

**A Survey of Intentional Writing Practices of High School Teachers in One Public
School District: A Replication Study**

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Abstract

The use of evidence-based or research-supported assignments, instructional strategies, and adaptations (AIA) by core content-area (English Language Arts [ELA], math, science, and social studies) secondary teachers in one public school district (District X) in Kansas was the focus of this study. Seven research questions guided the investigation concerning the frequency (percent) of responses, equity of distribution, and rank order for AIA in writing and perceptions about preparedness to teach writing for all high school teachers and broken down by core content area. The study of Kiuahara, Graham, and Hawken (2009) was replicated using a modified version of their High School Writing Practice Survey. After two requests, 105 of 237 teachers (44%) completed the survey. The results of chi-square testing revealed significant differences in the frequency and rank order of AIA between and among the core content areas. AIA in writing were evident but used inconsistently across content areas. Writing instruction was most prevalent in ELA and least evident in math. Results indicated few extended writing opportunities for students. Data also provided evidence of teachers' perceived lack of preparedness to teach writing in their core content areas. The study provides implications for the development of content-specific writing curricula as well as targeted professional development for content-area teachers.

Dedication

This work is dedicated to my family. To my courageous and beautiful wife, Jill, thank you for seeing in me what I have not always been able to see in myself. I will love you forever and always. To Anna, Rhylan, and Dylan, you inspire me daily. My love for each of you is unconditional. To my parents, Harlan and Ramona Stern, your never-ending faith in me and constant support have never waned. I live each moment to honor your love, your sacrifice, your selflessness, and the many qualities you have instilled in me. Words cannot do justice to the love and respect I have for all of you.

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Throughout my career, I have been blessed with good fortune to have worked with and learned from many dedicated and talented professional educators. These colleagues have always been more than coworkers; they are my friends and family. I owe my skill as a teacher and leader to them and their influence.

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In closing, I must take a moment to recognize and thank all of the teachers and professors I have learned from throughout my life. They instilled in me a love of learning that has made this moment possible. And thank you to all my students who helped me to hone my teaching and leadership skills. I am forever indebted to them for the learning and laughter we shared with one another. Because of all the lessons they taught me, I have the courage to believe, to grow, and to dream.

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Chapter One

Introduction

In academia, writing has been generalized as an arduous activity or process through which individuals seemingly employ different strategies to individual writing tasks based on the tasks themselves and the abilities of the writers. As a skill, writing has been difficult to define because it has been used in so many different ways and for so many purposes. Applebee and Langer (2013) have concluded that writing as a means to study, learn, construct knowledge, or develop deeper understandings is not common. In 1981, Applebee conducted a national study that revealed approximately 60% of writing happened in content areas other than English (as cited in Ruddell, 1993). In other words, the majority of student writing was thought to occur in English language arts; however, students reported that the combined amount of writing in all other courses was greater than that completed in English courses (Applebee & Langer, 2013). In response to growing concerns about student performance as highlighted by *A Nation at Risk* in 1983 and to educational reform legislation such as the No Child Left Behind (NCLB) Act of 2001 (2002), Applebee and Langer (2013) conducted the *National Study of Writing Instruction* “to understand the impact of the variety of changes that have taken place through a series of studies that provide different perspectives on writing and learning” (p. 9). As part of this study, Applebee and Langer conducted case studies, examined instructional practices, and surveyed teachers to determine how well students write. The researchers also analyzed National Assessment of Educational Progress (NAEP) data; however, NAEP was not designed to answer this question or to determine if students were prepared to meet the writing demands of college or the workplace (Applebee &

Langer, 2006, 2013). The results of the research conducted by Applebee and Langer (2006) relied on student and teacher reported information about writing experiences and showed there was a relationship between how well students write, types of writing assigned, and types of instruction received (Apple & Langer, 2006, 2013). Outside of this study, there has been limited available data focused on the teacher reported practices regarding writing instruction in high school classrooms.

In the time since the *National Study of Writing Instruction* was conducted, education has faced scrutiny in the area of literacy, specifically writing. According to Gallagher (2006), students may have been writing more frequently; however, too often teachers were asking students to write without providing explicit instruction in writing. With the development of the Common Core writing standards, teachers gained a greater understanding of the importance of writing instruction but not in how to teach writing (Calkins et al., 2012). As much as 80% of the writing assigned to students called for simple tasks such as note-taking rather than actual composition (Applebee & Langer, 2013). Kihara, Hawken, and Graham (2009) conducted a national writing survey of high school teachers in an attempt to gather teacher reported information to guide high school writing instruction reform. Kihara et al. (2009) have expressed concern about the lack of evidence-based or research-supported assignments, instructional strategies, and adaptations (AIA) used by high school teachers to teach writing. One explanation for the lack of writing instruction in classrooms has been attributed to a lack of explicit preparation to teach writing within teacher education programs (Brenner, 2013; Grisham & Wolsey, 2011; National Commission on Writing [NCW], 2003; Smagorinsky, Wilson & Moore, 2011; Totten, 2005). In self-efficacy studies, teachers reported feeling most

ill-prepared to effectively teach writing (Al-Bataineh, Holmes, Jerich, & Williams, 2010; Bratcher & Stroble, 1994; Dismuke, 2015; Graham & Perin, 2007b; Street & Stang, 2009; Troia & Graham, 2003). According to the National Writing Project, teachers have needed to feel confident and comfortable with writing to feel competent in teaching it (Bratcher & Stroble, 1994; Graham & Perin, 2007b).

The High School Writing Practice Survey conducted by Kiuahara et al. (2009) served as the basis for this study in an effort to identify the intentional writing instructional practices of core content-area teachers (English language arts, math, science, and social studies) to inform writing instruction reform and professional development for District X teachers. The statement of the problem, purpose, and significance of the study have been included to provide an understanding of the importance of the study. Delimitations, assumptions, research questions, and definitions of terms have been provided for clarity. Finally, an organization of the study has been included as a preview of the remainder of the study.

Background

On April 26, 1983, the U.S. Department of Education (USDE) released a watershed report that declared the United States was a nation at risk. This report was the culmination of efforts by the National Commission on Excellence in Education to address concerns that educational performance of the nation's students had fallen behind other industrialized countries and "lost sight of the basic purposes of schooling, and of the high expectations and disciplined effort needed to attain them" (USDE, 1983, "A Nation at Risk," para. 3). The Commission identified numerous indicators of risk. So grave were these risks that according to the report, "If an unfriendly foreign power had attempted to

impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war” (USDE, 1983, “A Nation at Risk,” para. 2). The report revealed that approximately 23 million American adults were functionally illiterate, and rates among minority youth were estimated to be around 40% (USDE, 1983). Also, student achievement on standardized tests such as College Board’s Advanced Placement (AP) and the Scholastic Aptitude Test (SAT) indicated a steady decline from 1963 to 1980 (USDE, 1983).

The study revealed that “secondary school curricula have been homogenized, diluted, and diffused” (USDE, 1983, “Findings Regarding Content,” para. 2) noting a particular increase in credits earned by graduating high school students in remedial courses in English and math. Over half of the teachers in the United States were not qualified to teach their subjects, and those who graduated from college teacher preparation programs spent over 40% of their time in education theory courses instead of subject matter courses (USDE, 1983). The findings contained in this report served as a catalyst for education reform in the United States. What followed was a new public commitment to higher expectations for U.S. students (Adams & Ginsberg, 2008). Amid concerns about the effects of the declining education system on the U.S. economy, calls for reform came not only from academic researchers and education organizations but also political associations, government agencies, economists, and numerous advocacy groups (Adams & Ginsberg, 2008).

A Nation at Risk succeeded in increasing public awareness about the need for education reform. However, modern policy reform preceded *A Nation at Risk* when the Elementary and Secondary Education Act (ESEA) of 1965 was passed by President

Lyndon B. Johnson to provide financial aid to school districts to cover the cost of educating disadvantaged students under a statutory section known as Title I (Klein, 2015). One of the ESEA's multiple reauthorizations was NCLB (2002) which began a modern era of increased accountability regarding the performance of all students. Measures were enacted that required schools to meet yearly measures of academic performance and growth called adequate yearly progress (AYP). This reform movement echoed the *A Nation at Risk* report and called for greater rigor and increased literacy and graduation rates (Kimmelman, 2006; USDE, 1983). NCLB was followed by the Common Core State Standards (CCSS) Initiative of 2009 developed by the National Governors Association (NGA) and the Council Chief State School Officers (CCSSO) to standardized proficiency and further address student performance and college and career readiness skills (CCSS, 2015). This response was largely a result of successive poor showings on the Program for International Standardized Assessment (PISA). In 2015, the United States ranked approximately 24th in reading, 25th in science, and 39th in mathematics which supported a need for additional reform (USDE, 2017). Further, these results showed no significant gains for the United States since the first PISA test was administered in 2000 (USDE, 2017).

Due to legislation such as the NCLB and standards reform such as Common Core, the term "college readiness" quickly became embedded in the public's lexicon and a primary goal of curricular reform (Conley, n.d., 2007, 2010, 2012). Various educational leaders and organizations have defined college readiness in a myriad of different ways; however, they have agreed that literacy, specifically writing, is a key component of college readiness (Calkins, Ehrenworth, & Lehman, 2012; Conley, 2007, 2012; NCW,

2006; NGA & CCSSO, 2010; Strul & Vargas, 2012). According to Conley (2007), “writing may be by far the single academic skill most closely associated with college success” (p. 5). College courses in all content areas increasingly have required students to possess well-developed writing skills in order to master key concepts and demonstrate advanced cognitive processes (Conley, 2007). In the years since *A Nation at Risk* was published, many educators such as Judith Langer, Arthur Applebee, Donald Graves, and Nancie Atwell emerged to promote writing instruction as a tool to develop critical thinking skills, increase student achievement, and improve college and career readiness (Atwell, 2015; Graves, 1994; Langer & Applebee, 1987). The 1990s ushered in an era of renewed emphasis on literacy in the United States (Applebee & Langer, 2013). With the introduction of the Common Core in 2010, writing gained equal importance to reading in literacy instruction (Calkins et al., 2012).

Further complicating discussions about writing has been the belief that learning to write is not a “generalizable, elementary skill” (Russell, 2002, p. 6). Writing cannot be easily taught once and applied within any context or setting (Perin, 2013; Russell, 2002). In fact, writing is a subject-specific skill (Applebee & Langer, 2013; Perin, 2013) that requires teachers to be highly trained in instructional strategies that ensure all students receive instruction that is authentic and appropriate for the content area and grade level of the student (Conley 2010; NCW, 2006). Different content areas have different approaches to writing making it difficult for students to gain expertise in writing (Fisher & Frey, 2012). Students have struggled with writing because teachers have not been effectively teaching writing (Graham & Perin, 2007a, 2007b).

The National Center for Education Statistics reported in 2011 that only 27% of twelfth graders were at or above proficiency in writing as reported by the NAEP (USDE, 2011b). In 2004 and again in 2014, approximately 40% of high school graduates reported significant gaps in their academic preparation (Achieve, Inc., 2014). Additional studies reported as many as 60% of first-year college students were required to enroll in remedial courses in English or mathematics (USDE, 2011a). In addition to these troublesome statistics, clearly defined measures of success and college readiness have not existed; assessing college readiness has been difficult at best, and “the entire notion of college readiness is evolving at a rapid pace” (Conley, 2010, p. 262). While many states have adopted curriculum standards in ELA and other curricular areas, they have not made college and career readiness a focus of their accountability systems (Achieve, Inc., 2014). As of 2014, only nine states developed state assessments that were aligned with state standards and designed to provide evidence of college readiness (Achieve, Inc., 2014; Conley, 2010). Kansas was not one of these states.

The setting for the study was District X, a large school district in Kansas in the Kansas City metropolitan area. As of 2016, approximately 68% of District X’s housing consisted of single-family homes and 32% were duplexes, condos, or multi-family dwellings (District X, 2016). The median income was \$103,899, and the average home value was \$317,700 (District X, 2016). The district is comprised of five high schools and an overall K-12 enrollment of approximately 22,700 for the 2016-2017 school year, with 8% qualifying for free or reduced lunch (District X, 2016). The district reported a graduation rate of 97% and a dropout rate of 0.03% (District X, 2016). District X’s

strategic plan has been focused on academic and personal growth and has sought to provide students with college and career readiness opportunities (District X, 2015).

In 2016, District X reported some of the highest average ACT and SAT composite scores within the Kansas City metropolitan area. The composite scores of over 25 and 1900, respectively, were the highest averages in the history of the school district and exceeded state and national averages (District X, 2016). Moreover, in 2014 approximately 91% of District X students participated in college credit-bearing courses during high school (District X, 2016). Despite these reported levels of achievement, data from the National Student Clearinghouse Research Center (NSCRC) regarding the number of District X students enrolled in remedial courses in college or persistence and retention rates of these graduates were not readily available. Student privacy protections granted by the Family Educational Rights and Privacy Act (FERPA) affected the timeliness and amount of data reported (NSCRC, 2016). District X (2016) reported that its graduates' persistence, retention, and graduation rates from traditional 4-year colleges were well above the national average. Even if District X students' persistence and retention rates exceeded national averages, there would be cause for concern in that the Clearinghouse reported that of students who began college in the fall of 2014, almost 40% of them did not return to the same school, and approximately 28% did not return to school at all (NSCRC, 2016).

Teacher turnover and mobility were found to be contributing factors to the inconsistent writing practices in core content-area classrooms (USDE, 2014). For the period of 2012-2013, approximately 8% of teachers left the profession including 7% of teachers with 1-3 years of experience (USDE, 2014). Additionally, up to 38% of teachers

changed school districts during this time (USDE, 2014). These national trends in teacher mobility have impacted the continuity of writing instruction within high school classrooms. At the beginning of 2016, District X reported 192 new hires with approximately 70% being new to the profession (District X's Director of Assessment and Research, personal communication, October 5, 2016). In 2016-2017, new hires accounted for approximately 14% of secondary core content-area staffing (District X's Director of Assessment and Research, personal communication, October 5, 2016). At the beginning of 2016, District X reported 1,848 certified teachers districtwide, indicating a yearly turnover of between 5-10% (District X's Director of Assessment and Research, personal communication, October 5, 2016).

While there has been some uncertainty about teachers' preparedness to teach writing, college-bound students will need well-developed writing skills to complete their education requirements. Graduates will generally be required to enroll in writing intensive courses in college (Graham, MacArthur, & Fitzgerald, 2013). Also, the Kansas College and Career Readiness Standards (KCCRS), based on the Common Core ELA standards, were designed for educators to employ a shared responsibility of teaching the writing standards across content areas (Calkins et al., 2012). Surveying core content-area teachers can provide a meaningful opportunity to identify how AIA in writing was used by teachers to teach writing. The analysis of the data could be used to inform intentional teaching practices and more effectively prepare teachers to teach writing across all content areas.

Statement of the Problem

Despite the considerable literature that exists on the topic of writing, little research has been published that identifies teachers' reported use of evidence-based or research-supported practices (Kiuahara et al., 2009). Also, standardized writing data has been limited or unavailable making it difficult for school districts to evaluate students' writing performance. District X leaders desired a means of identifying the intentional writing practices of teachers to inform the professional development for all core content-area District X teachers to ensure they feel prepared to teach writing in their individual content areas. Surveying teachers about their intentional writing practices provided an opportunity to examine the link between classroom instruction and student performance in writing and inform future classroom instruction and professional development for all teachers.

