

Summer 2021

Using Blended Learning and Writing Conferences to Develop High Schoolers' Writing Skills and Self-Regulated Learning

Ashley Nicole Galloway-Speight

Follow this and additional works at: <https://scholarcommons.sc.edu/etd>



Part of the [Curriculum and Instruction Commons](#)

Recommended Citation

Galloway-Speight, A. N.(2021). *Using Blended Learning and Writing Conferences to Develop High Schoolers' Writing Skills and Self-Regulated Learning*. (Doctoral dissertation). Retrieved from <https://scholarcommons.sc.edu/etd/6507>

This Open Access Dissertation is brought to you by Scholar Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact digres@mailbox.sc.edu.

Using Blended Learning and Writing Conferences to Develop High Schoolers' Writing
Skills and Self-Regulated Learning
by

Ashley Nicole Galloway-Speight

Bachelor of Arts
Winthrop University, 2011

Masters of Education
Southern Wesleyan University, 2015

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Education in

Curriculum and Instruction

College of Education

University of South Carolina

2021

Accepted by:

Lucas Lima de Vasconcelos, Major Professor

Ismahan Arslan-Ari, Committee Member

Hengtao Tang, Committee Member

Anna Clifford, Committee Member

Tracey L. Weldon, Interim Vice-Provost and Dean of the Graduate School

© Copyright by Ashley Nicole Galloway-Speight, 2021
All Rights Reserved.

DEDICATION

This is for all the people God placed in my corner to see me coach me through this process:

For Jennifer who first came up with the crazy idea that we needed to work through terminal degrees together and then empathized with me through all-nighters, feelings of complete inadequacy and frustration, and the hope of a graduation that seemed like it would never come.

For my parents, who despite all the changes life placed in their own paths, always had time to listen to me whine, complain, and cry...and then tell me they always knew this was where I was supposed to be.

For my cheerleaders: Sam, with the constant reminder that I deserved to start my name off with Dr., Mr. Williams, who always managed to make me see this as a way to be a better teacher, Jennifer “Ma” Lanham, who prayed with me, cried with me and kicked my tail over this finish line, and the students who have allowed me to study them and have humored my stresses and my joys over the last three years.

And most of all for Brady: who met me in the first semester of this madness, dated me through all the changed plans to accommodate deadlines, decided to marry me in the midst of chapter 2, and has stuck with me, dealt with all the stress and rage and sadness, encouraged me, forced me to sit and work, reminded me to take care of myself, and has earned this degree right along with me.

ACKNOWLEDGEMENTS

Thank you to Dr. Lucas Vasconcelos, who served as my dissertation chair, my advisor, and my life coach the last two years and who listened to me complain, offered amazing feedback, and kept telling me this last semester that I was not allowed to be unfinished business.

Thank you to my defense committee members, Dr. Hengtao Tang and Dr. Ismahan Arslan-Ari, and Dr. Anna Clifford. Your feedback and guidance have helped me learn and have made this dissertation stronger.

Thank you to my amazing proofreaders, Randy Speight and Robin Nicholson, two of the smartest people I know, and I am so grateful to have had your feedback and guidance.

ABSTRACT

Strong writing skills are an essential element in all areas of life. Written communication is pervasive in both daily life and the workplace. Yet nationwide studies reveal that many students in America graduate from high school with insufficient writing skills. Studies on writing instruction suggest that a shift to teaching writing as a process rather than a product, presentation of quality individualized, focused feedback, and teaching of metacognitive writing skills can help improve writing skills in high school students. The purpose of this mixed methods action research was to determine how the supplemental use of face-to-face writing conferences combined with digital Google Classroom instruction in a blended learning environment impacts the writing and self-regulated learning skills of high school students. This study focused on two central research questions 1) How does the supplemental use of writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students? and 2) How do supplemental writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?

This study incorporated the use of blended learning using Highlight Tool and Google Classroom to develop a blended learning environment for an academic writing unit based on the South Carolina College and Career Readiness Standards for English. Data collection included several data sources. A teacher-made pre- and post-assessment was used to measure impact on writing skills. The Self-Regulation Formative

Questionnaire was used as a pre- and post-survey. Student interviews offered further insight into assessment and survey data. Data were analyzed using a mixed methods approach using descriptive statistics, paired samples t-tests, and the Wilcoxon Signed Rank test to evaluate quantitative data. Thematic analysis was used to analyze qualitative data. The study involved 21 participants enrolled in English 2. Findings indicate that gains in application of writing skills between the pre- and post-assessment were statistically significant. While qualitative data suggests participants also showed gains in self-regulated learning skills, especially in goal-setting and task-analysis skills, increases between the pre- and post-survey were not statistically significant. Recommendations and implications for future practice and research are presented.

TABLE OF CONTENTS

DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
LIST OF TABLES	x
LIST OF FIGURES	xii
CHAPTER 1 INTRODUCTION	1
National Context	1
Local Context	3
Statement of the Problem	5
Purpose Statement	5
Research Questions	6
Statement of Research Subjectivities and Positionality	6
Definition of Terms	9
CHAPTER 2 REVIEW OF LITERATURE	10
Writing Skills and Instruction	11
Self-regulated learning skills.....	17
Blended Learning	23

Writing Conferences	35
Chapter Summary	45
CHAPTER 3 METHODOLOGY	47
Research Design	47
Setting and Participants	49
Intervention	51
Data Collection	62
Data Analysis Methods	71
Procedures and Timeline	81
Rigor and Trustworthiness	83
Plan for Sharing and Communicating Findings	86
CHAPTER 4 DATA ANALYSIS	87
Quantitative Analysis and Findings	88
Qualitative Findings and Interpretation	98
Themes	111
Chapter Summary	130
CHAPTER 5 DISCUSSION, IMPLICATIONS, AND LIMITATIONS	132
Discussion	132
Implications	140
Limitations	146

REFERENCES	151
APPENDIX A CONSENT AND ASSENT FORM	172
APPENDIX B WRITING CONFERENCE GUIDING QUESTIONS	176
APPENDIX C CONTENT DEVELOPMENT INSTRUCTIONAL MATERIALS	177
APPENDIX D WRITING ANALYSIS ADD-ON'S GUIDE	189
APPENDIX E ENGLISH 2 WRITING SKILLS ASSESSMENT.....	194

LIST OF TABLES

Table 3.1 Timeline of intervention	53
Table 3.2 English 2 writing competencies	56
Table 3.3 Alignment of self-regulated learning skills and intervention elements	61
Table 3.4 Research questions and data sources	63
Table 3.5 Assessment questions and competency alignment	65
Table 3.6 Research questions and survey alignment	68
Table 3.7 Interview questions	70
Table 3.8 Alignment of research questions, data sources, and analysis methods.....	72
Table 3.9 English 2 constructed response rubric	74
Table 3.10 Timeline of research study.....	82
Table 4.1 Item difficulty—writing skills assessment	90
Table 4.2 Shapiro-Wilk normality test—writing skills assessment.....	91
Table 4.3 Individual goal area <i>t</i> -test results	92
Table 4.4 Wilcoxon signed-rank test—writing skills assessment	93
Table 4.5 Descriptive statistics—Questionnaire.....	94
Table 4.6 Shapiro-Wilk normality test—Questionnaire	95
Table 4.7 Data analysis method alignment based on normality of survey data.....	95
Table 4.8 Paired samples <i>t</i> -test results—Questionnaire	96
Table 4.9 Wilcoxon signed-rank test results—Questionnaire	97

Table 4.10 Interviewees' demographic information	99
Table 4.11 Cycle 2—final pattern codes.....	105
Table 4.12 Themes, categories, and illustrative quotes	108

LIST OF FIGURES

Figure 2.1: Zimmerman’s triadic model of self-regulated learning.....	19
Figure 3.1: Learning menu for academic writing unit.....	55
Figure 3.2: Checklist for content-development competency	55
Figure 3.3: Video lesson for writing a thesis statement.....	<u>57</u>
Figure 3.4: Practice assignment for content-development competency	<u>57</u>
Figure 3.5: Student sample of document annotated with highlight tool.....	<u>59</u>
Figure 3.6: Sample highlight set in highlight tool	59
Figure 3.7: Guiding questions for analysis using highlight tool.....	60
Figure 3.8: Teacher model of writing self-assessment	60
Figure 4.1. Open coding of interview transcript in the Delve web tool.....	101
Figure 4.2. An example of simultaneous coding with a sentence sharing multiple codes	102
Figure 4.3. Example of a coding scheme.....	103
Figure 4.4. Code map used to develop pattern codes	104

CHAPTER 1

INTRODUCTION

National Context

Written communication is pervasive in both daily life, in the form of texting, social media, and email, and the workplace, with 90% of white-collar workers and 80% of blue-collar workers using some form of writing on a daily basis in their jobs (Graham et al., 2014). Writing is also a key component of many standardized assessments and other indicators of school performance (Mo et al., 2014). Additional studies indicate that strong written communication is necessary for success, not only in all disciplines of secondary education, but also in college and the workforce (National Writing Project & Nagin, 2012).

Yet, despite this importance of strong written expression in school and the workforce, there is a nationwide deficiency in writing skills of secondary students. Nationwide, test scores and polls reflect plummeting skills in written communication. According to the 2011 National Report Card, only 24% of high school seniors tested at the proficient level in writing, which means that less than one-quarter of students in America graduate high school with an adequate ability to communicate effectively through writing (National Center for Education Statistics, 2012). Additionally, the Scholastic Aptitude Test (SAT) in writing was first offered in March 2005. Test data indicate there has been a gradual decline in writing scores on the SAT. In 2005, the mean writing score was 497, but by 2016, the mean score on the writing test had decreased to 482

(College Entrance Examination Board, 2016). Students consistently struggle with written communication nationwide due, in part, to a lack of direct writing instruction. Indeed, Mo et. al. (2014) refer to writing as the “neglected R” in American education; the authors also highlight that many high school writing assignments do not require students to deeply analyze content or interpret ideas, as many writing curricula limit writing to short response questions, which lead students to be ill-prepared for writing in college or the workforce (Mo et al., 2014). More effective writing instruction will require students to practice enhanced metacognitive processes, such as improving self-regulated learning skills skills related to writing (Flanagan & Bouck, 2015). A shift towards building these processes in writing will allow students to develop increased attention to purpose, task, and audience; improved planning of content; and purposeful use of tone and disciplinary vocabulary, all of which have been found to be lacking in the short summary-based writing tasks typically assigned in secondary classrooms (Flanagan & Bouck, 2015).

In their 2011 survey of teachers and students, Applebee and Langer (2011) found that extended writing tasks are surprisingly lacking in America’s high schools. The survey data indicated that most students only complete about three pages of writing a week across all subject areas combined. This indicates that students do not have many opportunities to practice extending original written thought in cross-curricular concepts, which is typical of writing in the workforce. Another key problem in writing instruction nationwide lies with the disconnection between teaching students to write for success on standardized tests and the expectations of writing skills in college and the workforce. Writing that scores high on standardized tests is often limited in scope and follows a specific, formulaic organization. For example, writing instruction for standardized tests

instructs students to focus on limited ideas related only to the prompt on the test, and ideas are expected to be presented in very limited order (topic sentence/claim, evidence, explanation, conclusion) (Fanetti et al., 2010; Graham et al., 2014; Kihara et al., 2009). Writing for college and the workforce is often expected to offer more in-depth exploration of ideas that may span multiple content areas and undergo several revisions before completion (Fanetti et al., 2010). A key result presented in interviews of high school teachers and college professors is that, while many high school teachers “feel compelled to teach to a test, college professors become frustrated with students who perceive essays as five-paragraph formulas with formulaic claims” (Fanetti et al., 2010, p. 79).

A key suggestion for combatting these deficits in writing instruction across the nation is to incorporate more authentic writing tasks presented to authentic audiences (Applebee & Langer, 2011). The transition of writing instruction from a five-paragraph formula to a multi-step process requiring students to truly tailor their knowledge to a specific audience, task, purpose, and format would potentially address the gaps between high school writing and writing for college and careers (Fanetti et al., 2010; Flanagan & Bouck, 2015).

Local Context

The school where this study was completed is the only secondary school in an economically depressed rural county in South Carolina, and it receives students from two feeder middle schools in two widely differing socioeconomic areas of the county. The school employs 49 full-time teachers, seven of whom teach English/Language Arts. The student body at the time of this study was comprised of approximately 820 students, and

the school had a graduation rate of about 86%. The student body consisted of 54% African American students, 40% White students, 4% Hispanic students, and 3% mixed race students. A total of 57% of the student body was on free or reduced lunch (South Carolina Department of Education, 2018).

The school had a four-year graduation rate of 86.5%, which was slightly up from previous years. For the 2017-18 school year, school performance data was based on American College Testing (ACT) and End-of-Course Testing (EOC), both of which feature a writing task. The school average score for the English I EOC was 64.4, which was lower than the state average of 77; the school average for all EOC subject tests was 66.7, which was lower than the state average of 73.6. Scores on the ACT English test taken by high school juniors reflect an average of 15.9, compared to a state average of 16.6 (South Carolina Department of Education, 2018). This testing data suggests that students at the school are less prepared than many of their peers across the state to communicate in writing.

During department meetings at the school, a common complaint among English teachers is the difficulty to get students to complete grade-level writing that investigates topics deeply enough to convey a clear idea. Other struggles noted by these English teachers included poor organization, high levels of apathy towards writing assignments, and extreme deficiencies in the use of Standard American English grammar and mechanics.

In 2016, the school district adopted a new set of transfer goals in order to better align with the recently published “Profile of the South Carolina Graduate” developed by the Department of Education. This document realigns the academic priorities of the

school from the traditional rote memorization of lectures to a more individualized skills- and goals-based format that is tailored to students' post-secondary plans (South Carolina Department of Education, 2018). This new realignment places increased emphasis on academic rigor and student self-regulated learning skills.

Statement of the Problem

Effective written communication is a life skill used on a regular basis for common real-world tasks, such as sending emails to potential employers, developing reports, or writing essays for college (Soiferman, 2017b). Despite this importance, nationally based test scores and polls reflect plummeting skills in written communication. According to the 2011 National Report Card, only 24% of high school seniors tested at the proficient level in writing, which means that less than one-quarter of students in America graduated high school with a strong ability to communicate effectively in writing (National Center for Education Statistics, 2012). With increased availability of 1:1 technology, the application of blended learning to promote mastery of writing skills deserves some investigation because of the potential to diagnose specific deficits for each student and provide tailored instruction for those deficits (Chung et al., 2007; Dailey, 1991; Sagy et al., 2009).

Purpose Statement

The purpose of this action research was to how the supplemental use of face-to-face writing conferences combined with digital Google Classroom instruction in a blended learning environment impacts the writing and self-regulated learning skills of high school students.

Research Questions

This action research study addressed two research questions:

1. How does the supplemental use of writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students?
2. How do supplemental writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?

Statement of Research Subjectivities and Positionality

I am a White, 31-year-old high school English/Language Arts teacher. I have been teaching for ten years and was classically trained as an educator, which means I entered the teaching profession as soon as I completed my undergraduate degree. I was a GT/AP/honors student for my entire academic career, which means that I have little firsthand understanding of what it means to struggle academically. However, after ten years of work with academically struggling students who aspired to enter the workforce after high school instead of attend college, I have begun to realize that the purpose of high school is not to prepare every child for college, but rather to prepare every child ultimately to be employable. This indicates a bias against traditional teaching of writing (in the form of formulaic five-paragraph essays) in favor of more authentic forms of writing, sometimes to the point of neglecting the teaching of writing for college-bound students. To create an environment in which both college- and career-bound students are given the instruction they need to be successful, I worked to individualize instruction where necessary, and I tried to ensure that all learning targets and assessments are aligned with state standards.

When I began my teaching career, I was much more in favor of traditional education—classical literature, lecture-based instruction, and learning material purely for the sake of being more intelligent. After three years of struggling to reach my students, I began shifting my views on education to better ensure that I was able to meet the needs of my students. I became drawn to project-based learning (PBL) and collaborative learning through my master's work. I learned that I enjoy experimenting with new methods for classroom management and non-traditional approaches to the English curriculum that incorporate soft skills and real-world literacies, while encouraging students to investigate world issues, like social justice. As a result, I have developed the teaching philosophy that students learn best when they are in a flexible, open environment that promotes discussion, inquiry into a wide range of ideas and interests, and a wide variety of literacies. My goal as a teacher is to prepare students to be informed, active citizens of their world so they have the skills necessary to succeed in their future careers.

This view has earned me a place on my school's personalized learning team, and it affords me the opportunity to investigate ways to implement this new form of education into my school environment, as well as share my passions with my colleagues. As a member of my school's new personalized learning team, I am learning to understand and implement personalized, blended learning at my school. We work to determine needs and methods to better prepare students for their personal, academic, and vocational goals. I strive to help my co-workers understand how to adjust and effectively implement this initiative throughout my school by presenting information during faculty meetings and allowing my classroom to be used as an observation tool for other teachers hoping to implement different teaching methods in their classrooms.

The paradigm through which I view most of my teaching practice is pragmatism. I am drawn to this paradigm because I believe that experience is a key aspect of learning. I also like the pragmatist belief that research should address problems through practical application of methods (Creswell & Creswell, 2018). As a teacher, I learn best how to reach my students through both quantitative data from assessments and qualitative data from observations and discussions about students' perceived needs, and pragmatism supports this idea of learning by testing the consequences of an action. This means that my research will be shaded somewhat by my pragmatic worldview.

I conducted my research as an insider in the school where I work. In qualitative research, it may be impossible to create complete researcher neutrality (Lincoln & Guba, 1985). Instead, my goal was to ensure that the data is trustworthy by ensuring that all sides of the data were reported and analyzed (Lincoln & Guba, 1985). My research was directed at determining practices that directly impact my specific classroom and where I have a strong vested interest in the success of my students. I worked to remain conscious of the potential conflict of interest my role as an insider might have created since I was unable to separate my role as a researcher and my role as a teacher. To help manage my subjectivities and biases, I conscientiously and consistently reminded students that their honesty was more valuable than giving me the feedback they thought I wanted to hear. I also ensured that students and parents understood that their participation and feedback in my research would have no bearing on quality of teaching or grades. One of the key ways for researchers collecting qualitative data or mixed-methods data is to maintain prolonged communication with stakeholders (Krefting, 1991). By keeping communication channels open with my student participants and their parents, I minimized bias by allowing these

key stakeholders to offer constructive feedback on my data. I also ensured that I did not react to the data my students shared with me. By minimizing researcher reactivity (Lietz & Zayas, 2010), I ensured that I accepted all data and continued to receive authentic data from my students.

