically advanced countries" (p.29). This alarming report of low achievement resulted in a renewal for the call for accountability and educational reform. In response, a reauthorization of the ESEA of 1965 called the No Child Left Behind Act of 2001 ushered in a new era of accountability and assessments (Peariso, 2011).

The call for accountability and standards-based reform has led to an increase in the use of writing assessments as the gatekeeper for promotion and graduation. Nationally administered assessments in writing and other subject areas have also been used as an integral part of the nation's evaluation of the condition and progress of education (The National Center for Education Statistics, 2011). Consequently, the role of educational leaders has been refocused

14

towards the technical core responsibility of teaching and learning in school (Peariso, 2011).

The proposed study aims to provide a valuable contribution to the increased student writing achievement and positive educational outcomes by examining the effects of teacher practices and writing focused professional development on students' writing skills. If, indeed, these factors are critical to writing proficiency, a key task for educators and educational leadership becomes the intentional provision of these opportunities for educators and the development of these skills, traits, and attitudes in conjunction with the development of content knowledge and academic skills.

1.8. Research Questions

This proposed study is guided by the following questions.

Research Question 1 – Is there a relationship between deliberate teacher professional development and increased student writing achievement?

Research Question 2 - Is there a relationship between continuous teacher writing professional development and teacher writing practices?

Research Question 3 – Is there a relationship between teacher writing practices and increased student writing achievement?

Definition of Terms

The following terms will be used in this study:

- Writing proficiency- represents students' ability to address the tasks effectively and fully accomplish their communicative purposes. Texts are characterized by coherence, structure, well-crafted and effective connections and structure (Graham & Perin, 2007).
- Proficient-represents solid academic performance. Students reaching this level have

demonstrated competency over challenging subject matter (Graham & Perin, 2007).

- Basic-denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade level (Graham & Perin, 2007).

- Non-cognitive factors- factors beyond content knowledge and academic skills shown to have an impact on student performance. Such factors include attitudes about learning, one's beliefs about their own intelligence, their self-control and persistence, and the quality of their relationships with peers and others (Farrington et al., 2012).

- Cognitive factors- the "substance" of what is learned in school, namely a student's grasp of content knowledge and academic skills such as writing and problem-solving (Farrington et al., 2012).

- Professional Development-the process of constantly strengthening professional attainment, broadening academic knowledge, enhancing the professional skills, and improving teaching ability (Evans, 2002).

- Teacher Practices- the sum of actions teachers take in and outside the classroom to enhance pedagogical and content skills (Evans, 2002).

1.10. Limitations

Study limitations are defined as those characteristics of design or methodology that have impacted or influenced the findings and interpretation of research (Creswell, 2014). The limitations of this study are as follows. The nature of this study can be seen as a limitation since the study is limited to three pre-existing studies. Data collection was procured through analysis and examination of the effect of writing professional development on teachers' content knowledge and pedagogical practices and its' effect on student achievement from three studies.

16

As such, the generalizability of the findings is limited to the pre-existing scholarly case studies.

1.10. Delimitations

The delimitations of this study are that the study data are delimited to include secondary data sources. Additionally, the study population is delimited to include three peer reviewed and scholarly case studies.

1.11. Summary

The evaluation of writing skill, and general academic performance through timed essay assessments has become increasingly pervasive throughout the American education system. Writing assessments contribute to the determination of grades and course placements and ultimately affect college admissions through their use in standardized tests. Sadly, data from National Assessment of Educational Progress Writing Assessment (2011) show that student writing achievement is the most depressed major skill area for students in the United States and has been so since 1984 (Rochester, 2014). In its most recent report on the U.S students' writing achievement, the U.S. Department of Education notes that less than a quarter percentage of U.S. students demonstrated the "ability to accomplish the communicative purpose of their writing" (p. 1). Additionally, many high school graduates lack writing skills necessary for success in higher education (Graham & Perrin, 2007). According to the U.S. Department of Education at least a quarter of new students in community colleges enroll in remedial courses (National Center for Education Statistics, 2003).

In recognition of the importance of writing to academic achievement, the U.S. Department of Education has conducted national assessments in writing and other content areas since 1969 to measure student performance at national and state level (U.S. Department of

Education, 2012). The National Assessment of Educational Progress (NAEP) writing exam was last given in 2011. Data from this exam indicate that the percentage of students performing at the proficient level in writing has shown no significant change since 2002 (U.S. Department of Education, 2012). Scores from the 2011 assessment confirm the paucity of writing skill among the nation's students. Only twenty-four percent of students at both grades 8 and 12 performed at the Proficient level in writing in 2011 which means that about two-thirds of the students lacked mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade (U.S. Department of Education, 2012).

Student performance on the standardized college admission exam, the SAT also reinforces this dismal trend. Since College Board's introduction of the writing section for the SAT in 2005, students' average score on the writing has not met the benchmark of 500 but has remained in the 400 range. At the inception of the writing assessment in 2005 students scored an average of 497. Between the inception of the SAT writing exam in 2005 and 2015, the average writing score decreased by 13 points from 497 in 2005 to 484 in 2015. This suggests that students' writing skills is on the decline in the nation.

Most research suggests that professional development improves teachers' knowledge and pedagogy and enhances teachers' confidence to facilitate a positive attitude about student learning (Lin, Cheng & Wu, 2015). It has been suggested that in order to promote self-realization, improve teaching quality, and achieve the educational goals, teachers have to be proactive in participating in a variety of relevant professional development activities (Guskey & Kwang, 2009).

The proposed study aims at providing a valuable contribution to the increased student

18

writing achievement and positive educational outcomes by examining the effects of teacher practices and writing focused professional development on students' writing skills.

Chapter II will provide a detailed literature review that provides historical perspectives on writing and the role of writing in education, professional development in general and writing specific professional.

CHAPTER II-LITERATURE REVIEW

2.1. Literature Review

Writing is thought to contribute to the development of critical thinking (Quitadamo & Kurtz, 2007), and it has been suggested that writing improves thinking because it requires an individual to make his or her ideas explicit and to choose among tools necessary for effective discourse (Kashani, Mahmud & Kalajahi, 2013; Quitadamo & Kurtz, 2007).

Studies have shown that in order for writing to be effective, a number of criteria are essential such as the careful selection of sentence structures, grammar and vocabulary suitable for the targeted readers as well as the subject matter; a high degree of accuracy in order to avoid ambiguity of meaning and high degrees of planning and structure in the development of information (Mitchell, 1996).

Writing has also been described as a mental process of using and arranging formal structures in such a way that they can create meaning to what the writer has in his head and wants to express in written language (Mitchell, 1996). Essentially, this means that when an individual undertakes to communicate his or her ideas through writing, he or she must be able to explicitly express those ideas and determine the best way to convey those ideas to the reader since "good writing is an extension of clear thinking, and writing competence is how the writer makes meaning in written language" (p.4). According to Bell and Burnaby (1984), writing is a complicated cognitive activity which requires the writer to control different variables simultaneously. Thus, the act of writing transcends the fact of merely putting well organized words and structures on paper. Rather, it is a process whereby we give meaning to our thoughts, "a process of discovering and creating meaning" (Mitchell, 1996, p. 39).

Consequently, at all levels of education, writing is viewed as a representation of the state of a student's understanding and is assessed accordingly (Andrews, 2003). Writing has been established as a valid means for assessing educational attainment at all levels of education and the timed impromptu essay is central to writing assessment from elementary school through postsecondary education (Gregg et al., 2007).

Historical Perspectives

In the past four decades, an increasing number of national reports indicate a growing concern over the nation's educational system and the decreased performance of U.S. students relative to other industrialized nations (Quitadamo & Kurtz, 2007). Traditionally, however, in response to this crisis, the focus of attention from researchers and educators has been reading (Graham & Perin, 2007). However, every year in the U.S., large numbers of adolescents graduate from high school unable to write at the basic levels required by colleges (Alliance for Excellent Education, 2006). Additionally, 7,000 young people drop out of high school daily, mainly because they lack the basic literacy skills to meet high school demands (Graham & Perin, 2007). Since literacy entails both reading and writing, the poor writing proficiency demonstrated across the nation needs to be recognized as a part of our national literary crisis (National Commission for Excellence in Education, 1983).

Since 1969, National Assessments of Educational Progress (NAEP) assessments have been periodically conducted by the United States Department of Education in writing and other content areas to evaluate the condition and progress of education. These exams measure the writing skills of 4th, 8th and 12th graders and translate their scores into three levels of proficiency, namely Basic, Proficient or Advanced. The last NAEP writing exam given in 2011(U.S.

Department of Education, 2012) to measure the writing skills of 4th, 8th and 12th graders revealed that only 24% of students at both grades 8 and 12 performed at the proficient level. 3% of 8th and 12th graders performed at the Advanced level while an alarming number of students scored below or at the Basic level. 20% of 8th graders scored below Basic while 21% of 12th graders scored below Basic (2012). That means only 27% of students were able to produce quality writing defined in terms of coherently organized essays containing well-developed and pertinent ideas, supporting examples and appropriate details (Graham & Perin, 2007). This latest result becomes even more disturbing when it is compared to similar results from almost ten years back. Although the nation has made progress recently in improving the literacy achievement of its elementary students, adolescent literacy levels have remained stagnant. In 2002, results from the NAEP writing exam showed that only 22% to 26% scored at the proficient level while 72% of 4th graders, 69% of 8th graders and 77% of 12th graders scores were below or at the Basic level (2012). This essentially means that in ten years, the nation's writing proficiency has not improved.

In an effort to combat this trend, standards based reforms have led to an increase in the use of timed and impromptu essays tests as the gatekeeper for promotion and graduation (Gregg, Coleman, Davis, & Chalk, 2007). Standardized tests such as the Scholastic Aptitude Tests (SAT) and the newly formulated Common Core State Standards Partnership for Assessment of College and Career Readiness (PARRC) assessments all comprise the writing portion, where students are expected to write timed essays. In all states that have adopted the Common Core State Standards, students must demonstrate college and career readiness by successfully passing the PARCC assessments in order to earn the high school diploma.

One of the major shifts in the common core state standards is the emphasis on writing. Under the writing component, students are assessed on their ability to compose argumentative, analytic and narrative writing, all of which require the ability to think critically and develop ideas. However, despite these reforms, writing expression remains a skill area of particular concern because an alarming number of young adults struggle with the writing process (Graham & Perin, 2007) The ability to communicate effectively through writing becomes increasingly important in high school, as the content becomes more demanding (Berry and Mason, 2012).

Writing in Schools

Essay writing is a well-established tool of assessment in secondary and post-secondary education (Campbell, Smith & Brooker, 1998). Womack (1993) has called essay writing the "default genre" for the assessment of understanding at the upper levels of school. According to Andrews (2003), there is no doubt that the essay is a well-established genre in higher education; it represents the state of a student's understanding and is assessed accordingly. As stated earlier, educators regard the essay as a useful tool of assessment. Additionally, it is seen as a valuable avenue for improving student learning and a means for developing critical thinking. It has been suggested that writing improves thinking because it provides an opportunity to think through arguments. When used as a means to restructure knowledge it enables and improves higher order thinking (Berry & Mason, 2012, Quitadamo & Kurtz, 2007).

The timed impromptu essay is central to writing assessment from elementary through postsecondary education (Gregg, Coleman, Davis, & Chalk, 2007). However, for students who struggle with expression through writing, the essay requirement constitutes a considerable obstacle to moving up from one educational level to another. Struggling writers face barriers to

graduation from high school, entry into colleges or any other post-secondary education and even exit from post-graduation experiences.

Writing and Instruction

According to the Council of Writing Program Administration 2000), the four major outcomes of writing instruction are rhetorical knowledge; critical thinking, reading and writing; processes; and knowledge of conventions. Research and data have shown that students often experience difficulty coordinating the competing cognitive demands needed to perform these tasks when writing (Berry & Mason, 2012; Graham & Perin, 2007). Such students may lack the strategies necessary for developing and organizing their thoughts and as a coping strategy, students with inadequate writing skills often limit their writing to the fewest words possible. As a result, their writing typically contains few details and they stop the writing process before really demonstrating what they know. Other problems students face with regard to writing include giving information about a topic instead of constructing a focused argument, not being able to display valued discourse behaviors like moving from concept to examples or facts and back to concepts and sometimes being drowned in details (Chandrasegaran, Ellis & Poedjosoedarmo, 2005).

Prior research on writing suggests that product centered general writing instruction with teacher and textbook describing the features of successful writing, (for example, insisting that an essay must have a thesis) and leaving students to determine how such features can be utilized in their own writing context or discipline is ineffective (Chandrasegaran, Ellis & Poedjosoedarmo, 2005). Such an approach does not engage students in responding to the socially constructed exigencies of authentic disciplinary writing. Since school writing makes demands on cognitive

processing and socio-cultural knowledge, many studies on writing have addressed this. Chandrasegaran et al. suggest that the variation in socio-cognitive demands makes the use of self-accessed, computer-mediated writing instruction more effective than conventional, teacher-fronted instruction (2005).

In a preliminary trial of the development of a computer program aimed at guiding students towards appropriate decisions in the writing process, researchers reported a favorable response from students with regard to directing students' thinking to writing goals (Chandrasegaran et al., 2005). However, there is no evidence of the permanent development and transference of such skills to the testing situations that are critical for students' assessment and promotion in K-20. The authors contend that there are thinking and discoursing skills and identifiable genre conventions that educators can teach students so they are empowered to notice and master the discourse behaviors of their field. They suggest that learning to write involves more than mastering vocabulary and sentence production rules, but, rather, it means being socialized into the norms, attitudes, and argument practices of the discourse community. They further suggest that the writing instructor must demystify the conventions of the academic discourse.

In light of the preceding information, it is imperative that educators understand the writing skills that might enhance a student's performance on impromptu essay writing and the instructional practices that improve the quality of adolescent students' writing. Understanding the barriers that some students face in writing essays, especially in a timed context, is important for educators. It might assist them in identifying and implementing the necessary changes to instruction and curriculum.

Traditionally, there are two suggested approaches in the teaching of writing. In the first, the textbook is the main medium of instruction (Kashani, Mahmud & Kalajahi, 2013). This approach, known as the Product Approach, suggests that a good writer's writing can serve as a model for the students. This approach has, however, been criticized as stifling and unsuitable for the student who wishes to write autonomously (Andrews, 2003; Gregg, Coleman, Davis & Chalk, 2007; Kashani, Mahmud & Kalajahi, 2013). The Process Approach, on the other hand, interweaves a number of writing instructional activities in a workshop environment that emphasizes extended writing opportunities and cycles of writing (Graham & Perin, 2007).

A 1988 study of the process approach to writing and the impact of its implementation on teachers noted that the process approach to writing, unlike the traditional approach, placed less emphasis on classical models of writing and more emphasis upon the student as a writer (Moss, 1988). In this new approach, students are expected to use pre-writing strategies to help them think about what they are about to write and revise text, in addition to editing for grammar and usage errors (Moss, 1988). In the process approach, it is accepted that writers will move back and forth among the stages since the steps in the process are regarded as recursive, not linear (Moss, 1988). As a result of this new approach, a new paradigm for teaching writing also emerged.