Decades of research in the area of writing and literacy has revealed that many graduating seniors have not been ready for the academic rigor of college. In 2007-2008, between 36-42% of first-year undergraduates self-reported having taken at least one remedial course in math, English, or writing (USDE, 2011a). Only about one third of these students who have been required to take remedial courses upon entering college have remained in college and earned a four-year degree (Graves, 2008; Strong American Schools, 2008). Not only were students struggling to read and synthesize complex texts to formulate informed opinions to write for real purposes (Calkins et al., 2012), they were not using writing to explore new concepts and subsequently develop individual interpretations about them (Applebee & Langer, 2013).

Established by the College Board in 2002, the NCW (2006) concluded that the teaching of writing is the responsibility of all content areas and recommended that writing becomes a focus of school reform noting the lack of training in the teaching of writing and an insufficient amount of time devoted to writing-specific instruction. The commission recommended that writing needed to be authentically assessed and teachers needed professional development in the teaching of writing (NCW, 2006). Although English teachers have been well-versed in writing theory, they have lacked the practical experience of teaching writing (Broder, 1990). The NCW (2006) has concluded that teachers from all content areas are generally ill-prepared to teach writing.

Purpose of the Study

This dissertation study was comprised of three purposes. The first purpose was to determine the frequency, equity of distribution, and rank order of AIA in writing. The second purpose was to identify whether there were discipline-specific differences between and among four core content areas. The third purpose was to identify teachers' perceptions of their preparedness to teach writing. Content-area teachers from four core academic content areas were surveyed regarding their approaches, methods, and strategies used to teach writing within their content areas. Teacher survey responses were analyzed to determine which AIA in writing were used most frequently by teachers in different content areas and if teachers perceived that they were prepared to teach writing.

Significance of the Study

District X leaders expressed interest in a study of the writing practices of high school teachers to better inform their decision making regarding professional development and resources that support writing within its high schools. The results of

this study are relevant to educators within District X and may have implications that could inform college teacher preparation programs. By identifying the frequency, equity of distribution, and rank order of the use of AIA in writing, this study could inform the development of a districtwide framework of effective writing instruction. An additional contribution of this study could be the offering of professional development opportunities for improving teachers' instructional practices in writing. Finally, the results of this study could be used to inform college teacher preparation programs about gaps in their curriculum.

Delimitations

Delimitations, as defined by Lunenburg and Irby (2008), are “self-imposed boundaries set by the researcher on the purpose and scope of the study” (p. 134). This quantitative methods study was limited to a survey of core content-area teachers employed in District X during the 2016-2017 school year. The delimitations in this study were determined to gain insight into the AIA in writing of high school teachers. The delimitations set for this study included:

1. The Teacher Writing Survey (TWS), adapted from the High School Writing Practice Survey (Kiuahara et al., 2009), was used to survey teachers for the study.
2. Only data for the 2016-2017 school year were collected and included in the study.
3. Only District X teachers employed during the 2016-2017 school year were included in the study.

4. Only high school core content-area teachers (English, mathematics, science, and social studies) were included in the study.
5. The study only investigated the practices and perceptions of teachers in the area of writing.
6. The survey reported frequency of the uses of writing activities, instructional practices, adaptations, and examined attitudes about preparedness to teach writing.

Assumptions

As defined by Lunenburg and Irby (2008), assumptions are “postulates, premises, and propositions that are accepted as operational for the purposes of the research” (p.

135). This study included the following assumptions:

1. Teachers surveyed understood the nature of teaching writing.
2. Teachers responded to the survey accurately.
3. Teachers reported their perceptions of how they teach writing.
4. The survey data accurately reflect the perceptions of the respondents.
5. The data were collected accurately using Google Forms.
6. All data converted from a CSV file into Excel and entered into the JASP version 0.8.0.1 software and VassarStats: Website for Statistical Computation (www.vassarstats.net) for analysis were accurate.

Research Questions

This study sought to examine the differences in how District X high school content-area teachers teach writing and determine their perceptions of their preparedness to teach writing. In that research questions become a “directional beam for the study”

(Lunenburg & Irby, 2008, p. 126), the following research questions were used to guide the study:

RQ1. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing activities for all high school teachers regardless of content area?

RQ2. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing instruction for all high school teachers regardless of content area?

RQ3. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing adaptations for all high school teachers regardless of content area?

RQ4. What were the frequency (percent) of responses, equity of distribution, and rank order for perceptions about preparedness to teach writing for all high school teachers when broken down by content area?

RQ5. What were the frequency (percent) of use, equity of distribution, and rank order for writing activities for all high school teachers when broken down by content area?

RQ6. What were the frequency (percent) of use, equity of distribution, and rank order for writing instructional practices for all high school teachers when broken down by content area?

RQ7. What were the frequency (percent) of use, equity of distribution, and rank order for writing adaptations for all high school teachers when broken down by content area?

Definition of Terms

Terms specific to this research have been identified and defined to assist the reader in an accurate interpretation of the intent and findings of this study. For these purposes, the following definitions are provided:

AIA. Evidence-based or research supported writing activities, instructional practices, and adaptations (Kiuahara et al., 2009).

Core content areas. The most common subject areas of English, mathematics, science, and social studies are traditionally referred to in public schools as the core content areas (Calkins et al., 2012).

Preparedness. A teacher's perceptions of his or her ability to teach writing based on experience, training, and knowledge of instructional practices (USDE, 1999).

Writing activities. The types of writing assigned to high school students (Kiuahara et al., 2009).

Writing adaptations. Intentional teacher practices designed to meet the needs of individual students beyond the practices conducted with other students in the classroom (Kiuahara et al., 2009).

Writing instructional practices. Evidence-based or research-supported methods and strategies designed to teach writing (Graham et al., 2013; see also Kiuahara et al. 2013).

Organization of the Study

This research study is presented in five chapters. Chapter one included the background of the study, statement of the problem, the purpose of the study, the significance of the study, delimitations, assumptions, research questions, the definition of

terms, and the organization of the study. Chapter two provides a comprehensive review of the literature that includes a brief history of rhetoric, a history of writing instruction in the United States from pre-1900s to the present including key reform movements and researchers, the impact of learning theory on writing instruction, an examination of AIA in writing, and research related to teacher preparedness to teach writing. Chapter three describes the methodology used for this research study including the research design, selection of participants, instrumentation, data collection, data analysis procedures, and limitations. Chapter four presents the study's findings including descriptive statistics and hypothesis testing. Chapter five provides a summary of the entire study, discussion of the findings related to the literature, implications for action, recommendations for further research, and conclusions.

Chapter Two

Review of the Literature

This dissertation was comprised of three purposes. The first purpose was to determine the frequency, equity of distribution, and rank order of evidence-based or research-supported assignments, instructional strategies, and adaptations (AIA) in writing. The second purpose was to identify whether there were discipline-specific differences between and among four core content areas. The third purpose was to identify teachers' perceptions of their preparedness to teach writing by core content area. Specifically, this study utilized perceptual survey data to examine how core content-area teachers teach writing. A thorough review of literature related to writing instruction was conducted to provide an understanding of the various historical and contemporary perspectives that have shaped modern instructional writing practices. This review is understood to represent a comprehensive effort to identify AIA in writing and investigate the factors that influence teacher preparedness to teach writing effectively.

Presented in this chapter is a review of the literature related to the history of writing instruction, particularly an overview of key reform movements and research of best practices in writing. This literature review includes an early history of rhetoric, a history of the events and individuals that have shaped the development of writing instruction within the United States from the 19th through the 21st century, and a discussion of the impact of learning theory on writing instruction. Special attention was given to AIA in writing. The literature review concludes with research about teacher preparedness and attitudes toward writing.

History of Rhetoric

Throughout the history of mankind, education has been a source of power for those privileged enough to have access to it. People have relied on the spoken word to communicate, entertain, educate, and pass along history. In many societies, oral communication equated to status and power and was thought to be reserved for the elite (Murphy, 2012a). Much of our current understanding of communication can be traced to the Greek city-state of Athens, widely considered the first literate community in ancient times (Enos, 2012). This early form of speaking and writing was called rhetoric and focused primarily on the art of spoken work. However, a closer examination of the evolution of communication has revealed that language, specifically writing, developed in many cultures to fulfill a wide range of needs including civic, educational, business, and labor (Enos, 2012).

In ancient Greece, rhetoric developed as an artful means of oral communication. In the Homeric tradition, emphasis was placed on memorizing information, language, and history to preserve culture; early writing was rudimentary and was limited to simple mathematical functions such as using tally marks for accounting purposes (Enos, 2012). Over time and with the development of the Greek alphabet, writing instruction became integrated into the teaching of rhetoric, particularly with the Sophist movement of formalized education, as ancient Greeks realized its power to “aid in creating discourse and to refining patterns of thinking” (Enos, 2012, p. 6). Ironically, ancient philosophers such as Socrates, Plato, and even the Father of Rhetoric himself, Aristotle, were loud critics of early writing instruction (Enos, 2012). Aristotle’s objections were, in fact, a criticism of the Sophist teachings, and he saw the power of writing as a complex,

dynamic process. However, it was his contemporary and chief rival, Isocrates, who deserves credit for developing writing as part of the classical curriculum (Enos, 2012). Nevertheless, Isocrates and Aristotle were instrumental in transforming writing into a highly complex skill for problem solving, abstract thought, and expression, which would later be formalized into a systematic rhetorical education by the Romans (Enos, 2012).

From the fall of the Roman Empire until the Renaissance, the principles of rhetoric remained largely unchanged. During the 16th century, classical Dutch scholar and Humanist, Desiderius Erasmus, laid the foundation for the Latinate curriculum that would become the standard curriculum in what would become English Grammar Schools and would greatly influence the Jesuit educational system taught at universities throughout Europe (Abbott, 2012; Enos, 1996; Murphy, 2012b). Like many scholars of his time, Erasmus believed that knowledge of Latin created students whose expression was “elegant and eloquent” (Abbott, 2012, p. 150). In early education, style was greatly revered within the academic community.

The 18th century marked a pivotal change in the educational landscape across Europe. Population and economic growth led to a call for educational reforms that would provide more educational opportunities to a greater number of students (Ferreira-Buckley, 2012). A number of non-Anglican universities were created to cater to the growing middle class; these redbrick universities began to focus on English as an academic subject as opposed to the more traditional Latin (Ferreira-Buckley, 2012). With economic growth and changes in industry, many jobs called for written communication as the need to deliver speeches grew less important (Ferreira-Buckley, 2012). In the mid-1800s, literacy rates were low among the working class. As a result,

Britain enacted the Payment by Results in 1862 that established the first standardized system of assessment and the Education Acts of 1870 and 1891 which guaranteed free public education for all students ages 5 to 13 (Ferreira-Buckley, 2012). Like Britain, America's education system would also undergo a period of extensive growth followed by successive periods of reformation and change. Beginning with the American Revolution to the early 1800s, writing instruction in America was greatly influenced by the English version of classical rhetoric (Bordelon, Wright, & Halloran, 2012).

Writing Instruction in 19th-century America

The 19th century introduced a period of considerable political, social, and economic change as the United States faced extensive geographical and population growth. Education across the nation mirrored that of Britain and was reserved primarily for the wealthy elite or the religious clergy (Russell, 2002). Before the emergence of the modern university during the 1870s, being literate was defined by a completion of "the old liberal curriculum" (Russell, 2002, p. 20). This curriculum was "highly language dependent" and focused on traditional methods of "recitation, disputation, debate, and oral examination" (Russell, 2002, p. 20). Rather than a series of content-specific courses, similar to today's modern college or university, the liberal curriculum consisted of one singular and required course of study (Russell, 2002). This curriculum emphasized oral rhetoric; however, writing was considered essential in developing speaking and held a prominent place in academia.

The use of recitation and rhetorical were standard within the old curriculum, and writing was a critical component of each of these practices. Recitation often required the student to read a passage or text, translate it in writing, and construct written responses to

questions about the text (Russell, 2002). A rhetorical was a public demonstration of persuasive skill that was typically written out and critiqued by the professor in advance of exhibition (Russell, 2002). Rhetoricals were the basis for formal examinations and were used to assess the student over the entire range of curriculum studies (Russell, 2002). Over time, universities such as Princeton and Harvard began to create an American rhetoric based largely on the works of Hugh Blair who introduced “principles of taste and criticism” into the rhetorical tradition (Bordelon et al., 2012, p. 212). Soon, students began writing compositions and embraced literature study as important components of academia (Bordelon et al., 2012). This academic shift coupled with new technologies that developed during the Industrial Revolution made writing more accessible to working-class Americans (Bordelon et al., 2012). Gradually, writing became a required skill for communication in the workplace and was no longer reserved for the wealthy elite.

Following the Civil War, the American economy grew rapidly as did the number of college-age men (Russell, 2002). The Morrill Land-Grant College Act of 1862 was passed to make college more accessible to citizens regardless of wealth or status (Russell, 2002). The drastic increase in the numbers of students from diverse educational backgrounds made “recitation and disputation unworkable” in the new era of university education (Bordelon et al., 2012, p. 216). In other words, the educational system of the time could not adequately or efficiently meet the demands of a growing population of students. The increasing number of land-grant colleges during the late 19th century had another significant impact on the educational landscape. These schools adopted the Germanic education model that featured a new elective curriculum focused on research in

specific disciplines (Russell, 2002). As enrollment in these and other colleges for women, minorities, clergy, and specific trades increased, so did the discord among educators who began to fragment and classify knowledge into various curricular areas (Russell, 2002). The compartmentalization of knowledge was the result of “the transparency of rhetoric and the marginalization of writing instruction” (Russell, 2002, p. 24). In essence, individual disciplines became so focused on curricular knowledge that discourse, particularly writing, became ignored and viewed as “something that should have been learned elsewhere, taught by someone else—in high school or in a freshman ‘service’ course” (Russell, 2002, p. 24). Veysey (1965) referred to this educational shift as “the patterned isolation of its component parts” (p. 338). This shift affected writing instruction by emphasizing “written correctness” over “communicative competence” (Bordelon et al., 2012; Russell, 2002, p. 50).

Toward the end of the 19th century, enrollments continued to increase, and disciplines became more specialized. Consequently, colleges and universities found it difficult to provide uniform instruction in writing (Russell, 2002). A primary effect of mass education was the false belief that education in the past was better, and the cause of decreased literacy prowess existed outside the university system and the world of academia (Rose, 1985; see also Russell, 2002). Rose (1985) called this the “myth of transience” (p. 355). Placing blame on high schools and grammar schools for declining literacy skills gave rise to the development of general composition courses. Educational reformer, Horace Mann, introduced written examinations as a solution to this problem (Russell, 2002), but these exams had an unintended consequence. Students were simply repeating information rather than utilizing more complex processes to think critically or

solve problems. Rhetoric, as it had traditionally been taught, was no longer meeting the needs of society.

In 1869, Harvard began to modify their old rhetorical into the forensic system, which was a written adaptation of oral debate and embedded college-wide writing requirement throughout all four years of college for all students (Russell, 2002). Many colleges would follow, and this practice system became an accepted part of the elective curriculum in many American colleges and universities (Russell, 2002). As a result of the forensic system, university faculties did not have to address the role of writing within their specific academic disciplines which further marginalized the skill (Russell, 2002). In a sense, the myth of transience helped to explain how remediation, particularly in writing, has become commonplace in the American education system.