Definition of Terms

For the purpose of this research,

Blended learning will be generally defined as a formal education program in which a student learns partly through online-delivered instruction of content with some degree of student control over time, location, and pace and partly through more traditional face-to-face instruction away from home (Staker & Horn, 2012).

Writing skills will be defined as the body of skills necessary to communicate ideas in both academic and real-world media effectively, including planning, drafting, organizing ideas, usage, tone, and grammar, (Soiferman, 2017a).

Self-regulated learning skills in writing will be defined as active, goal-directed self-control of behavior, motivation, and cognition which is developed through forethought, monitoring, control, and reflection on writing tasks (Zimmerman, 2000).

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this action research was to how the supplemental use of face-to-face writing conferences combined with digital Google Classroom instruction in a blended learning environment impacts the writing and self-regulated learning skills of high school students. My study addressed two research questions:

1. How does the supplemental use of writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students?
2. How do supplemental writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?

For the purpose of this study, writing skills will mean the body of knowledge students need to communicate independently and effectively in school, work, or daily life (Cutler & Graham, 2008; Graham, 2006; Graham & Perin, 2007; Kiuahara et al., 2009; Mason & Graham, 2008). The study investigated how the combination of the variables, blended learning and technology-enhanced writing conferences, impacted writing skills and self-regulated learning skills in a college preparatory English II class. The electronic databases used to locate scholarly articles and dissertations on these variables were *ERIC*, *ProQuest Dissertations and Theses Global*, and *Google Scholar*. Various combinations of the keywords used in research included blended learning, web-based learning, computer-assisted instruction, conferences, student-teacher communication

feedback, individualized instruction, writing, writing instruction, writing skills, composition, self-regulated learning skills, metacognition, English, Language Arts, high school, and secondary education. A key hurdle with these keywords was that most of the sources located were on writing instruction for English as a Second Language classes or STEM classes. Furthermore, most scholarly sources on blended learning and writing focused on writing at the elementary level, rather than the high school. Initially, articles published before 2011 were excluded in an attempt to work with more current research; after removing this exclusion, a wide array of sources on conferences from the 1980's and 90's and more sources on writing instruction from the early 2000's presented themselves. Most of the sources presented in this literature review stem from mining the reference lists in the more applicable articles and dissertations.

This literature review is organized into three sections. It begins with an examination of analyses of writing instruction and potential causes of the nation-wide deficits in students' writing skills. The second section of the literature review addresses blended learning and its outcomes, the application of blended learning in the English classroom, and student attitudes towards blended learning. Finally, the third section of the literature review addresses self-regulated learning and its implications for writing conferences, self-regulated learning skills, and writing skills.

Writing Skills and Instruction

Defining Writing Skills

Writing is considered to be a pervasive part of modern society, as it is a critical tool both in academics and the real world, and is critical to gathering, preserving, and transmitting information (Graham, 2006; Harris et al., 2009; Harris & Graham, 1992a; Prior, 2006). In a series of studies between 2007 and 2009 examining writing instruction

in America's schools, Graham and his associates determined that writing skills are the body of learned material that allow people to communicate independently and effectively in school, work, or daily life in writing (Graham and Perin, 2007; Mason and Graham, 2008; Kuihara, et. al., 2009). Harris, Graham, Brindle, and Sandmel (2009) further identified five specific skills that are particularly important to effective writing skills: content generation, development of an intentional organizational structure, formulation of plans for writing, efficient execution of English mechanics, and revision of text and goals. These five areas have been identified as areas of particular difficulty for many writing students.

Writing Instruction Trends

Studies have determined that there are several factors which contribute to underdeveloped writing skills in America. One of the most common trends identified is the small amount of writing, both in frequency and length, that American students are required to produce, especially in classes other than ELA (Applebee & Langer, 2011; Cutler & Graham, 2008; Kiuvara et al., 2009; Schwartz, 2014). In their study of high school writing instruction, Kuihura, Graham, and Hawken (2009) surveyed teachers nationwide about the types of written assignments they required students to complete and how often students were expected to complete those types of tasks. They found that the longest writing students are typically required to write in a year is a once-yearly research paper for English class, and only 55% of English teachers who responded required a research paper once a year. The survey further revealed that students are often required to submit closed-ended, short answer writing assignments, like answering questions found in textbooks. Real-world writing assignments, like emails or business letters, were almost

never required (Kiuahara et al., 2009). Similarly, in a 2011 survey of approaches to writing instruction, Applebee and Langer asserted that, out of 8542 writing samples from across the country, only 19% represented extended writing assignments of a paragraph or more, and only English classes required those types of assignments.

Another common finding concerning high school writing instruction is that the writing taught is formulaic and offers very few opportunities for true individual interpretation. Kiuahara, Graham and Hawken (2009) and Schwartz (2014) both found that most writing in K-12 schools teaches students that all writing should be in the form of a five-paragraph essay with a set number of sentences in each paragraph. Applebee and Langer (2011) similarly found that formulaic writing with extraordinarily little original interpretation is a by-product of preparation for standardized tests. In her mixed methods study, Schwartz (2014) found that changing her requirements from a five-paragraph essay to a series of authentic writing tasks that reflect twenty-first century skills resulted in increased student writing skills and motivation. A qualitative study based on interviews with teachers revealed that teachers feel students continue to struggle with writing due to lack of training in authentic forms of writing (Read & Landon-Hayes, 2013).

Studies further find that most writing instruction offered in K-12 schools does not appropriately offer authentic opportunities for students to apply discipline-specific knowledge, causing writing produced in school to seem disconnected from writing produced in the workforce or daily life (Applebee & Langer, 2011; Cutler & Graham, 2008; Graham, 2006; Graham & Perin, 2007; Harris & Graham, 1992a; Kiuahara et al., 2009; Mo et al., 2014; Schwartz, 2014). Findings from a four-year study on the impact of

standardized tests on writing by Applebee and Langer (2011) suggests that teachers in content areas other than ELA rarely or never assign extended writing assignments, and cross-curricular writing is extremely rare in high school curricula. Fanetti (2010) found that K-12 writing instructors typically teach writing to prepare students for testing, while college professors seek to use writing for more academic free exploration of ideas, leading to a discrepancy in freshmen college writers' skills in writing necessary beyond high school.

A proposed cause for the current state of writing instruction in K-12 schools is twofold: the increased focus on standardized testing and the lack of clear guidance concerning good writing instruction (Applebee & Langer, 2011; Cutler & Graham, 2008; Fanetti et al., 2010). Several studies on writing instruction published since the early 2000's assert that writing instruction has suffered because it is less prioritized than math or reading on standardized tests and, therefore, taught less deeply than subjects on which schools' performance will be based (Applebee & Langer, 2011; Cutler & Graham, 2008; Fanetti et al., 2010). High school instruction is designed to produce optimal student performance on standardized tests in order to meet Adequate Yearly Progress (AYP). Pressure to produce strong test results leads teachers to teach the closed-ended text-dependent analysis (TDA) format for writing, rather than process writing, in which students not only write, but also reflect upon their writing (Fanetti et al., 2010; Harris et al., 2009). This leads to a focus on corrective instruction, which tends to emphasize mechanics and grammar over content, instead of instruction in developing strong content and organization (Applebee & Langer, 2011; Harris et al., 2009).

Even a decade ago, researchers asserted that there was very little existing research on specific writing instruction in schools (Cutler & Graham, 2008; Graham & Perin, 2007; Kiuahara et al., 2009), and research on writing instruction at the secondary level for non-ESOL students is even more scant; this makes it difficult to locate many concrete recommendations for how to teach writing in high school. Furthermore, standardized test data seems to be the only consistent source of quantitative data on student writing skills, despite the fact that many researchers blame standardized tests for deficient writing skills.

However, existing research indicates that an improved understanding of teaching methods and writing instruction has emerged, such as the incorporation of models, mentor texts, and the use of process writing, though recommendations from the National Commission on Writing are “limited and vague” (Graham & Perin, 2007). These limited recommendations for improved writing instruction have led to the uneven implementation of these teaching methods.

Another consistent recommendation from the existing research in writing instruction is the awareness that there is a need for increased use of technology for writing (Beach, 2012; Cutler & Graham, 2008; Graham & Perin, 2007). Beach (2012) presents a number of benefits to the incorporation of digital tools in the writing curriculum, such as increased engagement due to the wider availability of authentic audiences and purposes, the ease of developing e-portfolios to reflect on the evolution of writing skills, and the improvement in traditional test scores due to increased opportunities to practice writing digitally.

Student Writing Skills

Research indicates that, by fourth grade, two out of three students do not meet grade-level writing standards (Cutler & Graham, 2008; Graham & Perin, 2007). In their study of writing instruction, Graham and Perin (2007) found that 67% of students assessed in fourth, eighth, and twelfth grades do not write proficiently enough to meet the demands of writing for school or the workforce. Cutler and Graham (2008) assert that it becomes increasingly difficult as students progress through school for them to learn to write well once they fall behind.

This gap in writing skills leaves students underprepared for college and work (ACT, 2018; Cutler & Graham, 2008; Fanetti et al., 2010; Graham & Perin, 2007). In South Carolina, only 42% of high school students met ACT's English benchmark compared to 60% of students meeting the writing benchmark at the national level (ACT, 2018). This indicated that fewer than half of students in South Carolina have the necessary writing skills to succeed in college. Professors interviewed by Graham and Cutler (2008) estimated that about 50% of students are not prepared for college-level writing. Students who join the workforce after high school are equally unprepared for writing: businesses spend approximately \$1.3 billion a year on writing remediation (Cutler & Graham, 2008).

Summary

Research indicates that K-12 education's prioritization of standardized testing has led to a focus on corrective writing instruction and short, formulaic writing assignments designed to yield acceptable test results. This has led to most students not having the necessary writing skills to succeed in life after high school. Further research also

indicates that different methods, like process writing, and the integration of technology into writing instruction to improve authenticity of writing tasks may contribute to improved writing skills. However, most literature providing information on writing instruction is based on teacher and student surveys and interviews. Due to a scarcity of research in writing instruction practiced in classrooms, there are very few specific recommendations to guide classroom teachers towards improving student writing skills. This study incorporated the recommendations from existing research to employ increased technology use and process writing instruction to improve student writing. Because this study was conducted near the beginning of the school year after the participants in this study missed their unit on academic writing due to school closures the previous year, the recommendation to implement authentic writing tasks was deferred until later in the school year. This decision ensured that students learned the writing skills necessary to complete their high school career and honor the common planning policies in place at the school for teachers of the same course. This also ensured that students developed some basic command of general writing skills before being plunged into entirely unfamiliar forms of writing, like blogging, web-design, or podcasts. The use of these recommendations involved increased opportunities to develop students' self-regulated learning skills skills in writing.

Self-regulated learning skills

Defining Self-regulated learning skills

A wide variety of models, theories, and terms are often used to define self-regulated learning skills, including self-control, self-management, and goal-directed behavior (Baumeister & Vohs, 2004; Boekaerts et al., 2000; Martin & McLellan, 2008;

Zeidner et al., 2000) . Several educational psychologists influenced by the work of Albert Bandura define self-regulated learning skills as a “multiphase, cyclical, cognitive-behavioral based process involving the self-generation and adaptation of thoughts, emotions, motivation, and actions with respect to personal goals” (Martin & McLellan, 2008, p. 435). Self-regulated learning is comprised of processes like goal setting, concentration, strategic use of organization, coding, rehearsing information, establishing a productive work environment, using resources, monitoring performance, managing time, seeking assistance, and reflecting on one’s efforts (Schunk & Ertmer, 2000). Overall, self-regulated learning skills is defined as learner ability to monitor and control his or her own learning processes through the use of cognitive and metacognitive strategies, such as goal-setting, steering process and strategies, feedback and self-evaluation (Martin & McLellan, 2008; Zeidner et al., 2000).

Theoretical Foundations

Studies on self-regulated learning theory began appearing in the late 1980’s and early 1990’s. Several different models of self-regulated learning have emerged, each with slight variations. Zimmerman (1989) presents a triadic model which shows the interaction between personal, behavioral, and environmental processes. He asserts that self-regulated learning must involve the use of specific learning strategies to achieve academic goals (Zimmerman, 1989). The three important elements in Zimmerman’s model are the self-regulated learning strategies, student self-efficacy, and commitment to academic goals (Zimmerman, 1985; Zimmerman, 1989). This theoretical model emphasizes behavior and self-efficacy and other task-specific actions (Martin & McLellan, 2008; Zimmerman, 1989) The behavioral influences highlighted by Zimmerman (1989) are self-observation,

or self-monitoring of progress, self-judgement, or the ability to compare performance to the desired goal, and self-reaction, or the use of personal processes, such as goal-setting. In 2000, Zimmerman produced a second model, presented in Figure 2.1, for self-regulated learning which maintains the triadic representation. The newer model is divided into three phases: (a) forethought, which involves task analysis, setting goals, and developing plans; (b) performance, in which students execute their plan and monitor their progress and employ strategies to remain engaged with their task, and (c) self-reflection, in which students assess their performance (Zimmerman, 2000).

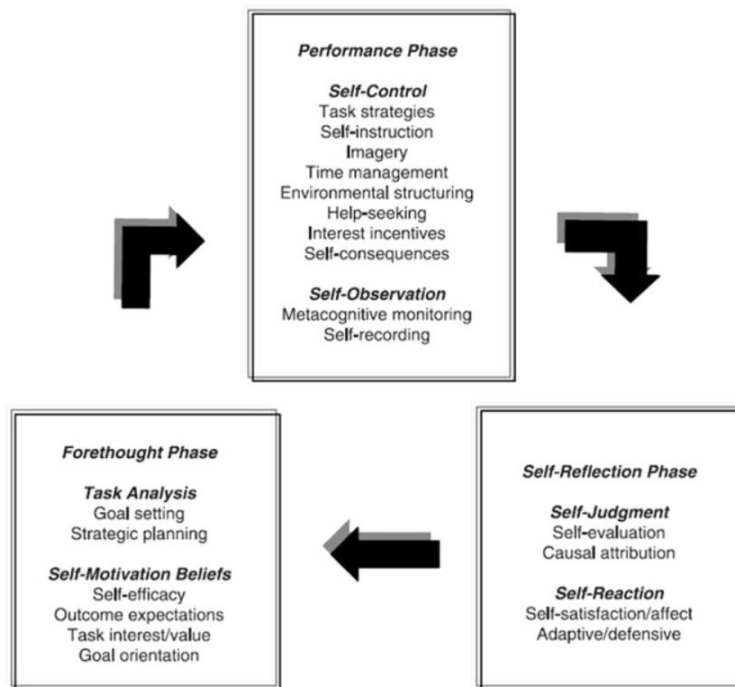


Figure 2.1: Zimmerman's Triadic Model of Self-regulated Learning

Pintrich is another forerunner in self-regulated learning theory. Pintrich's model of self-regulated learning features four phases: 1) forethought, 2) planning, and 3) activation, monitoring, and control, and 4) reaction and reflection, and all phases have the

same four areas of regulation: cognition, motivation/affect, behavior, and context (Pintrich, 2000). This model is the only self-regulated learning model which incorporates students' attempts to control their overt behaviors (Panadero, 2017). Empirical research into Pintrich's self-regulated learning skills model is largely related to the MSLQ questionnaire that he developed, which is the most-used instrument in self-regulated learning skills research (Panadero, 2017; Roth et al., 2016). Pintrich's work with self-regulated learning, specifically the development of this measurement instrument, is valuable because it analyzes the connection between self-regulated learning skills and motivation, and his work attains information on specific learning strategies students use.

More recent research like that of Winne and Hadwin (1998) and Weinstein et. al. (2000) emphasizes the cognitive and metacognitive process associated with self-regulated learning skills and produce theories more tied to mental processes than actions (Martin & McLellan, 2008; Panadero, 2017). These more recent models have the benefit of demonstrating self-regulated learning as a more open process with recursive phases that both Zimmerman and Pintrich lack (Panadero, 2017; Weinstein et al., 2000). Winne and Hadwin's (1998) model depicts self-regulated learning across four phases: 1) task definition, 2) goal setting and planning, 3) use of strategies, and 4) metacognitively adapting studying. These phases exist in an open and recursive feedback loop. This model offers the benefit of acknowledging that, in some learning tasks, mistakes are recognized only once the task is completed (Panadero, 2017; Winne, 2011; Winne & Hadwin, 1998). The Winne and Hadwin model also addresses five different attributes of tasks that take place in the four phases: conditions, or resources available to complete the task; operations, or strategies used to complete the task; products, or the work generated

by operations; evaluations, or the feedback produced between products and standards; and standards, or the criteria against which products are measured (Winne, 1997; Winne & Hadwin, 1998). A more recent revision of the Winne and Hadwin model (2011) adds an explanation of the importance of clear criteria and evaluation standards on students' self-regulated learning skills, especially in goal setting, progress monitoring, and self-assessment (Andrade & Cizek, 2010; Panadero & Alonso-Tapia, 2017).

In his 2017 comparison of self-regulated learning models, Panadero (2017) found that Zimmerman's and Pintrich's models are the most widely used in educational research. Their models present a more comprehensive idea of self-regulated learning skills and are, therefore, easier to apply in a classroom. Furthermore, researchers have found that the Zimmerman models offer a review of the teacher's role, making Zimmerman's work easier to implement with teachers (Moos & Ringdal, 2012; Panadero, 2017). While newer models of self-regulated learning skills present opportunities for more holistic interventions, Panadero (2017) asserts that the Zimmerman model, with its clearly established subprocesses, is easier to implement specific, targeted interventions. This is shown in Figure 2.1. Zimmerman also places emphasis on self-regulated learning skills as a goal-driven activity more so than the other models (Panadero, 2017). Due to its ease of use, predominance in previous research, and intentional connection to self-efficacy and goal-setting, this study adopted the Zimmerman model and definition for self-regulated learning skills.