In a report to the Carnegie Corporation of New York, authors Steve Graham and Dolores Perin (2007) conducted a meta-analysis of 176 existing literature studies on writing instruction "to determine the consistency and strength of the effects of instructional practices on student writing quality and to highlight those practices that hold promise" (p.4). Consistent with previous researchers used in the meta-analysis, the authors used writing quality as the outcome studied.

26

They defined writing quality as "coherently organized essays containing well-developed and pertinent ideas, supporting examples and appropriate details" (p.14). According to the authors, writing quality served as the sole outcome measure because they were interested in identifying treatments that had a broad impact on writing performance. The researchers identified eleven elements of effective adolescent writing instruction. These eleven instructional elements include writing strategies, summarization, collaborative writing, specific product goals, word processing, sentence combining, prewriting, inquiry activities, process writing approach, study of models and writing for content learning (p. 7). As suggested by the authors, these instructional elements can be combined in flexible ways to strengthen students' literacy development by increasing their writing.

Research, however, indicates that despite the volume of writing students are asked to produce during their education, they are not learning to use writing to improve their thinking processes (Ouitadamo & Kurtz, 2007); therefore, there is no increase in the writing achievement levels of adolescents (Graham & Perin, 2007). Furthermore, existing studies are limited because writing had been used either in isolation or outside authentic classroom contexts (Bangert-Drowns, Hurley, & Wilkinson, 2004; Ouitadamo & Kurtz, 2007). Factors that are not directly associated with writing, but may nonetheless influence its effectiveness, have also not been sufficiently accounted for in previous work. In order to bridge this gap in research, this study examines two factors that are not directly associated with writing, but which hypothetically may influence the effectiveness of students' writing.

Teacher Professional Development

Teacher professional development is a growing research area. Previously perceived to

defy concrete definition, Linda Evans (2002) asserted that while teacher professional development had not reached a clear and precise definition in a narrow sense, it could be viewed as a process in a broader sense, by which teachers can achieve their emotional and professional development through a series of activities. Evans defined teacher development as "the process whereby teachers' professionality and/or professionalism may be considered to be enhanced" (p 3). Teacher professional development has also been expressed as the process of constantly strengthening professional attainment, broadening academic knowledge, enhancing the professional skills, and improving teaching ability (Ji & Cao, 2016). In other words, teachers participate in various learning activities to attain and practice their professional knowledge and skill.

Most research suggests professional development improves teachers' knowledge and pedagogy and enhances teachers' confidence to facilitate a positive attitude about student learning (Lin, Cheng & Wu, 2015). In a study that used quantitative methods, Wenglinsky (2001) examined the link between student academic achievement and teacher classroom practices, as well as the professional development teachers receive in support of their classroom practices. Using the statistical technique of multilevel structural equation modeling (MSEM), the study found that classroom practices effected by professional development that teachers used in support of their classroom practices have a marked effect on student achievement.

Consequently, it has been suggested that, in order to promote self-realization, improve teaching quality, and achieve the educational goals, teachers have to be proactive in participating in a variety of relevant professional development activities (Guskey & Kwang, 2009).

State and national policies in recent years have also focused attention on teacher quality

and professional development. The No Child Left Behind Act maintains that professional development should be a comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement (U.S Department of Education NCLB, 2004). Although teachers may be willing to engage in those learning activities, they face many challenges such as time conflict, resource shortage, and bad organization.

While literature on professional development acknowledges the fact that teacher development is an individualized process, it has also identified some stages on the development process (Evans, 2002). The first stage of the process is the recognition of weakness in some aspect of one's practice. This is followed by the formulation and implementation of a remedial action strategy. Through professional growth, teachers can apply their new knowledge and skills to design and implement curriculum and enhance students' learning ability as well.

Literature suggests that some identifying features or characteristics of professional development include testing and refining propositions and hypotheses in actual practice situations, and engaging in sustained reflection on and about these (Day, 1999; Evans, 2002).

Studies on teacher professional development present various modes or models of teacher professional development. Traditional models of professional development were grounded in the assumption that the purpose of professional development is to convey knowledge to teachers (Vescio, Ross, & Adams, 2008). In these models, university researchers generated knowledge and expertise that was usually advocated as a prescription for better teaching. This knowledge is delivered to teachers through professional development. As a result, teachers are expected to acquire new knowledge and strategies and implement them in their practice. In the wake of the standards reform movement of the1980s and 1990s and the ensuing climate of increased

accountability, professional development experienced a paradigm shift. The underlying

assumption of this new shift is that the knowledge that teachers need to teach well is generated

when they treat their classrooms as sites for investigation and treat the knowledge and theory

produced by others as material for interrogation and interpretation (Vescio, Ross, & Adams,

2008). According to Vescio, Ross and Adams (2008), a model that has emerged from this shift is

that of professional learning communities (PLC). Based on a premise from the business sector,

PLCs are grounded on the assumption that knowledge is situated in teachers' daily experiences

and their critical reflection of those experiences with peers (Vescio, Ross, & Adams, 2008). In a

multi-site case study that examined the impact of the implementation of a structured professional

learning community model on teacher practice and student achievement, the researcher noted

that professional learning communities offer formal structures to provide teachers with learning

enriched, job-embedded and ongoing professional development (Meles, 2011).

Another example is the "Cooperative Professional Development" model. According to

Glatthorn (1995), this model promotes the professional growth of teachers through professional

dialogue, curriculum development, peer supervision, peer coaching and action research. Some

researchers like Villegas-Reimers (2003), Díaz-Maggioli (2004), and Wilde (2010) also support

the idea that teacher professional development programs should "engage teachers in reflective

and collaborative work" and "include teachers' skills, knowledge, and experience" (Giraldo,

2014, p.64).

According to Guskey & Kwang (2009), although the teacher is the subject of the teacher

professional development, teacher professional growth is not just to pursue teachers' own

achievements, but to benefit students directly through improved and innovative teaching

30

approaches. Students' academic achievement is the main focus of professional development. Therefore, it must have a clear policy and goals as guidelines for content selection, planning activities, and evaluation basis.

Researchers have noted a paucity of rigorous studies that directly assess the effect of in-service teacher professional development on student achievement (Yoon et al., 2007). In a status report of teacher development in the US and abroad, researchers find that in a meta-analysis of 1,300 research studies and evaluation reports, only nine of the studies were methodologically strong (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). The identified studies employed experimental and quasi-experimental designs using control groups with pre- and post-test data to evaluate impacts of professional development on student achievement. Despite the difficulty of establishing the effect of teacher professional development on student achievement, it has been suggested that "teacher professional development is essential to efforts to improve our schools" (Borko, 2004, p. 1), and studie**s** indicate that providing professional development to teachers has a moderate effect on student achievement (Borko, 2004; Yoon et al., 2007). As a result, there is a perennial call for high quality professional development. Unfortunately, there is a shortage of coherent active learning with collective participation, sufficient duration, and focus on content knowledge (Yoon et al., p.1).

More alarming is the shortage of intensive professional development in specific content areas. In a study of professional development in mathematics, Birman et al. (2007) note that teachers averaged 8. 3 hours of training on how to teach mathematics and even fewer hours on "in-depth" study during a school year. The study results showed that few teachers receive sustained and intensive content-focused professional development.

Research on the relationship between teacher professional development and teacher practices suggest that teachers who take part in curriculum-focused professional development are more likely to report using a variety of the instructional methods. (Barrera-Pedemonte, 2016). Furthermore, it has been suggested that, in order to modify and improve teaching practices, teachers must be provided opportunities for professional development (Meles, 2011)

In a study that examined the contribution of high-quality teacher professional development (TPD) to the strategies teachers report using to improve students' learning in the classroom, author Barrera-Pedemonte (2016) found that teacher professional development delivered with greater levels of teacher collaboration, active learning and longer duration increased the likelihood of teachers using a large number of the strategies learned in professional development. In this study, the researcher used data from the Teaching and Learning International Survey (TALIS) 2013, a survey provided by teachers from 35 countries and economies, to examine whether high-quality teacher professional development relates to reported teaching practices. The quantitative study addressed the question of whether professional development focused on subject matter, and delivered with greater degrees of collective participation, active learning, collaboration and longer duration relate to the classroom teaching practices reported. Using a school fixed-effects ordinal regression model (Field, 2012), the study found that high-quality professional development is widely associated with the likelihood of teachers reporting a variety of teaching methods across a considerable number of countries and economies. According to the researcher, the study results suggest "that the higher the exposure of teachers to high-quality professional development, the greater the chances are that they report using a wide variety of methods in the classroom." (p 14). This implies that professional

development has a positive effect on teacher pedagogical practices. If that is the case, it seems logical, then, to assume that improving the conditions for supporting the development of teachers' writing pedagogy capacities in schools will impact the teaching they provide for their students and, ultimately, student achievement. It should be noted that some researchers have examined the effectiveness and adaptability of professional development when a program is delivered across a range of typical settings and when it is delivered by multiple trainers (Wayne et al., 2008). Such researchers note that professional development, when delivered in conducive settings by the designers of the professional development, can have a positive impact on student achievement. However, there is little empirical evidence on the effectiveness of PD when it is delivered in a range of typical settings by multiple trainers. Wayne et al. (2008) note that many of the studies on PD involve a small number of teachers ranging from 2-44 who are often clustered in a few schools. Also, the developers of the PD typically present it to the teachers. Wayne et al. (2008) identified such studies as efficacy trials as opposed to effectiveness trials. According to the authors, efficacy trials are studies which take place under conditions that are conducive to getting an effect. Effectiveness trials, on the other hand, deliver a test or an intervention in the full range of settings in which it is designed to work.

This comparative study examines three empirical studies to examine the effect of content focused writing professional development for teachers and its effects on teacher practice and student writing achievement.

2.2. Theoretical Framework

This proposed study is based on two theoretical frameworks. First, the study is based on the socio-cultural theory of writing as a communicative process. As stated by Pritchard and

Honeycutt (2005), this theory that emerged in the 1970s is attributed to the seminal works of researchers like Peter Elbow (1973), Janet Emig (1971), and Donald Graves (1983). Within this theory, writing is conceptualized as a complex, individualized and mentally recursive process requiring strategic decision-making (p. 277). The theory also asserts that teaching writing demands the control of both the craft of teaching and the craft of writing, neither of which can be separated from the other (Graves, 1983). In spite of this, few studies focus on teachers' identities as writers in school (Cremin & Baker, 2014). Although Graves' work was initially characterized as mainly anecdotal and unsystematic, it prompted a lot of debate and practice regarding teachers using their compositions as teaching tools. Some scholars argue that as teachers develop their confidence as writers and model writing in class, their attitudes toward teaching writing improve. Others suggest that teacher enthusiasm for writing motivates student writers, and some assert that when practitioners demonstrate writerly behavior and share their compositional challenges, younger writers benefit (Cremin & Baker, 2014).

The second framework guiding this study conceptualizes professional development as teacher learning that results from extensive and sustained externally-provided and job-embedded activities aimed at increasing teachers' knowledge and changing their instructional practice in ways that support student learning (Wei et al., 2009). Thus, professional development represents a range of experiences that may result in professional learning, and it is deemed most effective when it is based on sustained, extensive and "concrete tasks of teaching, assessment, observation and reflection" (Darling-Hammond & McLaughlin, 1995, p. 598). In a study that compared three types of support for teacher learning, researchers Saxe, Gearhart, and Nasir (2001) observed that teachers who were engaged in sustained, collaborative professional development that specifically

34

focused on deepening their content knowledge and instructional practices experienced higher

increase in student achievement. The three types of support included traditional professional

development workshops, a professional community-based activity which offered support to

teachers using new curriculum units, and an intensive and sustained learning model which

directly engaged teachers in learning the content, mathematics, in the new curriculum, as well as

facilitating discussion around pedagogical content knowledge necessary to teach the units. The

researchers found that students whose teachers participated in an intensive learning model,

known as the Integrated Mathematics Assessment Approach (IMA), showed the greatest gains in

conceptual understanding.

Similarly, in a study to measure the effectiveness of a yearlong professional development

in-service program centered on teacher inquiry, researchers found that program teachers'

students clearly performed better on multiple measures of academic achievement than

comparison students (Singer & Scollay, 2006). Using an inquiry model, the program aimed to

increase teachers' understanding of writing pedagogy and improve their application of writing

pedagogy in the classroom. To assess the effectiveness of the program, researchers used a quasi-

experimental design comparing 7 program teachers and their intact classes to a carefully matched

set of 7 nonparticipating teachers and their students. Analysis of student writing in a nationally

scored assessment demonstrated that program group students' overall achievement increased

more than comparison students'. These studies illustrate the importance of sustained, content-

focused professional development for changing practice in ways that ultimately improve student

learning (Wei et al., 2009).

2.3. Summary

While research in writing has focused upon writing strategies, little research has examined the effect of professional development on teachers' pedagogical and content knowledge of writing. This review of the literature has examined theoretical models of writing and writing instruction, models of teacher professional development and studies of content specific professional development. Based on the concept of the teacher as the primary agent in effecting increased student academic achievement, the section on teacher professional development examined models of professional development, as well as studies describing how staff development programs contribute to teacher change. The literature review will assist in formulating the methodology employed in Chapter III.

CHAPTER III-METHODOLOGY

3.1. Introduction to Case Studies

A case study is an in-depth examination or investigation of a single case such as an event, process, program or several people, often undertaken over time (Creswell, 2014; Goodrick, 2014; Stake, 1995), while a comparative case study covers two or more cases in a way that produces more generalizable knowledge about causal questions – how and why particular programs or policies work or fail to work (Goodrick, 2014).

This comparative study is guided by the principle that, whereas professional development of teachers has yielded limited increase in student academic achievement (and various studies have examined the various strategies for teaching writing), it is likely that skill- specific professional development, such as writing programs for English teachers and teachers of writing, with close monitoring of implementation and coupled with teacher practices, will result in an increase in student academic achievement in writing. Essentially, this means that, when teachers undergo continuous professional development in writing, become writers themselves and also implement the strategies they learn in professional development in their classes with integrity, using their own practice as models for students, then students are more likely to learn how to become better writers. As students learn to become better writers, schools will experience increased student achievement.

Research suggests beginning writers require teachers who are knowledgeable about the different ways writers learn and use the craft of writing (Fisher & Frey, 2003; Fisher, Frey, Fearn, Farnan, & Petersen, 2004). Additionally, teachers of novice writers need to know "how to scaffold instruction to ensure that students learn to write" (p. 2). While studies suggest the

effectiveness of teacher education and professional development on teacher capacities and student achievement (Darling-Hammond, 2000; Fisher & Frey, 2003; Fisher et al., 2004), the effect of writing-centered professional development and teacher practices, specifically as they relate to student writing achievement, has not been an area of particular focus. In this study, three cases are presented in which researchers examine the effect of writing-centered professional development activities on teachers' practices and the effect on student learning and achievement.