The watershed moment that significantly impacted writing instruction and forever changed schooling in America was the formation of the Committee of Ten (Gold et al., 2012; Russell, 2002). As the number and variety of secondary schools grew across the country, educational leaders questioned the purpose of secondary schools. Many traditionalists believed that secondary schools existed to prepare students for higher education, whereas reformers argued for a well-rounded liberal arts education that focused on practical courses for students (Applebee, 1974; Gold et al., 2012; Mackenzie, 1894; Russell, 2002). In 1892, the National Education Association (NEA) commissioned a group of respected educators, chaired by Harvard president Charles W. Eliot, to address secondary school curriculum reform (Applebee, 1974; Gold et al., 2012; Mackenzie, 1894; Russell, 2002). The group organized a series of subject-area conferences; the result was the standardization of education in American. Recommendations from these

conferences included eight years of elementary education and four years of high school, a structure that American schools still follow today (Mackenzie, 1894). Despite the impassioned arguments from Samuel Thurber of Boston, who believed that all teachers should be responsible for writing instruction, the Committee of Ten recommended a new curriculum developed during the English Conference which made writing instruction the responsibility of the English curriculum (Applebee, 1974; Gold et al., 2012; Mackenzie, 1894; Russell, 2002). Thus, the focus of the English curriculum became communication and appreciation of reading literature (Applebee, 1974; Mackenzie, 1894). In addition to relegating writing to the English curriculum, the Committee of Ten specifically noted that composition should comprise only 30% of the new curriculum and should be taught through the analysis of literature (Russell, 2002). While English was given a place of prominence as the only course required of all students for all four years of high school (Applebee, 1974), this edict was largely responsible for marginalizing the role of writing instruction in secondary schools.

Writing Instruction in 20th-century America

The Progressive Era (1890-1920) marked a period of significant change to secondary and higher education in the United States. After the convening of the Committee of Ten, educators remained at odds about the purpose of education and how to most effectively teach writing. Harvard was the noted center of the current-traditional rhetoric model of writing which shifted “attention from the rhetorical canon of invention—the search for the right line of argument to persuade a given audience in a contingent situation—to arrangement and style, with instruction emphasizing the modes of discourse, clarity, and correctness” (Gold et al., 2012, p. 237). This model, which is

still widely used today, placed greater emphasis on writing as a product and restricted the writer's creativity and voice through structures such as the five-paragraph essay and an overemphasis on spelling and mechanics (Berlin, 1987).

On the other hand, schools such as Yale promoted a "liberal cultural" ideal that focused on writing as a means of expression to create literature rather than rhetoric (Berlin, 1987; Gold et al., 2012) and resisted the use of composition courses to teach writing (Russell, 2002). In 1918, the NEA authored the *Cardinal Principles of Secondary Education* which effectively married the two opposing approaches to education and writing instruction (Russell, 2002). As a result of this document and a subsequent report entitled the *Reorganization of English in Secondary Schools* of 1917, English courses were designed to provide social equity and meet the individual, social, and personal needs of the student (Gold et al., 2012; Russell, 2002). Writing instruction became a largely utilitarian practice as "the industrial model of education won the battle for control of curricula in America" (Russell, 2002, p. 166).

John Dewey's idea of progressive education envisioned a general education curriculum centered on communication "to heal the divisions in industrial democracy and transcend its dehumanizing specialization and alienation" (Russell, 2002, p. 200). Dewey-progressives argued against the efficient, industrialized model of mass education in favor of an education that reflected and embraced the cultural differences throughout the country (Berlin, 1987; Russell, 2002). Mirroring the philosophical differences between Harvard and Yale, progressive educators found it difficult to find common ground within their own movement and remained split about writing's status in education. The expressivist view argued for a child-centered curriculum and continued to

see English curriculum and writing as an art form (Berlin, 1987; Gold et al., 2012), while social reconstructionists argued for an integrated writing curriculum that was cross-curricular in nature (Russell, 2002). The latter viewpoint arose during the post-Depression 1930s as an answer to social reform. What followed were two reports from the National Council of Teachers of English (NCTE): *An Experience Curriculum in English* in 1935 and *A Correlated Curriculum* in 1936 (Gold et al., 2012). Influenced by the social reconstructionist view, these reports influenced how writing was taught by calling for it to be integrated across the curriculum. As a result, formal grammar instruction was abandoned. The 1930s marked the last formal attempt during the 20th century to integrate writing at the college level. Instructional practices were specific to each content area and remained largely undefined. The correlated curriculum solidified the legacy of the Committee of Ten and ensured a new tradition of American education that was a “differentiated structure of discrete disciplines” (Russell, 2002, p. 222). This curriculum helped define the notion of English, mathematics, science, and social studies as traditional core content-area subjects (Russell, 2002).

After World War II, the United States experienced a dramatic expansion in the number of secondary and higher education institutions and the variety of programs offered (Russell, 2002). Enrollment doubled from 1930-1950, and the percentage of students age 14-17 increased from 50.7 to 76.1 (Gold et al., 2012). Postwar prosperity resulted in a growing demand for writing in the workplace as a means of record keeping and communication. However, technological advances during this information age, such as the IBM computer and Scan-Tron, diminished the role of writing in the classroom (Russell, 2002). Machine-scored, objective tests replaced essay exams which allowed for

students to be sorted more easily. Consequently, programs and curriculums became increasingly differentiated allowing little time for periods of extended writing in the classroom (Applebee, 1981, 1986; Applebee & Langer, 2006). Concerns began to mount about the quality of American education, specifically literacy, in the United States.

The launching of the Soviet Sputnik on October 5, 1957, coincided with the beginning of modern education reform. Not only did this event initiate the Space Race, but many critics of American education argued that it symbolized the superiority of the Soviet educational system (Herold, 1974). Sputnik became a rallying cry for educational reformers which led to numerous published reports such as James B. Conant's *The American High School Today* in 1959 (Herold, 1974). Conant's bestselling book helped quell concerns about the American education system. Conant argued that comparisons to the education systems of other countries were not valid. The author noted that America's comprehensive education system not only provided a good general education for all students, but it also prepared students for college and vocations (Herold, 1974). Critics of Conant's work viewed his assessment of American education as superficial; however, the popularity of his work following the success of Sputnik helped refocus education reform efforts in the United States (Herold, 1974). In some respects, Conant's book laid the foundation for the modern college and career readiness movement.

Following reforms such as the National Defense Education Act (NDEA) of 1958 which focused on improving math and science education, writing became further marginalized in the 1960s as literature replaced writing at the center of English curriculums. In 1964, the NDEA officially included literature as part of its reform initiatives (Gold et al., 2012) effectively returning the burden of writing reform to the

faculties of liberal arts colleges (Applebee, 1974). Moffett's 1968 book, *A Student-Centered Language Arts and Reading, Grades K-13: A Handbook for Teacher*, provided a wide range of specific ideas for teaching writing through the universe of discourse. This book initiated a wave of practical publications over the last 40 plus years that helped shape modern writing instruction. In the same year, NCTE released *High School English Instruction Today* which exposed how little students were writing, particularly those not enrolled in advanced courses geared toward gaining entry into college (Gold et al., 2012). In 1969, Emig provided the foundation for what would become the writing to learn approach to writing. Emig was the first to identify and describe the stages of the writing process as defined by prewriting, drafting, revising and editing, and publishing (Gordon, 1996). Her stages of writing are still considered the educational standard in today's classrooms.

In 1974, James Gray founded the Bay Area Writing Project (BAWP) based on James Britton's British model professional development for writing (Gold et al., 2012; Russell, 2002). The BAWP partnered with area school districts to promote best practices of effective writing instruction. The BAWP would eventually become the National Writing Project (NWP) as it expanded to multiple states and was funded with federal monies (Russell, 2002). Despite the success of this grassroots movement, *Newsweek* published "Why Johnny Can't Write" in 1975. This article was written as a response to the reported decrease in literacy test scores by American students. Sheils (1975) criticized American education stating that it was "spawning a generation of semiilliterates" (p. 58).

Despite the increasing efforts to improve writing instruction, very little research has been done about the writing practices of teachers. In response, Applebee (1981) conducted the first national survey of writing in schools. His findings did not help to alleviate public criticism. The study revealed that students did very little in-depth writing and had very few opportunities for extended writing (Applebee, 1981). In fact, most of the writing required of students was performed in isolation for strictly the purposes of navigating class routines. The teacher was the sole audience, and the focus of writing exercises was on correctness and not connected to other learning activities (Applebee, 1981; Jordan, 1982). Applebee's study challenged the belief that "writing is a generalizable mechanical skill, learned once and for all at an early age" (Russell, 2002, p. 292). He concluded that traditional ideas of writing correctness were an obstacle to improving writing instruction across the curriculum generalizing writing instruction as "prescriptive and product-centered" (Applebee, 1986, p. 95). The study raised questions about discipline-specific writing conventions, structures, and genres and advocated for student-centered writing instruction as a daily part of every class (Applebee, 1981). His work would become instrumental in reforming teacher pedagogy in the area of writing.

The pattern of criticism continued in 1983 with the release of *A Nation at Risk* by the United States Department of Education (USDE). The presidential commission addressed concern about the "widespread perception that something is seriously remiss in our educational system" (USDE, 1983, p. 4). The landmark document reported 23 million adults as functionally illiterate and stated that student performance on standardized tests such as the SAT was lower than when the Sputnik was launched (USDE, 1983). Roughly 80% of 17-year-olds were deemed incapable of writing a

persuasive essay (USDE, 1983). The study demonstrated the growing number of students requiring remediation in English was evidence of a watered down and homogenized curriculum (USDE, 1983). Despite the condemnation of teachers' instructional practices by calling them "incoherent, outdated patchwork quilt," the report provided only one specific recommendation for writing. Students were expected to be able to "write well-organized, effective papers" (USDE, 1983, p. 22). The authors called for the need for sound writing development in the eight grades before high school (USDE, 1983). While many of the report's criticisms were well-founded, many of the problems identified in the report have yet to be resolved today (Graham, 2013).

Writing instruction continued to evolve during the 1990s as computer technology made writing more accessible and efficient. Also, a growing body of research and the writing workshop approach renewed interest in teaching writing (Gordon, 1996). Among the many influences of writing workshop were Elbow and Hillocks. Elbow's influence can be traced back to the 1950s when he argued that learning to write could effectively occur without explicit teacher-directed instruction (Elbow, 1973). He popularized the notion of free writing as a natural stream-of-consciousness approach to help students develop more authentic writing (Elbow, 1973). He also wrote about the importance of feedback to improve student writing and introduced criterion and reader-based methods (Elbow, 1981). Hillock's pedagogical approach dispensed of traditional modes of presentational teaching that stressed formal grammar and mechanics over rhetoric (Gold et al., 2012; Hillocks, 1986). He believed in a systemic approach to authentic writing that engaged students in using writing to address real-world problems through inquiry (Gold et al., 2012; Hillocks, 1986). The work of Elbow and Hillocks influenced the work of

Graves and Murray who have been credited with the development of writing workshop. Their model of writing instruction focused on writing as a process and believed in writing for real-world purposes and audiences (Calkins, 2008). Writing workshop also emphasized student choice and integrated explicit instruction in writing via mini lessons (Calkins, 2008). Practitioners such as Calkins were instrumental in growing this movement as she sought to develop lifelong and independent writers.

In addition, the writing across the curriculum movement (WAC), which emerged at the college level in the 1970s, had successfully taken root in secondary schools (Russell, 2002; Williams, 2003). WAC attempted to address decades of social and educational inequality following *Brown v. Topeka Board of Education* (Russell, 2002) and elevate writing to greater prominence in more than just English classrooms (Williams, 2003). Traditionally, English teachers have been burdened with the responsibility of teaching writing, yet a considerable amount of writing takes places in other content areas (Applebee, 1981; Williams, 2003). The fact that English teachers have been trained in literature does not qualify them as effective writing instructors, particularly as it relates to other content areas. WAC “proposes that all teachers are, in one way or another, language and writing teachers; thus, not just writing assignments but also writing instruction should be a significant part of teaching in all disciplines” (Williams, 2003, p. 68). This approach also recognized that different kinds of writing are required for different purposes and audiences and emphasized writing as a tool to promote learning by engaging students as critical thinkers and communicators for authentic purposes and tasks (Applebee, 1981, Russell, 2002; Williams, 2003). As a result of WAC’s growth throughout the United States, school districts developed

systematic approaches to training teachers to teach writing (Gordon, 1996) and embed writing-to-learn strategies within their content.

Writing Instruction in 21st-century America

In 1965, President Lyndon Johnson enacted the Elementary and Secondary Education Act (ESEA) to raise achievement in response to his war on poverty (Jorgensen & Hoffman, 2003). To address the criticism identified in *A Nation at Risk*, the ESEA was reauthorized in 1994 as the Improving America's Schools Act (IASA) which began to address the performance of all students (Jorgensen & Hoffman, 2003). The Goals 2000: Educate America Act enacted in the same year required schools to demonstrate measurable improvement in student achievement (Jorgensen & Hoffman, 2003). Together, IASA and Goals 2000 set the stage for the age of accountability and the era of No Child Left Behind (NCLB; 2002). This reauthorization of ESEA significantly changed the role of achievement testing to ensure the academic growth of all students. NCLB (2002) required states to use standardized assessments to monitor the achievement of all students and meet yearly achievement gains. This measure was called Annual Yearly Progress (AYP). While states had some flexibility how to spend federal monies, schools were required to demonstrate improvement among all students, specifically among disadvantaged subgroups. Failure to meet AYP resulted in both financial and educational supports and possible organizational restructuring over time (Jorgensen & Hoffman, 2003).

In 2003, the National Commission on Writing (NCW) published *The Neglected "R"* that stated "American education would never realize its potential as an engine of opportunity and economic growth until a writing revolution puts language and

communication in their proper place in the classroom” (p. 3). The report suggested the need for states to evaluate their standards and develop writing policy that addressed the amount of time students spend writing across all curricular areas (NCW, 2003). These recommendations were largely based on the 1998 National Assessment of Educational Progress (NAEP) results that indicated that approximately one quarter of American students at grades four, eight, and twelve were at or above proficiency as writers (NCW, 2003). In other words, students did not have “the high level of skill, maturity, and sophistication required in a complex, modern economy” (NCW, 2003, p. 16). The most recent NAEP results for writing in 2011 showed little change reporting the percentage of students at or above proficient at 27% (USDE, 2011b).

The American Diploma Project (2004) found that the high school diploma no longer represented the skillset needed for a student to be successful in college or the workplace which thrust writing to center stage. In response, high-quality academic English language arts standards were created in 2010 by the Common Core State Standards Initiative (CCSS) in cooperation with the National Governors Association (NGA). The standards “present a comprehensive view of adolescent writing demands” (Perin, 2013, p. 53). These standards were specifically designed to be integrated into other content areas and provide a research- and evidenced-based approach to literacy instruction in the classroom (Calkins et al., 2012; CCSS, 2015). In essence, the Common Core standards offered real writing reform in which writing gained equal footing with reading in terms of literacy (Calkins et al., 2012). The standards specifically addressed the writing demands of students in grades K-12 in order to be college and career ready. They also clearly identified the types of writing students have been expected to produce

and articulated the hierarchy of advanced writing skills that students will use to communicate, research, think critically, and problem solve (Applebee & Langer, 2013; Calkins et al., 2012). The standards viewed writing as a process. Also, the standards clearly addressed expectations regarding purpose, production and distribution, and range of writing (Applebee & Langer, 2013; Calkins et al., 2012).