Self-regulated learning skills in Writing Instruction

Self-regulated learning skills is considered a critical component of improving writing skills for two reasons: 1) self-regulated learning skills form the building

blocks of much of the writing process and 2) self-regulated learning skills skills can be a conduit for improved application of writing strategies (Graham et al., 2005; Graham & Harris, 2000; Schunk & Zimmerman, 2007; Zimmerman & Risemberg, 1997). When combined with a process approach to writing, the explicit teaching of self-regulated learning skills skills can improve skills in writing (Graham et al., 2012; Graham & Harris, 1996; Hammann, 2005; Harris & Graham, 1992a). In a metaanalysis of elementary writing instruction, Graham and Harris (2012) found that self-regulated strategy development (SRSD) instruction, which involves teaching general and task-specific writing strategies, how to use the writing strategies, and self-regulated learning skills skills (goal-setting, self-monitoring, self-reinforcement, and self-assessment), enables students to regulate their writing strategies, process, and behavior while writing. The average effect size for writing instruction employing the SRSD model was 1.17, which was the greatest effect size of the instruction methods analyzed in the study (Graham et al., 2012). Even in instructional approaches where self-regulated learning skills skills, like goal-setting and self-assessment, were taught as a supplement for writing skills produced an effect size of 0.50, which was a greater effect size than instruction where self-regulated learning skills skills were not a factor (Graham et al., 2012). Other research demonstrates that incorporating explicit teaching of self-regulated learning skills in writing helps reinforce for students the importance of planning and revising their written work because these stages of the writing process, in particular, require the combined use of self-regulated learning skills skills and writing skills (Hammann, 2005; Santangelo et al., 2007). In fact, research suggests that for students who struggle with writing effectively, it is not necessarily a lack of writing skill, but rather a lack of skill in

effectively applying the self-regulated learning skills skills of planning, revising, self-monitoring, and self-assessing, which cause the most significant gaps in written communication (Graham & Harris, 1996; Hammann, 2005; Santangelo et al., 2007). Typically, writers who are able to self-regulate are more resourceful, reflective, and goal-oriented, become less frustrated when asked to revise work, and are able to produce more writing than is needed and then strengthen work by deleting weaker ideas (Graham et al., 2012; Graham & Harris, 1996; Harris & Graham, 1992a).

Summary

In this section, various models of self-regulated learning skills learning models were presented. Their strengths and deficiencies were highlighted. It was established that Zimmerman's model of self-regulated learning would be the best fit for application in this study. The effects of explicitly teaching self-regulated learning skills skills, such as planning, self-monitoring, goal setting, self-assessment, and revision, in conjunction with writing instruction were also explored.

Blended Learning

This section of the review of literature explores blended learning. It begins with an examination of the definitions of blended learning and the models for blended learning in the classroom with an explanation of how these will apply to this study. Then the theoretical backgrounds of blended learning are analyzed. This is followed by an examination of the online and face-to-face aspects of blended learning and research related to student metacognition with blended learning. The section concludes with an examination of student attitudes towards blended learning.

Defining Blended Learning

With the increased adoption of blended learning due to increasingly available technology, several different definitions have emerged to explain this learning model. Blended learning can be defined as a pedagogical approach that includes a combination of face-to-face instruction with computer-assisted instruction (Ferdig et al., 2012). Staker and Horn (2012) state that blended learning is a formal education program in which a student learns partly through online-delivered instruction of content with some degree of student control over time, location, and pace and partly through more traditional face-to-face instruction away from home. Picciano, Dziuban, Graham (2007) define blended learning as courses that integrate online and traditional face-to-face class activities in a planned, educationally valuable manner with a portion of traditional instructional time being replaced by online activity. All of the definitions acknowledge that blended learning is a combination of online learning and teacher-led instruction, and most researchers posit that blended learning allows for students and teachers to reap the combined benefit of both student-driven, online learning with traditional teacher-led instruction (Danker, 2015; Larsen, 2012; Picciano et al., 2014; Staker & Horn, 2012). For the purpose of consistency, this study employed the Staker and Horn (2012) definition due to its currency, its connection to the research questions for this study, and its use in many of the more recent articles on blended learning.

Another strength of the Staker and Horn (2012) definition is their explanation of the different models of blended learning. They present three basic models: the rotation model, the flex model, and the virtual enrichment model. In the rotation model, students rotate between various learning activities, with at least one being face-to-face instruction

and at least one being online learning. Examples of the rotation model include the flipped classroom, in which students rotate between web-based learning and practice outside the classroom and work on more advanced practice and projects during face-to-face time. In the station-rotation model, students rotate between different learning stations within a single classroom setting. In the individual rotation model, students switch between available learning activities at their own pace (Staker & Horn, 2012).

In the flex model, instruction is delivered primarily via the internet with face-to-face support (Staker & Horn, 2012). Finally, the virtual enrichment model involves a whole-school approach within each course, where students divide their time between traditional face-to-face instruction and online, remote learning (Staker & Horn, 2012). This study focused on the use of the rotation model, more specifically flipped learning, given that many of the study participants lack reliable internet access outside of school, so participants in this study will need the option to choose whether they access online learning at home or during in-school study sessions. Additionally, the station-rotation model aligns with the school's recent adoption of 1:1 technology.

Constructivism and Blended Learning

Constructivism is a learning theory developed through the work of Piaget, Dewey, Bruner, Vygotsky, and others who posited that learning is not the mere replication of practiced behaviors (Olusegun, 2015). They posit that learning and knowledge are created through experience and that knowledge is created through the constant revision and construction of schema and social interaction (Li, 2019). Piaget called the main processes by which new knowledge is acquired accommodation and assimilation, and these processes allow for new learning to be incorporated into the existing framework of

knowledge, meaning that learning is an on-going process of creating schema and revising old schema based on new experiences (Piaget, 1950). Vygotsky adds to this theory by explaining that learning happens in social constructs where learners can interact with each other and more knowledgeable guides (Vygotsky, 1978). According to Tarnopolsky (2012), constructivist theory hinges on the belief that humans gain knowledge and skills from an interaction between their experiences, typically social experiences, and their own existing ideas. Dewey (1963) called constructivism learning by doing and stated that students learn at their best when they can be provided with real-life, authentic experiences in which to apply learned concepts. The constructivist approach to education, then, involves students constructing their own knowledge through authentic experiences which allow them to develop new knowledge (Tarnopolsky, 2012). The constructivist theory fits nicely with blended learning because of the social and experiential nature that can be part of blended learning environments—students need to be immersed in experiences that allow them to practice their new skills as authentically as possible (Dewey, 1963; Tarnopolsky, 2012).

Online Instruction Delivery

In the switch to blended learning, low-level introductory learning, such as academic vocabulary and recall-level knowledge are delivered with online media such as recordings, screencasts, or other web-based activity instead of the traditional lecture. This allows students to create meaning while receiving digital feedback and offers the benefit of more updated information, such as dictionaries or formatting guides, available online (Banditvilai, 2016; Danker, 2015; Larsen, 2012). A 2009 study by the US Department of Education suggests that the implementation of blended learning leads to increased

knowledge gains over both traditional face-to-face instruction and online-only instruction due to the combination of effective practice from both approaches to education (Means et al., 2009). Tarnopolsky (2012) reasserts this finding, saying that, by moving part of the instruction to online media, students can learn content more rapidly and at deeper levels, creating a “synergistic, dynamic learning structure that can propel learning to new heights” (p. 14).

The shift to online instruction delivery comes with two major drawbacks: increased planning and concerns of technology access. According to teacher interviews presented by Danker (2015) and Larsen (2012), the implementation of online instruction requires increased planning to ensure that materials are created, troubleshooted, and delivered and that online and face-to-face time are cohesive. One teacher interviewed states that the move to blended learning increased her upfront planning load by several hours, though her overall planning time stayed about the same once the blended learning unit was implemented (Larsen, 2012).

The second major concern with the move to blended learning is lack of student access to the Internet or other technologies. Lack of access can cause students to fall behind, and if online learning is not completed, then face-to-face instruction becomes less valuable (Culbertson, 2018; Danker, 2015). Another concern is that high school students who are typically astute users of technology for social media and other personal pursuits may lack technology skills for academic purposes (Larsen, 2012). Teachers must be conscientious when implementing blended learning to mitigate these concerns with options for students to access information, even offline. Students will need to be trained

upfront in the use of academic technology before they are expected to use technologies independently (Culbertson, 2018; Larsen, 2012).

The online part of blended learning, though time-consuming upfront, can greatly increase the amount of time available for one-on-one attention, the amount of feedback students have to build meaning, and the richness of face-to-face instructional time (Banditvilai, 2016; Culbertson, 2018; Danker, 2015; Larsen, 2012), which will be the focus of the next section of this literature review.

Face-to-face Instruction

In most studies, face-to-face instruction associated with blended learning takes on more depth with more personalized feedback since students have already been exposed to introductory information and teacher and student have some common understandings to draw from. Face-to-face instruction with blended learning promotes deeper interactions between teacher and student because the teacher can be a facilitator, rather than a lecturer (Banditvilai, 2016; Danker, 2015; Larsen, 2012). The shift away from the teacher as the presenter of new learning also allows for more targeted, personalized feedback in a one-to-one or small group setting (Danker, 2015). This more tailored feedback is perceived as more useful by both students and teachers (Larsen, 2012). In one student interview, Larsen found that students feel they benefit from continuous feedback because they cannot learn if they are not made aware of mistakes. The participant contrasted her blended learning class in Larsen's study with other classes, saying "[i]n many class we do many homework but never receive our feedback about our..., only, sometime, our score, but not the right answer" (p. 168). Students place value in face-to-face time because they can receive coaching to correct misconceptions and learn more effectively.

The face-to-face component of blended learning can be used for more higher-order thinking activities to take place in the classroom with the teacher available to offer guidance in real time, encouraging increased application and deeper thinking than the traditional model where introductory, recall information is presented in the classroom and projects and other major assignments are often completed at home with less teacher guidance (Danker, 2015; Engin, 2014; Larsen, 2012). One teacher observation presented in an interview with Larsen (2012) suggests that, with more time to apply concepts, learning became more efficient, with students demonstrating mastery of more concepts more quickly and at deeper levels. Some studies also find that more introverted students benefit more from blended learning because face-to-face instruction is less intimidating when delivered in small group, rather than whole group (Banditvilai, 2016; Danker, 2015).

However, in the move to blended learning, teachers will once again want to consider making the rationale for the change in instruction explicitly clear to students. Some student surveys indicate that sometimes students continue to prefer traditional, teacher-centered learning models (Banditvilai, 2016). Poon (2013) suggests that this may be due in part to the fact that many people still perceive learning as the teacher delivering content to students.

Blended Learning and Students

Student Control

One of the primary benefits of incorporating blending learning appears to be increased engagement with content. According to Danker (2015) and Larsen (2012), this increased engagement stems, in part, from increased student responsibility. Some

research suggests that the increased amount of student control promotes deeper learning of skills and concepts (Camahalan & Ruley, 2014; Danker, 2015; Larsen, 2012; Poon, 2013). When introductory information is initially introduced to learners working independently online, they have control over the pace and presentation of the information. They are actively involved in creating initial meanings from information and become more motivated to study independently (Banditvilai, 2016; Danker, 2015). The classroom can, then, become a place for students to work through problems, authentic projects, advanced concepts, and more collaborative learning (Juarez, 2014; Tucker, 2012). Engagement can also be increased with blended learning because students are prompted to explore new concepts on their own. In a qualitative study based on interviews with pre-service teachers of elementary school students, Juarez (2014) found that by introducing tablet instruction with writing apps, students remained more focused for longer periods of time when writing because the online learning apps held student interest and delivered instantaneous feedback. Danker (2015) reports results from a student satisfaction survey: self-reported engagement among students rose from 30% in the traditional classroom to 67% in the blended classroom. When interviewed about their survey responses, students indicate that they enjoyed the opportunity to investigate new ideas and apply new concepts on their own to learn through experimentation.

Student Self-regulated learning skills and Blended Learning

Blended learning requires students to create meaning independently and learn how they need to learn new material (Danker, 2015; Engin, 2014; Larsen, 2012). In a study of students in a performing arts class at a Malaysian college, Danker (2015) reveals that a blended approach led 50% of participants to independently adapt learning strategies

like replaying lectures, taking notes, or creating study materials based on an emerging understanding of their needs as learners. Other studies indicate that, even at the K-12 level, a blended approach leads to increased activation of prior knowledge as new concepts are connected to existing understandings. This can lead students to be better aware of the thinking that goes into their work, making them better able to articulate personal learning needs and lesson purposes (Danker, 2015; Engin, 2014; Larsen, 2012).

Because it can help students better articulate needs and learning targets, blended learning can also be a means of teaching and reinforcing students' skills of self-regulated learning skills. Students typically enjoy the option to decide when it is convenient for them to study, and they typically respond favorably to being able to pace themselves through the online learning (Banditvilai, 2016; Larsen, 2012). Teachers also remark that blended learning seems to increase students' abilities to pace themselves, manage their time, and learn to set realistic goals (Larsen, 2012). However, some researchers also point out problems with blended learning for students who have underdeveloped self-regulated learning skills. Because the quality of face-to-face instruction can suffer if students choose not to complete online components, self-regulated learning skills is an important skill for students to develop in the shift to blended classrooms (Banditvilai, 2016). Some students also struggle to self-regulate in blended classrooms because they dislike or do not know how to use digital feedback (Danker, 2015). For these reasons, Culbertson (2018) points out that students, especially at the K-12 level, will need training in independent learning because these students are still developing self-regulated learning skills habits, as Larsen (2012) explains after observing students in a blended classroom who were easily distracted by games and other amusement available online.

Student Attitudes towards Blended Learning

Overall, student responses to blended learning at every level are generally positive. In some studies, students indicate a belief that blended learning is a more valuable learning model than traditional classroom models (Zappe et al., 2009). More specifically, students see value in having access to lectures and other learning materials outside of class as guides (Danker, 2015; Keiner, 2017; Larsen, 2012; Zappe et al., 2009). Danker (2015) revealed that 37% of students felt more productive in class by having access to information for review before class began. Students also like the ability to pace their own learning online. In one interview, an ESL student told Larsen (2012) that she liked that she did not need to wait on everyone else in her class before moving on while also not feeling as if she was holding her classmates up when she struggled. Students also reported that they liked the opportunity to learn and practice self-regulated learning skills skills, like maintaining a study schedule (Danker, 2015). Finally, students consider a blended environment to be positive because of the increased attention they have from the teacher and the ability to work at their own pace and replay or review when needed (Engin, 2014).

Blended Learning in English/Language Arts

When applied to the English/Language Arts (ELA) classroom, blended learning can produce improved academic achievement. At Clintondale High School in Michigan, the introduction of blended learning to the ELA curriculum decreased failure rates from 52% to 19% (Alvarez, 2012). Furthermore, in an investigation into the effect of blended learning on writing skills at the college ESL level, Banditvlai (2016) found statistically significant higher mean scores between groups that received blended writing instruction

over the control group, which received traditional, teacher-led instruction. Furthermore, in a middle school writing study, Camahalan (2014) found that students who engaged in blended learning experienced an 8.5% gain in writing skills related to sentence structure over the face-to-face only group. ESL students learning to write in English indicated that they somewhat agree blended learning helped them develop their writing skills (Larsen, 2012). In a qualitative case study, Keiner (2017) found that both students and teachers self-report that the use of blended learning in the English curriculum helped improve writing skills and foster more positive attitudes towards writing.

The incorporation of blended learning into writing curricula also affords increased opportunity for students to write for authentic twenty-first century audiences. Paroussi (2014) found that incorporating blogging into her blended writing classroom improved her twenty-four students' skills in clarity of writing, organization, and self-editing. Students also appeared more willing to revise work multiple times to have it ready to post electronically. Blended learning offers teachers the opportunity to allow students to use wikis, blogs, and social media sites to use writing to foster social connections; this, in turn, leads to increased understanding of audience and purpose and increases engagement by having the primary evaluator of writing be someone other than the teacher (Paroussi, 2014; Pytash & O'Byrne, 2014; Shih, 2011; Spires et al., 2012). In a study of twenty-three ESL college students in Taiwan, Shih (2011) found that moving writing practice to Facebook, led to statistically significant gains in student writing skills and led to improvement in more traditional writing; the study also revealed that blended learning with social media practice led to high rates of student satisfaction with writing instruction. The incorporation of more authentic assessments and audiences extends to

video, as well. Spires, Hervey, Morris, and Stelpflug (2012) found that incorporating video into their blended learning with direct instruction allowed students to improve research, planning, organization, and reflection because the videos are more readily presented to a modern audience in a modern medium.

A blended learning approach to writing instruction may also boost student metacognition in writing. According to Engin (2014), as students learn new material independently, they can become better able to describe the thinking processes related to their own writing. Additionally, in a mixed methods self-study Alcoser (2017) found that, by implementing blended learning in her ELA curriculum for tenth and eleventh grade students, they were able to discuss their work more knowledgeably during writing conferences. She reported that, prior to the study, students usually defaulted to highlighting the need for editing of lower-order grammar errors to improve writing; after the implementation of blended learning, she found that students more readily gravitated towards discussing the clarity of their ideas and the development of their work (Alcoser, 2017). Furthermore, Pytash and O’Byrne (2014) found that moving literacy instruction to online platforms can expand available audiences, allowing students to access a wider range of feedback to help inform their revision process and improve their metacognitive skills for writing.

Summary

In this section, blended learning was defined, and an overview of models for blended learning was presented. The theoretical foundations and characteristics of blended learning were examined. Finally, the effects of blended learning specifically in the ELA class and student attitudes towards blended learning were explored.

Writing Conferences

The writing conference is one suggested method for improving writing instruction. It offers students and teachers an opportunity to discuss student writing on an individual basis, with focus given to each student's particular needs. The conference model lends itself to use as the face-to-face interaction in a blended learning environment.