Case Study one, identified as the "Alabama Study" examined the effect of English Secondary school teachers' participation in an ongoing writing-centered professional development program. In this case, the teachers own practice and their ways of organizing their classrooms were examined in relation to their students' writing achievement. This case is distinct because it seems to make a case for the need for teachers of writing to be writers themselves. Another distinct trait of this study is that writing samples were scored at a national scoring conference by a team of professional writing teachers. As the scorers used a multifaceted scoring rubric carefully selected and revised for specificity by a panel of experts on the teaching of writing.

Case Study two, identified as "Developing successful writing teachers" examined the effect of a ten week research-based professional development program on teachers' attitudes towards writing. Using pre- and post-workshop surveys, this study aimed to examine teachers' perceptions of themselves as writing teachers and their perceived competence as writers and writing instructors. This case study is distinct in that it specifically measures the extent to which teachers' feelings of competence as writers and writing instructors improved after they completed ten weeks of professional development workshops.

Case Study three, identified as "Doing things differently" examined the effect that an inquiry model staff development focused on writing had on student writing performance. Using student achievement data as a baseline, study three provides deeper perspectives on the effect of professional development on teachers' pedagogical and content knowledge of writing. A distinct trait of this study is that researchers drew on data from several sources to study teacher growth in knowledge and practice.

3.2. CASE STUDY ONE-ALABAMA STUDY

Whyte, A. (2008). Alabama Secondary School English Teachers' National Writing Project Participation and Own Writing in Relation to Their Organization of the Classroom and to Student Achievement in Writing. National Writing Project.

In this study, the researcher (Whyte, 2008) used a quasi-experimental design in order to examine the effect of teachers' ongoing participation in professional development activities on the teachers' own writing and their organization of classroom environment in relation to their students' achievement in writing. The study describes teachers' self-reported own writing, their ways of organizing the classroom as an environment for students' development as writers and their on-going involvement in writing focused professional development, in relation to their students' achievement in writing. The researchers were guided by six research questions relating to teachers' pedagogy, content knowledge and student achievement.

1. Do teachers participating in PD report more extensive writing lives than comparison teachers?

2. Is a teacher's participation in PD associated with students' achievement on measures of non-routine aspects of writing?

39

3. Are teachers reported writing lives associated with students' achievement on measures of non-routine aspects of writing?

4. Is a teacher's participation in PD associated with their reported use of complex instructional methods and materials for teaching writing?

5. Is the reported use of complex instructional methods and materials for teaching writing associated with student's achievement on non-routine aspects of writing?

6. Does a teacher's level of ongoing professional development predict students' achievement on measures of non-routine aspects of writing? (Whyte, 2008, p. 3).

The researchers (Whyte, 2008) conducted a quantitative study and used an experimental method with a comparison population to determine the effect of the professional development activities on teachers' practices and student achievement.

The participants for this study were 32 public secondary school English teachers in the state of Alabama and 477 students in these teachers' participating classes. Participants included 17 program teachers and 15 comparison teachers who taught grades 7-12. As stated by the researcher, study program participants were closely matched with comparison teachers based on several criteria, such as grade and track level of participating classes, information provided by school principals and principals' evaluation of teachers as "typical" or "outstanding" teachers of writing in order to provide a basis for comparison.

Researchers (Whyte, 2008) collected two samples of each student's writing to directly assess growth in writing achievement during the year of the study. The first writing test was administered October-November and then students were tested again in late April. Surveys were administered to teachers and students to measure teachers' writing life and teacher practices.

Both surveys were designed and adapted based on the National Writing Project guiding principles. The teacher survey took 60 minutes to complete, while the student survey took 30 minutes to complete.

Student writing was scored nationally and independently of researchers in order to ensure technical rigor and credibility. The scoring used a version of the Bellamy's Six + 1 Trait writing model (Wyhte, 2008) modified by a national panel of experts on student writing, along with senior National Writing Project Researchers. Writing samples were then scored at a national scoring conference. Scorers participated in six hours of training at the beginning of the conference where their scoring was calibrated to a criterion level of performance. The scoring was also recalibrated after every major break in the scoring to ensure reliability and consistency.

Data were analyzed using descriptive and inferential statistics. Repeated measures analysis of variance (ANOVA) analyses were conducted to examine the effect of PD affiliation on students' achievement in writing and 2x2 repeated-measures analysis of variance was used to examine students' average end of year writing scores. Correlations among variables were examined to explore whether PD affiliation were associated with teacher classroom practices and writing life. The researchers (Whyte, 2011) also employed a regression model to determine the extent to which process writing instruction predicted the students' holistic score.

The research findings (Whyte, 2011) suggest that teachers' writing lives, teachers' organization of the classroom to support writing as an uncertain and recursive activity and teachers' ongoing participation in professional development activities are strongly associated with student achievement. As predicted, there was a strong positive correlation between ongoing PD participation and teachers' writing lives and a significant interaction effect between the

41

writing lives of the teachers who participated in the study and their students' achievement in writing. The participating professional development teachers reported that they wrote more extensively than comparison teachers reported and all students of participating teachers had increased achievement in writing. There was, however, no significant relationship found between teachers' professional development affiliation and teachers' use of a range of methods to teach writing.

This study (Whyte, 2011) examined the effect of teachers' on-going involvement in writing focused professional development activities on the teachers' writing lives and pedagogy and the impact on students' writing achievement. Identifying the extent to which on-going professional development of teachers of writing and the teachers' own writing practice impact student achievement is potentially powerful information for change in the nature and duration of professional development activities for teachers of writing.

3.3. CASE STUDY TWO-DEVELOPING SUCCESSFUL WRITING TEACHERS

Bifuh-Ambe, E. (2013). Developing successful writing teachers: Outcomes of professional development exploring teachers' perceptions of themselves as writers and writing teachers and their students' attitudes and abilities to write across the curriculum. English Teaching: Practice and Critique, 12(3), pp. 137-156.

Although it has been established that writing is a complex, recursive and difficult process (Graham and Perin, 2007), students are expected to engage in this process for communication with various audiences and for various purposes. Since student achievement has been linked to teacher practice (Bifuh-Ambe, 2013), researchers have argued that student achievement in

writing is the outcome of quality teaching of writing (Limbrick et al., 2010). It has also been argued that professional development can foster teachers' writing proficiency and in turn improve students' writing achievements (Bifuh-Ambe, 2013).

In this study, the researcher (Bifuh-Ambe, 2013) did not indicate research questions. However, the purpose of the study was three-fold. The study examined (a) elementary teachers' attitudes towards writing instruction and their perceptions of themselves as writers, (b) the teachers' perceptions of their students' attitudes towards writing and (c) the extent to which teachers' feelings of competency as writers and instructors of writing improved after participation in ten weeks of research-based professional development workshops.

This study was designed as a mixed methods study. Researchers (Bifuh-Ambe, 2013) administered pre- and post- workshop surveys with Likert scale-type questions and open response questions to teachers in addition to classroom observations and examination of students' writing portfolios to monitor the quality of student writing over the course of a semester.

Professional development was provided within the context of a partnership between a local university and a school district. Sessions began after teachers had turned in pre-workshop surveys. The sessions were a total of ten sessions distributed over a period of ten weeks, each session lasting 2 hours. Eight of the sessions involved facilitators demonstrating different aspects of the writing process. Sessions followed a general pattern with facilitators demonstrating skills and teacher participants writing and sharing their work in small groups. The last two sessions focused on strategies that could be used to scaffold the writing development of struggling students (Bifuh-Ambe, 2013).

28 participants from four elementary schools signed informed consent forms to participate in the study; however, only twenty-one (n=21) completed the pre- and post- workshop surveys. All four elementary schools in the district were low performing and had been identified for improvement based on the state's English Language Arts standardized assessment (Bifuh-Ambe, 2013).

Participating teachers were administered pre-workshop surveys before the start of the 10 week professional development. The paper and pencil survey was administered anonymously with participants' identities concealed. Participants selected unique nicknames and identifying numbers so that pre- and post-workshop data could be matched. Part one of the survey contained 33 discreet items while part 2 had a total of 22 questions/prompts (Bifuh-Ambe, 2013).

The survey data were analyzed using univariate analysis to compare pre- and post-workshop responses. The data were analyzed to determine changes in workshop participants' attitudes based on the three stated study purposes. A Fisher Exact Probability Test ($p < .05$) was used to determine statistical significance in pre- and post- survey responses (Bifuh-Ambe, 2013).

The open-ended narrative responses were analyzed and coded to exact themes that emerged from the responses. The researcher (Bifuh-Ambe, 2013) categorized the themes based on the frequency of responses. Emerging and disappearing categories that occurred pre- and post- workshop were noted and provided the researcher a deeper understanding of participants' perspectives.

Overall, results of this study (Bifuh-Ambe, 2013) indicate an increase in teachers' positive attitude towards writing, with a post workshop percentage of 93% from a pre-workshop percentage of 88.87%. However, despite an improvement in participants' general attitude

44

towards writing, there were negative shifts in participants' ability to perform specific domains of writing, such as revising and editing. Teachers' perceived ability to generate ideas as well as teachers' ability to give feedback shifted negatively, their feelings of competency to collaborate during the writing process and their control of writing all experienced a negative shift. Another negative shift noted by the researcher involved teachers' perceived ability to motivate students to write.

Despite some seeming contradictions and inconsistencies, the results of this study are significant as they reinforce the notion that writing is a complex process requiring skills in many domains (Graham & Perin, 2007; Limbrick et al., 2010; Bifuh-Ambe, 2013). It contributes to the body of study on writing pedagogy and teacher professional development as it highlights the need for teachers to feel competent in their use of the different writing processes in order to effectively help their students become proficient writers (Limbrick et al., 2010). The study is also significant in that it shows that professional development can help teachers develop their writing abilities, while improving their competence as writing teachers.

This study (Bifuh-Ambe, 2013) is relevant to educational leadership as it reinforces existing literature that suggests that professional development workshops need to be offered for longer periods. It also suggests the need for professional development that addresses the specific needs of teachers and their student population, as opposed to simply offering generic content.

3.4. CASE STUDY THREE-DOING THINGS DIFFERENTLY

Limbrick, L., Buchanan, P., Goodwin, M., & Schwarcz, H. (2010). Doing Things

Differently: The Outcomes of Teachers Researching Their Own Practice in

Teaching Writing. *Canadian Journal of Education*, *33*(4), 897-924.

In this study, the researchers (Limbrick et al., 2010) investigated whether teachers' pedagogical and content knowledge of writing would increase as an outcome of a professional development model in which teachers took a research lens to their practice to raise their students' writing achievement. Although not explicitly stated, the implied research questions appear to be the following. Do teachers' pedagogical and content knowledge of writing increase when teachers examine and refine their practice through professional development? Do teachers who engage in professional development using the inquiry process raise students' writing achievement?

This study (Limbrick et al., 2010) was a two year mixed-methods study. The researchers designed a professional development inquiry model in which teachers researched their own practices in teaching writing as the framework for the study. As stated by the researchers, a major aim for the study was to enhance teachers' knowledge about the principles and practices of effective pedagogy for writing to raise student achievement in writing. Prior to the start of the project, researchers conducted school cluster-wide professional development workshops aimed at helping teachers develop a meta-language with which to interrogate students' writing and their own practice. Participants were taught to use writing exemplars as benchmarks to analyze students' use of writing features, such as grammatical and critical thinking skills. In addition, teachers were supported through the inquiry process. In this process, teachers were afforded opportunities to reflect on their own backgrounds and belief structures to identify their own strengths and needs as suggested by close examination of their students' achievement. Other components of this professional development framework include school based meetings, professional learning circles and interschool meetings. The researchers held school-based

46

meetings in each school twice in each of the four quarters or terms of year one of the study and

once a term in the second year. Researchers worked with teachers to set goals for student

learning based on analysis of student writing achievement and each teachers' student population

needs. In addition, the teachers and literacy leaders established professional learning circles

within each school where teachers were able to reflect on data and their own teaching practice,

consider student outcomes, examine research literature and interrogate challenges and successes.

Finally, on four occasions in each year, the researchers met with the teachers and literacy leaders

from all schools across the cluster as a whole group. At these meetings, teachers discussed their

foci, teaching developments, concerns about student achievement, the writing process and

pedagogies for writing.

Study participants were purposely selected from six low socioeconomic urban elementary

and middle schools whose students "were disproportionately represented in schools reporting

low achievement" (Limbrick et al., 2010, p 5). In each school year of the study, 20 teachers

(N=20) and their students participated in the study. Researchers invited one teacher of grades 4,

5 and 6 from each school and then one grade 7 and one grade 8 teacher.

Data collection was continuous and the researchers drew on data from several sources. To

examine growth in teachers' knowledge of writing and writing pedagogy and to learn whether

changes in student learning occurred, researchers used data from various sources such as field

notes, reports and meeting transcripts. Student writing was assessed using a nationally developed

and standardized writing assessment tool (Limbrick et al., 2010). The tool analyzes cognitive

aspects of writing and the conventions of writing. Teachers administered the assessments tasks to

students at the beginning of each school year. Teacher growth was assessed through the

following:

1. Goal Recording Templates-All teachers completed a template recording their goals and action plans based on identification of their students' strengths and needs in relation to the teacher's strength and needs. These templates were discussed at in-school meetings and filed as part of a teacher's portfolio.

2. Field Notes- The researchers recorded field notes from school based meetings with teachers. These notes included key ideas discussed, recommendations for refining classroom practice, and reflections on teachers' teaching.

3. Literacy Leaders Reports- Twice a year, literacy leaders gave milestone reports that summarized changes in pedagogical practice, student achievement, and engagement of teachers in professional learning circles.

4. Transcripts from inter-school meetings-Researchers recorded focused discussions. Each two hour meeting was audio recorded in its entirety for analysis.

Researchers analyzed collected data using a constant comparative analysis (Limbrick et al., 2010). In this iterative and recursive process, initial codes are subsequently coded and constantly compared to develop and define their properties. The researchers then sorted the codes into coherent patterns of themes. The themes related to three areas:

a) Understandings of writing and writing pedagogy;

b) A meta-language for writing in teacher discourse in professional forums;

c) Reflective statements indicating the impact of research and resources on the teaching of writing.

The writing assessment was analyzed by a research assistant, a teacher trained in the

marking of samples. Then the research team rescored a 10 per cent sample of the marked writing. Discrepancies in scoring of more than one sublevel were rescored and moderated until a consensus was reached.

The findings (Limbrick et al., 2010) suggest that teacher content knowledge and pedagogy were enhanced when the teachers adopted an inquiry stance. Teachers developed a meta-language to discuss writing and articulate a rationale for their pedagogical approaches. In addition, there was evidence of some gains in student writing achievement, with students in grades 4 through 6 making greater gains than expected for their normative cohort. However, the data revealed a lack of equivalent progress for students in grades 7 and 8 in two of the schools. It is suggested that other factors such as ongoing organizational and leadership problems at those sites may have affected the student outcome.