Impact of Learning Theory

Throughout the history of American education, reform has often reflected en vogue learning theory of the time. Writing has also been uniquely shaped by social learning theory. Modern writing instruction reflects the evolution and synthesis of multiple learning theories. Similar to the notion that phonics have been considered foundational reading skills that all students must learn; many writing instructors have continued to teach foundational writing skills of grammar and mechanics separate from the complex act of composition. This pedagogical approach to writing was very much rooted in Skinner's behaviorist theory of the 1900s that learning was akin to programming (Shafer, 1998). Researchers such as Chomsky and Goodman countered these ideas about writing spawning the whole language movement (Blake & Pope, 2008; Shafer, 1998). Within the context of whole language, reading was a means to make meaning while writing a means to express meaning. Whole language advocates believed grammar to be an innate body of knowledge that we all share, and language is about the construction of meaning (Gold et al., 2012; Shafer, 1998). Literacy, specifically writing, must occur in integrated, purposeful, authentic, and social contexts (Gold et al., 2012). This approach to writing questioned the role of foundational writing skills as a prerequisite to writing development. Bruner (1966), a cognitive psychologist and

constructivist, advanced the notion of writing as a complex process rooted in discovery learning. He rejected Piaget's notion of readiness and stages of development and challenged Chomsky's notion that literacy develops in the absence of instruction (Bruner, 1966; Gold et al., 2012). Along with Vygotsky, Bruner argued that a student is capable of learning at any age.

Vygotsky, a Soviet psychologist and social constructivist, may have had the greatest impact on present day writing instruction. He believed that cognitive development is a continuous process. His Zone of Proximal Development theory advanced the idea that inner thought and oral language are separate but related processes developed through social interaction and positively affected by qualified teacher instruction (Blake & Pope, 2008; Everson, 1991; Vygotsky, 1978, 1986). Vygotsky believed that "classroom writing instruction should provide an environment where students are able to externalize their thoughts gradually, freely, and completely" (Everson, 1991, p. 10). His research supported the idea that writing is separate from speech and is an "abstract, voluntary, and conscious" process (Vygotsky, 1986, p. 238). Difficulties with writing reflect a student's struggles with translating his inner speech (Everson, 1991; Vygotsky, 1986). Vygotsky's work resulted in scaffolded instruction through social interaction via cooperative learning. Combined with the influence of Maslow and other humanists, the focus of writing theory has shifted from teacher-centered instruction to student-centered learning, and a synthesis of these various learning theories have been reflected in the Common Core standards and AIA in writing.

Evidence-based or Research-supported Writing Instruction

The amount of research on writing instruction has increased since the results of Applebee's *Writing in the Secondary School* (1981) were published. Several studies (Applebee, 1981, 2011; Applebee & Langer, 2013; Graham & Perin, 2007; Hillocks, 1986; Kihara et al., 2009) have shown writing to be a highly contextual process that is most effectively taught for different purposes and audiences. These studies have confirmed that writing is more than a means of communication; it is an essential tool for learning (Applebee, 1981; Applebee & Langer, 2013). Hillocks (1986) was one of the first to advance our understanding of writing instruction by analyzing effects of specific instructional strategies and practices on student achievement. However, Graham and Perin (2007) recognized that students who struggle to write effectively are at a significant disadvantage. They conducted a meta-analysis of previous writing studies specifically to identify the AIA in writing that were most effective. Graham and Perin's (2007) comprehensive examination of effective writing instruction identified 11 elements as among the most effective AIA in writing:

1. Teaching writing strategies that embrace all the stages in the writing process.
2. Teaching summarizations as a skill to more effectively understand texts.
3. Employing a collaborative approach to writing that allows students to work together throughout the writing process.
4. Helping students to identify and set specific and attainable writing goals.
5. Allowing students to utilize technology and word processors to support the writing process.

6. Teaching sentence combining skills that allow for greater sophistication in writing.
7. Engage students in prewriting activities that help students to generate and develop ideas for writing.
8. Utilize inquiry activities to require students to use analytical skills in preparation for writing tasks.
9. Employ a process writing approach that allows for a variety of extended writing opportunities for authentic purposes and audiences.
10. Provide and study models of good writing.
11. Use writing as a tool for learning content-specific material (pp. 4-5).

These elements have represented best practice in writing instruction across all content areas and have served as the foundation for continuing research in writing. Hattie's (2009) meta-analysis of writing research reported a medium to large effect size for many of the writing practices identified by Graham and Perin in 2007 which included the following: teaching writing as a process ($d = 0.82$), teaching summarizing ($d = 0.82$), employing a collaborative approach to writing ($d = 0.75$), identifying writing goals ($d = 0.70$), teaching sentence combining skills ($d = 0.50$), and using word processing to support writing ($d = 0.50$).

While many research studies have targeted different elements of writing instruction, very few sought to identify the specific writing expectations of individual core content-area classrooms. Beginning in 2005 with funding from the National Writing Project and the College Board, Applebee and Langer (2006, 2009, 2013) conducted the *National Study of Writing Instruction* (NSWI) to understand the changes in writing that

have occurred since Applebee's original 1981 study, *Writing in the Secondary School*. Specifically, the NSWI identified content-specific writing demands for students in the core content areas as reported by secondary teachers. Applebee and Langer (2009, 2011, 2013) revealed that the majority of writing instruction occurred in the English classroom. A reported 90% of English teachers employed strategies to teach writing (Applebee & Langer, 2013). Also, 85% of English teachers used models to teach writing as compared to 43% of other content areas (Applebee & Langer, 2013). Despite the research indicating the importance of providing opportunities for extended writing (Applebee, 1981, Graham & Perin, 2007) ELA teachers reported that only 12% of their extended writing assignments required more than three pages (Applebee & Langer, 2013). ELA teachers reported the following as most important (listed in order of percentage of responses): critical analyses of issues or text (96%), student response or interpretation (94%), explanations of subject-area concepts (89%), persuasive writing (85%), and personal essays (85%) (Applebee & Langer, 2013). In comparison, social studies teachers reported the following as most important: explanation of subject-area concepts (68%), critical analysis of an issue or text (60%), applying concepts to new situations (51%), analysis and synthesis across multiple texts (41%), and student response and interpretation (35%) (Applebee & Langer, 2013). Of note, social studies teachers also reported the importance of studying models of writing (57%) and teaching writing strategies (42%) (Applebee and Langer, 2013).

In contrast, the NSWI revealed little evidence of extended writing in the science classroom (Applebee & Langer, 2013). Science teachers reported the following as most important: formulating hypotheses and making deductions (98%), explaining subject-area

concepts (96%), recording observations (96%), and writing lab reports (92%) (Applebee & Langer, 2013). While there was some evidence of higher level application of writing, much of the reported writing was for the purpose of task completion. Similarly, the NSWI found little evidence of complex writing with math. Although the National Council of Teachers of Mathematics have advocated for the inclusion of writing, math teachers reported the following as most important: complete numerical calculations (100%), copy notes (95%), and complete multiple-choice, fill-in-the-blank, or short-answer questions (81%) (Applebee & Langer, 2013). While 94% of math teachers indicated the importance of teaching disciplinary writing, less than 1% require more than one paragraph of writing within their content area (Applebee & Langer, 2013).

The NSWI's comprehensive examination of secondary core content-area teachers writing practices indicated that teachers' knowledge about teaching writing has grown; however, it also revealed the difficulty in providing a comprehensive and consistent writing curriculum that meets the individual demands of core content areas. The NSWI found little evidence of opportunities for extended writing or the use of writing for more complex learning processes (Applebee & Langer, 2013). Specifically, the study's analysis of NAEP data showed that much of the writing required of students addressed "only a subset of the academic skills and knowledge students need" (Applebee & Langer, 2013, p. 31). Most of the writing experiences at the secondary level were best described as assign and assess due to the lack of explicit instruction (Applebee & Langer, 2013; Gallagher, 2006).

In conducting the NSWI, Applebee and Langer had to interpret background questions asked of students, teachers, and administrators on the NAEP; however, these

questions were not a main component of the test nor were they consistent on consecutive administrations of the test (Kiuahara et al., 2009). Kiuahara et al. (2009) were concerned about “the paucity of available data” (p. 137) in writing and developed their High School Writing Practice Survey (HSWPS) to examine the AIA in writing as reported by secondary ELA, science, and social studies teachers. The 76-item survey asked teachers to respond to how frequently they employed a variety of AIA to teaching writing in their content area ranging from never to several times a day (Kiuahara et al., 2009). Of the 711 teachers surveyed, 361 responded for a response rate of 51% (Kiuahara et al., 2009, p. 138). The study revealed that the frequency and type of AIA varied across content areas with ELA teachers generally reporting a more frequent use of all AIA (Kiuahara et al., 2009).

Across all three content areas, the most common writing assignments reported were responses to short-answer questions, responses to material read, and summarization of material read (Kiuahara et al., 2009). The HSWPS found that ELA teachers required more writing assignments that were more imaginative and creative when compared to writing activities in the other content areas (Kiuahara et al., 2009). However, social studies teachers were more likely to assign writing for informational purposes such as the five-paragraph essay or responses to document-based questions (Kiuahara et al., 2009). Also, 81% of social studies teachers assigned at least one multiparagraph writing assignment on a monthly basis as compared to 67% of ELA teachers (Kiuahara et al., 2009). In contrast, 26% of science teachers reported not assigning any multiparagraph writing in class (Kiuahara et al., 2009). Sciences teacher reported writing activities such as worksheets that promoted understanding of science-related concepts (Kiuahara et al.,

2009). The most reported writing assignment in science was the lab report (Kiuahara et al., 2009). Only 38% of ELA teachers, 26% of social studies teachers, and 15% of science teachers required students to use writing to respond to material read several times a week (Kiuahara et al., 2009)

The most frequently reported instructional strategies by over half of all content-area teachers were verbal praise, direct instructional methods, and the establishment of specific goals for writing (Kiuahara et al., 2009). ELA teachers reported using these strategies more frequently than other content area teachers. Specifically, ELA teachers most frequently employed the following strategies: sentence combining skills, process approach to writing, word processing, establishing goals, feedback, and summarizing (Kiuahara et al., 2009). Social studies teachers reported using the following: sentence combining skills, process approach to writing, using models of writing, and providing feedback (Kiuahara et al., 2009). The use of writing adaptations for struggling students was infrequent across all disciplines with the exception of having students write about what they have read which was used weekly by 30% of all teachers surveyed (Kiuahara et al., 2009, p. 146).

Kiuahara et al. (2009) concluded that students were required to write for a variety of purposes across all content areas, but were not consistently engaging in complex writing activities requiring analysis, interpretation, or writing for extended periods. The frequently reported writing practices included “writing without composing,” and the differences in AIA by core content areas were noted as “predictable” (Kiuahara et al., 2009, p. 151). According to Perin (2013), writing instruction at the secondary level has

not adequately prepared students for college writing tasks. The NSWI and HSWPS findings have raised questions about teachers' preparedness to teach writing.

Teacher Preparedness to Teach Writing

In 2003, the NCW announced that writing was the most neglected of the three Rs: reading, writing, and arithmetic. The NCW (2003) stated that “writing today is not a frill for the few, but an essential skill for the many” (p. 11). Their findings noted that more than 90% of professionals identified the need to write effectively in their jobs (NCW, 2003). Simply put, students have not been graduating with the necessary skill in writing due, in part, to teachers' lack of training (Graham & Perin, 2007; NCW, 2003; Smagorinsky et al., 2011; USDE, 1983) and confidence in teaching writing (Al-Bataineh et al., 2010; Bratcher & Stroble, 1994; Brenner, 2013; Dismuke, 2015; Grisham & Wolsey, 2011; Street & Stang, 2009; Troia & Graham, 2003). Perin (2013) stated a major discrepancy between writing at the secondary and college level was that college required more multiparagraph writing. Despite the increased rigor of the Common Core standards, preservice teacher training has not been aligned with this rigor and has not adequately prepared teachers to teach writing in their individual content area (Dismuke, 2015).

The NCW's report provided numerous recommendations regarding writing reform in the United States. Among them, the NCW (2003) called for writing in all subject areas and grade levels, common expectations about writing across the disciplines, and federal and state funding to feature writing in the curriculum. Several studies (Brenner, 2013; Grisham & Wolsey, 2011; NCW, 2003; Smagorinsky et al., 2011; Totten, 2005) noted that higher education failed to adequately prepare prospective

teachers in writing and rarely required them to take courses in writing methods or theory. The NCW (2003) recommended that states require prospective teachers to receive training in writing as a condition of licensure. Also, teachers have needed more accessible and intensive professional development in the teaching of writing (Bratcher & Stroble, 1994; Calkins & Pessah, 2008; Dismuke, 2015; Kiuahara et al., 2009; NCW, 2003). Despite numerous reports calling for reform or the efforts of organizations such as the National Writing Project to provide training, teachers have not received the comprehensive, widespread, and continuous support or professional development necessary for them to effectively teach writing in their content areas.

Summary

Early education and rhetoric were synonymous in the United States until political, economic, and cultural forces affected changes to the American education system to meet the demands a diverse and growing population at the turn of the century. What followed was more than a century of intellectual tug-o-war in reform. A gap has existed between what we know about effective writing instruction and our current instructional practices. According to Gold et al. (2012), years of tradition have resulted in the public perception that writing is best taught through grammar and mechanics. Consequently, the institution of writing has not reflected AIA, leaving writing in a curricular limbo. While most educators have agreed that writing is a foundational college, career, and life skill, there continues to be an ongoing battle concerning who should be responsible for teaching it and how.

The review of literature in this chapter has informed the research undertaken for this dissertation. The chapter began with the early history of rhetoric and continued with

the evolution of writing in American education throughout the nineteenth, twentieth, and twenty-first centuries. The review of literature also examined the impact of learning theory and current evidence-based or research-supported activities, instructional practices, and adaptations. Finally, concerns about teacher preparedness to teach writing were examined.

Writing has always been critical to learning. While there is still much to learn about writing, research has identified best practices in the teaching of writing, but these practices are not being used consistently or effectively in secondary classrooms. The literature was found to support the use of AIA in writing across all content areas while acknowledging content-specific differences. The literature also provided evidence of teacher's lack of preparedness to teach writing. For these reasons, this study was developed to inform the development of a districtwide framework of effective writing instruction and professional development opportunities for improving teachers' effectiveness in teaching writing. Chapter three provides an explanation of the methods used to address the research questions presented in chapter one.

Chapter Three

Methods

This dissertation was comprised of three purposes. The first purpose was to determine the frequency, equity of distribution, and rank order of AIA in writing. The second purpose was to identify whether there were discipline-specific differences between and among four core content areas. The third purpose was to identify teachers' perceptions of their preparedness to teach writing by core content area. To investigate these issues, the researcher surveyed District X teachers from core content areas about their perceived writing practices. The investigation was designed to identify intentional instructional writing practices within core content-area classrooms to gain a deeper understanding of the nature of writing instruction at the high school level and to inform decision making regarding districtwide writing supports and reform such as the development of future professional development and allocation of resources. Chapter three contains an explanation of the research methodology for this study. The chapter includes a description of the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations.

Research Design

A non-experimental quantitative cross-tabulation survey research design was used to guide this study. This approach was appropriate because survey research allows for a practical review of instructional practices. A survey was modified and adapted to collect information about how core content-area teachers teach writing. Participants completed the Teacher Writing Survey (TWS) in December of the 2016-2017 school year. Teachers were asked to estimate the frequency of use of evidence-based or research-supported

assignments, instructional strategies, and adaptations (AIA) in writing. The results were also used to determine if there were discipline-specific frequency differences between and among core content areas. In addition, the results were used to measure teachers' perceptions of their preparedness to teach writing.

The following variables were identified for this study: teachers' frequency of use of writing activities in their core content-area classrooms, teachers' frequency of use of writing instructional practices in their core content-area classrooms, teachers' frequency of use of writing adaptations employed with students who are struggling with writing in their core content-area classrooms, and teachers' attitudes about their preparedness to teach writing to high school students within their core content-area classrooms. The survey results were analyzed to determine the frequency, equity of distribution, and rank order of intentional AIA in writing.