Defining Writing Conferences

The writing conference, though described by several different researchers, does not appear to have a formal definition; however, there are several common descriptions used to help operationalize writing conferences. The conference is often described as encouraging one-to-one interactive dialogue between teachers and students (Carter, 2018; DeMott, 2006; Healey, 2019; Wong et al., 1996). Some researchers indicate that conferences should be goal- or criterion-based (Carter, 2018; Mason & Graham, 2008). Furthermore, researchers indicate that the purpose of the writing conference is to provide students with timely, targeted, relevant, and personalized instruction on student writing and to promote knowledge construction at key points in the writing process, making the process of writing more tangible because talking with students as writing takes shape helps them understand that writing is under constant development (Harris, 1986). Some researchers highlight that conferences provide targeted, timely, relevant, and personalized instruction on student writing, promoting knowledge construction at key points in the writing process (Carter, 2018; DeMott, 2006). Finally, multiple researchers mentioned that conferences are collaborative discussions in which the student and teacher act as co-discoverers (Carter, 2018; DeMott, 2006).

Based on these descriptions, which appeared in multiple articles, the following definition has been developed for use in this study: a writing conference is a one-to-one collaborative dialogue in which teacher and student work together to understand writing and new ideas and in which the student receives goals-based, personalized feedback specific to his or her own writing at key points throughout the writing process. Goals will be developed based on students' performance on the pre-assessment, and feedback and conference discussion will be related to students' goals.

Theoretical Foundations of Writing Conferences

Before discussing research related to writing conferences, it is important to discuss the learning theories that influence the conference model. The biggest theories impacting the development of writing conferences are constructivism, social learning theory, and cognitive apprenticeship.

Constructivism

Just as with blended learning, constructivist learning theory can be applied to the conference model of writing instruction as well. The theory emphasizes the active construction of knowledge by students and scaffolding (Harris & Graham, 1994), which is underscored in the conference model through the active discussion of writing and the offering of personalized feedback. Constructivism also rejects the teaching of skills in a linear fashion (Harris & Graham, 1994). The conference model emphasizes writing instruction as a cyclical process that undergoes constant revision. Additionally, the teacher is seen as an assistant, facilitating the student's discovery of new knowledge in social contexts (Harris & Graham, 1994; Li, 2019), which is further seen in the conference model through discussion-based feedback between teacher and student.

Furthermore, dialectical constructivism, asserts that mature thinkers can move learners towards mature thought through modelling and guidance within the learner's zone of proximal development (Vygotsky, 1986). Researchers explain that instructional strategies that align with dialectical constructivism include scaffolded instruction, teacher-guided discovery, and modelling (Harris & Graham, 1992a, 1992b, 1994; Harris & Pressley, 1991; Pressley et al., 1992); these strategies are all a part of the conference model for writing instruction (Li, 2019).

Social Development Theory

The work of constructivist theorist Lev Vygotsky (1978) can also be used to further a theoretical understanding of writing conferences. Social Development Theory hinges on three major principles: 1) social interaction is critical to cognitive development, 2) the potential for cognitive development is limited to a specific time span, and 3) researchers can only come to understand how learning happens by examining an environment where process is valued over the products that result from learning (Lutz & Huitt, 2004). Vygotsky (1978) placed emphasis on a process of dialectical discovery, in which learners process and integrate new learning through discussion in social interactions. The theory also posits that all learners have a range of potential for learning, known as the zone of proximal development, or the point where a learner is just shy of being able to complete a task independently, and learners are able to increase the zone of proximal development to more complex tasks through scaffolding from a more knowledgeable other (Lutz & Huitt, 2004; Vygotsky, 1978). In other words, teachers should provide instruction higher than the student's lowest capability but not so high that the student cannot experience success (Bourelle, 2012). The personalized interaction of

the writing conference can make it easier for teachers to reach students within their zone of proximal development (Flaherty, 2019; Li, 2019). Social Development Theory reveals that writing instruction should be situated within an authentic sociocultural task and allow learners to process new concepts through dialogue (Lutz & Huitt, 2004). McBride and King (2010) studied the use of blogs with early adolescents for improving writing skills. They found that the interaction between students, peers, and teachers combined with the authentic social platform of the blog yielded improvements in students' ability to organize and create content, as well as their attitude towards writing (McBride & King, 2010). The writing conference can provide a similar environment necessary for dialectical discovery.

Cognitive Apprenticeship

One aspect of social learning theory which influences writing conferencing heavily is cognitive apprenticeship. Cognitive apprenticeship is defined as learning through guided experience. (Collins et. al., 1989). This approach to learning involves expert modelling and coaching in the early phases of learning, the gradual increase in task difficulty as the learner becomes more independent, and the gradual decrease in assistance from the expert (Dennen & Burner, 2004). The teacher-provided scaffolding present in the writing conference is an example of cognitive apprenticeship. Based on monitoring of individual students and their writing skills, teachers can ask appropriate questions, provide specific coaching, and guide students through the writing process. This coaching and modelling during the writing conference offers tasks structured to the student's individual zone of proximal development and prompts student reflection as they

work to gain increasingly complex writing skills (Bonk & Sugar, 1998; Dennen & Burner, 2004; Tharp, 1993).

Writing Conferences in the Secondary Classroom

Several studies into writing conferences in the classroom, and more specifically the high school classroom, were conducted in the 1980's and 90's. Though results were promising, conferences were not widely adopted in secondary schools (Taylor, 2010). According to Kuihara, Graham, and Hawken (2009), 41% of secondary teachers surveyed nationwide report having a conference with students about their writing once or twice a year.

Information about the effectiveness of conferences in high school ELA is scant: most studies presented in this section focus on conferencing in elementary, middle, ESL, or college level composition classes. However, two positive trends emerged from the early studies into conferencing in high school. Simmons (1979) and Wong (1996) both found that conference-centered writing classes both showed greater student gains in writing skills than non-conference classes, regardless of whether the conferences were teacher-to-student or student-to-student. Second, conference-centered classes had higher rates of student and teacher satisfaction on surveys (Simmons, 1979).

Characteristics of Quality Conferences

Just as there did not seem to be a standardized definition for writing conferences, there does not seem to be any set formula for how a conference should be run. However, research studies that investigated writing conferences at different levels with different student demographics present several characteristics of successful conferences. These

include feedback, personalization, student-teacher roles, timing, and promotion of self-regulated learning skills and self-efficacy.

Feedback

One of the primary benefits of the writing conference is the students' access to ongoing formative feedback. Conferences make process writing more tangible because talking with students as writing takes shape helps them understand that writing is under constant development (Harris, 1986). This access to feedback means that the teacher acts as a sounding board to help students "form and reform" ideas until they get close to representing the ideas in their head (Harris, 1986, p. 10). Conferences allow the teacher-reader to give constructive feedback during the revision process that becomes less helpful once work has been submitted for a summative grade (Bayraktar, 2012; Harris, 1986; Nystrand, 1990). Nystrand (1990) also asserts that conferencing can broaden the types of feedback writers receive, especially when a combination of teacher-to-student and peer-to-peer conferencing is applied, which allows novice writers to see their work through the eyes of their reader. Because conferences happen at various points in the writing process, the teacher may not have read writing in its entirety, allowing the teacher to focus on one specific area related to the student's goals (Flaherty, 2019).

Personalization

A key feature of successful conferences is the personalization of the conversation. Conferences hinge on teachers' appropriate use of scaffolding for individual students (Carter, 2018; DeMott, 2006; Ewert, 2009; Goldstein & Conrad, 1990). Instruction during the writing conference consists of modelling and coaching specific to the individual student's zone of proximal development (Dennen & Burner, 2004; Meyer &

Turner, 2002; Tharp, 1993), meaning that students in a writing conference are learning content specific to their current skills and that students in a writing conference receive just enough challenge to move their skills forward without causing them to be overwhelmed by instruction that is beyond their current skills. Meyer and Turner (2002) found that math classrooms that do not provide scaffolding (i.e., classrooms that focus only on whole-group direct instruction) are less effective at enabling students to become self-regulated learners—students were able to perform tasks with the teacher but did not achieve the ability to perform tasks on their own. In her mixed methods study of elementary writing conferences, Flaherty (2019) found that conferences could be based on personalized goals based on students' current levels allowing each student in the class to receive personalized instruction on the topic most closely related to their writing needs. The personalization available in the writing conference can ensure that students receive instruction in the skills most critical to their own personal development.

Student-Teacher Roles

Quality conferences also require a shift in the student-teacher relationship. Depending on the conference agenda and student skill level, quality conferences might employ a teacher-facilitator relationship in which an expert teacher engages the student with scaffolding, modelling and coaching while the novice or developing writer works to mirror and then construct new understandings of the writing process (DeMott, 2006; Hung, 1999; Vygotsky, 1978). This means the teacher's role in the conference is to facilitate students' progress through the writing process by reacting to work as audience and reader, helping to make students aware of weaker points in their work, and give feedback on their specific questions (Harris, 1986).

Because so much of the writing process is internal, quality conferencing also casts both student and teacher as co-discoverer (DeMott, 2006; Healey, 2019). Healey (2019) found that, during conferences with middle school students, part of most conferences dealt with both herself and her students working together to ask questions to understand the meaning of the work and the content of the writing. Other conferences involved a process of the teacher-as-reader discovering information about the students' mindset while the students discovered strategies for helping their reader understand their work (DeMott, 2006; Flaherty, 2019). The shift in relationship between student and teacher offers students the opportunity to be the expert on their own writing process with the teacher acting as advisor, rather than dictator.

Emphasis on Process

Beginning in the 1960's, writing instruction underwent a transition from product-based to process-based. In process-based writing instruction, teachers develop an environment that allows students not just the time to write, but also time to reflect on their writing and receive support and guidance through the development of their writing (Harris et al., 2009). The shift from product to process enables students to see writing as a "vehicle for learning and self-expression," even when the process is challenging and frustrating (Graves, 1985; Harris et al., 2009, p. 141). Emphasis on process over product can improve writing skills by teaching writing skills as well as metacognitive writing skills (Harris et al., 2009). In an observation of peer conferences between college students, Nystrand (1990) found that conferences where the focus is not placed on copy-editing can significantly improve students' skills in content development, organization, and goal-setting. This indicates that the conference model can improve students' skills

beyond merely locating typos and grammar errors by encouraging a more holistic focus on writing processes.

Writing Conferences to Promote Student Self-regulated learning skills

Harris, Graham, Brindle, and Sandmel (2009) identified two major metacognitive processes involved in writing: knowledge about cognition (knowledge of oneself as a writer and procedural knowledge about writing) and conscious regulation of writing and self-regulated learning skills; both of these skills can be achieved through the emphasis on the writing process afforded by the conference model. Studies indicate that students benefit from strategy and process-oriented writing instruction over more traditional corrective writing instruction (Graham & Harris, 1996; Graham & Perin, 2007; Harris & Graham, 1992b). The writing conference brings the focus of writing instruction to the process of writing, and it allows students time to practice the metacognitive skills of articulating their individual thought processes as they write (Healey, 2019; Nickel et al., 2001). In other words, the conference allows students to apply theoretical skills, making their thinking more visible (Harris, 1986).

Through case studies of writing conferences, Healey (2019) demonstrates the benefits of teacher and student collaborating to create a shared linguistic toolkit, or analogies and symbols for discussing writing. This collaborative discussion led students to be better able to discuss their own writing process during conferences, indicating that some of the dialogue produced in writing conferences may help students to both internalize and verbalize language for their own personal thinking processes with regards to their writing (Healey, 2019). Individualized dialogue about writing can help some students overcome the misconception that good writers are writers who do not often need

to scratch out ideas and revise them by reinforcing that writing is an on-going process (Harris, 1986).

Other studies indicate that individualized mini-lessons and increased frequency of feedback can help struggling or developing writers improve their writing skills (Graham, 2006). Flaherty (2019) found that her elementary students experienced a 23% increase in writing skills between their pre-test and post-test after implementing writing conferences. Finally, Graham (2006) asserts that students benefit from being asked to self-assess their writing based on goals set during conferences. The metacognitive skill of self-assessment allows students to, not only practice verbalizing and reflecting on their own thinking, but it also helps them think more deeply about writing as they apply skills discussed in conferences to their own work to determine if they have mastered a concept.

Student Attitudes towards Conferences

Most studies located for this literature review focus on teacher perceptions and attitudes towards writing conferences rather than students' attitudes; however, in the studies where student attitudes were part of the study or where teachers observed students' reactions, student attitudes towards writing conferences were overall positive, though there was some confusion from some struggling or emerging writers. Students react positively to integrated, constructive feedback on their writing (Yamalee & Tangkiengsirisin, 2019), and they do not have a specific preference on the length of the feedback offered—surveys in an ESL college class indicate that students evenly like written or coded feedback (Yamalee & Tangkiengsirisin, 2019). However, some written feedback, such as feedback related to organization or content development, can be confusing for students (Yamalee & Tangkiengsirisin, 2019), and they can become

overwhelmed and shut-down if the teacher leaves feedback on all types of issues at the same time or if the teacher seems confused by the writer's purpose or clarity of ideas (Kramer-Simpson, n.d.; Nickel et al., 2001; Yamalee & Tangkiengsirisin, 2019).

Conferences seem to offer some relief for the issues related to written feedback, while continuing to offer the same benefits. Students seemed to respond most positively to conference-based feedback in two areas: the ability to respond and the ability to receive clearer feedback. Yamalee and Tangkiengsirisin (2019) found students in a college-level, ESL composition class like the ability to seek clarification on feedback before revising writing or if they did not understand why work was evaluated the way it was. They also found that developing writers liked the opportunity to receive verbal feedback which was more tailored to their own language skills and, therefore, more easily understood (Yamalee & Tangkiengsirisin, 2019).

Summary

This section began with a presentation of a synthesized definition from several researchers' descriptions of writing conferences. Then the theoretical basis of writing conferences was explored through an examination of constructivism and social learning theory. Next, some of the key features of quality writing conferences as presented in research were summarized. Finally, student attitudes towards writing feedback and writing conferences were examined.

Chapter Summary

This chapter began with an overview of current analyses of writing instruction. Graham's et. al. studies from the early 2000's, which discussed current trends in writing instruction and gave recommendations for improving writing instruction, including a shift

to process writing over formulaic, closed-ended writing tasks, were explored. Then the practice of blended learning and its possible outcomes for high school English students was reviewed. The chapter concludes with an examination of constructivist and social learning theories as they apply to the incorporation of writing conferences, feedback, and student writing skills. Throughout the chapter, gaps in the existing research were discussed, especially those that may be filled by this study. adding to the body of research that investigates specific writing instruction practices at the secondary level.

CHAPTER 3

METHODOLOGY

The primary goal of this action research was to determine how the supplemental use of writing conferences combined with digital Google Classroom instruction in a blended learning environment impacted the writing and self-regulated learning skills of high school students. The following research questions guided this study:

1. How does the supplemental use of writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students?
2. How do supplemental writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?

Research Design

The research questions were investigated using an action research methodology. Action research is the systematic analysis of classroom and instructional policies and strategies by educators who are stakeholders in the environment being researched in order to make small-scale changes in the delivery of education (Mills, 2011). Action research also allows teachers the opportunity to test curriculum policies and procedures in their own classrooms as a means of enacting policy change and educational innovation (Carr, 2006). It “allows teachers to study their own classrooms(...)in order to better understand them and to be able to improve their quality or effectiveness” (Mertler, 2017, p. 27).

Using the action research model allowed me to investigate my own classroom critically, collect data concerning blended learning as a method of teaching writing skills, and use data to inform classroom practice and, potentially, assist school leadership in determining some ideas for the effective implementation of the school-wide personalized learning plan.

A key characteristic of action research that was particularly beneficial for this project is its localized nature. Because action research takes place in a single classroom or school, the project could be monitored and adjusted to take into account the needs of the specific setting, rather than generalizing research produced at the national or international level (Mertler, 2017). Action research enables a researcher to collect concrete, localized, and specific data to analyze, reflect upon, and use to improve the classroom experience for small groups students (Nanni et al., 2018). Another key benefit to using the action research model was its systematic and cyclical nature wherein a specific, targeted change could be implemented and analyzed (Schoonenboom & Johnson, 2017). This attribute allowed the researcher to conduct smaller-scale interventions, analyze the data, reflect, and further tailor the intervention.

This action research employed a convergent parallel mixed methods design. Convergent mixed methods indicates that quantitative and qualitative data will be triangulated to enhance assertions made from the data, and parallel design means that both types of data were collected at roughly the same time (Creswell & Creswell, 2018; Ponce & Pagán-Maldonado, 2015; Warfa, 2016). There were multiple benefits to this research design. Converging different types of data can offer a more complete picture of the research problem than with a single approach (Creswell & Creswell, 2018; Johnson &

Christensen, 2019; Schoonenboom & Johnson, 2017). This research design represented an intentional blending of both qualitative and quantitative data for the purpose of understanding some phenomenon more completely and from a wider variety of angles than a single approach (Shannon-Baker, 2016). This permitted for the cross-analysis of data and checking for accuracy and trends in the data. The quantitative data helped explain the objective aspects of the study, while the qualitative data collected helped explain participants' more subjective experiences. By using qualitative data, the researcher was able to ascertain information concerning students' perceptions of blended learning and writing conferences and their impact on writing skills; an analysis of how students felt they learn best humanized the research and provided insight into how user-friendly the implementation of blended learning and writing conferences is. The collection of quantitative data, however, acted as a measure of whether or not the learning of writing skills took place.

Setting and Participants

This study took place in the researcher's English classroom. The school is located in a rural and economically depressed area of South Carolina and is the only high school in the district. The school serves just under 1000 students, and the researcher teaches approximately 60% of the school's English 2 students. Due to the school's Covid-19 guidelines, the classroom featured round tables divided by plexiglass barriers at the time the intervention was conducted. Each student was issued his or her own Chromebook for use during the duration of their time enrolled at the school. In the past, students typically accessed their learning goals, assignments, and assessments through Google Classroom, though the researcher has used this tool primarily as a file management and assignment

turn-in hub, rather than a learning management system. As part of this intervention, Google Classroom was used as more of a learning tool which students used to access actual instruction so that the researcher could offer the individualized assistance necessary for an effective writing conference. The classroom had seats for up to thirty students, though comfort levels and room size are tested with more than twenty-five people in the room.