As noted by the researchers, a limitation of this study involves the use of some self-reported data. Researchers also acknowledged that teacher-espoused beliefs, and reports about their practice are not necessarily a reliable indication of teacher beliefs and practices in action. Additionally, researchers were cautious about attributing increased gains in student achievement solely to the inquiry stance professional development.

Teachers need to see their practice as integral to student achievement (Limbrick et al., 2010). This study is significant because it demonstrates how insights into processes of teaching and learning of writing enabled teachers to interrogate and problem solve their own practice. This study has implications for the need for professional development in pre-service and in-service teacher education so teachers can acknowledge that if a student is not learning, the reason may lie in their teaching.

3.5. Summary

The purpose of this comparative case study was to present and examine evidence

that suggests teachers are instrumental to increasing student achievement in writing. Therefore,

teachers of writing should undergo continuous in-service professional development and also

become writers themselves. The three studies examined in this study reiterate the notion that

writing is a complex and recursive task that is challenging to both teachers and students alike.

Each of these studies presents significant evidence to suggest that teachers need to engage in

writing focused professional development to enable them to acquire the pedagogical and content

knowledge necessary to teach writing (Limbrick et al., 2010). Examining the three studies also

seemed to uncover the importance of duration in professional development. In the ten week

professional development study, teachers' post-workshop responses suggest that professional

development activities need to be offered for extended periods, as seen in the other two studies.

The researcher suggested that year-long PD duration may be required for teachers to effectively

learn new classroom practices for implementation. Based on these three studies, there is

considerable evidence that supports the notion that teachers of writing need to be writers

themselves. Teachers must feel competent as writers and writing teachers to provide instruction

and modeling for students. Teachers should engage in the writing process since their premises

and practices are grounded in their experiences as authors (Whyte, 2008). Knowing the type and

nature of professional development and teacher practice that deepens teachers' pedagogical and

content knowledge of writing is a potentially powerful resource to combat the chronic

underachievement of students in writing. Educators need to be cognizant, not only of the

importance of writing focused professional development, but also the nature and duration of

50

professional development and the importance of teachers' writing lives on their teaching.

In chapter four, comparative analysis of all three studies was conducted in order to identify common themes, outcomes and findings in the three cases. A summary of each case study was presented, followed by a detailed descriptive presentation of the components of an empirical study as presented in each study. Using the "classic" comparative approach (Walk, 1998), the researcher identified the similarities and differences in the studies and conduct an in-depth cross analysis of each component to identify strengths and weaknesses. The chapter concludes with a presentation of emerging themes and findings.

CHAPTER IV-COMPARATIVE ANALYSIS

4.1. Introduction

The three studies chosen to examine the potential positive effect of professional development on teachers' pedagogical and content knowledge of writing and the impact it has on students' writing achievement present significant evidence to suggest that teachers need to engage in writing focused professional development to enable them to acquire the pedagogical and content knowledge necessary to teach writing (Limbrick et al., 2010). Each study provided a unique perspective and assists in illustrating the impact of content specific professional development and teacher writing practices on student writing achievement. Researchers in each of the three studies found that, when teachers engage in writing specific professional development, their pedagogy and content knowledge of writing were enhanced. The studies also suggest that when teachers engage in writing focused professional development, which enables them to acquire the pedagogical and content knowledge necessary to teach writing (Limbrick et al., 2010), student writing achievement increased. In this chapter, the investigator conducted a thorough and comprehensive comparative analysis in order to identify common themes, outcomes, and findings of the three cases. While all three case studies chosen were conducted in a K-12 setting, each one presents a different perspective by focusing on a stage in the K-12 level of the educational system. All three cases studies addressed student population from the elementary school setting to the secondary school setting.

The study by Bifuh-Ambe (2013) titled "Developing successful writing teachers: Outcomes of professional development exploring teachers' perceptions of themselves as writers and writing teachers and their students' attitudes and abilities to write across the curriculum" was

conducted in an elementary school setting. As stated by the Bifuh-Ambe (2013), it is critical that

teachers provide effective instruction to students in the elementary grades because this is the

stage when students "begin to experience difficulties in learning to write and use writing to learn

content across the curriculum" (p. 1). The study examined the effect of a ten-week research-

based professional development program on elementary teachers' attitudes towards writing.

Using pre- and post-workshop surveys, this study aimed to examine teachers' perceptions of

themselves as writing teachers and their perceived competence as writers and writing instructors.

A distinct characteristic of this study is its focus on attitudes and feelings through measurement

of the extent to which teachers' feelings of competence as writers and writing instructors

improved after they completed ten weeks of professional development workshops. Another

distinct feature of this study is that it also examined teachers' perception of their students'

attitudes towards writing.

Limbrick et al. (2010) expanded on the population in the previous study to include

teachers of students from elementary school, grade four through middle school grade eight. In

their study titled, "Doing things differently: The outcomes of teachers researching their own

practice in teaching writing", the researchers examined the effect that an inquiry model staff

development focused on writing had on students' writing performance. Using student

achievement data as baseline, their study provides deeper perspectives on the effect of

professional development on teachers' pedagogical and content knowledge of writing. In

addition to expanding the student population range, a distinct trait of this study is that researchers

drew on data from several sources to study teacher growth in knowledge and practice.

Furthermore, the researchers noted that student achievement levels in writing were of particular

"concern for schools in low socio-economic urban areas" (p.898). Therefore, the study was conducted in six low socio-economic urban schools.

Researcher Alyson Whyte (2008) in a study titled "Alabama secondary school English teachers' national writing project participation and own writing in relation to their organization of the classroom and to student achievement in writing" examined the effect of English Secondary school teachers' participation in an ongoing writing-centered professional development program. In this study, researchers examined 32 high school teachers' practice and their ways of organizing their classrooms in relation to their students' writing achievement. This case is distinct because it seems to make a case for the need for teachers of writing to be writers themselves. Another distinct trait of this study is that writing samples were scored at a national scoring conference by a team of professional writing teachers. The scorers used a multifaceted scoring rubric carefully selected and revised for specificity by a panel of experts on the teaching of writing.

The analysis presented in this chapter was organized using the major components typically employed in studies. First a description of each major component as presented in each study is described. This is followed by a cross analysis of each component in order to identify themes, similarities and differences and present the strengths and weaknesses of each.

4.2. Research Study Design

The researchers for the three studies used in this comparative analysis utilized research designs that they deemed appropriate for their respective studies.

Developing successful writing teachers.

Bifuh-Ambe (2013) utilized a mixed method, quasi-experimental, non-probability

research design to examine the impact of teacher's professional development on the quality of students' writing. The mixed methods design was also used to examine the teachers' attitudes about writing, their perceptions of themselves as writing teachers and the extent to which these attitudes and perceptions improved after professional development. The study was the result of a partnership between a school district in Central Massachusetts and the local university. Participants from the school district were selected through the homogenous purposive sampling method. They were selected based on their affiliation with "schools that had been identified for improvement based on the English Language Arts (ELA) 2008 Massachusetts Comprehensive Assessment System (MCAS) standardized test results" (p 139). Data from the assessment showed that writing was a priority area. For example, subject area sub-scores indicated that in the category of "Open-Response" item type, students attained only 19.5% of all possible points and only 13.7% of all possible points in the "Writing Prompt" item type (Bifuh-Ambe, 2013). The study duration was 10 weeks. Over the 10-week period, participants attended a weekly two-hour professional development session conducted by three facilitators from the local university. Participants also had to attend three mandatory pre-workshop meetings where they met with the workshop providers to identify critical issues and share knowledge about strategies that would be used in the workshop. Information obtained at these sessions was used to determine the focus of the workshop sessions. Participants were administered paper and pencil pre and post workshop surveys. In addition, classroom observations were conducted and students' writing portfolios were collected to examine the quality of the students' writing over the course of study. To ensure anonymity of participants, they were asked to select unique nicknames and identifying numbers so that pre and post workshop surveys could be matched. To further strengthen the study design,

an independent consultant conducted an evaluation of the PD at the end of the study. Participants had the option of completing the end of program survey online or by paper and pencil.

Doing Things Differently.

This study was situated within the context of a partnership between the schools and university researchers. The researchers in this study utilized a mixed-methods, quasi-experimental design. Authors Limbrick, Buchanan, Goodwin and Schwarcz (2010) selected six "primary" schools housing elementary through middle school students as the study sites. The schools were located in a low socio-economic urban area in southern Auckland, New Zealand. Participants for this study were selected using the purposive sampling method. In each year of the study, where available, each school had a teacher from grades 2, 4, 6 and 8, making a total of 20 teachers (n=20). In the first year of the two-year project, study participants engaged in an inquiry professional development process that required the teachers to reflect on their own backgrounds and belief structures and identify their strengths and weaknesses based on students' achievements (Limbrick et al, 2010). In the second year, teachers from the first year continued the inquiry process in their class and became mentors to a new set of teachers of similar grade levels. Data to examine growth in teachers' knowledge of writing and pedagogy, and growth in student writing achievement were collected from several sources, such as field notes, reports, discussion transcripts and student achievement on standardized testing. Baseline data were obtained at the beginning of each year.

Alabama Study.

This study was designed as a quantitative, quasi-experimental, non-probability study. In this year-long study, 32 public secondary school English teachers and 477 students in these

56

teachers' classes provided data to examine the effect of teachers' ongoing professional development, their practice as writers, and classroom organizational methods on students' writing achievement. Teacher and student surveys were administered to participants. Two samples of students' writing were also collected from each student to measure growth in writing achievement. This study was situated in the state of Alabama, which according to the researcher had a "high proportion of students from low-income households" (p 11). The study also reported that only 21% of the students in the state of Alabama had scored proficient in writing on the NAEP assessments (Whyte, 2008), thereby making it a suitable location for the study. Although this was a quantitative study, participants were selected using non-probability purposive sampling.

4.3. Comparative Cross-Analysis of Study Design

As stated by Walk (1998), a comparative analysis seeks to compare two or more things that are similar but also have some crucial differences. In this section, an argument is made about the similarities and differences in the study designs, along with the implications of these similarities and differences. Of the three studies presented, two studies utilized a mixed-methods research design, while one study utilized a quantitative research design. According to Creswell (2014), a quantitative approach is one in which the investigator primarily engages in the measurement of specific variables. The researcher collects data on predetermined instruments that yield statistical data. A mixed-methods design combines the quantitative approach of numeric data collection and the qualitative approach of exploring through open-ended questions to understand the meaning that individuals bring to a problem. Data are provided as a narrative and are gathered through means such as interviews and observations (Creswell, 2007). Limbrick

et al. (2010) and Bifuh-Ambe (2013) built strength into their studies by using the mixed-methods case study approach, which allowed them to combine qualitative and quantitative methods of data collection and analysis. Alyson Whyte (2008), on the other hand, used the quantitative approach in the Alabama Study. A strength of this design is the measure of objectivity achieved through the statistical data analysis. Another area of strength in the study designs is the duration of the studies. The study by Limbrick et al. (2010) was conducted over a 2 year period, during which study participants took an inquiry lens to their practice. The study used student achievement data as a baseline. Likewise, the study by Whyte (2008) was a year-long study where study participants were engaged in ongoing National Writing Project professional development activities. The study also utilized a quasi-experimental design and analyzed teachers' responses in relation to students' writing over a 2 to 6 month period. The study by Bifuh-Ambe (2013) also lasted a period of ten weeks. During this period, the participants engaged in a professional development workshops that met once a week for two hours. The study utilized pre and post workshop surveys to measure the impact of the PD and also collected students' writing to examine the change in the quality of writing over a semester. A major difference between this study and the other two studies is the length of the study and the professional development. While all three studies took place over an extended period of time, researcher Bifuh-Ambe's (2013) study lasted just ten weeks, while the other two studies lasted one year and two years respectively. This could arguably be seen as a weakness in the design since it has been suggested that professional development should be sustained and continuous for it to be truly effective (Darling-Hammond et al., 2009).

The three studies examined are not without design weaknesses. Limbrick et al. (2010)

and Bifuh-Ambe (2013) both employed a non-experimental design in their mixed methods studies. Consequently, the researchers could not infer a cause-effect relationship between the professional development and the increase in teacher writing knowledge and pedagogy. Neither could they infer a cause and effect relationship between teachers' participation in professional development and student writing achievement. In the Alabama study, researcher Whyte (2008) obtained quantitative data through the use of self-reports by both teachers and students. This could be viewed as a weakness or limitation in her study.

4.4. Study Participants

Study participants are very important to a study and they hold the learning and meaning about the problem or issue (Creswell, 2014). Decisions regarding selection are based on the studies' guiding questions and theoretical perspectives. The participants sampled in a study must be able to inform important aspects relevant to the phenomenon being studied (Sargeant, 2012).

In both qualitative and quantitative studies, an important factor for consideration is the number of participants, or sample size. The number of participants must be appropriate for the goals of the study (Patel, Doku & Tennakoon, 2003). As stated by Patel, Doku and Tennakoon, sample size is especially important in a quantitative study because a sample size too small could produce misleading results, while a sample size that is too large results in a waste of resources. To reduce the possibility of such errors, researchers use a power analysis to identify the adequate size for their study (Patel, Doku & Tennakoon, 2003). The sample size in qualitative research, however, is much smaller and not generally predetermined. The sample size in a qualitative research study is sufficient when additional interviews do not result in identification of new information, otherwise known as data saturation (Sargeant, 2012).

Developing successful writing teachers.

This study was conducted in a school district in Central Massachusetts. Participants for this study were selected from four elementary schools that had been identified for improvement. This was based on the 2008 Massachusetts Comprehensive Assessment System standardized test results, in which 53% of grade four students fell into the Needs Improvement or Warning category (Bifuh-Ambe, 2013). Using purposive sampling, twenty-eight educators from all four elementary schools in the study district signed consent forms to participate in the study; however, only twenty-one participants completed both the pre-and post-workshop data. Therefore, the n for this study was 21 (n=21). All workshop participants were Caucasian females. There were eleven 4th grade teachers, four 3rd grade teachers, four 2nd grade teachers, three 1st grade teachers and one kindergarten teacher. The population also included two reading specialists, two special education teachers and one academic coach, all of whom also taught in the 4th grade. In addition to the teachers, the researcher states that pre-workshop surveys were administered to consenting students of all participants. However, the number of students was not provided. Data from the student survey were also excluded from the study report.

Doing Things Differently.

In their mixed methods study, Limbrick et al (2010) invited teachers from six primary schools situated in a low socio-economic part of southern Auckland, New Zealand. Using purposive sampling, researchers invited one teacher from each of the six schools from grades 4, 5, 6, 7 and 8. Participants also included teachers who were designated as literacy leaders in their schools. Twenty teachers participated in each year of the study (n=20). Participants from the first year acted as writing mentors to the second year cohort. Although data from their classes were

not included in the study, many of the first year participants also continued the inquiry process in their own classes. Unlike the previous study by Bifuh-Ambe (2013), this study does not provide specific details about the sex of the participants or their years of teaching experience.

Alabama Study.