Participant responses were tabulated by counting the number of times each word was selected (frequency). The numeric values were converted to percentages for each corresponding item then rank ordered from the most frequent to the least frequent within each category (writing activities, writing instructional practices, writing adaptations, and preparedness to teach writing). Two tests of significance were applied to answer the research questions. A chi-square goodness of fit test was applied to the data which allowed for the researcher to measure the equity of distribution. A chi-square test of independence was also applied to the data which allowed it to be cross-categorized using contingency tables to measure the distribution of equity and identify differences between and among content areas.

Selection of Participants

The population of interest for this study was all content-area teachers in the core subjects of English, mathematics, science, and social studies. The population consisted of participating high school teachers from five different high schools within District X employed during the 2016-2017 academic school year. High schools in District X included teachers licensed to teach grades 9-12. There were 237 certified core content-area high school teachers employed in District X during the 2016-2017 school year (District X's Director of Assessment and Research, personal communication, October 5, 2016).

Sampling procedures. The study employed a nonrandom convenience sampling procedure. In this study, the convenience sample provided the means to examine the intentional writing practices of high school content-area teachers through an analysis of survey research. The survey results were used to examine teachers' utilization of evidence-based or research-supported instructional practices in writing, their use of writing adaptations to meet the individual needs of students, and their overall preparedness to teaching writing. A list of the population was created using building master schedules and compiled by the Director of Assessment and Research for District X. All core content-area high school teachers were invited via District X email. The email communication included information about consent as well as an attached cover letter stating that the teachers' participation is voluntary, and completion and submission of the survey indicated consent to participate.

Measurement

A survey design allowed for generalizations and inferences to be made about the population by providing “quantitative or numeric description of trends, attitudes, or opinions” drawn from a sample of that population (Creswell, 2014, p. 155). The High School Writing Practice Survey (HSWPS) developed by Kiuvara et al. (2009) was modified with author permission and adapted to an electronic format using Google Forms to make data collection more efficient. Email addresses were made available through District X’s Outlook server.

Teacher Writing Survey (TWS). The survey instrument used for this study (see Appendix A) was modified and adapted with author permission from the High School Writing Practice Survey developed by Kiuvara et al. (2009) to examine how core content-area high school teachers (English language arts, science, and social studies) teach writing. The developers originally created a 76-item instrument to collect information regarding teachers’ writing instructional practices and used a variety of formats including Likert-type items. For purposes of continuity, clarity, and viability, the survey was modified to address this study’s research questions and reflect current research. The adapted survey consisted of 33 Likert-type items and was developed by the researcher to collect data concerning the writing-specific instructional practices of core content-area high school teachers. Content items were based on comprehensive research of AIA in writing. The adapted survey consisted of five sections:

1. Background information about the teacher participants.
2. Writing activities used in the content-area classrooms.
3. Writing instructional practices used to teach writing.

4. Writing adaptations employed to help struggling students.
5. Teachers' perceptions of preparedness to teach writing (Kiuvara et al., 2009, p. 156-160).

The five-part survey used Likert-type questions to identify writing instructional practices of core content-area high school teachers. Part I of the survey was used to collect demographical information about teachers including gender, content area taught, highest degree completed, and total years of teaching experience. This section consisted of items numbered 1-4.

On parts II-IV, the participants were asked to respond to the frequency of numbered items by indicating *Never*, *Sometimes*, or *Often*. Part II of the survey was used to collect data regarding the frequency of writing assignments teachers utilized during their instruction. This section consisted of items numbered 5-14. Part III was used to collect data about teachers' frequency of writing instructional practices used in the classroom. This section consisted of items numbered 15-21. Part IV was used to collect data about the frequency of writing adaptations utilized by teachers to meet the needs of individual students. This section consisted of items numbered 22-29.

On part V of the survey, the participants responded *Strongly Disagree*, *Disagree*, *Neutral*, *Agree*, or *Strongly Agree* by selecting the corresponding box in response to each numbered item. The fifth and final section was used to collect data about teachers' perceptions of their preparedness to teach writing. This section consisted of items numbered 30-33.

Validity and reliability. Validity has been defined by Lunenburg and Irby (2008) as "the degree to which an instrument measures what it purports to measure" (p. 181),

and reliability as “the degree to which an instrument consistently measure whatever it is measuring” (p. 182). Content validity of the TWS instrument was established through the use of a validity panel consisting of five District X teacher leaders representing the four corresponding core content areas of English, mathematics, science, and social studies. Creswell (2014) defines content validity as the extent to which the “items measure the content they were intended to measure” (p. 160). A draft of the modified survey was reviewed, and feedback was provided regarding redundancy and viability of the survey instrument. The validity panel’s suggestions were used to combine or eliminate the number of items from 38 to 33 due to extraneous or redundant items. Subsequently, the teacher leaders were provided the revised survey items, research questions, and variables. The teacher leaders confirmed that the items were appropriate for each of the intended variables and aligned with the study’s research questions.

The TWS instrument consisted of 33 Likert-type items divided into five parts. Parts II-IV surveyed teachers about their frequency of use of AIA in writing using three responses ranging from “never” to “often.” Part V surveyed teacher’s perceptions about their preparedness to teach writing within their core content area using five responses ranging from “strongly disagree” to “strongly agree.”

Internal consistency reliability was determined using a Cronbach’s Alpha analysis methods to measure how well the survey instrument addressed different constructs and delivered reliable scores. Coefficients of reliability were calculated using the JASP version 0.8.0.1 software. The reliability coefficient threshold was set at .70. An alpha of .70 is generally accepted as reliable. It was determined that the survey was valid and reliable; therefore, it was suitable for use to collect data in the study.

Data Collection Procedures

Permission to modify and adapt the HSWPS instrument for use in this study was requested via email on October 16, 2016, from Dr. Sharlene Kiuahara, lead author and co-developer of the instrument (see Appendix B). Approval was obtained via electronic mail on October 18, 2016 (see Appendix C). An electronic survey instrument was created using Google Forms to allow for ease of administration and data collection.

Prior to collecting data, a formal request was submitted to conduct research in District X (see Appendix D). This request was approved on November 1, 2016 (see Appendix E). Upon receiving approval, a proposal for research was submitted to the Institutional Review Board (IRB) of Baker University (see Appendix F). Approval was granted on December 5, 2016 (see Appendix G).

Data collection was conducted electronically via district email and Google Forms. The Teacher Writing Survey was adapted using Google Forms for ease of data collection. An initial email correspondence was sent on December 6, 2016, to all District X high school core content-area teachers. These names were compiled from building master schedules and obtained from the district's Director of Assessment and Research. This email included correspondence explaining the purpose of this study and a link to the survey itself. This information was also included in a cover letter attached to the email (see Appendix H) to serve as documentation for the participants' records. A subsequent request for participation was made to teachers one week following the initial email request. Data collection was concluded on December 20, 2016. Survey data was collected by a third-party teacher leader to ensure confidentiality and anonymity of participants. Using a feature in Google Forms, survey data was automatically converted

to a simple CSV (comma-separated values) file in Google Sheets. This CSV file was electronically transferred via email to the researcher for conversion to Excel. The survey data was then input into the JASP software and VassarStats website for statistical analysis.

Data Analysis and Hypothesis Testing

Responses to each of the items in the survey were analyzed in relationship to one of the research questions addressed in the study. For purposes of this study, the level of significance was set at $\alpha = .05$. This study was conducted to address the following research questions and hypotheses.

RQ1. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing activities for all high school teachers regardless of content area?

HI. Equity of distribution was found in survey items 5-14 for the frequency of responses for evidence-based or research-supported writing activities for all high school teachers regardless of content area.

A chi-square goodness of fit test was used to address this question. The level of significance was set at .05. Equity of distribution was determined by comparing the responses in each of the three categories.

RQ2. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing instruction for all high school teachers regardless of content area?

H2. Equity of distribution was found in survey items 15-21 for the frequency of responses for evidence-based or research-supported writing instruction for all high school teachers regardless of content area.

A chi-square goodness of fit test was used to address this question. The level of significance was set at .05. Equity of distribution was determined by comparing the responses in each of the three categories.

RQ3. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing adaptations for all high school teachers regardless of content area?

H3. Equity of distribution was found in survey items 22-29 for the frequency of responses for evidence-based or research-supported writing adaptations for all high school teachers regardless of content area.

A chi-square goodness of fit test was used to address this question. The level of significance was set at .05. Equity of distribution was determined by comparing the responses in each of the three categories.

RQ4. What were the frequency (percent) of responses, equity of distribution, and rank order for perceptions about preparedness to teach writing for all high school teachers when broken down by content area?

H4. Equity of distribution was found in survey items 30-33 for the frequency of responses for evidence-based or research-supported writing activities for all high school teachers when broken down by content.

A chi-square test of independence was used to address this question. The level of significance was set at .05. Equity of distribution was determined by comparing the

responses in each of the five categories to determine if responses were independent or dependent of the content area.

RQ5. What were the frequency (percent) of use, equity of distribution, and rank order for writing activities for all high school teachers when broken down by content area?

H5. Equity of distribution was found in survey items 5-14 for writing activities for all high school teachers when broken down by content area.

A chi-square test of independence was used to address this question. The level of significance was set at .05. Equity of distribution was determined by comparing the responses in each of the three categories to determine if responses were independent or dependent of the content area.

RQ6. What were the frequency (percent) of use, equity of distribution, and rank order for writing instructional practices for all high school teachers when broken down by content area?

H6. Equity of distribution was found in survey items 15-21 for writing instructional practices for all high school teachers when broken down by content area.

A chi-square test of independence was used to address this question. The level of significance was set at .05. Equity of distribution was determined by comparing the responses in each of the three categories to determine if responses were independent or dependent of the content area.

RQ7. What were the frequency (percent) of use, equity of distribution, and rank order for writing adaptations for all high school teachers when broken down by content area?

H7. Equity of distribution was found in survey items 22-29 for writing adaptations for all high school teachers when broken down by content area.

A chi-square test of independence was used to address this question. The level of significance was set at .05. Equity of distribution was determined by comparing the responses in each of the three categories to determine if responses were independent or dependent of the content area.

Limitations

Defined by Lunenburg and Irby (2008, p. 133), “limitations are factors that may have an effect on the interpretation of the findings or on the generalizability of the results.” Limitations of this study included:

1. Results from this study represent the population from which the sample was drawn.
2. The survey instrument limited the range of frequency responses per items. Therefore, the study may be limited by the survey instrument’s capability to accurately reflect frequency of use of writing activities, instruction, and adaptations.
3. Participants were asked to report their intentional use of writing activities, instruction, and adaptations. However, these actions were not observed. The study may be limited by the teachers’ reported writing practices.
4. Participants understanding of the terms associated with the survey items and AIA in writing may vary.
5. Participation in the study was strictly voluntary.

Summary

The current study utilized a non-experimental quantitative cross-tabulation design to determine the frequency, equity of distribution, and rank order of AIA in writing. The study also examined whether content-area teachers perceived they were adequately prepared to teach writing. A final purpose was to identify whether there were discipline-specific differences between and among core content areas regarding how they teach writing. A survey instrument was modified and adapted to investigate the writing practices of core content-area high school teachers. The survey instrument consisted of five parts and 33 Likert-type items designed to measure the variables addressed in the five research questions for this study. This chapter presented an overview of the methodology used in the study including a detailed description of the selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations. Chapter four presents the data collected and a discussion of the results compiled from the study.

Chapter Four

Results

This dissertation study was comprised of three purposes. The first purpose was to determine the frequency, equity of distribution, and rank order of evidence-based or research-supported assignments, instructional strategies, and adaptations (AIA) in writing. The second purpose was to identify whether there were discipline-specific differences between and among four core content areas. The third purpose was to identify teachers' perceptions of their preparedness to teach writing.

District X high school content-area teachers from four core academic content areas were surveyed regarding their approaches, methods, and strategies used to teach writing within their content areas. Teacher survey responses were analyzed to determine which AIA in writing were used most frequently by teachers in different content areas and if teachers perceived that they were prepared to teach writing. The research was conducted to better inform decision making regarding professional development and resources that support writing within District X high schools. The results of this study were intended to inform the development of a districtwide framework of effective writing instruction and professional development opportunities for improving teachers' instructional practices in writing. Finally, the results of this study could be used to inform college teacher preparation programs about gaps in their curriculum. Chapter four presents the results of the data analysis for the hypotheses associated with each of the research questions posed in the study.

Descriptive Statistics

The target population for this research study was limited to 237 core content-area high school teachers (ELA, math, science, and social studies) from District X employed during the 2016-2017 school year. The sample consisted of 105 secondary level core content-area teachers who participated in the Teacher Writing Survey reflecting a response rate of 44.3%. Seventy-one of the teachers (67.6%) were female, and 34 (32.4%) were males. All 105 participating teachers reported their core content-area teaching assignment (see Table 1). Forty-one percent identified themselves as ELA teachers compared to no more than 21% in any of the other content areas.

Table 1

Content Area Reported by District X Teacher Participants

Content area	<i>n</i> (<i>N</i>)	% of Sample
ELA	43 (62)	41
Math	21 (68)	20
Science	22 (57)	21
Social studies	19 (50)	18
Total	105 (237)	100

All 105 participating teachers reported their highest college degree attained (see Table 2). A majority of teachers (80%) reported having attained more than a bachelor's degree.

Table 2

Highest Degree Attained Reported by District X Teacher Participants

Degree	<i>n</i>	%
Bachelor's	21	20
Master's	73	69.5
Above master's	11	10.5
Total	105	100

Note. Above master's reflects combined totals for reported Education Specialist and doctoral degrees as reported on item 3 on the Teacher Writing Survey.

All 105 participating teachers reported the number of years they have been teaching (see Table 3). A majority of the teachers (60%) reported working as a teacher for more than 10 years. Thirty-eight percent of the participating teachers identified their experience as between 1-10 years.

Table 3

Years of Experience Reported by District X Teacher Participants

Years of Experience	<i>n</i>	%
First year	2	1.9
1-5 years	20	19.0
6-10 years	20	19.0
11-20 years	33	31.4
More than 20 years	30	28.6
Total	105	100

Note. Total % does not equal 100% due to JASP rounding errors.

Definition of Regularly. For the purpose of comparison, responses of “sometimes” and “often” have been combined under the description of “regularly”; however, this was not intended to imply routine use of any AIA in writing. Rather, regularly was intended to suggest intentional and repeated use.

Results of the survey indicated a difference in reported use of AIA in writing between and among content areas (see Table 4).

Table 4

Most Regularly Reported Use of AIA by Core Content Area (95% or Above)

	AIA in ELA (19 out of 25)	AIA in Math (1 out of 25)	AIA in Science (5 out of 25)	AIA in Social Studies (4 out of 25)
Characteristics	Narrative	Short answer	Computer	Checklists
Checklists	Persuasion		Feedback	Feedback
Choice	Presentation		Models	Models
Computer	Process approach		Reflection	Short answer
Conference	Reflection		Short answer	
Extended time	Research			
Feedback	Short answer			
Foundational skills	Time			
Informational	Variety of purposes			
Models				

Note. Regularly = Often + Sometimes.

ELA used 19 of 25 AIA in writing as compared to no more than five in any other content area. Science used 5 of 25, social studies used 4 of 25, and math used 1 of 25. Using writing to respond to short answer questions was the only AIA in writing used by 95% of the teachers across all content areas. Models and feedback were the only other two strategies used by three content areas.