The curriculum in the English II classes featured a mix of literary and rhetorical analysis, vocabulary development, and writing instruction. Consistently, the biggest weakness for all students was in written expression. The largest areas of weakness in writing were audience awareness, thesis development, and organization. Due to the time expended to read and evaluate writing, the sample size for this study was limited to no more than thirty participants.

The participants in this action research study represented a sampling of students enrolled in the researcher's two English II CP (college preparatory) and one English II Honors classes. Because of the school schedule and modifications due to COVID-19, each class was 100 minutes long, three days per week, with two asynchronous remote learning days per week, and participants spent approximately 50 minutes per class working on material related to this intervention. The remaining half of class was devoted to reading instruction and was not connected with this intervention. Any students who were taking English II for the second time and any students whose parents declined to allow their student to participate in the study were excluded from the study. The intervention began with a total of 43 participants signed up with parental consent. However, due to a spike in Covid-19-related quarantines, as well as the failure of several

participants to complete the online instruction related to the intervention, only 25 participants completed the entire intervention. The data of students who did not complete the online instruction were excluded from analysis.

The 25 participants in this study consisted of eight African American students, two Hispanic students, and 11 White students. Eleven participants were male, and 10 were female. Two of the students had a 504 plan, two were designated as English-Language Learners, and five had an IEP. Finally, 10 participants were enrolled in the college preparatory track, while 15 were enrolled in the honors class.

Intervention

The intervention in this study was a goals-based writing unit with individualized instruction aligned with the SC state standards for writing. Face-to-face teacher-student writing conferences were implemented to allow students to discuss their writing and establish goals related to their perceived writing needs. Instructional content was delivered via Google Classroom and was based on students' writing goals. In other words, students received instruction only in content related to their personal writing needs and goals. Instructional needs and goals were based on performance on the constructed response question from the writing skills pre-assessment. Rather than complete multiple writing assignments, this intervention required students to draft multiple revisions of the essay from the pre-assessment. This helped ensure that this intervention focused on process instruction, rather than product. The intervention lasted approximately 10 weeks and 15 classes. Each class meeting was 100 minutes long, though only about 50 minutes of each class was devoted to this intervention.

Class meetings were conducted in the following manner. First, the instructor presented the daily objectives and conference schedules, as well as addressed student questions. Second, students worked on instructional content in Google Classroom for approximately 30 minutes. Instructional content included recorded lectures, practice with content, and assignments for students to plan writing and work on essay drafts. While nearly all students completed these tasks at home as part of the independent, online learning component of the blended learning environment, this block of time was made available to all students to help mitigate limited access to internet or internet outages outside of school and to allow students reflection time to prepare for their conferences. Third, students worked on writing assignments (drafting or revision) and, at some point, met with the teacher for a five-minute writing conference to assess progress. Finally, each class concluded with a short debriefing session during which the instructor determined which students needed to conference next class and gauged student progress using an electronic exit ticket; students also used this time to put away their materials and sanitize their work space. Students had a literature lesson unrelated to the intervention, which comprised approximately 50 minutes of class. The intended learning outcomes for this intervention included student ability to self-assess and discuss their writing, development of process writing skills, and ability to produce written communication that is organized, detailed, clear, and cohesive. The intervention involved three different types of conferences: initial conferences and final conferences were both approximately 10 minutes long and involved creating or finalizing goals, while progress conferences were three to five minutes long and involved brief conversations about student progress. Table 3.1 presents an outline of the intervention and associated activities. While data was only

collected from the writing instruction during this intervention, students still had reading objectives and instruction to complete during the intervention period.

Table 3.1 *Timeline of Intervention*

Class	Actions
Pre-intervention	<ol style="list-style-type: none"> 1. Students took pre-assessment 2. Students took pre-surveys 3. Teacher evaluated constructed responses for initial conferences
Class 1	<ol style="list-style-type: none"> 1. Discussed writing assignment 2. Taught appropriate procedures and norms <ol style="list-style-type: none"> a. Respecting conference time b. Writing multiple drafts c. Remaining on-task 3. Conducted initial writing conferences
Class 2-14	<ol style="list-style-type: none"> 1. Began class with opening meeting <ol style="list-style-type: none"> a. Set daily goals b. Answered student questions c. Established progress conference schedule 2. Students worked in Google Classroom 3. Students drafted or revised work and joined teacher for writing conferences
Class 15	<ol style="list-style-type: none"> 1. Began with opening meeting 2. Conducted final conferences 3. Students took writing post-assessment

The intervention began with 10-minute face-to-face writing conferences with individual students. Base scores from the writing pre-assessment and areas of strength and weakness were discussed, and the student developed a single goal for his or her writing based on the areas of weakness highlighted on the rubric. The goals developed stemmed from one of the following concentrations: organization, content development, incorporating research, diction, or mechanics. These areas corresponded to competencies developed by the English department at the school where the study was conducted and were based on the South Carolina ELA standards for English 1-4 (South Carolina Department of Education, 2015), which are listed in Table 3.2.

During the initial conference, students had the opportunity to discuss their individual needs as writers and the thinking skills used for writing, such as planning, progress monitoring, and goal-setting. For students who were uncertain or hesitant to discuss writing as a process, some guiding questions were provided to help guide student thinking, such as “What do you think is the most important revision you made to this draft?” or “How have your revisions changed your work?” (See full list of guiding questions in Appendix B).

Instructional content for this writing unit was loaded into Google Classroom into topic areas labelled according to the areas of writing competencies: organization, content development, incorporating research, diction, and mechanics, as shown in Table 3.2. Students selected an area to work on based on their current goals. For example, a student whose goal was to develop a thesis-driven essay worked in the content development unit, while a student whose goal was to develop logically organized writing worked in the organization section. Students were only required to work on one goal at a time, with priority being given to more complex competencies, like organization, content development, and incorporating research. From a classroom management perspective, students were responsible for completing one draft revision and one conference per week. Whether a student completed one goal a week and moved on to another competency or continued to work towards one higher-order competency for the entire intervention, each student received a grade based on progress made between previous drafts and the current draft. Each Google Classroom unit featured a learning menu (Figure 3.1) and task checklist to help keep students organized (Figure 3.2), recorded teacher lectures which introduced, modelled, and explained concepts related to each unit (Figure 3.3), practice

assignments (Figure 3.4), and draft revision tasks to complete on their own. Each writing session ended with a technology-enhanced student self-assessment of his or her writing.

A sample of one unit can be found in Appendix C.


 <ol style="list-style-type: none"> 1. I can compose effective formal academic writing with multiple topic-specific paragraphs. 2. I can use borrowed information effectively and ethically. 	
Explain	Your Task
<p>Academic Writing</p> <p>Developing Thesis-Driven Content Organizing Writing Incorporating Research Tone and Diction Usage and Mechanics</p> <p>***Hard copy of notes can be found in Google Classroom under Academic Writing.</p>	<ol style="list-style-type: none"> 1. Select the topic related to your writing goal. 2. In each section, you must do one thing in each category. <ol style="list-style-type: none"> a. Look at notes b. Examine a model c. Practice content d. Add to your essay draft e. Reflect on your work 3. Once you have completed all five tasks, including the analysis of your draft and prepared for discussion, you may submit your draft for conferencing.

Figure 3.1: *Learning menu for academic writing unit*

My goal for this writing session is:

Three things I will do/strategies I will use to complete this goal are:

Learn!	<p>Select ONE method for accessing your notes. You MUST review the notes related to your goal, but you may look at anything that will help you.</p> <table><tr><td>Creating a Thesis</td><td>Video</td><td>Reading</td></tr><tr><td>Develop Thesis-Driven Content</td><td>Video</td><td>Reading</td></tr><tr><td>Adding Sufficient, Relevant Detail</td><td>Video</td><td>Reading</td></tr><tr><td>Introductions w/ Background Information</td><td>Video</td><td>Reading</td></tr><tr><td>Develop Conclusions</td><td>Video</td><td>Reading</td></tr></table>	Creating a Thesis	Video	Reading	Develop Thesis-Driven Content	Video	Reading	Adding Sufficient, Relevant Detail	Video	Reading	Introductions w/ Background Information	Video	Reading	Develop Conclusions	Video	Reading
Creating a Thesis	Video	Reading														
Develop Thesis-Driven Content	Video	Reading														
Adding Sufficient, Relevant Detail	Video	Reading														
Introductions w/ Background Information	Video	Reading														
Develop Conclusions	Video	Reading														
Observe!	<p>Click below to view the teacher model.</p> <p>Book Review Sample</p> <p>Click below to view student samples (Examples reflect a range of levels; not all examples received full credit).</p> <p>Sentence frames</p> <p>Thesis and body paragraph</p>															
Practice/Plan!	<table><tr><td>Thesis development</td><td>Practice</td><td>Apply</td></tr><tr><td>Thesis-Driven Content</td><td>Practice</td><td>Apply</td></tr><tr><td>Adding Sufficient, Relevant Detail</td><td>Practice</td><td>Apply</td></tr><tr><td>Introductions w/ Background Information</td><td>Practice</td><td>Apply</td></tr><tr><td>Develop Conclusions</td><td>Practice</td><td>Apply</td></tr></table>	Thesis development	Practice	Apply	Thesis-Driven Content	Practice	Apply	Adding Sufficient, Relevant Detail	Practice	Apply	Introductions w/ Background Information	Practice	Apply	Develop Conclusions	Practice	Apply
Thesis development	Practice	Apply														
Thesis-Driven Content	Practice	Apply														
Adding Sufficient, Relevant Detail	Practice	Apply														
Introductions w/ Background Information	Practice	Apply														
Develop Conclusions	Practice	Apply														
Do!	Create the content for your essay assignment. Return to your draft in Google Docs.															
Reflect!	<p>Use the rubric for ONLY the section related to your goal to highlight the indicators you feel match your work.</p> <p>Use Revision Assistant, too and Highlight Tool to examine areas of strength and areas for improvement. Guide Available Here</p>															

Figure 3.2: *Checklist for content development competency*

Table 3.2 *English 2 Writing Competencies*

Content	Organization	Incorporating Research	Diction	Usage
<ul style="list-style-type: none"> -Generate clear written ideas -Develop writing that is fully explained with sufficient, relevant detail. -Develop thesis-driven writing -Compose writing that targets a specific audience -Provide sufficient background information in the introduction -Develop relevant and intriguing written communication -Develop purposeful conclusions -Avoid over- or under-explaining 	<ul style="list-style-type: none"> -Develop intentionally, logically organized writing -Create effective introductions -Develop complete body paragraphs that introduce evidence and elaborate on ideas -Create effective conclusions -Organize ideas to enhance audience understanding 	<ul style="list-style-type: none"> -Consistently and correctly cite borrowed information -Use borrowed information to reinforce original ideas -Determine whether to use paraphrases or direct quotes -Effectively introduce borrowed information -Smoothly incorporate borrowed information -Connect all borrowed information to central claim through elaboration 	<ul style="list-style-type: none"> -Use clear, precise words throughout writing -Use advanced, technical, and academic vocabulary effectively -Incorporate transitions to make ideas and organization clear. -Develop an objective but authoritative tone -Avoid words that detract from authoritative tone 	<ul style="list-style-type: none"> -Develop varied sentence structures -Incorporate phrases and clauses that convey precise information -Develop structures that create a smooth flow of ideas -Write in active voice -Avoid errors of agreement -Employ effective editing and revision skills to avoid errors in writing

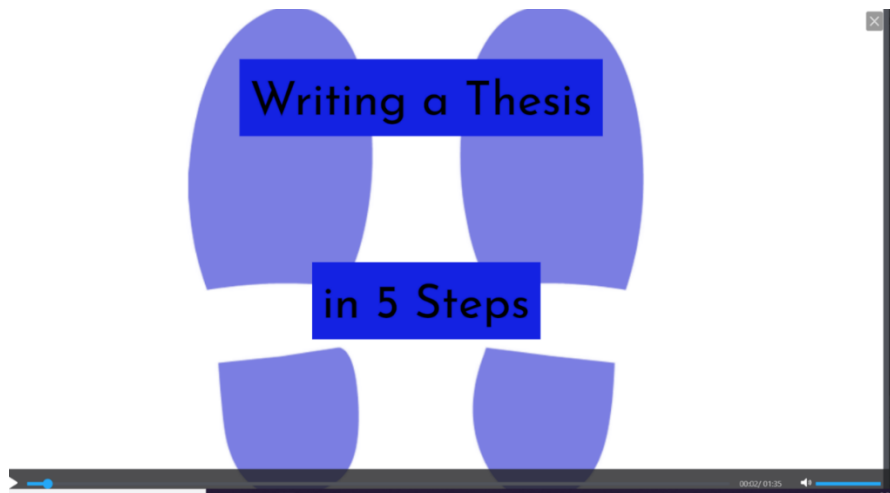


Figure 3.3: Video lesson for writing a thesis statement.

Directions: Type your essay in the template below. Items in red are items you should replace with your ideas. **Work with no in-text citation will not receive a score**

Type your prompt here:

- I. Introduction
 - A. Background information:
 - 1.
 - B. Thesis
 1. Develop your thesis (Answer the prompt question)
- II. Body Paragraph 1 Topic Sentence (Break apart your thesis topics)
 - A. Give evidence to support your topic. Cite each piece of evidence.
 - B. Explain how your evidence connects to your thesis.
 - C. Summarize your paragraph
- III. Body Paragraph 2 Topic Sentence (Break apart your thesis topics)
 - A. Give evidence to support your topic. Cite each piece of evidence.
 - B. Explain how your evidence connects to your thesis.
 - C. Summarize your paragraph
- IV. Body Paragraph 3 Topic Sentence (Break apart your thesis topics)
 - A. Give evidence to support your topic. Cite each piece of evidence.
 - B. Explain how your evidence connects to your thesis.
 - C. Summarize your paragraph
- V. Conclusion
 - A. Summarize your major ideas
 - B. Reinforce the importance of your work

Figure 3.4: Practice assignment for content development competency

After students completed the Google Classroom instructional content related to their personal goal, they worked on a draft of their common writing assignment. Once they completed their draft, they analyzed their own writing using the Google Chrome add-on, *Highlight Tool* (Chin, 2015). *Highlight Tool* was invaluable in assisting students with self-regulation skills related to self-assessment because it was designed to give students visual cues to look for in determining the quality of their writing. The tool could

also lead students to practice self-regulated learning skills by helping them to develop reflection skills, practice progress monitoring, use available resources for assistance, and develop self-motivation as they worked through the revision process. Students who were unsure about assessing their own work objectively were allowed, but not required, to complete the analysis of their work with a peer. *Highlight Tool* was an ideal self-assessment tool for students working on more complex competencies related to organization, content development, and incorporation of research because it allowed them to analyze their work as a big picture. The initial design for the intervention included another add-on, *Revision Assistant, too*, which was better suited for more detailed analysis of writing in the diction and mechanics competencies, but no students selected either of those domains as a goal, so *Revision Assistant, too* was not needed for this study.

The Highlight Tool was developed by Chin (2015) as a high school coding project. The add-on allows users to create color-coded highlight sets that they can then apply to their document. Additionally, users have two options for exporting highlights into table form. One option is to extract by sequence, which will create a table of the types of highlights in the order they appear in the document. The second option is to extract by frequency, which will create a table displaying how often a particular highlight was used (Chin, 2015). This creates a visual representation of the types of content students have in their writing. The Highlight Tool was ideal for use in this study because its color-coding abilities made it easier for students to identify higher order errors like misplaced thesis and topic statements, insufficient elaboration, missing citations, irrelevant information, and other errors related to organization, content development, or

incorporation of research. It also allowed students to easily identify patterns in content and organization by developing color-coded sequences in their analyses. Figure 3.5 shows an example of a student's annotated document in which she developed topic sentences but that she has not provided sufficient explanation in order to prove her thesis. Figure 3.6 shows the highlight tool set used to develop the annotated document.

Resilience is the ability to keep going through difficult times, when you keep going you'll end-out victorious in the end. In lines 13-16 Henley explains that through it all he is still the master of his fate and the captain of his soul. That he is incontrol of himself no matter what goes on in his life, for example when his foot was amputated due to tuberculosis he did give up on writing or editing poetry.

In lines 5-8 Henley uses imagery to explain the he did not cry nor wince when he was faced with the lost of his foot. Through those tought times he accepted his fate. Symbolism was used in was used in lines 9-12, saying that even through the years darkness he was not afraid of what could happen to him. He stepped out the darkness and kept going. In lines 1-4 he uses rhyme to thank whatever gods that he did not die.

Henley wrote this poem about overcomeing the lost of his foot. He was thankful he stayed alive through the amputation, even though his foot was gone. He accepted what happened to him and never gave up.

Figure 3.5 *Student example of document annotated with Highlight Tool*

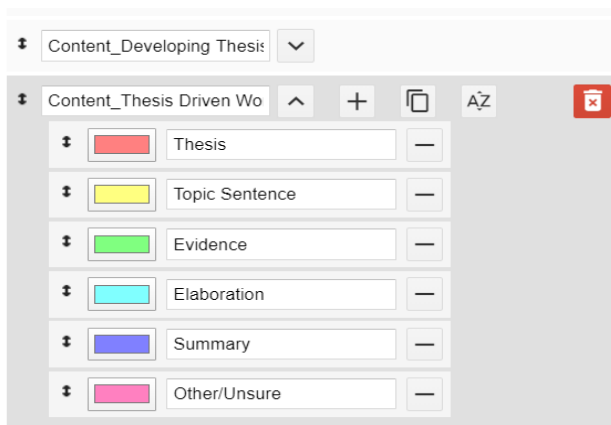
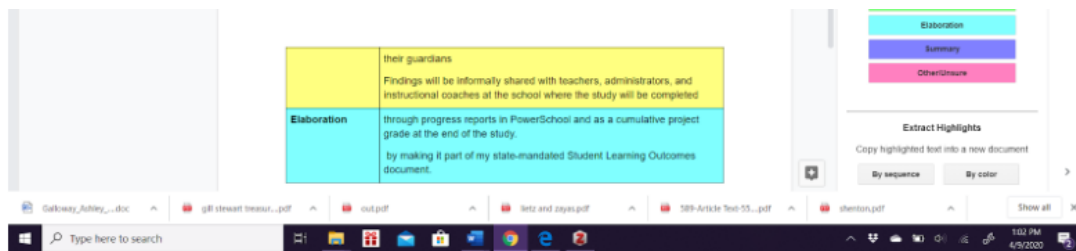


Figure 3.6. *Sample highlight set in Highlight Tool.*

A step-by-step guide for analysis using the add-on was provided in Google Classroom and can be reviewed in Appendix D. Students also received a set of guiding

questions to answer as they analyze their work. Examples of guiding questions are in Figure 3.7.