The Alabama study utilized a quasi-experimental, quantitative descriptive design model. The researcher obtained the subjects using a non-probability purposive sampling method. Participants were selected based on their participation in an ongoing National Writing Project (NWP) program. The researcher invited teachers who were affiliated with the National Writing Project and whose contact information was available through the NWP site to participate in the study. Thirty-two teachers of grades 7-12 participated in this study. Of the 32 participants, 17 participated in ongoing National Writing Project professional development activities at three NWP sites in Alabama. The 17 NWP participants were matched with 15 comparison teachers who had not undergone any National Writing Project professional development training. The program and comparison teachers were matched based on the grade level taught and the achievement level taught, such as standard or honors. Teachers of Advanced Placement or self-contained remedial classes were excluded from the study. Of the participating teachers, 28 provided demographic data. Twenty-three of the participants were female and 5 were male. There were 27 Caucasian teachers and one African American teacher. Researchers matched the PD teachers and comparison teachers based on information provided by their school principals. The researchers also selected one class of each of the study participants as part of the study that resulted in a total of 477 students.

4.5. Cross-Analysis of Participants

      Limbrick et al. (2010) and Bifuh-Ambe (2013) both utilized a mixed-methods study design in their respective research, while Whyte (2008) utilized a quantitative research design. Despite this difference, all three studies obtained their samples through purposive sampling. Although not specifically stated in any of the studies, all three studies were purposeful in selecting their study sites and study participants. For example, in the Limbrick et al. (2008) study, the researchers selected schools in a low socio-economic urban area and invited a select number of teachers from predetermined grade levels. In Developing successful writing teachers, Bifuh-Ambe (2013) selected teachers from elementary schools that had been identified for improvement in writing based on the state standardized test results. Likewise, Whyte (2008) developed a set of criteria to identify National Writing Projects sites that were fully implementing the NWP professional development model, and then selected program teachers from qualified sites. Creswell (2014) posits that purposeful sampling helps the researcher to better understand the problem and research questions. The use of purposive sampling in all three studies helps the researchers to achieve the purpose of their study. The researchers in these studies set out to examine aspects of the phenomenon of professional development that is focused on writing and its impact on teachers' pedagogical and content knowledge. They also examined the effect of such professional development on student writing achievement. As a result, they needed to be purposeful in selecting teachers for the study. Purposeful sampling also allowed the researchers to select teachers of low performing students who were willing to undergo professional development. Bifuh-Ambe (2013) sought to examine teachers' attitudes towards writing instruction and their feelings of competency before and after professional

development. As a result, the researcher purposefully selected participants to undergo ten weeks of research based professional development.

An area of weakness in these three studies as it relates to participants is the possible issue of researcher bias. In all three studies, the researchers selected the study sites. In the Alabama study, Whyte (2008) explained some measures taken to avoid sampling error. The researcher identified pristine schools to match high-density NWP schools. This helped to ensure that the two were as alike as possible in the setting, size, free and reduced lunch rates and racial and ethnic composition. The researcher also solicited the opinion of the school principals in identifying matches between the NWP participating teachers and the comparison teachers. However, the study had just 32 teachers altogether and this number could arguably be inadequate for a quantitative study.

Bifuh-Ambe (2013) used twenty-one teachers in the mixed-methods study and noted that all the participants were female of Caucasian descent. This could be seen as weakness in the study as it could potentially impact study results. Similarly, in the Alabama study by Whyte (2008), all the participants were Caucasian with the exception of one. In addition, demographic data were missing on four of the participants. Another notable weakness in Bifuh-Ambe's (2013) study is that it did not specify the participant selection process or the specific criteria used in selecting the twenty-one female Caucasian participants. Limbrick et al. (2010) did not offer any biographical details on their study participants. Neither did they specify the participant selection process. None of the studies provided a report on the return rate of invitation respondents in relation to the non-respondents.

Another weakness common to all three studies is the lack of generalizability of the

sampling technique. While purposive sampling allows the researchers to work with participants who have the information needed to achieve their study purpose, it also makes it difficult to generalize the study findings.

A commonality when considering the study participants is that all were selected through purposeful sampling. All the teachers taught in the K-12 grades and all participants consented to participate in professional development or were already part of a professional development program. This is significant because one could argue that teachers who would be willing to undergo writing specific professional development for a study possess certain characteristics that may impact the results of the study. One could also argue that participants who are interested in writing and undergoing writing professional development are likely to have higher motivation and increased participation.

Another similarity is that the participants taught in schools that were selected from low performing and low socio-economic schools. Limbrick et al. (2010) selected teachers from schools in a low socio-economic urban area, Bifuh-Ambe (2013) selected teachers from four elementary schools that had been identified for improvement in writing and Whyte (2008) selected teachers from a state where 50% of the students qualified for free or reduced lunch and 56% of the students attended Title I schools. In addition, more than 75% of the students performed at basic or below on a national writing assessment (Bifuh-Ambe, 2008).

4.6. Professional Development and Data Collection

In this section, the researcher presented and compared the professional development models used in each of the three studies. The data collection methods used in each of the three case studies was also analyzed in this comparative analysis.

Structured data collection instruments characterize quantitative studies. In quantitative studies, researchers address issues such as the validity and reliability of instruments. Such instruments produce results that are typically easy to summarize, compare, and generalize (Creswell, 2014). Qualitative research involves the use of multiple sources of data such as interviews, observations, and documents. Data are collected in a natural setting sensitive to the people and places under study, and data analysis is inductive and establishes patterns or themes (Creswell, 2007). A mixed methods study combines both qualitative and quantitative approaches in varying ways. Qualitative data could provide impact evaluation of quantitative data by providing information useful to understand the processes behind observed results and assess changes in people's perceptions. Furthermore, qualitative methods can be used to expand or clarify quantitative evaluation findings (Creswell, 2007).

Developing Successful Writing Teachers.

The context of the PD (Bifuh-Ambe, 2013) was a partnership between a school district in Massachusetts and the local university. The State Department of Elementary and Secondary Education, (DESE) set guidelines for the professional development. DESE organized three mandatory pre-workshop meetings to bring the university consultants and the school based educators together. At these meetings, the university partners worked to identify critical issues teachers faced in the district. They also discussed strategies to be used in the sessions. The university partners also met in small group sessions with literacy specialists to discuss existing writing approaches used in the schools. Based on the information gathered at these meetings, the PD facilitators learned that many teachers in the district "used the Writer's Workshop or other process writing approach" (p 140). The researchers decided to focus on refining existing

practices through the workshops.

The PD (Bifuh-Ambe, 2013) was designed as ten sessions distributed over a period of ten weeks. The university partners presented the sessions, which were conducted in a traditional classroom style from 3:30 to 5:30 pm. In eight of the ten weeks, the university facilitators demonstrated aspects of the writing process and in two sessions they presented strategies that could be used to scaffold the writing development of struggling students, English Language Learners and students with special needs. An important aspect of the professional development sessions was the emphasis on participants' writing. At each session, the facilitators demonstrated a skill and then had teacher-participants write using the skill or strategy. The sessions ended with teachers sharing their work.

Data were collected using pre and post workshop surveys. The researchers (Bifuh-Ambe, 2013) used an adapted survey that included Likert scale type items and open response questions. According to the researchers, the qualitative data obtained from the open-ended questions were analyzed to "get more insights into participants' perspectives" for robust factor analyses, given that the sample (n=21) was small (p 141). The pre-workshop surveys were administered after teachers had signed and submitted the consent forms. The surveys were paper and pencil and they were administered anonymously. Researchers felt that, since the study dealt with attitudes and perceived competencies in writing, it was important to conceal the identities of the participants. The participants selected nicknames and identifying numbers that were used to match pre and post workshop survey responses.

Data were also collected through classroom observations and students' writing portfolios. Eight weeks into the training, two facilitators observed two writing lessons at two of the four

schools. Out of six teachers that volunteered, two teachers were observed to examine the extent to which they were implementing target practices. The observers (Bifuh-Ambe, 2013) collected field notes of the visits and also requested that students' written products from the visit should be included in portfolios. The portfolios were collected at the end of the semester.

Another data source utilized in this study (Bifuh-Ambe, 2013) involved the use of an independent consultant hired to evaluate the effectiveness of the workshops. The survey was administered to participants upon completion of the workshops. Participants could complete the survey online using survey monkey. They also had the option of taking the survey through paper and pencil.

Doing Things Differently

Researchers Limbrick et al. (2010) designed a professional development inquiry model as the framework for their study. The researchers assert that teachers' knowledge and confidence about teaching writing increases when teachers engage in professional development that encourages them to question their beliefs and practices. They further assert that teaching based on students' writing and targeted to their needs raises achievement. Therefore, effective teaching requires teachers taking on a research role. As a result, prior to the start of PD, the researchers conducted school cluster-wide professional development workshops on how to use writing exemplars as a formative assessment tool. The authors explained that the English Writing Exemplars were annotated samples of writing in a range of genre and different levels of the curriculum, which were provided by the department of education. In the workshops, the Exemplars were used as benchmarks to analyze students' baseline writing assessments. Workshop participants engaged in moderating and justifying their scores in reference to the

67

curriculum indicators from the exemplars. Researchers argued that this equipped teachers with the meta-language to interrogate students' writing and their own practice.

As part of the PD model (Limbrick et al., 2010), eight school-based meetings were held at each school, two each quarter in the first year of the study. At these meetings, the researchers met with the participants to set goals for their students' learning needs. These goals were based on an analysis of each teacher's students' writing achievement. The English Exemplars were used as reference point to support teacher's assessment of their own students' writing. Teachers used their students' writing in relation to the Exemplars to draw conclusions about their own practice and knowledge about writing and teaching of writing. Teachers were then encouraged to identify next steps for themselves and their students. Teachers were provided a template to document their decisions. Researchers also provided resources such as professional readings and research literature to support teachers' inquiry process.

Another feature of the PD model (Limbrick et al., 2010) was also the creation and use of Professional Learning Circles. In each school, the teachers and literacy leaders established professional learning circles where teachers met to reflect on their teaching practice and data. They also used the PLCs to consider student outcomes and share challenges and successes. A third tier of the PD model involved four cluster meetings. Four times a year the researchers met with teacher-participants from all the schools as a whole group. At these whole group meetings, teachers discussed and shared their insights into the writing process and pedagogies for teaching, their teaching developments, and their concerns in relation to student achievement.

Data were collected from several sources, such as the Goal Recording Templates where teachers recorded their goals and action plans, and field notes from the eight school based

meetings. The researchers (Limbrick et al., 2010) recorded field notes during the school meetings as diary entries or very soon after the meetings. School based Literacy Leaders were also required to submit milestone reports of their Learning Circles twice a year. The reports summarized changes in pedagogical practice, student achievement and the engagement of teachers in professional discussion within the learning circle. Another source of qualitative data was transcripts from the cluster wide meetings. The transcripts recorded focused discussions held inter-school meetings. Data on student achievement were collected through standardized testing. Students were administered a standardized writing assessment at the beginning of each study year to obtain baseline data.

Alabama Study

In this study, the researcher examined the participants' involvement in the National Writing Project (NWP) professional development activities in relation to teachers' practices and their students' achievement in writing. Program participants were pulled from three NWP sites. The NWP professional development model is centered around five core principles, one of which is that teachers of writing must write (Whyte, 2008) Another guiding principle is that in order "to develop professionally, teachers need frequent opportunities to examine research and their practice" (p 4). Each NWP site conducted a four to five week summer invitational institute. The institute incorporated the three elements of teachers themselves writing, demonstration of writing pedagogy and professional reading and study. The researcher reported that the site characteristics varied in the degree of implementation. Each site, however, provided some opportunities for teachers' writing, teaching demonstrations and professional reading and study. For example, at one of the sites teachers had monthly continuity events that involved teacher writing and

examination of school practice. Two sites had writing retreats, teacher modeling, and writing groups. The three sites also had varying program duration. One program was in its first year of operation, a second had been in operation for six years and the last one had been in operation on and off for about two decades.

The researchers used student and teacher surveys to collect data. The surveys were designed by the researchers in conjunction with third party NWP consultants. The teacher survey took about one hour to complete and the student survey took about 30 minutes to complete. Variables assessed through the surveys were Teachers' writing life (six items), Routine, literature focused teaching (four items), process approach (seven items), honors track, NWP affiliation and Affiliation intensity. Two samples of students' writing were collected to assess growth in writing achievement, one at the beginning of the year and the second toward the end of the school year. Scoring and data processing of the writing samples were conducted independently. A modified version of the Six+1 Trait writing model rubric was used to evaluate the students' writing. Six attributes of students' writing were examined, namely Ideas/Content Development, Organization, Voice, Sentence Fluency, Word Choice and Conventions (Whyte, 2013).

4.7. Cross-Analysis of PD Model and Data Collection

The professional development models employed in the three studies present a few similarities and differences. Limbrick et al. (2010) and Whyte (2008) both presented models that reflect the paradigm shift in professional development models. Teachers are required to rethink their own practice as they take on the dual practice of both teaching and learning (Vescio, Ross & Adams, 2008). In both studies, the professional development models integrated teacher learning into communities of practice. Teachers tackled the goal of meeting the educational

70

needs of their students through collaboratively examining their day-to-day practice. For example, Limbrick et al. (2010) utilized professional learning communities that provided teachers an avenue to reflect on student data and their own teaching practice. This feature of examining one's practice is also one of the core principles of the National Writing Program Model used in the Alabama study. Another similar feature in both of these models is the emphasis on the examination of research literature as part of the professional development model. Teachers were expected to read and share professional literature that supported their knowledge about writing and pedagogical approaches. This feature could aide teachers in investigating their own practice and clarifying their goals as writing teachers. Both PD studies presented a departure from the traditional model of professional development. The traditional model was based on the premise that teachers acquire knowledge and expertise generated by university researchers outside of the day-to-day work of teaching and this knowledge presented is usually advocated as a prescription for better teaching (Vescio, Ross & Adams, 2008). The new approach to PD is fundamentally different. This paradigm shift is guided by the notion that the knowledge teachers need to teach well is generated when teachers treat their own classrooms and schools as sites for intentional investigation while working with the knowledge and theory produced by university partners as material for interrogation and interpretation (Vescio, Ross & Adams, 2008). Plainly stated, the university partners and the teachers themselves generated the knowledge and skills shared during professional development. This could be viewed as strengths in these models, as it makes student learning and achievement the focus of professional development.

In Developing successful writing teachers, author Bifuh-Ambe (2013) focused on providing teachers the opportunity "to understand the full spectrum of writing, and help them

71

envision themselves as writers" (p 138). Consequently, in the workshop sessions first the facilitators demonstrated strategies and skills, then the teacher participants wrote using the skills and shared their work in small groups. The focus on teachers' writing to increase their writing competency is also present in the professional development model presented in the Alabama study. This can be viewed as strength in both studies.

On the contrary, the structure of the PD presented by Bifuh-Ambe (2013) can be viewed as a weakness in comparison to the other two studies. The PD approach in Developing successful writing teachers is similar to the traditional approach described by Vescio, Ross and Adams (2008) in their research of professional learning communities. The authors explained that such models of professional development focused on providing teachers with skills and knowledge necessary to be better educators. In this model of professional development, external university researchers present pedagogical and content knowledge and expertise to teachers as a prescription for better teaching (Vescio, Ross & Adams, 2008). This could be perceived as a weakness in the PD design.