Hypothesis Testing

The results of the hypothesis testing to address the seven research questions that guided this study are discussed in this section. Each research question has been followed by its corresponding hypothesis statement. The method used to test each hypothesis has been described as well as the results of each test. The significance level of $p = .05$ was utilized for all statistical analysis. The survey instrument can be found in Appendix A. Chapter four contains three tables to support the descriptive analysis of the study's sample. Seven summary tables have been included to clarify the results of hypothesis testing and to synthesize the analysis of the chi-square tests and research findings.

Cronbach's Alpha. Cronbach's Alpha was used to calculate internal consistency reliability of survey items 5-33. The writing activities subscale consisted of 10 items ($\alpha = .758$). The writing instruction subscale consisted of seven items ($\alpha = .902$). The writing adaptations subscale consisted of eight items ($\alpha = .886$), and the preparedness subscale consisted of four items ($\alpha = .801$). An alpha greater than .70 has been widely accepted as reliable; therefore, the Teacher Writing Survey was considered to have acceptable internal consistency reliability (George & Mallery, 2003).

Chi-Square tests. Chi-square tests were used to test the research hypotheses. The JASP software and VassarStats: Website for Statistical Computation were utilized to

analyze the survey data for this research study. The variables for research questions 1-3 were tested using a chi-square goodness of fit test to determine equity of distribution for the frequency of response for all participants. Variables for research questions 4-7 were tested using a chi-square test of independence to determine equity of distribution for the frequency of response of all participants when broken down by content area.

RQ1. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing activities for all high school teachers regardless of content area?

H1. Equity of distribution was found in survey items 5-14 for the frequency of responses for evidence-based or research-supported writing activities for all high school teachers regardless of content area.

A chi-square test of goodness of fit was performed to determine whether there was equity of distribution regarding the reported use of evidence-based or research supported writing activities in core content-area classrooms (see Table 5). Equity of distribution was found for Item 8 (persuasive writing) which supported H1; however, the findings for all other items were significant and showed no equity of distribution. Therefore, H1 was not supported; there was a variance in frequency of use of individual evidence-based or research-supported writing activities. More than 70% of all respondents reported regular use of all identified writing activities with the exception of Item 13 (technical writing) and Item 7 (narrative writing). Over 40% of teachers never used these two activities in their classrooms while more than 50% regularly used them. Writing for the purpose of completing learning tasks (Item 5), answering short answer

questions (Item 11), and reflecting (Item 9) were the most frequently used activities by over 90% of the teachers.

Table 5

Summary of Proportional Distribution of Writing Activities: Rank Order by Never, Frequency (%), and Equity of Distribution

Survey Item	Writing Activity	Never	Sometimes	Often	Regularly	χ^2	Sig.
Item 13	Technical	46.70	46.70	6.70	53.40	31.97	***
Item 7	Narrative	44.80	48.60	6.70	55.30	32.18	***
Item 8	Persuasive	27.60	36.20	36.20	72.40	1.48	ns
Item 10	Research	25.70	55.20	19.00	74.20	22.28	***
Item 14	Presentation	21.00	66.70	12.40	79.10	51.06	***
Item 12	Summary	18.10	52.40	29.50	81.90	18.31	***
Item 6	Informational	17.10	51.40	31.40	82.80	17.83	***
Item 9	Reflection	5.70	58.10	36.20	94.30	41.56	***
Item 11	Short answer	1.00	24.00	75.00	99.00	86.06	***
Item 5	Learning tasks	1.00	46.20	52.90	99.10	47.77	***

Note. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ns (not significant) $p > .05$.

Note 2. Regularly = Often + Sometimes.

RQ2. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing instruction for all high school teachers regardless of content area?

H2. Equity of distribution was found in survey items 15-21 for the frequency of responses for evidence-based or research-supported writing instruction for all high school teachers regardless of content area.

A chi-square test of goodness of fit was performed to determine whether there was equity of distribution regarding the reported use of evidence-based or research-supported writing instruction in core content-area classrooms (see Table 6). Equity of distribution was found for Item 15 (process approach to writing), Item 16 (writing for an extended period), Item 20 (teaching foundational writing skills), and Item 21 (teaching characteristics of writing) which supported H2. The findings for Item 17 (writing for a variety of purposes), Item 18 (writing models), and Item 19 (feedback) were significant and showed no equity of distribution. Therefore, H2 was not supported; there was a variance in frequency of use of individual evidence-based or research-supported writing instruction. Despite the variance for these items, only two thirds of the teachers regularly used these specific types of writing instruction, and at least 30% never used these types of instruction. Using good models of writing (Item 18) and providing feedback to students about their writing (Item 29) were the most frequently used types of writing instruction by over 89% of the teachers. Also, 58% of teachers regularly asked students to write for a variety of purposes and audiences (Item 17); however, 41% never asked students to write for different purposes and audiences.

Table 6

Summary of Proportional Distribution of Writing Instruction: Rank Order by Never, Frequency (%), and Equity of Distribution

Survey Item	Writing Instruction	Never	Sometimes	Often	Regularly	χ^2	Sig.
Item 17	Variety of purposes	41.90	44.80	13.30	58.10	18.19	***
Item 20	Foundational skills	38.10	37.10	24.80	61.90	3.29	ns
Item 16	Extended time	34.30	30.50	35.20	65.70	0.37	ns
Item 21	Characteristics	33.50	42.90	23.80	66.70	5.47	ns
Item 15	Process approach	30.50	26.70	42.90	69.60	4.30	ns
Item 18	Models	10.50	49.50	40.00	89.50	24.82	***
Item 19	Feedback	8.60	29.50	61.90	91.40	43.27	***

Note. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ns (not significant) $p > .05$.

Note 2. Regularly = Often + Sometimes.

RQ3. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing adaptations for all high school teachers regardless of content area?

H3. Equity of distribution was found in survey items 22-29 for the frequency of responses for evidence-based or research-supported writing adaptations for all high school teachers regardless of content area.

A chi-square test of goodness of fit was performed to determine whether there was equity of distribution regarding the reported use of evidence-based or research-supported writing adaptations in core content-area classrooms (see Table 7). The

findings were significant for all items and showed no equity of distribution. Therefore, H3 was not supported; there was a variance in frequency of use of individual evidence-based or research-supported writing adaptations. Over 56% of teachers regularly used writing adaptations to help struggling writers. Providing strategies and checklists (Item 29), allowing the use of a computer for writing tasks (Item 22), and providing students with choices about writing topics (Item 26) were the most frequently used types of writing adaptations by over 80% of the teachers. Over 40% of the teachers never used peer assistance (Item 25) and writing goals (Item 27) as adaptations in their classrooms. One third of teachers did not decrease the length or complexity of writing assignments as an adaptation for struggling students (Item 24), and 57% used this adaptation sometimes. Similarly, 24% of the teachers never increased the amount of time for students to complete assignments (Item 28).

Table 7

Summary of Proportional Distribution of Writing Adaptations: Rank Order by Never, Frequency (%), and Equity of Distribution

Survey Item	Writing Adaptation	Never	Sometimes	Often	Regularly	χ^2	Sig.
Item 25	Peer assist	43.80	48.60	7.60	56.20	30.14	***
Item 27	Goals	43.80	41.90	14.30	56.20	16.36	***
Item 24	Length	32.40	57.10	10.50	67.60	32.61	***
Item 23	Conference	25.70	48.60	25.70	74.30	10.49	**
Item 28	Time	24.00	51.00	25.00	76.00	14.06	***
Item 26	Choices	19.00	49.50	31.40	80.90	14.13	***
Item 22	Computer	11.40	29.50	59.00	88.50	34.67	***
Item 29	Checklists	11.40	37.10	51.40	88.50	24.67	***

Note. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ns (not significant) $p > .05$.

Note 2. Regularly = Often + Sometimes.

RQ4. What were the frequency (percent) of responses, equity of distribution, and rank order for perceptions about preparedness to teach writing for all high school teachers when broken down by content area?

H4. Equity of distribution was found in survey items 30-33 for the frequency of responses for evidence-based or research-supported writing activities for all high school teachers when broken down by content.

A chi-square test of independence was performed to determine whether there was equity of distribution regarding teachers' perceptions of preparedness to teach writing in their classrooms when broken down by core content area (see Table 8). Equity of distribution was found for the effect of post-graduate training on teachers' perceived

preparedness to teach writing (Item 32) which supported H4. The findings for Item 30 (overall preparedness), Item 31 (undergraduate education training), and Item 33 (district training) were significant and showed no equity of distribution. Therefore, H4 was not supported; there were reported differences in the effects of different types of training on different core content areas. As to whether teachers were prepared to teach writing in their core content area (Item 30), 71.4% of math teachers and 31.8% of science teachers disagreed with this notion. In comparison, no ELA teachers and 5.3% of social studies teachers disagreed with this notion. One third of ELA teachers and over 50% of math, science, and social studies teachers disagreed with the notion that district training has prepared them to teach writing in their classrooms (Item 33). Over 30% of ELA and social studies teachers disagreed that their undergraduate training prepared them to teach writing (Item 31) compared to more than two thirds of math and science teachers. Math and science teachers consistently reported higher percentages of disagreement about the effect of different trainings on their preparation to teach writing as well as their overall perception to teach writing compared to ELA and social studies teachers.

Table 8

Summary of Proportional Distribution of Teacher Preparedness Broken Down by Content Area by Disagreement (%) and Rank Order by χ^2

Survey Item	Type of Preparation	ELA	Math	Science	Social Studies	χ^2	Sig.
Item 30	Perceived preparedness	0.00	71.40	31.80	5.30	83.35	***
Item 33	District	34.90	61.90	63.60	52.70	23.24	*
Item 31	Undergraduate	34.90	75.40	63.70	36.80	21.90	*
Item 32	Post-graduate	28.60	61.90	47.60	21.00	14.60	ns

Note. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ns (not significant) $p > .05$.

Note 2. Responses of “disagree” and “strongly disagree” were combined to reflect disagreement %.

RQ5. What were the frequency (percent) of use, equity of distribution, and rank order for writing activities for all high school teachers when broken down by content area?

H5. Equity of distribution was found in survey items 5-14 for writing activities for all high school teachers when broken down by content area.

A chi-square test of independence was performed to determine whether there was equity of distribution regarding the reported use of evidence-based or research-supported writing activities when broken down by core content area (see Table 9). Equity of distribution was found for short answer response to questions (Item 11) and technical writing (Item 13) which supported H5. The findings for all other items were significant and showed no equity of distribution. Therefore, H5 was not supported; there were differences by content area in the reported use of different types of evidence-based or research-supported writing activities. ELA teachers less frequently reported never using

8 of 10 of the writing activities compared to all other core content areas. Only 2.3% of ELA teachers never used narrative writing (Item 7) compared to over 50% in all other content areas. Approximately 50% of math teachers never used 7 of the 10 activities. Approximately one quarter of science teachers never used informational writing (Item 6) or technical writing (Item 13) in their classrooms, and one fifth did not use writing for research purposes (Item 10). Technical writing (Item 13) was the most frequently reported as never used by over 25% of all core content area teachers. Approximately 15% of social studies teachers did not use persuasive writing (Item 8) or writing for presentation purposes (Item 14), and nearly one third never used writing for research purposes (Item 10). Writing for the completion of learning tasks (Item 5), reflection (Item 9), and short answer response to question (Item 11) were the least frequently reported as never used in the classroom across all content areas.

Table 9

Summary of Proportional Distribution of Writing Activities Broken Down by Content Area by Never (%) and Rank Order by χ^2

Survey Item	Writing Activity	ELA	Math	Science	Social Studies	χ^2	Sig.
Item 8	Persuasive	0.00	76.20	45.50	15.80	65.99	***
Item 7	Narrative	2.30	81.00	86.40	52.60	59.36	***
Item 10	Research	0.00	81.00	18.20	31.60	53.65	***
Item 6	Informational	0.00	57.10	22.70	5.30	48.08	***
Item 12	Summary	7.00	61.90	9.10	5.30	37.62	***
Item 14	Presentation	4.70	52.40	27.30	15.80	28.00	***
Item 5	Learning tasks	2.40	0.00	0.00	0.00	22.78	***
Item 9	Reflection	4.70	9.50	0.00	10.50	16.33	*
Item 11	Short answer	0.00	4.80	0.00	0.00	12.32	ns
Item 13	Technical	48.80	47.60	27.30	63.20	9.96	ns

Note. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ns (not significant) $p > .05$.

RQ6. What were the frequency (percent) of use, equity of distribution, and rank order for writing instructional practices for all high school teachers when broken down by content area?

H6. Equity of distribution was found in survey items 15-21 for writing instructional practices for all high school teachers when broken down by content area.

A chi-square test of independence was performed to determine whether there was equity of distribution regarding the reported use of evidence-based or research-supported writing instruction when broken down by core content area (see Table 10). The findings

for all seven items were significant and showed no equity of distribution. Therefore, H6 was not supported; there were differences by content area in the reported use of different types of evidence-based or research-supported writing instruction. ELA teachers less frequently reported never using all seven of the different types of writing instruction as compared to the other core content areas. No more than 4.7% of ELA teacher reported never using any one of the types of instruction. Conversely, math consistently reported the highest percentage of teachers never using any one of the types of instruction. One third of math teachers never used any of the seven types of instruction. Over 80% of math teachers and 50% of science teachers never used 5 of 7 types of instruction including using a process approach (Item 15), writing for extended periods of time (Item 16), writing for a variety of purposes and audiences (Item 17), teaching foundational writing skills (Item 20), and teaching content-specific characteristics and structures of writing (Item 21). The use of models (Item 18) and feedback (Item 19) were the least reported as never being used across all content areas. Less than 5% of all ELA, science, and social studies teachers never used these two types of instruction; however, more than one third of math teachers never used these types of instruction.

Table 10

Summary of Proportional Distribution of Writing Instruction Broken Down by Content Area by Never (%) and Rank Order by χ^2

Survey Item	Writing Instruction	ELA	Math	Science	Social Studies	χ^2	Sig.
Item 15	Process approach	0.00	85.70	50.00	15.80	68.26	***
Item 18	Models	0.00	47.60	4.50	0.00	62.41	***
Item 16	Extended time	2.30	90.50	59.10	15.80	60.01	***
Item 19	Feedback	0.00	38.10	4.50	0.00	59.41	***
Item 17	Variety of purposes	4.70	95.20	63.60	42.10	56.49	***
Item 20	Foundational skills	2.30	81.00	68.20	36.80	50.02	***
Item 21	Characteristics	4.70	85.70	50.00	21.10	46.92	***

Note. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ns (not significant) $p > .05$.

RQ7. What were the frequency (percent) of use, equity of distribution, and rank order for writing adaptations for all high school teachers when broken down by content area?

H7. Equity of distribution was found in survey items 22-29 for writing adaptations for all high school teachers when broken down by content area.

A chi-square test of independence was performed to determine whether there was equity of distribution regarding the reported use of evidence-based or research-supported writing adaptations when broken down by core content area (see Table 11). The findings for all eight items were significant and showed no equity of distribution. Therefore, H7

was not supported; there were differences by content area in the reported use of different types of evidence-based or research-supported writing adaptations.

ELA teachers less frequently reported never using all eight of the writing adaptations as compared to the other core content areas. Over 10% of ELA teachers never used the adaptations of peer assistance (Item 25), decreased length or complexity (Item 24), and writing goals (Item 27). All remaining adaptations were never used by 2.3% or less of ELA teachers. Peer assistance (Item 25), goals (Item 27), and conferences (Item 23) were most frequently reported as never used by nearly one fifth of social studies teachers. Approximately one third or more of science teachers never used 5 of 8 adaptations. Using computers (Item 22), strategies and checklists (Item 29), and topic choice (Item 26) were least reported as never used by 13.6% or less of the science teachers. Over one third of math teachers never used any of the eight adaptations. Over 70% of math teachers never used 6 of 8 adaptations. Using strategies and checklists (Item 29) and computers (Item 22) were least frequently reported as never used by math teachers; however, approximately 40% did not use either adaptation.