- . Once your highlights are completed, reflect on what you see
- Does your work follow the pattern discussed in your lessons?
 - Are all your elements accounted for?
 - Are all your elements effective?

Figure 3.7. *Guiding questions for analysis using Highlight Tool*

After students analyzed their writing, they assessed their writing by scoring the section of the rubric aligned with their goal. An example of what student self-assessment should look like is provided in Figure 3.8. During weekly check-in conferences, students described their progress based on their analyzed draft. The teacher provided feedback using the rubric developed by the English Department (see Table 3.9), remediated any misconceptions by modelling how to correct the problem, and answered any student questions. Students then began another revision of their drafts.

Topic is fully developed with sufficient, compelling, and relevant details and keeps the audience needs and biases in mind (5)	(W1) Topic is fully developed with sufficient, relevant details and keeps audience needs in mind (4)	Topic is developed in some detail (3)	Does not go into detail with evidence in development of claim
Introduction offers relevant background information to fill in audience knowledge gaps and a precise and interesting claim that outlines the information to be discussed in the work (5)	(W2) Introduction offers relevant background information and a precise claim that outlines the information to be discussed in the work (4)	Introduction offers background information and attempts to direct the paper with a claim (3)	Does not guide the paper with the claim OR does not link evidence to the claim
	(W2) Body offers a clear understanding of the claim with sufficient detail that is fully explained and does not leave any gaps in understanding (4)	Body introduces evidence related to the claim and attempts to explain the connection between the evidence and the claim (3)	Work is fallacious and biased
	(W1) Content is relevant	Content is relevant with 1-2 instances of fallacious reasoning (3)	Insufficient writing to determine mastery

Figure 3.8. *Teacher model of writing self-assessment*

Once students met their writing goal, they met with the teacher for a goal close-out conference during which they discussed their progress, what they learned, their perceived weaknesses, and perceived needs. Teacher and student jointly scored the writing against the writing rubric and discussed whether the goal had been met. If the goal has been met, the student created a new goal in a different competency; if the goal had not been met, teacher and student discussed strategies, such as modelling, examining the intended audience, or task analysis and planning for improving the work so that the student could meet the goal. The entire process was repeated each time a student reached a writing goal or until the intervention ended.

While the instructional content related to this intervention focused on academic writing, students also had opportunities throughout the intervention to learn and practice self-regulated learning skills. Self-regulated learning skills, such as goal-setting and progress monitoring were explicitly taught at the beginning of the year before the beginning of the intervention, and the skills of self-assessment, self-judgement, and reflection were explicitly taught during writing conferences and the self-assessment assignment during the intervention. Table 3.3 presents these skills and related activities.

Table 3.3 *Alignment of self-regulated learning skills and intervention elements*

Self-Regulated Learning Skill	Intervention Element
Task Analysis	<ul style="list-style-type: none"> • Initial conference <ul style="list-style-type: none"> • Discuss pre-assessment performance • Students set goals • Create plan for goal
Self-motivation Beliefs	<ul style="list-style-type: none"> • Daily exit ticket <ul style="list-style-type: none"> • Short description of goal progress, task

	engagement, and learning submitted in Google Forms
Self-Control	<ul style="list-style-type: none"> • Digital instruction <ul style="list-style-type: none"> • Goals-based lesson sequence • Drafting of essay • Scheduling of progress and final conferences
Self-Observation	<ul style="list-style-type: none"> • Daily exit ticket <ul style="list-style-type: none"> • Short description of goal progress, task engagement, and learning submitted in Google Forms
Self-Judgement	<ul style="list-style-type: none"> • Draft self-assessment <ul style="list-style-type: none"> • Student measurement of goal completion based on partial rubric submitted at final conference
Self-Reaction	<ul style="list-style-type: none"> • Final conference <ul style="list-style-type: none"> • Student discussions of goal completion, progress, and learning • Face-to-face conference with teacher • May set a new goal

Data Collection

Multiple data sources were used as sources of data for this study, including a teacher-made pre- and post-assessment, student surveys, and student interviews. Table 3.4 provides an overview of research questions and data sources.

Table 3.4 *Research Questions and Data Sources*

Research Question	Data Sources
RQ1: How does the supplemental use of face-to-face writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students?	<ul style="list-style-type: none"> • Pre- and post-test • Student interview
RQ2: How do supplemental face-to-face writing conferences in a blended learning environment with digital Google Classroom instruction affect the self-regulated learning skills learning skills of high school students?	<ul style="list-style-type: none"> • Self-Regulation Formative Questionnaire • Student interview

Pre- and Post-Assessment

A primary focus of this study was to determine the effect of the intervention on students' writing skills. A pre- and post-assessment designed in USATestPrep (2019) was used to determine baseline skills and what effect the intervention had on those skills. The educational software company features activities and materials aligned to the South Carolina state standards that are designed to help students gain both content skills and test-taking skills (USATestPrep, 2019). Because the participants in this study were required to complete the End-of-Course Exam for English II in the academic year during which the study was conducted, the assessment questions came from the English II EOCEP study bank. The assessment contained multiple-choice questions that asked students to make decisions concerning organization, content development, research incorporation, diction, and usage, which are department-selected skills areas based on the South Carolina College- and Career-Ready Standards (South Carolina Department of Education, 2015). For some multiple-choice questions, students were asked to revise a writing sample by selecting from a list of edits. For other multiple-choice questions, students were asked about processes related to writing. The assessment was created by

searching for questions by standard and then selecting questions at Depth of Knowledge levels 2 and 3. The final question on the assessment was an essay prompt which required students to synthesize their writing skills. These assessment materials were aligned with learning standards and have been widely used at the school. Table 3.5 represents the assessment items aligned with the competency they assess. The assessment was deployed as a Google Form quiz within Google Classroom, and participants used Chromebooks to complete the assessment. All students had the opportunity to hear the quiz using earbuds if needed. This will ensure that reading skills do not inhibit testing performance. The full assessment is located in Appendix E.

Student Survey

Another goal of this study was to determine the effect the intervention might have on students' self-regulated learning skills in their writing. This study employed the Self-Regulation Formative Questionnaire (Gaumer Erickson & Noonan, 2018) to assess students' self-regulated learning skills in writing, addressing RQ 2. The questionnaire measures students' perceived skills in four areas: planning, monitoring, control, and reflection. Students responded to 22 items using a 5-point Likert scale, with 5 being "always" and 1 being "never." Questionnaire reliability was tested using Cronbach's coefficient alpha with 5543 secondary and middle school students from 2016-2018. Overall reliability of the questionnaire is high (0.9), and subscale reliability is as follows: plan (.63), monitor (.7), control (.74), and reflect (.68) (Gaumer Erickson & Noonan, 2018). The questionnaire was designed to assess self-regulated learning skills in general. For the purpose of this study, the wording of items was altered slightly to make the items specific to self-regulated learning skills in writing, but the overall meaning of each item

Table 3.5 *Assessment Questions and Competency Alignment*

Assessment Question	Competency
<p>You have been assigned to compose an expository essay on the migration patterns of Eastern Europeans to the United States in the 19th century. Which choice would best function as an introductory sentence for this essay?</p> <p>A) Immigrants come to America from all over the world.</p> <p>B) There is a lot of debate about immigration in America.</p> <p>C) Eastern European American immigrants to America have a rich and storied history.</p> <p>D) Most of America's founding stock was from Western Europe, and many immigrants have also hailed from this part of the world.</p>	<ul style="list-style-type: none"> • Organization
<p>You have been assigned an argumentative writing task where you are to defend the use of cell phones as instructional aids in the classroom.</p> <p>Which is the BEST example of a precise claim you might make for your argument?</p> <p>A) Lots of teachers think that students can't use phones in school, but they are wrong</p> <p>B) Cell phones can look up all kinds of information in a matter of seconds, and people like to use them to learn about the world they live in</p> <p>C) My teacher always tells everybody to put their phones away before we can even start class because she thinks we'll all just play games all day.</p> <p>D) Though many teachers think students will be distracted by using phones, there are actually a number of ways that phones can be used in the classroom.</p>	<ul style="list-style-type: none"> • Content

You are writing a paper about fashion styles of the 1920's and using the following source:
Aglan, Enrique. *Looking Good in the 1920's*. New York: Harpers, 1975. Print.

- Incorporating Research

The sentence you want to use from this source is from page 27 and listed below:

"Unaware of the impending stock market crash and future Great Depression of the 1930's, style in the 1920's was marked by an extravagant use of material both in cost and the actual amount of material used in a dress"

Which answer choice smoothly and correctly integrates this source?

- A) "Unaware of the impending stock market crash and future Great Depression of the 1930's, style in the 1920's was marked by an extravagant use of material both in cost and the actual amount of material used in a dress" (page 27).
- B) In his book, *Looking Good in the 1920's*, Enrique Aglan marvels over how much material was used in the manufacture of women's dresses, calling its use "extravagant" (27).
- C) Aglan says that the impending stock market crash and future Great Depression of the 1930's, style in the 1920's was marked by an extravagant use of material (27).
- D) "Unaware of the impending stock market crash and future Great Depression" Aglan claims the 1920's were a time of extravagant style and use of costly material.

You have been assigned to compose an expository essay about the bluebird's migratory habits. Given that you must assume a formal tone, which of these choices would NOT be appropriate to use?

- Diction

- A) The bluebird's migratory habits are fascinating and complex.
 - B) Bluebird's migratory habits differ from those of other birds.
 - C) If I were a bluebird, what a fantastic and amazing life it would be!
 - D) Bluebirds migrate to find better weather and more promising resources.
-

Which choice displays appropriate use of parallel structure and correct use of commas?

- A) To boat, to ski, and sunbathing are three activities in which a person can take part at the lake.
- B) To boat, to ski, and to sunbathe, are three activities in which a person can take part at the lake.
- C) To boat, skiing, and to sunbathe, are three activities in which a person can take part at the lake.
- D) Boating, waterskiing, and sunbathing are three activities in which a person can take part at the lake.

- Usage

Prompt: Mahatma Gandhi was an Indian lawyer and nationalist who used peaceful protest to lead India to independence from England. One of his best known sayings is “You must be the change you wish to see in the world.” What personality traits enable people to change the world?

- Organization
 - Content
 - Incorporating Research
 - Diction
 - Usage
-

was preserved. For example, item one originally stated, “I plan out projects that I want to complete” (Gaumer Erickson & Noonan, 2018). It was amended to read, “I plan out my ideas using a pre-writing strategy before I begin writing.” Item three originally read, “Before I do something fun, I consider all the things that I need to get done” (Gaumer Erickson & Noonan, 2018). It was edited to read, “Before I begin writing, I consider organizational strategies.” Table 3.6 demonstrates the survey item aligned with the research questions for this study.

Table 3.6 *Research Question and Survey Items*

Research Question	Altered Survey Item
RQ2: How do supplemental face-to-face writing conferences in a blended learning environment with digital Google Classroom instruction affect high school students’ self-regulated learning skills?	<ul style="list-style-type: none"> • I plan out my ideas using a pre-writing strategy before I begin writing. • When I have long writing tasks, I create goals and plans for completing the assignment. • Before I begin writing, I consider organizational strategies. • I can usually accurately estimate how long a writing task will take. • I have trouble breaking large writing tasks into a plan to help me complete the assignment. * • I am able to keep track of my own writing progress. • I know when I am falling behind in my writing progress. • I track my own progress on lengthy written assignments to ensure they are completed. • When I assess my writing using a rubric, my score is similar to my teacher’s. • I identify necessary elements missing from my writing, beginning with organization and content. • I have trouble remembering all the necessary elements for a writing task. * • I do what it takes to complete lengthy writing assignments on time. • I make choices to improve my writing, even if they are more difficult than other options. • As soon as I write something that does not work, I begin working to revise it. • I am not concerned about needing to revise writing

multiple times.

- I have difficulty focusing on writing tasks that take a long time to complete. *
- When I get frustrated with my writing, I often give up. *
- I focus on feedback for my writing more than the final grade.
- I feel a sense of accomplishment when my writing improves.
- I revise writing even if I have received a passing grade so that my skills can improve.
- When I fail at a writing goal, I try to learn from my mistakes.
- I keep making the same writing mistakes over and over again. *

* These items will be reverse coded during data analysis.

For this intervention, the survey was presented through Google Forms and was distributed to participants via Google Classroom. Participants used Chromebooks to complete the form. Students had the option to hear the survey questions using earbuds to ensure that reading ability did not interfere with comprehension.

Student Interviews

This study employed student interviews to gain further insight into responses from the survey. It was important to be able to gather more detailed explanations of students' reactions to the intervention because, while writing skills can be made visible through writing samples, the metacognitive functions of self-regulated learning skills are internal; therefore, student explanations were the best way to measure any changes in these areas (Creswell, 2014).

Six participants were selected at the end of the study for interviews. A semi-structured interview protocol was used to conduct the interview because this format allowed for some variation in the order and phrasing of questions and for the addition of new questions based on participant responses (Creswell, 2007). The questions presented

in Table 3.7 were used as a guide so that questions remained flexible and allowed for optimal data collection. Each interview was expected to take approximately 20-30 minutes.

Table 3.7 *Interview Questions*

Research Question	Interview questions aligned with research questions
RQ1: How does the supplemental use of face-to-face writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students?	<ol style="list-style-type: none"> 1. What writing skills did you focus on in your goal? <ol style="list-style-type: none"> a. How well do you feel you mastered those skills? 2. Do you think you can apply the skills you have learned in future writing tasks? <ol style="list-style-type: none"> a. How do you feel when you are presented with new types of writing tasks? 3. Do writing conferences help you feel more or less confident about your writing? <ol style="list-style-type: none"> a. Explain why you feel that way. 4. Did working independently in Google Classroom help you feel more or less confident about your writing? <ol style="list-style-type: none"> a. Explain why you feel that way.
RQ2: How do supplemental writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?	<ol style="list-style-type: none"> 5. Tell me about your experience with goal setting for your writing time. <ol style="list-style-type: none"> a. What were some of your goals? b. What tools for monitoring progress did you use most? c. What did you think of working on your own with the Google lessons? d. What did you think of the writing conferences? e. What have you learned about assessing your own writing? f. Do you feel you have been successful on this writing assignment? <ol style="list-style-type: none"> i. Explain why you feel that way. ii. What factors do you think helped or hindered your success? g.

Interviews were conducted individually and face-to-face during the researcher's planning period or during the interviewee's English class after the participants turned in the post-assessment and post-survey. Participants were selected using purposeful sampling. The goal of the interview was to present participant experiences in rich enough detail to convey a clear understanding of experiences (Seidman, 2006). Keeping this in mind, participants will be selected based on their ability to elaborate verbally on experiences. Participants will further be selected based on maximum variation, which will ensure the presentation of experiences from a wider range of student skills (Palikas et al., 2013; Seidman, 2006). The students with the highest and lowest score on the post-assessment and the students with the greatest and least change in score between the pre- and post-assessment were selected for interviews in order to present the experiences of students at multiple levels of performance. One student from the CP section and one student from the honors section of class with a post-assessment score near the median were also selected for interview to gain understanding of average experience of the intervention.

Data Analysis Methods

This section presents an explanation of data analysis methods. Quantitative data were analyzed using descriptive statistics, paired samples *t*-tests, and the Wilcoxon Signed Rank test of the pre- and post-surveys and the pre- and post-assessment. Qualitative data were analyzed using thematic analysis of transcribed interviews. Table 3.8 depicts the alignment of research questions, data sources and analysis methods. Quantitative and qualitative data will be triangulated to generate assertions from the data.

Table 3.8 *Alignment of Research Questions, Data Sources, and Data Analysis Methods*

Research Question	Data Sources	Data Analysis
RQ1: How does the supplemental use of face-to-face writing conferences in a blended learning environment with digital Google Classroom instruction affect the writing skills of high school students?	<ul style="list-style-type: none"> • Pre- and post-test 	<ul style="list-style-type: none"> • Descriptive statistics • Paired samples <i>t</i>-test • Wilcoxon Signed Rank Test
RQ2: How does supplemental face-to-face writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?	<ul style="list-style-type: none"> • Self-Regulation Formative Questionnaire • Student interview 	<ul style="list-style-type: none"> • Descriptive statistics • Paired samples <i>t</i>-test • Wilcoxon Signed Rank Test • Thematic analysis

Quantitative Data Analysis

Responses to the essay question on the pre- and post-assessment were scored using a writing rubric developed by members of the English department at the school.

The rubric is aligned with the South Carolina College- and Career-Ready Standards for Writing (South Carolina Department of Education, 2015). The rubric, shown in Table 3.9, was designed to score writing competency in organization, content development, incorporation of research, diction, and usage. Using applicable language from the state writing standards, the rubric gives a score in each competency from a 1 (beginning to address the standard) to a 4 (exceeding the standard). Essays were scored by myself and an instructional coach at the school to ensure consistent and accurate evaluation. The two scores were then averaged together to determine the student's constructed response score. Because of the goals-based nature of the interventions, students received a holistic score, which was comprised of student scores in all areas of the rubric, and a goal-area score which only addressed the rubric indicator from the student's writing goal. The Wilcoxon signed rank test was used to analyze quantitative data for the holistic constructed

response score. This test is a non-parametric counterpart to the paired samples *t*-test (LaMorte, 2017). The test is used when one or more of the statistical assumptions are violated, such as when data are non-normally distributed due to small sample size, which makes a paired samples *t*-test unreliable (Bowerman & O'Connell, 2007; McDonald, 2009). The Wilcoxon signed rank test was used instead of the paired samples *t*-test in this intervention because the data from the holistic scores were non-normally distributed. Bowerman and O'Connell (2007) stated that when the number of participants in a study is small, data distribution is often rendered non-normal. These factors make the Wilcoxon signed rank test appropriate for quantitative data analysis in this study. The goal area scores were found to be normally distributed and were analyzed using the paired samples *t*-test. These analyses were performed on the pre- and post-assessment data, which address RQ1, and the survey data which address RQ2. The statistical analysis software JASP was used to analyze the quantitative data. The Wilcoxon Signed Rank was used to compare the means of each survey subscale before and after the intervention to determine whether there is any statistically significant change in results (Bowerman & O'Connell, 2007; LaMorte, 2017; McDonald, 2009). The use of this non-parametric test in this intervention helped ensure that the data were not skewed due to the small sample size (Hogg et al., 2015).