Another aspect of this professional development that could be perceived as a weakness is the length of the study. It has been suggested that professional development should be continuous and sustained throughout the school year (Darling-Hammond et al. 2009). In the Bifuh-Ambe study (2013), the professional development lasted for 10 weeks. This contrasts with the other two studies where professional development lasted a longer period of time. Limbrick et al. (2010) conducted their inquiry model professional development as a two-year PD. In the Alabama study participants were pulled from three NWP sites. One of the sites had been conducting PD activities for six years, another one for 23 years. The site with the shortest

72

duration had been in existence for one year. This suggests strength in both designs.

Mixed-methods data collection processes enable researchers to combine quantitative and qualitative data collection. Limbrick et al. (2010) and Bifuh-Ambe (2013) both employed mixed methods in their data collection. The qualitative data obtained by Bifuh-Ambe (2013) strengthened the data as it got the researcher more insights into participants' perspectives. In Limbrick et al (2010), the researchers used multiple sources for data collection. This triangulation of data helps to make the research stronger because it helps control bias and allows researchers to crosscheck data (Creswell, 2007).

In the Alabama study, researcher Whyte (2008) used quantitative data to conduct the study. Quantitative data are generally more easily generalizable, which could be viewed as a strength. Also, the fact that the study was quasi-experimental in design, using a comparison group in data collection, adds to the strength and credibility of the study findings.

4.8. Data Analysis

The data analysis component of all three studies was very brief. Limerick et al (2010) utilized an iterative and recursive method where initial codes were continuously analyzed and constantly compared to define their properties. This method is known as constant comparative analysis (Limerick et al. 2010). The researchers sorted the codes into patterns or themes. Student writing was analyzed using a standardized assessment tool. Scores from student writing was analyzed statistically to obtain descriptive data.

Bifuh-Ambe (2013) conducted univariate analyses of the survey data to compare pre and post workshop responses. A Fisher Exact Probability Test was also used to determine statistical significance between pre and post responses. The qualitative data were analyzed and coded to

discover emergent themes. The themes were categorized according to frequency and the differences between pre and post themes were noted. Researcher Whyte (2008) did not have a data analysis section in the study report. She provided details about the data analysis methods used were sometimes included in the findings section of the study. The findings section suggests the use of descriptive statistical analysis to address the research questions. Repeated measures analysis of variance (ANOVA) was used to examine the effect of teachers' PD affiliation on students' writing achievement and 2x2 repeated measures of analysis was used to examine the effect of teachers' writing life on students' writing achievement. The authors examined the impact of routine, literature focused teaching on writing achievement by conducting a repeated measures within subjects' ANOVA.

Providing details about the data analysis process could lend credibility to a study and make the study findings more valuable to the reader. Limbrick et al. (2010) provided more details of the data analysis method used in the study. This could be viewed as strength in study design. Although not as detailed, Bifuh-Ambe (2008) also provided information about how data were analyzed in the study. As noted above, although Whyte (2008) did not have a data analysis section, information about the data analysis methods was included in the findings section of the study. A commonality with regards to data analysis is that each study employed data analysis methods that enabled the researcher to examine the research problem and answer the research questions. Through data analysis, the researchers were able to address the questions posed in their respective studies.

4.9. Findings

The findings section of a study provides information about the outcome that the study reveals about the situation or phenomenon.

Developing successful writing teachers.

Bifuh-Ambe (2013) uncovered findings that reinforced the notion that writing is a complex and recursive process that requires skills in many domains. Pre survey results indicate that many of the teachers began the PD feeling positive and competent about their writing abilities. The positive attitude towards writing increased after the workshops from 88.87% to 93%. However, there were negative shifts in the participants' perceived ability to perform certain domains of writing and their ability to motivate their students to write. This means that after ten weeks of professional development, teachers' felt less competent. The researcher noted that analysis of the open-ended responses revealed that teachers reported that they had learned several domains of writing and writing pedagogy during the workshops. However, although the teachers had improved their skills in certain areas, many did not feel they could "help students generate ideas, revise, edit or motivate their students to write" (p 151). The researcher suggested that the negative shift may be attributed to the fact that teachers recognized their deficiencies after the training and, therefore, reassessed their abilities to perform and teach these domains of writing. But interestingly, "only one teacher expressed the wish to improve her own writing skills so that she can in turn impact her students' writing proficiency" (p 147). This suggests that teachers do not seem to see a correlation between their knowledge and practice of writing and their students' performance. The researcher also suggested that the negative shift in teachers' perceived ability in certain writing domains could be attributed to the teachers' recognition and

reassessment of the importance of certain domains of writing.

The findings also suggest "that professional development need to be offered for extended periods of time" (Bifuh-Ambe, 2013, p 151). The researcher noted that participants' responses were inconsistent and sometimes conflicting from pre to post survey. This suggested that competency in one or more domains of writing may not engender feelings of competency in others. It also suggests that the teachers needed more time to explore their own writing skills and time to translate the learned skills into effective instructional practices. This finding was also supported by results from the external evaluator survey. The participants felt that they spent too much time writing but not enough time on "discussion about teaching writing to students" (p 150). Subsequently, they felt an area of weakness in the PD was workshop content.

Another finding of the study (Bifuh-Ambe, 2013) reinforces the paradigm shift in professional development. The participants expressed dissatisfaction with the PD delivery because there was too much direct instruction, sometimes up to two hours. They decried the lack of collaboration among the teachers and expressed regret at the lack of opportunity for input from experienced teachers. This finding is consistent with existing literature on professional development, which indicates that peer coaching, and practice sharing within a community of learners is preferred over expert coaching. The literature indicates that teachers readily implement new skills learned in peer-coaching contexts (Vescio, Ross & Adams, 2008; Darling-Hammond et al. 2009). In addition to content and mode of delivery, another area of weakness revealed by the survey were materials used in the workshop. This result suggests the importance of teacher input in determining the content and design of professional development. Professional development should address specific needs of teachers in relation to their students' needs. This

also underscores the importance of using student's data and examining teacher's practice in developing professional development (Limbrick et al., 2010).

Doing things differently.

Limbrick et al. (2010) grouped the findings from teacher data into three categories of assessment of writing and use of evidence to inform teaching, developing a meta-language for writing, and knowledge of research and resources to support writing. Findings from student achievement data showed that student gains exceeded national expectations. Likewise, teachers' data showed that teachers increased in their ability to describe and justify aspects of students' writing in terms of an achievement level. Field notes from the study's inception revealed that most teachers were unable to describe sample writing used in the meetings. Data from mid-year and the end of year focus meeting showed that most teachers had increased confidence in providing their students with specific and relevant feedback. Teachers reported that the in-school professional discussions that went on were valuable and that "it was a way of dispersing what we were learning and practicing" (p. 911). Teachers also reported an increase and consistency in the use of assessment data for formative purposes. Findings from the Literacy Leaders' report showed that, in addition to using data to inform their students' learning, teachers were also using data to interrogate and critique their own pedagogy. An excerpt from the Literacy Leader data report stated that through this process "teachers were identifying their own strengths and weaknesses, as well as the children's" (p. 912).

The study (Limbrick et al., 2010) findings also revealed a positive change in pedagogy. Teachers became more focused on teaching to students' specific needs. Teachers were able to identify gaps in their pedagogy and recognize that their students' low writing achievement level

in an area could be "because we haven't actually taught it or taught it well enough" (914). For example, some teachers began using data from students' writing as the basis for student grouping and targeted instruction, while others identified the effectiveness of purposeful modeling and conferencing. Finally, the findings revealed an increase in teachers' awareness of research based literature and other resources to support their pedagogy. Participants noted the importance of research-based literature "as the basis of school based professional learning circles which...led to wonderful professional discussion" (p. 915).

Findings from the standardized writing assessment also revealed an increase in students' writing achievement level. The baseline data obtained at the beginning of the project showed that students' scores in all grade levels at all schools studied were below the national average. However, data obtained at the end of each year of the study revealed that students' gains in writing were up to three times greater than national norms. Limbrick et al. (2010) reported mean raw score gains of 56 and 61, respectively, in each year of the study. They stated that the expected mean gain in a year was 27. Overall, the findings revealed an increase in teachers' content and pedagogical knowledge of writing. Teachers' confidence in their teaching and content knowledge also appeared to result in an increase in student writing achievement.

Alabama Study.

The findings in this descriptive study (Whyte, 2008) revealed that participation in professional development activities had a positive impact on teacher practices and student achievement. Results showed that teachers engaged in the NWP program wrote more extensively than the comparison teachers. In addition, the extent of a teacher's writing life was strongly associated with their duration of participation in NWP. Furthermore, there was a significant

interaction effect between the writing lives of the teachers who participated in the study and their students' achievement in writing. The students of NWP teachers showed an increase in writing achievement. The mean scores of all NWP teachers' students were higher in the late-in-course writing sample than in the early writing sample. Also, the more a teacher practiced writing, the higher their students' writing achievement.

In non-routine dimensions of writing such as Ideas/Content and Fluency, students of NWP teachers achieved significantly higher levels than students of the comparison teachers. The findings (Whyte, 2008), however, showed no significant differences between the students' achievement on routine elements such as conventions and word choice. This suggests that teachers' organization of their classroom as an environment for writing has a positive impact on students' achievement. It also suggests that non-routinized writing instruction does not occur at the expense of more routine dimensions such conventions or organization.

Another finding in this study (Whyte, 2008) was the impact of the process approach to teaching writing and writing achievement. The study found a positive relationship between the process approach to writing and writing achievement. This suggests that students do better in classes where teachers recognize that writing is a complex and recursive task.

4.10. Cross-Analysis of Findings

Each study examined found that writing focused professional development had an impact on teachers' content and pedagogical knowledge of writing. The findings also revealed some components of teacher professional development that may not be desirable, as they did not produce the desired outcomes. Taken together, however, the findings in all three studies examined reinforce the effectiveness of writing focused professional development on teachers'

79

instructional skills and ultimately on student writing achievement. A synthesis of the findings from each study could produce parameters for a professional development program that could significantly students writing achievement in an educational setting.

The study conducted by Bifuh-Ambe (2013) suggests that professional development programs need to be created with teachers' specific students' needs in mind and should be created in conjunction with teachers. The study also suggests that professional development should be provided over a long duration of time in order to give teachers opportunity to learn strategies and skills, practice the strategies and skills and then transfer the skills into instructional practice. The idea that PD delivery should collaborative in nature with teachers sharing research-based practices is also suggested in the study findings. Finally, the study findings supported the notion of writing as a complex and recursive activity requiring skills in many domains. Although teachers reported learning several domains of writing during the workshops, they felt less confident of their writing skills after the ten weeks PD workshop.

Although the study by Limbrick et al. (2010) had a different outcome with regards to participants' attitude, the findings of this study seem to confirm and complement the findings in the Bifuh-Ambe (2013) study. PD delivery in the Limbrick et al. (2010) study entailed teachers adopting an inquiry stance with regards to their own practice. The PD model encouraged teacher collaboration through professional learning communities and the use of research-based literature to support teachers' content and pedagogical learning. The findings of this study showed that teachers' confidence in their content and pedagogical knowledge of writing increased over the duration of the study. The longer duration of the study gave teachers the opportunity to interrogate their own practice and change their pedagogical stance. The findings also showed a

significant increase in their students' writing achievement.

Findings in the quantitative study by Whyte (2008) also showed that participation in sustained and writing specific professional development activities had a positive impact on teacher practices and student achievement. Teachers that were engaged in the NWP program wrote more extensively than the comparison teachers. The study also found that the longer a teacher was affiliated with the program, the more extensive their writing life. Furthermore, there was a significant interaction effect between the writing lives of the teachers who participated in the study and their students' achievement in writing. Students of teachers who were affiliated with the NWP were able to generate better writing than those of comparison teachers.

All in all, the research questions guiding this study were answered through the cross analysis of the findings in the three studies presented. Research question one states– Is there a relationship between deliberate teacher professional development and increased student writing achievement? This question is answered through the findings in the three studies. In Doing things differently (Limbrick et al., 2010), findings from the standardized writing assessment revealed an increase in students' writing achievement level after teachers had undergone professional development. The baseline data obtained at the beginning of the project showed that students' scores in all grade levels at all schools studied were below the national average. However, data obtained at the end of each year of the study revealed that students' gains in writing were up to three times greater than national norms, therefore suggesting that there is a relationship between deliberate teacher professional development and increased student writing achievement. Limbrick et al. (2010) reported mean raw score gains of 56 and 61, respectively, in each year of the study. They stated that the expected mean gain in a year was 27. Overall, the

findings revealed an increase in teachers' content and pedagogical knowledge of writing. Teachers' confidence in their teaching and content knowledge also appeared to result in an increase in student writing achievement. Likewise, findings in the Alabama study, (Whyte, 2008) revealed that teachers' participation in professional development had a positive impact on student writing achievement. The students of professional development participating teachers showed an increase in writing achievement. The mean scores of all PD teachers' students were higher in the late-in-course writing sample than in the early writing sample and students of NWP teachers achieved significantly higher levels than students of the comparison teachers in many dimensions of writing such as Ideas/Content and Fluency.

With regards to Research Question two, the results of this comparative study suggest that there is a relationship between continuous teacher writing professional development and teacher writing practices. Research question two asked, Is there a relationship between continuous teacher writing professional development and teacher writing practices? Analysis of the findings in this study shows that teachers with longer affiliation and involvement with writing professional development activities had a more extensive writing life than teachers with a shorter affiliation or exposure to writing professional development. In the Alabama study, (Whyte, 2008), results showed that teachers engaged in the NWP program wrote more extensively than the comparison teachers. In addition, the extent of a teacher's writing life was strongly associated with their duration of participation in NWP. Findings by researcher Bifuh-Ambe (2013) also suggest that there is a relationship between continuous writing professional development and teacher writing practices. In the study, participants' attitude toward writing improved from 88.87% pre-workshop, to 93% post-workshop which indicated a positive shift. According to the

researcher, after ten weeks of PD workshops, teachers had improved their skills in certain areas of writing.

Research Question 3, Is there a relationship between teacher writing practices and increased student writing achievement, was also answered through an examination and cross analysis of the findings in the three case studies. Study findings suggest a relationship between teacher writing practices and increased student writing achievement. As stated earlier, findings in this study suggest that teachers engaged in writing professional development activities wrote more extensively than their counterparts who were not engaged in professional development. Furthermore however, results from the Alabama study showed that there was a significant interaction effect between the writing lives of the teachers who participated in the study and their students' achievement in writing. The students of NWP teachers showed an increase in writing achievement. The mean scores of all NWP teachers' students were higher in the late-in-course writing sample than in the early writing sample. Also, the more a teacher practiced writing, the higher their students' writing achievement. This suggests a positive relationship between teacher writing practices and increased student writing achievement.