Table 11

Summary of Proportional Distribution of Writing Adaptations Broken Down by Content Area by Never (%) and Rank Order by χ^2

Survey Item	Writing Adaptation	ELA	Math	Science	Social Studies	χ^2	Sig.
Item 26	Choices	0.00	71.40	13.60	10.50	65.11	***
Item 23	Conference	0.00	76.20	31.80	21.10	58.69	***
Item 29	Checklists	0.00	42.90	13.60	0.00	55.27	***
Item 28	Time	0.00	71.40	36.40	10.50	50.98	***
Item 25	Peer assist	16.30	95.20	63.60	26.30	44.73	***
Item 24	Length	11.60	85.70	36.40	15.80	39.59	***
Item 22	Computer	2.30	38.10	4.50	10.50	39.09	***
Item 27	Goals	18.60	81.00	77.30	21.10	37.84	***

Note. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ns (not significant) $p > .05$.

Summary

This chapter utilized descriptive statistics to describe the demographics of the sample including gender, core content area, highest degree attained, and years of experience as a teacher. The results of a Cronbach's Alpha for calculating internal consistency reliability were presented for each of the four subscales of the writing survey. The results of the test showed the survey instrument to be reliable. The results of the study's hypothesis testing were also presented in this chapter. Summary tables, which included the results of Chi-square goodness of fit tests and Chi-square tests of independence, were presented to provide evidence of frequency of responses, equity of distribution, and rank order of AIA in writing for all teachers surveyed and were also

broken down by each of the four core content areas. Chapter five includes the study summary, overview of the problem, purpose statement and research questions, review of the methodology, major findings, findings related to the literature, conclusions, implications for actions, and recommendations for future research.

Chapter Five

Interpretation and Recommendations

Despite the continuously changing face of education in the United States, concerns about writing persist. Throughout the history of education reform in America, writing instruction has been at the center of public scrutiny and the target of reform for politicians, researchers, and educational leaders alike. As the role of writing continues to evolve to meet the demands of the 21st century, so, too, must the instructional practices of classroom teachers. This study examined the evidence-based or research-supported assignments, instructional strategies, and adaptations (AIA) used by core content area (ELA, math, science, and social studies) secondary teachers in District X. This chapter provides a summary of the findings and recommendations for future research related to teaching writing in core content-area classrooms at the secondary level.

Study Summary

This study was conducted to identify the intentional writing instructional practices of core content-area teachers to inform writing instruction reform and professional development for District X teachers. The following section summarizes the current study. An overview of the problem, the purpose of the study and research questions, review of methodology, the study's major findings, conclusions, and recommendations for future research are provided.

Overview of the problem. An increase in research on writing instruction has been produced during the 21st century; however, specific research pertaining to teachers' use of AIA in writing (Kiuvara et al., 2009) is limited. Students have continued to struggle reading and understanding complex texts (Calkins et al., 2012) leaving them ill-

prepared for college and the workplace (Achieve, Inc., 2014; USDE, 2011b). This problem has been partially attributed to teachers' general lack of preparation to teach writing within their specific content areas (Brenner, 2013; Graham & Perin, 2007; Grisham & Wolsey, 2011; NCW, 2003; Smagorinsky et al., 2011; Totten, 2005; USDE, 1983).

Purpose statement and research questions. This dissertation was comprised of three purposes: (1) to determine the frequency, equity of distribution, and rank order of AIA in writing, (2) to identify whether there were discipline-specific differences between and among core content areas, and (3) to identify teachers' perceptions of their preparedness to teach writing. Teachers were surveyed and data collected concerning teachers' use of AIA in writing. Seven research questions guided this study to investigate these ideas:

1. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing activities for all high school teachers regardless of content area?
2. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing instruction for all high school teachers regardless of content area?
3. What were the frequency (percent) of responses, equity of distribution, and rank order for evidence-based or research-supported writing adaptations for all high school teachers regardless of content area?

4. What were the frequency (percent) of responses, equity of distribution, and rank order for perceptions about preparedness to teach writing for all high school teachers when broken down by content area?
5. What were the frequency (percent) of use, equity of distribution, and rank order for writing activities for all high school teachers when broken down by content area?
6. What were the frequency (percent) of use, equity of distribution, and rank order for writing instructional practices for all high school teachers when broken down by content area?
7. What were the frequency (percent) of use, equity of distribution, and rank order for writing adaptations for all high school teachers when broken down by content area?

Review of the methodology. A non-experimental quantitative cross-tabulation survey research design was used to guide this study. The High School Writing Practice Survey conducted by Kihara et al. (2009) was modified and adapted to collect information about the intentional instructional practices used by core content-area teachers to teach writing. Content-area teachers from four core academic content areas (English language arts, math, science, and social studies) were surveyed regarding their approaches, methods, and strategies used to teach writing within their specific content areas. A Chi-square goodness of fit test was applied to the data to measure the equity of distribution of responses, and a Chi-square test of independence was also applied which allowed the data to be cross-categorized using contingency tables to measure the distribution of equity and identify differences between and among content areas.

Major findings. The descriptive statistics compiled from items 1-4 of the Teacher Writing Survey revealed that the majority of District X respondents were female, had attained a post-graduate degree, and had more than 10 years of experience teaching. These demographics did not fully support the conclusions of the USDE (2014) which suggested teacher turnover was a contributing factor of inconsistent writing practices in the core content areas. Of the 105 respondents, one fifth of the teachers disagreed that they are prepared to teach writing including almost two thirds of the math teachers and one third of science teachers.

Findings of the current study are presented relative to the research questions. Results of hypothesis testing for research question one were significant for 9 of the 10 survey items tested. Evidence-based or research-supported writing activities were employed by the District X teachers but with varying frequencies depending on the specific task. The results also indicated few opportunities for in-depth or extended writing. Results of hypothesis testing for research question two were significant for 3 of the 7 survey items tested. Almost 90% of all respondents regularly used writing models and provided feedback to students about their writing suggesting they value instructional practices to teach writing in their content area. Results of hypothesis testing for research question three were significant for all 8 survey items tested. Over 50% of teachers regularly used a variety of writing adaptations to help struggling students. Results of hypothesis testing for research question four were significant for 3 of the 4 survey items tested. Over two thirds of math teachers and one third of science teachers disagreed with the notion that they were prepared to teach writing. Further, over one third of ELA teachers and more than half of all other teachers did not believe district training prepared

them to teach writing in their content area. The demographics of the sample suggest they have had multiple experiences on which to base this conclusion. Results of hypothesis testing for research question five were significant for 8 of the 10 survey items tested. Writing activities occurred in all core content areas; however, opportunities for extended writing occurred more frequently in ELA and social studies classrooms. Results of hypothesis testing for research question six were significant for all seven survey items tested. Intentional writing instruction was prevalent in ELA and social studies classrooms but was limited in science. Further, writing instruction was almost non-existent in the math classroom. Results of hypothesis testing for research question seven were significant for all 8 survey items tested. Writing adaptations to assist struggling students were employed by ELA and social studies teachers. They were infrequent in science and almost non-existent in math.

Findings Related to the Literature

This section examines the study's findings as they relate to the literature connected to AIA in writing. Specifically, the research focused on the history of writing reform in American education, the impact of learning theory, and key research that resulted in the current understanding of evidence-based or research-supported best practice in writing in the content area.

The result of this study largely supported the findings of Kiuahara et al. (2009) on which this study was modeled. Kiuahara et al. (2009) indicated the majority of AIA in writing consisted of writing without composing and limited opportunities for extended writing. In other words, the most frequently used AIA in writing across all content areas were best characterized as low-level task completion (Applebee & Langer, 2013;

Gallagher, 2006). In fact, the only AIA in writing used with regularity across all content areas was writing in response to short answer questions which is a low-level task. Survey respondents may have had different interpretations of “sometimes” and “often” regarding their perceived frequency of use of AIA. When analyzing the combined data, the results supported the work of Applebee and Langer (2013) and Kiuahara et al. (2009) who found that students were writing in all content areas, but the types and amount of writing varied greatly between and among content areas.

Kiuahara et al. (2009) called their study’s findings predictable regarding the types and frequency of AIA used in different content areas. Although the types and frequency of AIA reportedly used in each content area may have varied slightly from the Kiuahara et al. (2009) results, similar conclusions can be drawn from this study’s results. ELA teachers reported feeling more prepared to teach writing than teachers from the other content areas. Therefore, it is not surprising that ELA teachers employed all AIA in writing with greater frequency than other content areas. This reality supported the research of Applebee (1981) and Applebee and Langer (2013) that showed that the majority of writing occurs in the ELA classroom. ELA teachers continue to be burdened with the responsibility of teaching writing (Applebee, 1981; Williams, 2003), specifically writing that requires a more complex level of thought and development. Unlike Kiuahara et al. (2009), this study’s sample included math teachers among the four core content areas surveyed. The results of this study found math teachers reported the most infrequent use of all AIA in writing and reported feeling the least prepared to teach writing in their content area as supported by the research of Applebee and Langer (2013).

Concerning their preparedness to teach writing in their individual content areas, teachers responded that their undergraduate training did not prepare them as supported by the review of literature (Brenner, 2013; Grisham & Wolsey, 2011; NCW, 2003; Smagorinsky et al., 2011; Totten, 2005). Over one third of ELA and social studies teachers, two thirds of science teachers, and three quarters of math teachers disagreed that their undergraduate training prepared them to teach writing. These results suggested that teachers require a clear understanding of the need to incorporate writing in their content area, need preparation that is based on research and theory and is practical, and need opportunities to practice teaching writing (Totten, 2005).

Conclusions

This section provides conclusions drawn from the current study. Implications for action, recommendations for future research, and concluding remarks are provided.

Implications for action. The findings from this study have implications for District X as well as other schools, districts, and preservice teacher education programs. The implications of this study could be used to assist building, district, and other educational leaders in developing and implementing new frameworks for teaching writing in the secondary core content areas. The results of this study indicated that individual content areas are using different AIA in writing and doing so with varying frequency. Education leaders need to assess the specific curricular needs of individual content areas and engage in disciplinary conversations that allow for curriculum to be aligned with curricular needs. Without intentional dialogue and purposeful curricular planning, Rose's (1985) myth of transience will continue to be perpetuated. Gaps in writing instruction will continue as assumptions persist that students are learning writing

skills elsewhere. Targeted disciplinary conversations and needs assessments could diminish, if not prevent, writing instruction that lacks purpose and is inconsistently and arbitrarily taught. Also, school leaders must adopt a sound evidence-based or research-supported writing framework from which to develop content-specific writing curricula such as the 11 elements identified by Graham & Perin (2007). Finally, school leaders must develop and provide ongoing professional development in teaching writing. However, this training must be content specific and reflect the curricular needs of each content area.

Recommendations for future research. The current study allowed the researcher to evaluate the intentional writing practices of secondary core content area teachers in one public school district. This study was unique in that it consisted of 105 teachers from four core content areas including math. Because the study featured one public school district during the 2016-2017 school year, additional research would be necessary to make generalizations to a broader population. The first recommendation is to extend the current study by expanding the sample to include secondary teachers from all content areas to more effectively determine what and how frequently AIA in writing were being employed throughout the district. The second recommendation is to extend the current study by expanding the sample to include teachers from other school districts which would allow for a comparison of different teaching populations.

While this study addressed what AIA in writing teachers are using in their classrooms, the study cannot tell how AIA in writing were being used or how effective they were in impacting student achievement. The third recommendation is to expand this study to include a more comprehensive examination the instructional practices of

secondary content area teacher including longitudinal case studies. The fourth recommendation is to include other variables related to student achievement such as evaluating the effects of AIA on the writing performance of students on district or state performance exams and national standardized exams such as the ACT, AP tests, or NAEP.

Concluding remarks. Writing continues to be an essential tool for learning (Applebee, 1981; Applebee & Langer, 2013). As students prepare for the ever-changing demands of college and the workplace, education leaders must develop a new model of writing curriculum that is purposeful, complex, and relevant. Teachers must become better prepared to effectively teach writing within their specific content area. Writing curricula not based on research or supported by evidence will continue to result in writing instruction that is inconsistent, arbitrary, and unnecessarily influenced by misguided or uninformed reform efforts. Teachers must be supported in their development as writing instructors. Preservice institutes and secondary schools must work together to provide appropriate foundational knowledge, skills, and strategies as well as professional development opportunities prior to and throughout the duration of a teacher's career. This research supports and expands upon the findings of Kiuvara et al. (2009) and contributes to the limited body of research about the intentional writing practices of secondary core content-area teachers. A greater understanding of these teaching practices could support increased writing growth and skills development for all students.

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Appendices

Appendix A: Teacher Writing Survey

Teacher Writing Survey

Part I: Background Information

1. My gender is: <input type="checkbox"/> Female <input type="checkbox"/> Male
2. Content area I primarily teach (select only 1): <input type="checkbox"/> English/Language Arts <input type="checkbox"/> Math <input type="checkbox"/> Science <input type="checkbox"/> Social Studies
3. Highest degree I have completed: <input type="checkbox"/> Bachelor's Degree <input type="checkbox"/> Master's Degree <input type="checkbox"/> Education Specialist Degree <input type="checkbox"/> Doctorate
4. My total years of teaching experience: <input type="checkbox"/> This is my first year <input type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> 11-20 years <input type="checkbox"/> More than 20 years

Part II: Writing Activities

Please check how often students do each of the following writing activities in your content-area classes.

	NEVER	SOMETIMES	OFTEN
5. Completion of classroom learning tasks (e.g. worksheets, notes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Informational/expository essay/writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Narrative essay/writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Persuasive/argumentative essay/writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Reflection of learning/self-evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Research paper/project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Short answer response to question or an explanation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Summary of material read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Technical report/writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Text-dependent presentation (e.g. PowerPoint, Prezi)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adapted and modified with permission from the author. Kihara, S. A., Graham, S., & Hawken, L. S. (2009). Teaching writing to high school students: A national survey. *Journal of Educational Psychology, 101*(1), 136-160. Retrieved from ERIC database. (EJ829242)

Part III: Writing Instructional Practices

Please check how often you do each of the following writing instructional practices in your content-area classes.

	NEVER	SOMETIMES	OFTEN
15. Employ a process approach to writing (plan, draft, revise, edit, publish)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Have students write for extended periods of time about single topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Have students write for a variety of real audiences and purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Provide models of good writing for students to emulate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Provide students with feedback about their writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Teach foundational writing skills such as sentence combining or summarizing text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Teach students about characteristics and structures of content-specific types of writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adapted and modified with permission from the author. Kihara, S. A., Graham, S., & Hawken, L. S. (2009). Teaching writing to high school students: A national survey. *Journal of Educational Psychology, 101*(1), 136-160. Retrieved from ERIC database. (EJ829242)

Part IV: Writing Adaptations

The following lists a variety of adaptations you may use with student who are struggling with writing in your content-area classes. *A writing adaptation means that you tailor your teaching to meet the needs of individual students who struggle with writing beyond what you do with other students in your class.* Please check how often you do the following in your content-area classes.