Table 3.9 *English II Constructed Response Rubric*

Writing competency	Levels of Writing Competency			
	Exceeding	Meeting	Developing	Beginning
Organization	Intentional system of organization is consistent and enhances understanding (5)	(W1) Intentional system of organization is consistent and fosters understanding (4)	Consistent use of basic organization (3)	Paper lacks direction OR organization strategy does not promote understanding of ideas
	Written work begins with a concise but detailed introduction in which includes a specific and interesting claim (5)	(W2) Written work begins with a concise introduction which includes a specific claim (4)	Work begins with an introduction that includes a claim (3)	Insufficient writing to determine mastery
	Body introduces compelling evidence, which is analyzed thoroughly and elaborated on, and ends with an interesting summary linking evidence and claim (5)	(W2) Body introduces evidence which is elaborated on and ends with a brief summary linking evidence and claim (4)	Body contains evidence and a link to the claim (3)	
	Work ends with a conclusion that effectively summarizes ideas without merely repeating the introduction and brings work to a logical and natural end, leaving the audience with	(W2) Work ends with a conclusion that effectively summarizes ideas and brings work to a logical close and offers some explanation for what the audience should do with their new learning (4)	Work ends with a conclusion that repeats the claim (3)	

a clear understanding of what to do with their new learning (5)

Content	Topic is fully developed with sufficient, compelling, and relevant details and keeps the audience needs and biases in mind (5)	(W1) Topic is fully developed with sufficient, relevant details and keeps audience needs in mind (4)	Topic is developed in some detail (3)	Does not go into detail with evidence in development of claim
	Introduction offers relevant background information to fill in audience knowledge gaps and a precise and interesting claim that outlines the information to be discussed in the work (5)	(W2) Introduction offers relevant background information and a precise claim that outlines the information to be discussed in the work (4)	Introduction offers background information and attempts to direct the paper with a claim (3)	Does not guide the paper with the claim OR does not link evidence to the claim
	Body offers a clear understanding of the claim through sufficient detail that is fully explained, considers multiple perspectives, and does not over or under explain information (5)	(W2) Body offers a clear understanding of the claim with sufficient detail that is fully explained and does not leave any gaps in understanding (4)	Body introduces evidence related to the claim and attempts to explain the connection between the evidence and the claim (3)	Work is fallacious and biased
	Content is relevant, interesting, and fallacy-	(W1) Content is relevant and avoids presenting fallacious or overly simplified reasoning (4)	Content is relevant with 1-2 instances of fallacious reasoning (3)	Insufficient writing to determine mastery
		(W1) Conclusion provides audience with a clear summary of ideas and implications for new ideas, without introducing new information (4)		

free (5)

Content maintains an objective and authoritative tone (5)

Conclusion provides audience with a clear summary of ideas without repeating the entire paper, introducing new information, or leaving the audience with questions (5)

Incorporating Research	Consistent use of citation format makes it clear what information is borrowed; citations are error-free (5)	(W2) Consistent use of citation format makes it clear what information is borrowed; may have minor errors in formatting (4)	Lack of consistency OR major errors in formatting leads to some confusion in determining whether information is borrowed (2)	Borrowed information is invalid or incorporated in such a way as to indicate plagiarism
	Valid research of a wide variety of sources, both primary and secondary, fully supports ideas and presents multiple perspectives throughout the body of writing (5)	(W1) Valid research from multiple types of sources supports ideas and presents multiple perspectives throughout the body of the writing (3)	Research is incorporated but may be used in isolation in a few instances (2)	Insufficient writing to determine mastery
	Effective introduction and use of direct quotes and paraphrases as needed supports ideas, fosters understanding,	(W1) Effective use of direct quotes or paraphrases as needed to support ideas and foster understanding without plagiarizing ideas (4)	Direct quotes and paraphrases are used awkwardly or too much, indicating some plagiarism (2)	
			Some attempt to link	

	and builds interest without plagiarizing ideas AND artistically uses ideas of others to lead into original thought (5)	(W1) All research presented is linked to central claim through thoughtful elaboration (3)	research to claim (2)	
	All research presented is linked to central claim through thoughtful elaboration and analysis (5)			
Diction	Diction is clear, precise, and intriguing without being over-simplistic or wordy (4)	(W3) Diction is clear and precise without being over-simplistic or wordy (3)	Diction is basic but effective with a few attempts to use more advanced phrasing (2)	Major lapses in word choice create confusion and detract from interest of the writing or create too much informality
	Vocabulary is advanced and academic and fosters a formal, authoritative tone (4)	(W3) Vocabulary is advanced and academic and fosters formal tone (3)	Some lapses in formal tone (2)	Very little variety in sentence structure
	Sentence structures are varied and incorporate a wide variety of phrases and clauses to convey precise information and build interest as well as create a smooth flow of information (4)	(W4) Sentence structures are varied and incorporate a wide variety of phrases and clauses to convey precise information and build interest (3)	Some variance in sentence structure conveys more detailed information (2)	Insufficient writing to determine mastery
	Transitions are used throughout the entire work to promote	(W2) Transitions are used to promote organization and increase interest (3)	Occasional use of transitions (2)	
		(W4) Parallel structure is used to promote clarity of ideas and organization (3)	1-2 errors in parallel structure create some confusion for the reader (2)	

	organization and increase interest (4)			
Usage	No errors in parallel structure (4)			
	No words are used incorrectly (3)	(W4) Words are used correctly throughout the work (2)	Some errors in word usage, voice, or agreement (1)	Grammar and usage errors severely impact the reader's ability to understand information
	Entire work is in active voice with few instances of unnecessary verb phrases (3)	(W4) No more than 2 lapses in active voice (2)	Punctuation and capitalization errors lead to confusion for the reader (1)	
	No errors in agreement errors or tense (2)	(W4) Agreement errors (both of pronouns and verbs) do not inhibit the reader's ability to understand ideas (1)		
	Work is virtually free of all punctuation, capitalization, or spelling errors (2)	(W5) Punctuation errors do not promote confusion; capitalization errors do not inhibit understanding (1)		

Qualitative Data Analysis

Qualitative data analysis began with verbatim transcription of student interviews. Transcriptions were then analyzed using an inductive approach. An inductive approach is the development of generalizations from specific occurrences (Creswell, 2014; Thomas, 2003). The researcher read through the transcripts in their entirety to get an understanding of the interviews as a whole, adding memos about ideas or concepts that emerge during reading (Braun & Clarke, 2012; Creswell & Plano Clark, 2017). Memos in this study were created using the web-based qualitative data analysis tool, Delve. After gaining a clear picture of the interviews as a whole, the data was categorized into codes that align with the research questions (Creswell, 2014; Creswell & Creswell, 2018). Codes were developed through iterative readings of interviews in their entirety. When something potentially relevant to a research question appeared, it was coded. Enough codes were developed to “capture the diversity, and the patterns, within the data” (Braun & Clarke, 2012, p. 63).

Delve was used to assist in coding and conducting analysis of qualitative data. Codes were a mixture of descriptive codes, which offer a quick snapshot of the content from the interview, and interpretive codes, which will address inferred meaning from the interviews that participants may not have addressed verbatim (Braun & Clarke, 2012).

From the codes, themes were developed that depicted the data in relation to research questions. To do this, codes were reviewed to identify areas of similarity or overlap (Braun & Clarke, 2012). This allowed data to be aggregated into major categories, which allowed for the identification of themes and to search for

commonalities among interviews and make sense of the commonalities presented across the data (Braun & Clarke, 2012; Creswell, 2014; Creswell & Creswell, 2018; Stuckey, 2015). Looking for repetition, metaphors and analogies, similarities and differences, missing data, theory-related material, and causal or conditional relationships helped develop codes into themes (Bernard et al., 2017). Each theme portrayed a small piece of the overall story from the interviews, and each theme fit with the other themes to gain a clearer picture of the students' reactions to the intervention. Thematic mapping, or the use of a concept map to keep track of codes assigned to themes and interrelatedness of themes, will be used to keep track of possible themes and their related codes (Braun & Clarke, 2012; Saldaña, 2016). Once all potential themes were developed, themes were reviewed to ensure they related to the coded data and the data as a whole (Birks et al., 2008; Braun & Clarke, 2012). Themes that are not supported by data from multiple participants were combined, rearranged, or discarded until the themes remaining presented the most important and relevant data (Braun & Clarke, 2012). These final sets consisted of themes with a singular focus, related to but not overlapping other themes, and directly addressing the two research questions addressed through interview data (Braun & Clarke, 2012; Creswell & Creswell, 2018). Quotes from the interviews will be selected to present a “vivid, compelling example” to highlight the interpretation developed from the themes (Braun & Clarke, 2012) and will form the basis for a thick, rich description of the qualitative data.

Representation

Data were presented using a side-by-side approach (Creswell, 2014). Quantitative assessment data were presented and compared to the quantitative survey data to

determine if there were any correlations between attitudes towards writing and writing skills. Then qualitative interview data were compared to the quantitative data to offer participant insight into the quantitative data (Creswell, 2014; Miles et al., 1994). Quantitative and qualitative data were triangulated so that both types of data support themes, lending credibility to the study (Bauwens, 2010; Creswell, 2014; Creswell & Creswell, 2018; Creswell & Plano Clark, 2017; Tracy, 2010). Even when data appear divergent, triangulation of quantitative and qualitative data can be a powerful tool in generating questions and delivering complete analyses of data (Spillane et al., 2010). Tracy (2010) asserts that credible research is characterized by thick description that shows, rather than tells, information. Interpretations of the data were disclosed in the discussion section using narrative text identifying major themes and thick, rich description. Thick, rich descriptions are “bountifully supplied, generous, and unstinting” (Weick, 2007, p. 16) and are generated through the use of multiple examples, contexts, and theoretical constructs. In this study, thick, rich description ensured that the behaviors and interactions discussed in the study did not become divorced from the research and that social or cultural factors that impacted the findings were made clear to readers who are unfamiliar with the research context (Tracy, 2010). The narrative presented in chapter four includes the assertions made from the data, as well as supporting evidence for those assertions.

Procedures and Timeline

The timeline for the research study was as follows: Phase 1: Participant identification, Phase 2: Pre-intervention data collection, Phase 3: Blended writing instruction using technology-enhanced writing conferences, and Phase 4: Post-

intervention data collection. Each phase, as outlined in Table 3.10, will be described in more detail below.

Table 3.10 *Timeline of Research Study*

Phase	Actions	Time Frame
Phase 1: Participant Identification	1. Identify participants 2. Contact participants 3. Collect consent and assent forms with guardians and students respectively	1 week
Phase 2: Pre-intervention Data Collection	1. Writing pretest 2. Student pre-intervention survey	1 week
Phase 3: Intervention and Data Collection	1. Blended writing instruction using technology-enhanced writing conferences 2. Writing posttest 3.	5 weeks
Phase 4: Post-intervention Data Collection	1. Student postsurvey and interviews	1 week

Phase One: Participant Identification

Participant identification began in October 2020 and represented a sampling of students enrolled in the researcher's English II classes. Informed consent and assent were collected simultaneously from parents and students using a combined consent and assent form, which was sent home with eligible study participants. The form, as well as the IRB approval letter for this study is available in Appendix A.

Phase Two: Pre-intervention Data Collection

In phase two of the intervention, the pre-intervention survey and the teacher-made pre-assessment were administered before the intervention began. Students took the Self-Regulation Formative Questionnaire to determine their pre-existing attitudes towards

writing and self-regulated learning skills. Students also completed the preassessment to gather data concerning their existing writing skills. The preassessment data were used to help determine students' writing goals in their initial face-to-face conference.

Phase Three: Blended writing instruction using technology-enhanced writing conferences.

Once data were collected, initial face-to-face writing conferences were held to establish writing goals. Once the intervention began, a series of lessons, including lectures, practice opportunities, and assessments were posted to Google Classroom. While students worked on lessons tailored towards their goals, individualized, teacher-student face-to-face progress conferences were conducted.

Phase Four: Post-intervention data collection

After 15 classes of study opportunity and conference feedback, the post-assessment and post-survey were administered. Finally, student interviews were conducted to gain more insight into quantitative data.

Rigor and Trustworthiness

This action research study contains data obtained through several sources. In an effort to ensure that data are reliable and the study findings trustworthy, multiple strategies were employed: (a) use of previously validated instruments, (b) thick, rich description, (c) member checking, and (d) peer debriefing, and (e) triangulation of findings. These strategies improve data reliability and trustworthiness by establishing “credibility, transferability, dependability, and confirmability” (Mertler, 2017, p. 140).

Previously Validated Instruments

The quantitative data in this study were collected with a survey on self-regulated learning skills in writing, as well as a pre- and post-assessment. The survey was previously used and validated by other researchers (Gaumer Erickson & Noonan, 2018). The pre- and post-assessment was developed using a question bank with items aligned to the South Carolina College- and Career-Readiness Standards for English 2 (South Carolina Department of Education, 2015), and that align with the format of questions presented on the English 2 End-of-Course Exam. Another expert in English tests reviewed the pre- and post-assessment to confirm internal consistency, i.e., that the question items addressed target competencies. Furthermore, a second reader from the English department helped score the constructed responses on both the pre- and post-assessment. The qualitative semi-structured interview protocol was reviewed by an instructional coach and the administrator in charge of curriculum before being reviewed by a research methods expert.

Thick, Rich Description

The interviews provided insight into the quantitative data by offering more of an insider's perspective (Gill et al., 2008). In order to clearly convey qualitative findings, thick, rich description were used when reporting themes (Mertler, 2017); this will ensure that findings can be clearly understood and are not over-generalized by creating descriptions that use concrete detail, explain non textual details, and show rather than tell about participant experiences (Tracy, 2010).

Member Checking

Member checking and participant debriefing were also used when reporting qualitative data (Mertler, 2017). In this strategy, participants were provided with a list of summarized findings and given an opportunity to share their perspectives (Harper & Cole, 2012). The interviewed students were given the opportunity to check transcripts and findings to ensure that nothing was misconstrued or omitted. This gave participants a final chance to weigh in on the data they presented.

Peer Debriefing

Peer debriefing was also employed (Creswell, 2007, 2014). This involved consulting with colleagues who are familiar with qualitative research and the participants and curriculum involved in this study (Lietz & Zayas, 2010). The peers involved included the department chair, the curriculum administrator, and an instructional coach at the site the study was conducted. This process, as well as the other strategies employed throughout data analysis, helped to ensure the validity and reliability of the study.

Triangulation

A primary strategy which was used to establish rigor and trustworthiness is triangulation, which Mertler (2017) describes as the use of multiple methods and data sources to enhance the validity of research findings. Triangulation with multiple data sources used together can compensate for the weaknesses of the individual methods, as well as enhance their benefits (Shenton, 2004). This study, for example, employed the use of pre- and post-assessment data, student interviews, and student surveys. The interviews will help inform and offer different perspectives towards the quantitative data, and the quantitative data helped provide insight into the attitudes and opinions presented

in the qualitative data. Findings that were contrary to major themes were reported and analyzed. As Creswell (2014) highlights, reporting such discrepancies in data adds to the credibility of the study, thus making the findings more reliable.

Plan for Sharing and Communicating Findings

Findings from this study were shared with multiple audiences. Findings for individual students were shared with those students and their guardians through progress reports in PowerSchool and as a cumulative project grade at the end of the study. Findings were informally shared with teachers, administrators, and instructional coaches at the school where the study was completed by making it part of the researcher's state-mandated Student Learning Outcomes document. All instruments, methods, and findings were presented at an English Department meeting. Furthermore, findings were disclosed to the district curriculum coordinator. On a formal level, findings will be presented at an inter-district professional development conference called Innovation Institute held locally each August. When presenting findings, student identities have been protected by referring to participants using pseudonyms. No other identifying information was collected, other than to mention that all participants were enrolled in an English II CP class.

CHAPTER 4

DATA ANALYSIS

The purpose of this action research was to determine how the supplemental use of face-to-face writing conferences combined with digital Google Classroom instruction in a blended learning environment impacts the writing and self-regulated learning skills of high school students. The data from this study assist in building an understanding of the impact of writing conferences and the use of blended learning on students' writing skills and ability to apply self-regulated learning strategies to their writing. The data collection in this study aligned with two research questions:

1. How does the supplemental use of writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students?
2. How do supplemental writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?

This chapter provides data on student performance on a teacher-developed pre- and post-assessment and student self-regulated learning skills. After data collection began, four students dropped out of the study due to quarantine related to Covid-19.

This chapter is divided into two sections which detail the data collected from this mixed methods study. The quantitative section reviews the data from the teacher-made

pre- and post-assessment and the pre- and post-results of the Self-Regulation Formative Questionnaire. The qualitative section examines findings from post-study student interviews.

Quantitative Analysis and Findings

This section provides the quantitative data gleaned from the instruments used in this study. Students completed the teacher-made assessment and the Self-Regulation Formative Questionnaire both before and after the intervention. The findings presented in this section include the overall pre- and post-data for each participant and any related analyses conducted on the quantitative data. This section will begin with a discussion of the pre- and post-assessment data, followed by the pre- and post-survey data.