4.11. Summary

In this chapter, the researcher conducted an extensive comparative analysis of three scholarly studies. Each of the three studies has helped to highlight the effect of teacher professional development and teacher practices on student writing achievement. Although each study provides a different perspective on writing focused professional development and teacher practice as it relates to student achievement, collectively all three studies support the idea that in order to improve students' writing achievement, in-service teachers need to be active learners

and practitioners of writing. This can be achieved through teachers' participation in sustained and research-based professional development activities. In examining and comparing the different components of each study, the strengths and weaknesses in design were discussed. The professional development models presented in each study were examined and the similarities in the studies were addressed. The commonalities that emerged from comparative analysis were also discussed. In conclusion, the findings from each study were presented along with implications of the findings. In the next chapter, recommendations will be made based on the study findings.

Chapter V-CONCLUSION

5.1. Introduction

The purpose of this comparative case study analysis was to examine the effect of teacher professional development and teacher practices on student writing achievement. This chapter discussed and summarized the themes in relation to the research questions and in accordance with the study's theoretical and leadership frameworks. Implications of the research are reviewed in order to determine the impact of the findings on educational practices, theory and future research.

Researchers have established that writing is a complex and recursive activity that requires skills in various social and cognitive domains. Student achievement in writing suggests that the complex nature of learning to write and writing poses a challenge to students. Moreover, since student achievement has been linked to teacher practice, student achievement level in writing also suggests that writing is challenging for teachers, as well. Students' low achievement is arguably the result of the teachers' pedagogy and writing knowledge. The researcher in this study posits that, in order to increase mitigating the nation's problem of students' low academic achievement in writing, teachers must engage in sustained and continuous writing professional development. Since writing is the vehicle through which ideas are conveyed in all content areas, the nation's educational reform must include an emphasis on writing achievement.

The findings in this three case study comparative analysis reinforces the notion that writing is a complex activity which requires teachers of writing to be engaged in professional development to increase their writing skills. Studies have shown that, when teachers engage in content specific professional development, they acquire the pedagogical and content knowledge

necessary to teach the content. It has been suggested that teachers can develop their writing skills and improve their pedagogical competence through professional development (Bifuh-Ambe, 2013). Findings from the three studies suggest that writing specific professional development will increase teachers' content and pedagogical skills which will, in turn, increase student writing achievement.

5.2. Common Themes

A common theme that has emerged from this study indicates that writing PD needs to be continuous and sustained (Bifuh-Ambe, 2013). Research on professional development suggests that the length or duration of a PD program has an impact on its effectiveness (Wei et al., 2009). Since writing has been established as a complex activity, teachers need a longer period of professional development to learn the various writing skills and also to learn strategies for translating the learned skills into their classroom practice. In the three case studies examined, PD length had a positive impact on student achievement. In other words, the longer the PD program, the more positive the impact on student writing achievement. Conversely, in the study with the shorter professional development, the teachers were dissatisfied with the PD outcomes. This finding is supported by prior research on teacher professional development. Researchers Wei et al. (2009), in their status report on teacher development in the United States, assert that professional development should be intensive and ongoing. The researchers noted that the duration of professional development appeared to have an impact on teachers' and students' learning. In the study by Limbrick et al. (2010), the researchers reported exceptionally low writing achievement levels among students in the participating schools. The researchers also indicated that teachers' knowledge of writing and confidence in teaching writing at the onset of

the study was variable. They noted that the teachers lacked the meta-language to interrogate their students' writing and their own practice. However, through the professional development activities, Limbrick et al. (2009) noted that the teachers started to articulate their knowledge of writing and by the middle of the first year, the teachers' confidence had increased. The teacher participants were able to articulate what they knew and what they were teaching. More importantly, by the end of the first year, the teachers' increased knowledge had a positive impact on student achievement.

It has been suggested that professional development is most effective when it is aimed at learning specific academic content and when it addresses the everyday challenges involved in teaching (Wei et al., 2009). Findings from this comparative analysis also suggest that teacher professional development efforts must be geared toward meeting the educational needs of their students as they relate to writing. To achieve this, professional development must integrate teacher learning with teachers' examination of their daily practice (Vescio et al., 2008). Through such professional development, teachers are able to define the particular skills and concepts that their students need to learn and also identify content likely to pose problems for their students. Findings from this study show that teacher knowledge was enhanced when the participants in the pre-existing studies adopted an inquiry stance and began treating their own classrooms as sites for intentional investigations (Vescio et al., 2008). Through examination of student data, participating teachers noticed gaps in their students' learning and also in their own pedagogy. Therefore, student data became the basis for teaching decisions.

The study findings also suggest that writing PD should be a combination of expert coaching and teacher led peer collaboration. The paradigm shift in teacher professional

development, fueled by educational reforms and the era of increased accountability, has moved professional development from the traditional model of teachers just acquiring new knowledge or skills to one that expects teachers to take an inquiry stance to their practice, and where applicable, to rethink their practice. This is consistent with studies on PD that posit that teachers learn better when they share within a community of learners as they take an inquiry stance to their practice. In Doing Things Differently (Limbrick et al., 2010), researchers noted that the teachers reported learning more about writing as they examined their practice in relation to other teachers, and as they shared best practices with other teachers. In the Developing successful writing teachers (Bifuh-Ambe, 2013), the teacher participants expressed regret at the lack of opportunity to learn from "the more experienced teachers" in the group. Specifically, they indicated a preference for a professional development model that provided more peer conversations and reciprocity rather than one that emphasized lecture style expert coaching.

Another common theme from this present study is the importance of teachers becoming active writers in school. Graves (1983) argued the inseparability of teaching writing and writing. He argues that teaching writing demands the control of both the craft of teaching and the craft of writing. Others have argued that as teachers develop their confidence as writers and model writing in class, their attitudes toward teaching writing improve. Thus, teacher enthusiasm and writerly behavior have been noted to be of benefit to young writers (Cremin & Baker, 2014). Research findings from this study suggest that in addition to ongoing participation in professional development, teachers' own writing lives are strongly associated with student achievement in writing. The National Writing Project teachers who wrote more extensively than comparison teachers had classes of students whose writing achievement improved significantly

88

on various dimensions of writing and their overall holistic score (Whyte, 2008). This suggests that teachers who are persistent in writing and show grit in writing are able to positively impact their students' writing achievement.

5.3. Emergent Themes

An emergent theme from the studies is the idea of teachers' persistence in writing and its positive impact on their students. The study results suggest that teachers who are persistent in writing and show grit in writing are able to positively impact their students' writing achievement (Whyte, 2008). According to Duckworth and Quinn (2009), grit is what allows a select group to sustain effort in the pursuit of a goal. It has also been shown to predict achievement in challenging domains over and beyond measures of talent (Duckworth, Peterson, Matthews and Kelly, 2007). Findings from this study indicate that teachers' engagement in ongoing professional development continuity programs and an adoption of an extensive writing life were strongly associated with student achievement in writing. Since writing has been established as a challenging and difficult course not only for students but also for many teachers who lack knowledge of the process of writing, or how to implement new knowledge about writing in their classes, this present study suggests that perhaps teachers who are successful in effectively teaching writing are those who engage in continuous and deliberate practice developing their content and pedagogical skills and becoming writers themselves.

An a priori finding from this study suggests that writing focused professional development builds teachers' confidence in their writing abilities and also in their ability to teach their students. In order words, this study suggests that teacher professional development builds teachers' self-efficacy beliefs. The concept of self- efficacy was introduced by Bandura (1977),

as an assessment of one's capabilities to attain a desired outcome. According to Tschannen-Moran and Hoy (2007), the most powerful influence on teachers' efficacy beliefs is mastery experiences. This comes from teaching and learning accomplishments with students. This notion is consistent with findings from this study in which teachers who participated in just ten weeks of study recorded increased feelings of incompetency in domains of writing that they had not been able to master within the ten-week professional development (Bifuh-Ambe, 2013). On the other hand, for teachers who had engaged in a two year inquiry based professional development, by mid year of the first year of the program, researchers reported increased confidence in teachers' articulation of what they knew about writing and what they were teaching. Teachers' self-efficacy had increased as a result of their mastery of the writing content and pedagogy through their participation in professional development. This is consistent with prior research, which suggests that the efficacy beliefs of teachers are related to their instructional practices and the academic progress of their students (Pajares, 2003). Findings from this study demonstrate that, in addition to the increase of teacher's pedagogical content knowledge of writing, this knowledge also had a positive impact on student achievement.

5.4. Recommendations

The literature on writing and professional development examined in the course of this research and the findings of the three case studies employed in this comparative analysis suggest that implementing a writing focused professional development program in schools will positively impact student academic achievement as it relates to writing. This is especially significant given the increased use of writing assessments as gatekeepers for promotion and graduation in the present era of accountability and standards based reform. With the role of educational leaders

refocused on the technical core responsibility of teaching and learning in schools, it is essential that educational leaders, especially in K-12 levels, pay particular attention to measures that will increase teachers' capacity to provide students with learning opportunities that engender positive outcomes. With this in mind and based on the findings of this comparative analysis study, it is recommended by this researcher that K-12 school systems support students' writing achievement by providing teachers with ongoing and on-site writing professional development opportunities. Specifically, the following recommendations are suggested for school improvement.

First, based on the findings of this study, it is suggested that schools and school districts adopt systemic school-based writing professional development. If, indeed, teacher practices and writing focused professional development are critical to students' writing proficiency as suggested by this study, a key task for educators and educational leadership is the intentional provision of these opportunities for teachers.

Secondly, writing professional development in schools must not only be systemic, but it also needs to be part of a school improvement plan. Essentially, this means that the school's and district's curriculum and assessments must inform the writing professional development activities presented to teachers.

This study also provides insight into the appropriate duration for professional development. The inferences made in this study provide evidence that professional development needs to be offered for extended periods. This allows participants time to practice learned skills and reflect on the implementation process during professional development. Therefore, it is recommended that writing professional development be provided on a continuous and sustained basis.

Regarding the provision of professional development in the context of the political and economic climate of education, this study also adds insight into ways in which principals and school leadership can ensure the provision of professional development within the constraints of their economic and political realities. Based on the findings in this study, it is recommended that professional development opportunities be embedded in teachers' schedules. School principals could implement the use of common collaborative planning for writing professional development. This recommendation will also ensure that professional development activities are incorporated into the school day so teachers do not feel that they have to spend their personal time on professional development activities. Also, teachers will begin to see PD as an integral part of their professional practice and not an activity separate from their work as educators.

With regard to professional development and teacher practices, this study also provides insight into how they may contribute to increased student achievement. Findings of this study suggest that teachers should be given access to professional readings and research literature to support their knowledge about writing purposes, forms and pedagogical approaches. It would be advisable that school leaders provide such resources as part of the professional development program in schools.

Findings in this study also provide evidence that effective writing teachers take on a writer's identity by becoming writers themselves. In other words, teachers of writing should be writers themselves. Consequently, educational leaders who desire to increase students' writing achievement should consider including teacher writing as an element of teacher professional development. Educators could also make writing requirements part of teachers' evaluation process.

Finally, based on the findings of this study, it is recommended that external research experts on writing be invited periodically to introduce new research strategies. To summarize, the researcher recommends professional development that is marked with the following characteristics:

1. Educational leaders need to provide teachers with sustained and continuous professional development in the area of writing. It is suggested that schools and school districts adopt systemic and continous school-based writing professional development. Literature suggests that in order to be effective, professional development should be at least one year in duration. As noted by Bifuh-Ambe (2013), this increased duration will give teachers the opportunity not only to learn effective strategies but to also transfer those strategies effectively into their own practice.

2. Writing professional development should be based on teacher needs as evidenced by student data. Findings from this study support the idea of teachers making their practice problematic and, therefore, taking an inquiry stance to their practice. Essential to this concept is the use of student data to inform teaching and learning.

3. Writing professional development should also emphasize the importance of teachers becoming writers themselves. As noted, teachers who take on the role of writers are able to impact their students more positively. It has also been suggested that the more teachers, themselves, write, the more they are able to understand the complexities of writing and, in turn, assist their students to become better writers. This researcher also posits that teachers who are able to demonstrate grit in writing activities are able to develop such grit in their students as well.

4. It is also recommended that teachers are provided opportunities and resources for professional readings and research based literature as part of their writing professional development.

5. Since writing is such an integral aspect of student learning and economic achievement, it is also suggested that writing should be a essential element in teacher prep programs and also a part of the teacher evaluation process.

6. Writing professional development should be comprised of a combination of expert lecture and teacher interrogation of practice. As stated by Limbrick et al. (2010), teacher professional development should be less about presenting teachers with a new set of strategies and more about encouraging teachers to interrogate and modify strategies to meet their students' needs.

7. Finally, in recognition of the political and economic realities of the educational landscape, with budget restraints and increased accountability, this researcher also recommends that schools implement teacher led collaborative professional development models. Alternately known as professional learning circles or professional learning communities (Vescio et al., 2007), this model of professional development is able to combine all the characteristics of an effective professional development as listed above, but also work within existing school infrastructure and with limited additional financial resources. Such learning communities could meet during common collaborative planning periods to engage in shared literature reading, shared practice and data review and shared discussions and challenges and triumphs.

5.5. Further research

This case study analysis revealed that teacher writing professional development might be an effective way of increasing students' writing academic achievement. Since this study was an analysis of pre-existing scholarly work by researchers, it is non-experimental in design and, therefore, cannot be generalized. For future research, an experimental design may be beneficial in achieving such generalizability.

The predictive and meditational role of self-efficacy has received support from findings emanating from diverse fields. Unfortunately, despite the critical role of writing at all levels of education, self-efficacy beliefs on academic writing outcomes have received little attention. Further research on the role of teachers' writing professional development in building teachers' self-efficacy and increasing students' writing achievement would be beneficial for educational reform and improvement.

The role of grit in teachers' writing practices and in teachers' effectiveness in teaching writing also needs to be an area of further research. Findings from this study suggest that grittier teachers who engage in writing, actively seek participation in professional development and engage in a continuous inquiry of their pedagogical status experience increased student achievement. Based on the existing positive effect of grit on achievement (Duckworth, 2009), this present study suggests that a critical component in the development of critical writing skills is sustained effort and deliberate practice on the part of both the teachers and the students. Since writing has been established as a challenging and difficult skill for many educators and students to attain, it seems logical that students who are successful in writing are those whose teachers have the ability and the capacity to sustain both effort and interest in developing the content and

pedagogical skills needed for effective teaching and learning in school and on standardized academic assessments. In addition, it seems logical that teachers who want to be successful in developing writing knowledge must be willing to engage in deliberate practice. Consequently, further research is recommended to explore the role of grit in the effectiveness of teacher professional development and the impact on teachers' writing content and pedagogical knowledge. Such research should also examine the role of teacher grit on their students' academic writing achievement.

5.6. Summary

In this chapter, the researcher discussed and summarized the themes that have emerged from the comparative analysis of three pre-existing case studies. The researcher presented implications of the study findings and made recommendations based on the study findings. Finally, the researcher made suggestions for areas of future research.

REFERENCES

American College Testing Program. (2005). *Crisis at the core: Preparing all students for college and work*. Iowa City, IA: ACT.