	NEVER	SOMETIMES	OFTEN
22. Allow students to use a computer/word processor for writing tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Conference with students about their writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Decrease the length or complexity of the writing assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Have stronger writers assist struggling writers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Provide students with choices about what they write	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Help students set specific, challenging, and attainable writing goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Increase amount of instructional time for student to complete the writing assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Provide writing strategies, graphic organizers, and procedural checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adapted and modified with permission from the author. Kiuvara, S. A., Graham, S., & Hawken, L. S. (2009). Teaching writing to high school students: A national survey. *Journal of Educational Psychology, 101*(1), 136-160. Retrieved from ERIC database. (EJ829242)

Part V: Preparedness to Teach Writing

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

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
30. I am prepared to teach writing in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. My undergraduate teacher education training has prepared me to teach writing in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. My post-graduate training has prepared me to teach writing in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. My district's professional development has prepared me to teach writing in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adapted and modified with permission from the author. Kiuahara, S. A., Graham, S., & Hawken, L. S. (2009). Teaching writing to high school students: A national survey. *Journal of Educational Psychology, 101*(1), 136-160. Retrieved from ERIC database. (EJ829242)

Appendix B: Request to Modify High School Writing Practice Survey

Trenton Stern
5125 W. 157th Street
Overland Park, KS 66224

Dr. Sharlene A. Kiuvara
c/o University of Utah
1721 Campus Center Drive, SAEC, Room #2275
Salt Lake City, UT 84112
s.kiuvara@utah.edu

October 16, 2016

Dear Dr. Kiuvara,

My name is Trenton Stern, and I am a doctoral student at Baker University studying educational leadership. I am working on a dissertation research study in the area of writing instruction, under the direction of my major advisor, Dr. Dennis King, who can be reached at Dennis.King@bakeru.edu. Specifically, the purpose of this quantitative study is to identify whether content-area teachers are adequately prepared to teach writing by surveying teachers' perceptions of their preparedness (as defined by experience, training, and instructional practices) to teach writing. A second purpose is to identify whether there are discipline-specific differences between and among core content areas (English, science, social studies, and math).

I hope to conduct the research electronically, and I am writing to respectfully request permission to modify your High School Writing Practice Survey. I am happy to share the results with you in any form you desire. I hope to inform the instructional practices of classroom teachers and curricular approaches to the teaching of writing across all content areas.

Thank you for considering my request. If these are acceptable terms and conditions, please indicate so by replying to me through email: TrentonSStern@stu.bakeru.edu. I look forward to receiving a response from you at your earliest convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Trenton Stern", with a stylized flourish at the end.

Trenton Stern

Appendix C: Permission to Modify High School Writing Practice Survey

11/2/2016

Request to MODIFY survey tool for dissertation study

 Reply all |  Delete |  Junk |  ...


RE: Request to MODIFY survey tool for dissertation study



Sharlene Kiuahara <s.kiuahara@utah.edu>

Tue 10/18, 3:22 PM

Trenton S Stern  Reply all | 

Inbox

You replied on 10/19/2016 2:57 PM.

Hi Trenton,

Thank you for your email and interest in the writing survey we developed. Yes, you can certainly modify the survey for your research needs. It would be much appreciated if you would cite the study in your manuscript. Thank you for your request and good luck with your project.

Kiuahara, S. A., Graham, S., & Hawken, L. S. Teaching writing to high school students: A national survey. *Journal of Educational Psychology*, 101, 136-160.

Best,
Sharlene

From: Trenton S Stern [mailto:TrentonSStern@stu.bakeru.edu]

Sent: Tuesday, October 18, 2016 2:04 PM

To: Sharlene Kiuahara <s.kiuahara@utah.edu>

Subject: Request to MODIFY survey tool for dissertation study

Dr. Kiuahara,

Since we last communicated, there have been considerable changes to my study. I no longer intend to use your survey tool as is. **I am now simply requesting permission to modify your survey tool** as part of a quantitative study to identify whether content-area teachers are adequately prepared to teach writing by surveying teachers' perceptions of their preparedness (as defined by experience, training, and instructional practices) to teach writing. A second purpose is to identify whether there are discipline-specific differences between and among core content areas (English, science, social studies, and math). I have attached a formal request for your records.

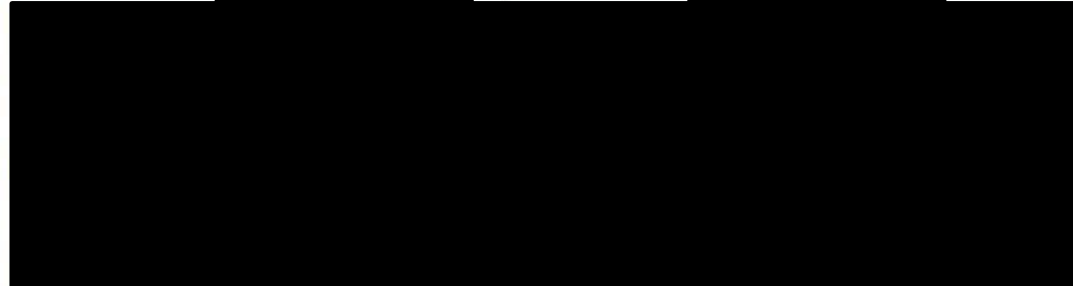
Thank you for considering my request. I look forward to hearing from you.

Trent Stern

Appendix D: Request to Conduct Research in District X

10/28/2016

Request to Conduct Research in



Request to Conduct Research in

[Home](#)

[\[Visitor Login\]](#)

[Contact Me](#)

Thank you for your request to conduct research. Requests will be reviewed on a quarterly basis. Each request is reviewed by affected district-level personnel to determine the research's alignment to district philosophy, strategic plan, and participant responsibilities. Given the unique nature of each request, it may take up to 6 weeks to receive a response. All approved researchers will be expected to provide a copy of the results to the Assessment and Research Department within 3 months of the conclusion of the research.

Your message has been sent.

The following information was submitted:

Full Name : Trenton S. Stern
Phone Number : 913-558-9374
Email Address : trentonsstern@stu.bakeru.edu

For a thesis or dissertation, provide name, phone, and email address of advisor; for funded research, give name of funding agency. : Dr. Dennis King

913.344.1231
dennis.king@bakerU.edu

Names of any [redacted] staff you have consulted about the proposed research and names of any specific schools you are requesting to involve.

[redacted]
: My name is Trenton Stern, and I am a doctoral student at Baker University studying educational leadership. I am working on a dissertation research study in the area of writing instruction, under the direction of my major advisor, Dr. Dennis King, who can be reached at Dennis.King@bakeru.edu. Specifically, the purpose of this quantitative study is to identify whether content-area teachers are adequately prepared to teach writing by surveying teachers' perceptions of their preparedness (as defined by experience, training, and instructional practices) to teach writing. A second purpose is to identify whether there are discipline-specific differences between and among core content areas (English, science, social studies, and math).

Thorough description of the research; may include an attached file (note in this box that the file is attached).

I wish to survey only the four core content-area high school teachers from all five



10/28/2016

Request to Conduct Research in

high schools located in the district. This is the only data that will be collected.

Thank you for considering my request. I look forward to hearing from you at your earliest convenience.

What data are to be collected and how?

(Attach copies of all data collection instruments except commonly used commercial instruments—name those).

: Teachers will receive an invitation via email to participate in a 33-item Likert-type survey that will take between 5-10 minutes to complete.

Items ask participants to respond to the frequency of writing activities, instructional practices, and adaptations in their classrooms. Teachers will also be asked about their overall perception of their preparedness to teach writing to high school students.

How much time will each subject be involved in any treatment and in data collection?

: 5-10 minutes

Where and when will the research activities and/or data collection take place?

: Data will be collected via email through the use of an electronic survey tool such as SurveyMonkey or SurveyKey. I would begin collecting data no earlier than December 1, 2016, and wish to conclude this collection no later than January 31, 2017.

Outline your process for obtaining subject permission. Attach all copies of parent (subject) permission materials.

: Participation in this study is strictly voluntary.

Has IRB approval been obtained? If yes, attach. If not, please note that if the request is approved, approval will be contingent upon receipt of the IRB approval.

: No, IRB approval has not been sought yet.

Date & Time Sent : October 28, 2016 - 2:45:51 pm Central

Mail Originated From : 204.52.179.206 (204.52.179.206)

[< Back](#)

Counter: 150

Appendix E: Permission to Conduct Research in District X

[REDACTED]
Sent: Tuesday, November 01, 2016 5:03 PM

To: Stern, Trent

Subject: Research request

Trent,

Your research request has been approved. You may survey district teachers (using district email) regarding writing practices as long as participation is voluntary.

Please do not use any identifying information regarding the district, buildings, teachers, or students in your review; rather, use generic descriptions. Upon conclusion of your research, please forward a copy of your study to my office; an electronic version is acceptable.

Let me know if you have any questions.

[REDACTED]
Director of Assessment & Research

[REDACTED]

[REDACTED]

[REDACTED]

Appendix F: Baker University IRB Request to Conduct Research



SCHOOL OF EDUCATION
GRADUATE DEPARTMENT

Date: _____
IRB PROTOCOL NUMBER _____
(IRB USE ONLY)

IRB REQUEST
Proposal for Research
Submitted to the Baker University Institutional Review Board

I. Research Investigator(s) Dr. Dennis King and Trenton Stern

Department(s) School of Education Graduate Department

Name	Signature	
1. Dr. Dennis King	_____	Major Advisor
2. Dr. Phillip Messner	_____	Research Analyst
3. Dr. Verneda Edwards		University Committee Member
4. Dr. Tyson Ostroski		External Committee Member

Principal Investigator: Trenton Stern
Phone: (913) 558-9374
Email: trentonsstern@stu.bakeru.edu
Mailing address: 5125 W. 157th Street
Overland Park, KS 66224

Faculty sponsor: Dr. Dennis King
Phone: 913-344-1231 (office) 785-766-2341 (mobile)
Email: dennis.king@bakeru.edu

Expected Category of Review: Exempt Expedited Full

II: Protocol: (Type the title of your study)

A Survey of Intentional Writing Practices of High School Teachers in One Public School
District: A Replication Study

Summary

In a sentence or two, please describe the background and purpose of the research.

This dissertation study is comprised of three purposes. The first purpose is to determine the frequency, equity of distribution, and rank order of evidence-based or research-supported activities, instructional practices, and adaptations (AIA) in writing. The second purpose is to identify whether there are discipline-specific differences between and among core content areas. The third purpose is to identify teachers' perceptions of their preparedness to teach writing. Content-area teachers from four core academic content areas within the [REDACTED] (District X) will be surveyed regarding their approaches, methods, and strategies used to teach writing within their content areas. Teacher survey responses will be analyzed to determine which AIA in writing are used most frequently by teachers in different content areas and if teachers perceive that they are prepared to teach writing.

Briefly describe each condition or manipulation to be included in the study.

No conditions or manipulations are included in this study.

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

Data will be collected using the attached Teacher Writing Survey from participating core content-area teachers regarding their intentional writing assignments, instructional practices, and adaptations. The survey instrument used for this study was modified and adapted with author permission from the High School Writing Practice Survey developed by Kiuahara, Graham, and Hawken (2009) to examine how high school teachers teach writing.

Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

No subjects will encounter the risk of psychological, social, physical, or legal risk.

Will any stress to subjects be involved? If so, please describe.

No stress to any subjects will be involved in this study.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

No subjects will not be deceived or misled in any way.

Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

There will be no request for personal or sensitive information.

Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

Subjects will not be presented with materials which might be considered to be offensive, threatening, or degrading.

Approximately how much time will be demanded of each subject?

The survey instrument should require approximately 10 minutes of time to complete.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The subjects of this study are core content-area high school teachers (English, math, science, and social studies) in the [REDACTED] during the 2016-2017 school year. A list of district email addresses will be obtained from the district's Director of Assessment and Research and used to contact the subjects directly. Subjects will receive an initial request before the end of the first semester (mid-December) and one reminder two-three weeks following the initial request (early January). The contents of the email will include a link to the survey created using Google Forms. The email will also include information about consent included in an attached cover letter and within the correspondence of the email (see attached cover letter). Completion of the survey will indicate consent to participate and permission to use the information provided by the participant in the research study.

What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

Included in the cover letter soliciting teacher participation will be a statement that participation in the survey is voluntary (see attached cover letter). There will be no inducements included in the solicitation of participants for this study.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

Included in the electronic communication inviting subjects to participate will be an explanation of the requested participation and a statement informing participants that

by completing and submitting the survey participants indicate they give their consent to participate.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No aspect of the data will be part of any permanent record that can be identified with the subject.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.

Since subjects will have the option not to participate in the survey, the fact that a subject did or did not participate will not be made part of any permanent record available to a supervisor or employer.

What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?

Data collection will be conducted electronically using district email and Google Forms. The Teacher Writing Survey will be adapted using Google Forms for ease of data collection. An initial email correspondence will be sent to all high school core content-area teachers. Subjects will be able to respond anonymously and will be assured of confidentiality, as survey results will be reported in aggregate and not by the individual participant. In addition, survey data will be collected by a third party teacher leader to further ensure confidentiality and anonymity of participants. Using a feature in Google Forms, survey data will be automatically converted to a simple CSV (comma-separated values) file in Google Sheets. This CSV file will then be electronically transferred via email to the researcher for conversion to Excel and further analysis. Survey responses will be archived by the third party teacher for up to one year after the completion of the study and deleted after that period of time.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

There are no risks involved in this study, nor are there any offsetting benefits that might accrue to either the subjects or society.

Will any data from files or archival data be used? If so, please describe.

No data from files or archival data will be used in this study. Survey data will be collected and used to examine how high school core content-area teachers teach writing and their perceived preparedness to teach writing.

Appendix G: Baker University IRB Approval to Conduct Research

Baker University Institutional Review Board

December 5, 2016

Dear Trent Stern and Dr. King:

The Baker University IRB has reviewed your research project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at EMorris@BakerU.edu or 785.594.7881.

Sincerely,



Erin Morris PhD
Chair, Baker University IRB

Baker University IRB Committee
Joe Watson PhD
Nate Poell MA
Susan Rogers PhD
Scott Crenshaw

**Appendix H: Cover Letter with Consent to Participate Sent Via District X Email to
Core Content-area Teachers**

INSERT DATE

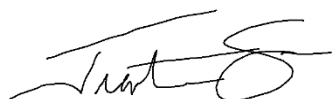
Dear [REDACTED] core content-area teacher,

You are invited to participate in a research project titled *A Survey of Intentional Writing Practices of High School Teachers in One Public School District: A Replication Study* being conducted by Trenton Stern, Education Services Support Team member for high school English language arts and current doctoral student at Baker University. The purpose of the study is to investigate the frequency of use of evidence-based and research-supported writing assignments, instructional practices, and adaptations in your classroom and survey your perception of your preparedness to teach writing in your content area. In essence, this survey will act as a needs assessment to better inform decision making regarding professional development opportunities and resources that support writing instruction at the secondary level.

I recognize that you are very busy with your responsibilities as a teacher, and I want to express my appreciation to you in advance for your consideration and participation. In order to minimize the amount of time required, I have created an electronic survey instrument using Google Forms. You will find a direct link to the survey contained within the email. The survey should take approximately 10 minutes or less to complete. All survey responses are anonymous and used only for the purposes of this research. By completing and submitting the electronic survey instrument, you are consenting to participate in this project. Participation in this survey is voluntary, and you may discontinue participation at any time.

Thank you again for your assistance and for sharing your responses as part of this doctoral research study. Should you have questions concerning this study, please contact me via email at trentonsstern@stu.bakeru.edu or by phone at (913) 558-9374.

Sincerely,



Trenton Stern
Education Services Support Team, High School ELA
Doctoral Student, Baker University
P.S. Please retain this document for your records.