Ahnert, L., Milatz, A., Kappler, G., Schneiderwind, J., & Fischer, R. (2013). The impact of teacher–child relationships on child cognitive performance as explored by a priming paradigm. *Developmental Psychology*, *49*(3), 554-567. doi:10.1037/a0031283

Allen, J., Gregory, A., Mikami, A., Lun, J., Hamre, B., & Pianta, R. (2013). Observations of Effective Teacher-Student Interactions in Secondary School Classrooms: Predicting Student Achievement with the Classroom Assessment Scoring System--Secondary. *School Psychology Review*, *42*(1), 76-98.

Alliance for Excellent Education. (2006). *Paying Double: Inadequate High Schools and Community CollegeRemediation. Issue Brief*

Andrews, R. (2003). The end of the essay? *Teaching in Higher Education*, *8*(1), 117-128.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191-215. doi:10.1037/0033-295x.84.2.191

Bangert-Drowns, R., Hurley, M., & Wilkinson, B. (2004). The effects of school-based writing-to-learn interventions on academic achievement: A 136.meta-analysis. *Review of Educational Research*, *74*(1), 29-58.

Barrera-Pedemonte, F. (2016). High-quality teacher professional development and classroom teaching practices. OECD Education Working Papers. doi:10.1787/5jlpszw26rvd-en

Bell, J., and B. Burnaby. 1984. A Handbook for ESL Literacy. Toronto:OISE

Bernard, H. R. (2002). *Research methods in Anthropology:qualitative and quantitative methods* (3rd ed.). Walnut Creek, CA: AltaMira Press.

Berry, A. B., & Mason, L. H. (2012). The effects of self-regulated strategy development on the writing of expository essays for adults with written expression difficulties: Preparing for the GED. *Remedial and Special Education*, *33*(2), 124-

Bifuh-Ambe, E. (2013). Developing successful writing teachers: Outcomes of professional development exploring teachers' perceptions of themselves as writers and writing teachers and their students' attitudes and abilities to write across the curriculum. English Teaching: Practice and Critique, 12(3), 137-156.

Birman, B., Le Floch, K., Klekotka, A., Ludwig, M., Taylor, J., Walters, K., … Wayne, A. (2007). *State and local implementation of the No Child Left Behind Act: Interim report*. Washington, DC: U.S. Dept. of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service.

Borko, H. (2004). Professional Development and Teacher Learning: Mapping the Terrain. *Educational Researcher*, *33*(8), 3-15. doi:10.3102/0013189x033008003.

Campbell, J., Smith, D., & Brooker, R. (1998). From conception to performance: How undergraduate students conceptualize and construct essays. *Higher Education*, *36*, 449-469.

Chandrasegaran, A., Ellis, M., & Poedjosoedarmo, G. (2005). Essay Assist-Developing software for writing skills improvement in partnership with students. *Regional Language Centre Journal*, *36*(2), 138-155.

Council of Writing Program Administration. (2000). Paper presented at The Council of Writing

Program Administration.

The College Board. (2017). *College Board Five Year Score Summary*.

College Entrance Examination Board. National Commission on Writing in America's Schools and Colleges. (2003). *The neglected "R": The need for a writing revolution*. Retrieved from College Board website: http://www.collegeboard.com/prod_downloads/writingcom/neglectedr.pdf

Cremin, T., & Baker, S. (2014). Exploring the discursively constructed identities of a teacher-writer teaching writing. *English Teaching: Practice and Critique*, *13*(3).

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: SAGE.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, California: SAGE Publications.

Cross, T. (2014). *The Gritty: Grit and Non-traditional Doctoral Student Success* (Unpublished doctoral dissertation). Grand Canyon University, Phoenix, AR.

Darling-Hammond, L. (2000). Teacher Quality and Student Achievement: A Review of State Policy Evidence. *Education Policy Analysis Archives*, *8*(1), 1-44.

Darling-Hammond, L., & McLaughlin, M. (1995). Policies that support professional development in an era of reform. *Phi delta kappan*, *76*(8).

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the U.S and abroad : technical report*. Learning Forward.

Day, C. (1999). *Developing teachers: The challenges of lifelong learning*. New York, NY:

Routledge Farmer.

Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of Professional Development on Teachers' Instruction: Results from a Three-year Longitudinal Study. Educational Evaluation and Policy Analysis, 24(2), 81-112. doi:10.3102/01623737024002081

Díaz-Maggioli, G. (2004). *Teacher-centered professional development*. Alexandria, VA: Association for Supervision and Curriculum Development.

Dorch, K. (2012). *A seamless transition: The effect of African American studies on general self-efficacy, college student self-efficacy, self-esteem and academic confidence of first and second year African American college students attending mid-atlantic universities* (Unpublished doctoral dissertation). Bowie State University, Bowie, MD.

Duckworth, A., Kirby, T. A., Sukayama, E., Berstein, H., & Ericsson, K. A. (2011). Deliberate Practice Spells Success: Why Grittier Competitors Triumph at the National Spelling Bee. *Social Psychological and Personality Science*, *2*(2), 174-181.

Duckworth, A. L., & Quinn, P. D. (2009). Development and Validation of the Short Grit Scale (Grit-S). *Journal of Personality Assessment*, *91*(2), 166-174.

Duckworth, A., Peterson, C., Matthews, M., & Kelly, D. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, *92*(6), 1087-1101.

Elbow, P. (1973). Writing without Teachers, pp. 12–75. New York, NY: Oxford University Press.

Emig, J. (1971). *The composing processes of twelfth graders*. Urbana, IL: NCTE.

Evans, L. (2002). What is teacher development? *Oxford Review Of Education*, *28*(1).

Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, E., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012). *Teaching adolescents to become learners. The role of non cognitive factors in shaping school performance: A critical literature review*. Chicago.

Field, A. (2012). *Discovering Statistics Using IBM SPSS Statistics* (4th ed.). London: Sage Publications Ltd.

Fisher, D., & Frey, N. (2003). Writing instruction for struggling adolescent writers: A gradual release model. Journal of Adolescent and Adult Literacy, 46, 396-407.

Fisher, D., Frey, N., Fearn, L., Farnan, N., & Petersen, F. (2004). Increasing Writing Achievement in an Urban Middle School. *Middle School Journal*, *36*(2), 21-26.

Fleischer, C. (2004). Professional Development for Teacher Writers. *Educational Leadership*, *62*(2), 24-28.

Flower, L., & Hayes, J. (1981). A cognitive process theory of writing. *College Composition and Communication, 32*(4), 365-387. .

Giraldo, F. (2014). The impact of a professional development program on English language teachers' classroom performance. PROFILE Issues in Teachers' Professional Development, 16(1), 63-76.

Glatthorn, A. (1995). Teacher development. In L. Anderson (Ed.), International encyclopedia of teaching and teacher education (2nd ed.). London: Pergamon Press.

Goodrick, D. (2014). Comparative Case Studies, Methodological Briefs: Impact Evaluation 9, UNICEF Office of Research, Florence.

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, *99*(3), 445-476. doi:10.1037/0022-

0663.99.3.445

Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools-A report to Carnegie Corporation of New York.* Washinton DC: Alliance for Excellent Education.

Graves, D. H. (1983). *Writing: Teachers and children at work*. Portsmouth, NH: Heinemann.

Gregg, N., Coleman, C., Davis, M., & Chalk, J. C. (2007). Timed essay writing: Implications for high stakes tests. *Journal of Learning Disabilities*, *40*(4), 306-318.

Guskey, T. R., & Kwang, S. Y. (2009). What Works in Professional Development? *Phi Delta Kappan*, *90*(7), 495-500.

Ji, Z., & Cao, Y. (2016). A Prospective Study on the Application of MOOC in Teacher Professional Development in China. *Universal Journal of Education Research*, *4*(9), 2016-2067.

Kashani, H., Mahmud, R. B., & Kalajahi, S. A. (2013). Comparing the effect of blogging as well as pen and paper on the essay writing performance of Iranian graduate students. *English Language Teaching*, *6*(10), 202-218.

Limbrick, L., Buchanan, P., Goodwin, M., & Schwarcz, H. (2010). Doing Things Differently: The Outcomes of Teachers Researching Their Own Practice in Teaching Writing. Canadian Journal of Education, 33(4), 897   924.

Lin, S., Cheng, W., & Wu, M. (2015). Uncovering a Connection between the Teachers' Professional Development Program and Students' Learning. *Journal of Education and Practice*, *6*(23).

Meles, O. (2011). *A Multi-site Case Study of a Professional Learning Community Model: The*

Impact of Learning Team Meetings on Teacher Practice and Student Achievement from the Perspective of Teachers and Instructional Leaders (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database.

Mitchell, V. (1996). *Rethinking foreign language writing*. Oxford: Oxford University Press.

Moss, B. (1988). *Teacher Change as Experienced through Implementation of a Process Writing Approach* (Doctoral dissertation, Kent State University).

National Center for Education Statistics. (2003). *Remedial education at degree-granting postsecondary institutions in fall 2000: Statistical analysis report*. Washington, DC: Author.

National Center for Education Statistics. (2011). *The nation's report card: Reading 2011: National Assessment of Educational Progress at grades 4, and 8*.

National Center for Education Statistics (Ed). (2012). *The Nation's Report Card: Writing 2011. National Assessment of Educational Progress at Grades 8 and 12. Nces 2012-470*.

National Commission for Excellence in Education. (1983). *A Nation at Risk:The Imperative for Educational Reform*. US Department of Education.

National Commission on Writing. (2005). *Writing: A powerful message from state government*. New York, N.Y.: College Board.

Novick, D. (1962). Confidence and Competence in Writing. *College Composition and Communication*, *13*(2), 50. doi:10.2307/354541.

Pajares, F. (2003). Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature. *Reading & Writing Quartely*, *19*, 139-158. doi:10.1080/10573560390143085

Patel, M. X., Doku, V., & Tennakoon, L. (2003). Challenges in recruitment of research

    participants. *Advances in Psychiatric Treatment*, *9*(3), 229-238. doi:10.1192/apt.9.3.229

Peariso, J. M. (2011). *A study of principal's instructional leadership behaviors and belief of*

    pedagogical practice among effective California high schools serving socioeconomically

    disadvantaged and English learners (Unpublished doctoral dissertation). Liberty

    University, Lynchburg, VA.

Pritchard, R., & Honeycutt, R. (2005). The Process Approach to Writing Instruction: Examining

    Its Effectiveness. In *Handbook of Writing Research*. Guilford Press.

Quitadamo, I. J., & Kurtz, M. J. (2007). Learning to improve: using writing to increase critical

    thinking performance in general education biology. *CBE-Life Sciences Education*, *6*,

    140-154.

Rochester, P. M. (2014). *Every child a writer*. Retrieved from National Literacy Coalition

    website: ERIC Database ED564042.

Sargeant, J. (2012). Qualitative Research part II: Participants, Analysis, and Quality

    Assurance. *Journal of Graduate Medical Education*, *4*(1), 1-3. doi:10.4300/jgme-d-11-

    00307.1

Saxe, G., Gearhart, M., & Nasir, N. S. (2001). Enhancing students' understanding of

    Mathematics: a study of three contrasting approaches to professional support. *Journal of*

    Mathematics Teacher Education 4, 55-79.

Singer, N. R., & Scollay, D. (2006). Increasing Student Achievement in Writing Through

    Teacher Inquiry: An Evaluation of Professional Development Impact. *National Writing*

Project Research Reports.

Stake, R. E. (1995). The art of case study research. Thousand Oaks, CA: Sage.

Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy

beliefs of novice and experienced teachers. *Teaching and Teacher Education*, *23*(6),

944-956. doi:10.1016/j.tate.2006.05.003

U.S. Department of Education. (2004). Four pillars of NCLB. Retrieved from

http://www.ed.gov/nclb/overview/intro/4pillars.html

U.S. Department of Education, National Center for Education Statistics. (2016). *Digest of

Education Statistics, 2015*. (NCES 2016–014).

US Department of Education. (2012). *Writing 2011 National Assessment of Educational

Progress at Grades 8 and 12*. National Center for Education Statistics.

Vallencia & Killion (1989). Implementing Research based reading and writing programs

overcoming obstacles to teacher change;Three case studies Technical Report No. 462

Van Kraayenoord, C. E., Miller, R., Moni, K. B., & Jobling, A. (2009). Teaching writing to

students with learning difficulties in inclusive English classrooms:Lessons from an

exemplary teacher. *English Teaching:Practice and Critique*, *9*(1), 23-51.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional

learning communities on teaching practice and student learning. *Teaching and Teacher

Education*, *24*(1), 80-91. doi:10.1016/j.tate.2007.01.004.

Villegas-Reimers, E. (2003). Teacher professional development: An international review of the

literature. Paris, FR: UNESCO, International Institute for Educational Planning.

Walk, K. (1998). How to write a comparative analysis. In Harvard College Writing Centre.

Retrieved from Harvard University, Faculty of Arts and Sciences, Harvard College Writing Centre Web site:

http://www.fas.harvard.edu/~wricntr/documents/CompAnalysis.html

Wayne, A., Yoon, K., Zhu, P., Cronen, S., & Garet, M. (2008). Experimenting With Teacher Professional Development: Motives and Methods. *Educational Researcher*, *37*(8), 469-479.

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos;, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. National Staff Development Council.

Wenglinsky, H. (2001). *Teacher classroom practices and student performance: How schools can make a difference*.

Whyte, A. (2011). Alabama Secondary School English Teachers' National Writing Project Participation and Own Writing in Relation to Their Organization of the Classroom and to Student Achievement in Writing. National Writing Project.

Wilde, J. (2010). Guidelines for professional development: An overview. In C. J. Casteel & K. G. Ballantyne (Eds.), Professional development in action: Improving teaching for English learners (pp. 5-11).

Womack, P. (1993). What Are Essays For. *English in Education*, *27*(2), 42-49. doi:10.1111/j.1754-8845.1993.tb01101.x.

Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement* (Issues & Answers Report, REL 2007-No. 033). Washington, DC:

DELAWARE STATE UNIVERSITY

Institutional Review Board – Human Subjects Protection Committee

March 16, 2017

Olayemi Lawanson
Department of Education
Delaware State University
1200 N. DuPont Hwy
Dover, DE 19901

Dear Olayemi,

Delaware State University's Institutional Review Board (IRB)-Human Subjects Protection Committee has reviewed your project **"An Examination of the Effect Teacher Professional Development and Teacher Practices on Student Writing Achievement"**. After review of application, the Committee has **granted an exemption** from the IRB as it meets a Category of Exempt Research specified in 45 CFR 46.101(b).

Please contact the Office of Sponsored Programs at 302-857-6834 if you have any questions or concerns.

Sincerely,

Dr. Brian Friel
Chairperson, Human Subjects Committee (IRB)

ckh

1200 N. DUPONT HWY. • DOVER, DE • 19901-2277 • (302) 857-6818 • Fax: (302) 857-6804
Delaware State University is an equal opportunity employer and does not discriminate because of race, creed, national or ethnic origin, sex or disability.

107