Teacher-Made Writing Skills Assessment

The pre- and post-assessment was developed using USATestPrep's (2019) question bank for the English 2 End-of-Course Exam and is aligned to the writing standards for the class in which the study was conducted. The assessment was delivered to participants via Google Forms before and after the intervention. The assessment consisted of 13 multiple choice questions with four answer choices each, followed by one constructed response item, which allowed students to create an initial draft of the essay they revised throughout the intervention. The multiple-choice questions were worth one point each, and the essay was worth up to four points. The constructed response item was evaluated using a department-developed rubric for academic writing, which was also aligned to state standards; performance on this question was assessed both holistically and within each student's goal area for this intervention.

Descriptive Statistics. The raw data were first analyzed using descriptive statistics. From the multiple-choice section of the pre-assessment ($M = 46.67$, $SD = 12.71$) to the post-assessment ($M = 54.71$, $SD = 12.68$), students' overall comprehension of writing improved. From the constructed response portion of the pre-assessment ($M = 1$, $SD = 1$) to the post-assessment ($M = 30$, $SD = 70$), students' overall ability to apply writing skills improved. Because the intervention was goals-based and many participants only revised their work based on learning in one specific area, descriptive statistics were also used on rubric scores in students' individual goal areas. From the first draft on the pre-assessment ($M = .74$, $SD = .72$) to the final draft submitted for the post-assessment ($M = 2.50$, $SD = .93$), students' overall ability to apply writing skills related to their individual goals improved. An item difficulty analysis was run on the multiple-choice section based on average scores of participants. An item difficulty analysis, shown in Table 4.1, shows the difficulty of each question on the multiple-choice section of the writing skills assessment. Item difficulty levels in this study are equal to the percentage of participants who responded to the items correctly, in other words, the items' mean scores (University of Washington, 2018). Difficulty values range from .09 -1.0. The mean difficulty index calculation is $M = .61$. According to the University of Washington's Office of Educational Assessment (2018), the ideal difficulty level for a four-option multiple choice question with one correct answer is .74. Tobin (n.d.) explains that difficulty levels between 0-20% are very difficult, 21-60 difficult, 61-90 moderately difficult, and 91-100 easy. These levels indicate that the writing skills assessment featured two very difficult items, five difficult items, four moderately difficult items, and two easy items, and the overall difficulty level was moderately difficult ($M = .61$).

Table 4.1. *Item Difficulty – Writing Skills Post-assessment*

Question	<i>M</i>	<i>SD</i>
Q1	.38	0
Q2	.09	1.41
Q3	.38	1.41
Q4	.67	.71
Q5	.76	0
Q6	.14	.71
Q7	.57	2.12
Q8	1.00	1.41
Q9	.90	.71
Q10	.90	0
Q11	.48	0
Q12	1.00	0
Q13	.62	0
Overall Assessment Difficulty	.61	0

Shapiro-Wilk normality tests. Participants' scores were analyzed for both the pre- and post-assessment. The Shapiro-Wilk test was performed to determine whether the data were normally distributed for the multiple-choice and constructed response sections. To complete the Shapiro-Wilk test, students' pre- and post-assessment average scores were calculated to create a variable which represents the difference between pre- and post-assessment scores (McDonald, 2009). A Shapiro-Wilk test result with *p* values above .05 are considered to be normally distributed, while *p* values less than .05 are not normally distributed (Gibbons & Chakraborti, 2011). The data from both sections of the

writing skills assessment were not found to be normally distributed. This is shown in Table 4.2.

Table 4.2. *Shapiro-Wilk Normality Tests – Writing Skills Assessment*

Section	<i>W</i>	<i>df</i>	<i>p</i>
Multiple Choice	.90	20	.03*
Constructed Response	.87	20	.01*
Constructed Response in Goal Area	.94	20	.22

Note. * Indicates not normally distributed data ($p < .05$)

The results of the Shapiro-Wilk test guided the next steps for data analysis. Either a paired samples *t*-test or a Wilcoxon signed-rank test could be used to analyze the statistical significance of the data, depending on the normality of the data (LaMorte, 2017). Because the data from the multiple-choice and overall constructed response sections of the writing skills assessment were not normally distributed the Wilcoxon signed-rank test was determined to be the most appropriate test to run on the data (McDonald, 2009); because the *p*-value for the constructed response score within the goal area is greater than .05, the paired samples *t*-test was conducted to evaluate statistical significance (Gibbons & Chakraborti, 2011).

Paired samples *t*-tests. A paired samples *t*-test was conducted to compare pre- and post-assessment scores for the constructed response scores within students' individual goal area. The paired samples *t*-test, shown in Table 4.3, demonstrates that the increase from the first draft of the essay ($M = .74$, $SD = .72$) within students' goal areas to the final draft submitted for the post-assessment ($M = 2.50$, $SD = .93$) was statistically significant ($t(20) = -10.29$, $p < .001$, Cohen's $d = -2.25$). According to Cohen (1988), any value greater than the absolute value of .80 is a large effect size, anything between .50 and .79 is a medium effect size, and anything between .20 and .49 is a small effect size.

Cohen's d in this intervention revealed a large effect size for the change within students' individual goal areas.

Table 4.3. *Individual Goal Area t-test Results.*

Unit	Pretest		Posttest		t	df	p	d
	M	SD	M	SD				
Individual Constructed Response Goal Area	.74	.72	2.50	.93	-10.29	20	<.01	-2.25

Wilcoxon signed-rank tests. Because the data from the pre- and post-assessment were not normally distributed, the Wilcoxon signed-rank test was used for analysis because the test can be used to produce valid non-parametric results in data that are non-normally distributed (Pappas & DePuy, 2004). Analysis of the data was completed using a program called JASP. The results of the analysis are presented in Table 4.4. To perform the Wilcoxon signed-rank test, average scores were calculated for each section of the pre- and post-assessment, and the averages were compared using the Wilcoxon test (McDonald, 2009). The effect size is calculated by dividing the W value by the root of the total N observations, which produces the correlation coefficient r (Cohen, 1988). The resulting statistical analysis is displayed in Table 4.3. Results of the Wilcoxon signed-rank test indicate that the increase in student mean scores between multiple choice section of the pre- and post-assessment ($W= 0.90$, $p= .03$, $r= -.54$) had a medium effect size and were not statistically significant, but the increase from the overall first draft of the constructed response question to the final draft ($W= 0.87$, $p= <.01$, $r= -1.0$) had a large effect size and was statistically significant.

Table 4.4. *Wilcoxon Signed-Rank Test – Writing Skills Assessment*

Units	Pretest		Posttest		<i>W</i>	<i>p</i>	<i>r</i>
	<i>Mdn.</i>	<i>SD</i>	<i>Mdn.</i>	<i>SD</i>			
Multiple Choice	.46	.13	.54	.13	0.90	.03	-.54
Constructed Response	.01	.01	.03	.73	0.87	<.01*	-1.00

* Indicates the differences between pretest and posttest is significant $p < .05$.

Self-Regulation Formative Questionnaire

Participants completed the Self-Regulation Formative Questionnaire before and after the intervention to measure the impact of the intervention on students' self-regulated learning skills skills, specifically as they apply to writing. The survey featured 22 five-point Likert scale questions which comprise four subscales (Planning, Monitoring, Adjusting, and Reflecting). Questions asked students to determine how often the 22 statements in the survey were applicable to them with statement choices of never true (1), sometimes (2), neutral (3), often (4), or always (5).

Descriptive Statistics. First, the survey data were analyzed using descriptive statistics. Data are presented in Table 4.5. Descriptive statistics were used on the pre- and post-survey in each subscale: planning pre-survey ($M = 2.90$, $SD = 0.67$), planning post-survey ($M = 3.20$, $SD = 0.77$), monitoring pre-survey ($M = 3.10$, $SD = 0.53$), monitoring post-survey ($M = 3.60$, $SD = 0.57$), adjusting pre-survey ($M = 3.10$, $SD = 0.62$), adjusting post-survey ($M = 3.40$, $SD = 0.52$), reflecting pre-survey ($M = 3.40$, $SD = 0.71$), and reflecting post-survey ($M = 3.60$, $SD = 0.71$). Overall mean scores showed an increase in each subscale, with the monitoring subscale demonstrating the biggest increase.

Table 4.5. *Descriptive Statistics –Questionnaire*

Subscales		<i>M</i>	<i>SD</i>
Planning	Pre-survey	2.90	0.67
	Post-survey	3.20	0.77
	Difference	0.30	
Monitoring	Pre-survey	3.10	0.53
	Post-survey	3.60	0.57
	Difference	.50	
Adjusting	Pre-survey	3.10	0.62
	Post-survey	3.40	0.52
	Difference	0.30	
Reflecting	Pre-survey	3.40	0.71
	Post-survey	3.60	0.71
	Difference	0.20	

Note. Out of five-point Likert scale

Shapiro-Wilk normality tests. After analyzing the data with descriptive statistics, the survey data were tested for normal distribution using the Shapiro-Wilk test. To complete the Shapiro-Wilk test subscale averages for each participant for both the pre- and post-survey were calculated (McDonald, 2009). The differences between the pre- and post-survey for each subscale was calculated, and the differences were analyzed using the Shapiro-Wilk test. The test results are shown in Table 4.6. The planning ($p = .49$), monitoring ($p = .17$), and reflecting ($p = .08$) subscales were found to be normally distributed, while the adjusting subscale ($p = .08$) was found to be non-normally distributed, as shown in Table 4.6. The results of the Shapiro-Wilk test were used to determine the next steps for data analysis.

Table 4.6. *Shapiro-Wilk Normality Tests –Questionnaire*

Subscales	<i>W</i>	<i>df</i>	<i>p</i>
Planning	.96	20	.49
Monitoring	.93	20	.17
Adjusting	.87	20	>.01
Reflecting	.92	20	.08

Note. * Indicates not normally distributed data ($p < .05$).

Based on the results of the Shapiro-Wilk test, either the paired samples *t*-test or the Wilcoxon signed-rank test were used to determine statistical significance, as shown in Table 4.7. The data for the normally distributed subscales were analyzed using the paired samples *t*-test, while the data for the subscale that was non-normally distributed was analyzed using the Wilcoxon signed-rank test (Gibbons & Chakraborti, 2011). In an effort to reduce Type 1 error inflation, the Bonferroni correction (Bland & Altman, 1995). This adjustment revealed a new significance of $p < .01$.

Table 4.7. *Data Analysis Method Alignment Based on Normality of Data*

Shapiro-Wilk Test Results	Subscales	Data Analysis Method
Normally Distributed	Planning Monitoring Reflecting	Paired sample <i>t</i> -test
Not Normally Distributed	Adjusting	Wilcoxon signed-ranks test

Paired samples *t*-test. Paired samples *t*-tests were conducted to compare participants' survey responses on the pre- and post-survey for the normally distributed subscales (planning, adjusting, and reflecting). To complete this test, participants'

averages in each subscale were calculated, and the changes in each subscale were compared using the *t*-test (LaMorte, 2017). Data from the paired samples *t*-test are displayed in Table 4.8. The findings from the paired samples *t*-test indicated that the increase in participants' self-regulated learning skills in monitoring (Pre-survey *M* = 3.12, *SD* = 0.53; post-survey *M* = 3.60, *SD* = 0.59), $t(20) = -3.67$, $p < .01$, Cohen's $d = -0.80$ is statistically significant with a large effect size. The increase in students' self-regulated learning skills in planning (Pre-survey *M* = 2.85, *SD* = 0.67; post-survey *M* = 3.20, *SD* = 0.77), $t(20) = -2.07$, $p < .05$, Cohen's $d = -0.45$ was not statistically significant and in the area of reflecting (Pre-survey *M* = 3.39, *SD* = 0.71; post-survey *M* = 3.56, *SD* = 0.71), $t(20) = -1.10$, $p < .28$, Cohen's $d = -0.24$ were not statistically significant (McDonald, 2009) and had small effect sizes (Cohen, 1988).

Table 4.8. *Paired Sample t-Tests –Questionnaire*

Subscales	Pretest		Posttest		<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Planning	2.85	0.67	3.20	0.77	-2.07	20	.05	-0.45
Monitoring	3.12	0.53	3.60	0.59	-3.67	20	<.01*†	-0.80
Reflection	3.39	0.71	3.56	0.71	-1.10	20	.28	-0.24

Note. Out of five-point Likert scale.

* Indicates the differences between pre-survey and post-survey is significant $p < .05$.

† Indicates the differences between pre-survey and post-survey is significant at Bonferroni correction level $p < .01$.

Wilcoxon signed-rank tests. Because the adjusting subscale was not normally distributed, the data were analyzed using the Wilcoxon signed-rank test. To conduct this test, the average Likert scale responses of the adjusting subscale were calculated for both the pre- and post-survey (McDonald, 2009). Results were then compared using the

Wilcoxon signed-rank test. Results are displayed in Table 4.9. The Wilcoxon signed-rank test indicates that the increase in mean between the pre- and post-survey for the adjusting subscale is statistically significant at both p value ($p < .05$) and the Bonferroni correction level of $p < 0.01$.

Table 4.9. *Wilcoxon Signed-Ranks Test –Questionnaire*

Subscale	Pre-survey		Post-survey		W	p	r
	<i>Mdn.</i>	<i>SD</i>	<i>Mdn.</i>	<i>SD</i>			
Adjusting	3.30	0.62	3.30	0.52	-.58	< .04*	-.60

Note. Out of five-point Likert scale.

* Indicates the differences between pre-survey and post-survey is significant $p < .05$.

† Indicates the differences between pre-survey and post-survey is significant at Bonferroni correction level $p < .01$.

In conclusion, both the writing skills pre- and post-assessment and the Self-Regulation Formative Questionnaire were analyzed using descriptive statistics. Then data from both quantitative instruments were tested for normal distribution using the Shapiro-Wilk test. Because data from the pre- and post-assessment were not normally distributed, those data were analyzed for statistical significance using the Wilcoxon signed-rank test. Results indicate that the increase in writing skills on the constructed response item was statistically significant; however, the increase on the multiple choice portion and the overall increase in scores were not statistically significant. The overall increase in means, both overall and within individual subscales, of the survey were not statistically significant.

Qualitative Findings and Interpretation

This study involved one source of qualitative data: the post-intervention student interviews. This section will address the findings from the six interviews conducted following the conclusion of the intervention.

Individual Interviews

Once participants submitted their post-assessments and surveys, six participants were selected for one-on-one interviews about their experiences during the intervention and its impact on their self-regulated learning skills and writing skills. Participants were selected for interviews based on their completion of the entire intervention and to represent a mix of ability levels and special needs that were representative of the entire participant population. Table 4.10 offers a breakdown of interviewees' demographic information. Individual interviews lasted between 10 and 15 minutes each, adding up to 87 minutes total. They took place in the researcher's classroom and were conducted face-to-face. Three interviews were conducted during independent work time in the participant's class, and three interviews were conducted during the researcher's planning time. One interview was not completed due to the sudden school shut-down following a spike in COVID-19 quarantines, as well as the participant's inability to attend the interview virtually. Furthermore, one of the interviews had to be split in two parts due to the participant's discipline meeting with administration. The interview questions focused on both research questions, addressing participant's perception of their writing skills and self-regulated learning skills. The interview followed a semi-structured format. All interview questions were open-ended. The researcher prompted each interviewee with the interview questions, listened to the responses while two recording apps were used as back

up, and recorded notes on student responses; follow-up questions were introduced as needed.

Table 4.10 below presents the pseudonym for each interviewee. It also identifies his or her gender, race or ethnicity, academic track (whether the student is enrolled in honors or college preparatory classes), and any special needs such as an Individualized Education Plan (IEP), English for Speakers of Other Languages (ESOL) designation, or 504 plan, which is a legally binding accommodation plan for students with health impairments not covered by an IEP. Finally, the table shows each interviewee's chosen goal area for improving their writing skills.

Table 4.10. *Interviewees' Demographic Information*

Pseudonym	Gender	Track	Needs	
Abner	Male	CP	IEP	Organization
Lilly	Female	CP		Incorporating Research
Morgan	Female	H		Organization
Trevor	Male	H	ESOL	Content
Michael	Male	CP	IEP	Content
Belle	Female	CP	IEP	Content

Interviews were manually transcribed by the researcher from the recordings once the interviews were completed. Transcriptions were checked for accuracy by both the researcher and the interviewees through member checking. All interviews were confirmed by the interviewee. Introductory information in which the researcher explained the project, the purpose of the interviews, and the rights of participants were deleted from the transcripts. Additionally, one participant's accidental use of profanity was redacted in

the final transcript. Transcripts were housed in their own password-protected Google Doc until after they had been finalized by the researcher and approved by the interviewee. All transcripts were then copied and pasted into Delve for coding.

Analysis of qualitative data. Interview transcripts were examined using inductive analysis (Creswell, 2017; Mertler, 2017). Once transcriptions were complete, the researcher reviewed them multiple times to become familiar with the contents. Transcriptions were uploaded into the coding web tool Delve. Qualitative data underwent two cycles of coding. Each cycle consisted of multiple rounds of coding. Open coding was performed during the first cycle, while pattern coding was applied on the second cycle (Saldaña, 2016). The following sections provide a description of these cycles and generated codes, followed by an explanation about the development of qualitative themes.

Precoding. Before beginning coding of the transcripts, each interview was labelled with attribute coding (Saldaña, 2016). Transcripts were coded with each interviewee's student number, goal area, and first and final draft rubric scores for the essay written as part of the intervention. Transcripts were also marked with any special needs the student has, including whether they have an IEP, are designated as ESOL, or were enrolled in honors classes. The attribute coding assisted data analysis by allowing the researcher to retrieve information on each interviewee, as well as to locate trends among participants based on their demographic information.

First cycle coding. For the first iteration of coding, three separate rounds of coding occurred in order to locate important trends among the interviewee's comments. Transcripts were analyzed sentence-by-sentence in each cycle (Saldaña, 2016). A sample

of the first cycle coding in the Delve web tool is pictured in Figure 4.1. Each of these rounds of first cycle coding will be explained here. Process coding was applied throughout each transcript to highlight specific student actions throughout the intervention (Saldaña, 2016). Simultaneous coding was also used to apply multiple codes to the same sentences, allowing for the addition of concept codes which highlight the connection between interviewee's comments and the theories and practices related to the research questions for the intervention (Saldaña, 2016).

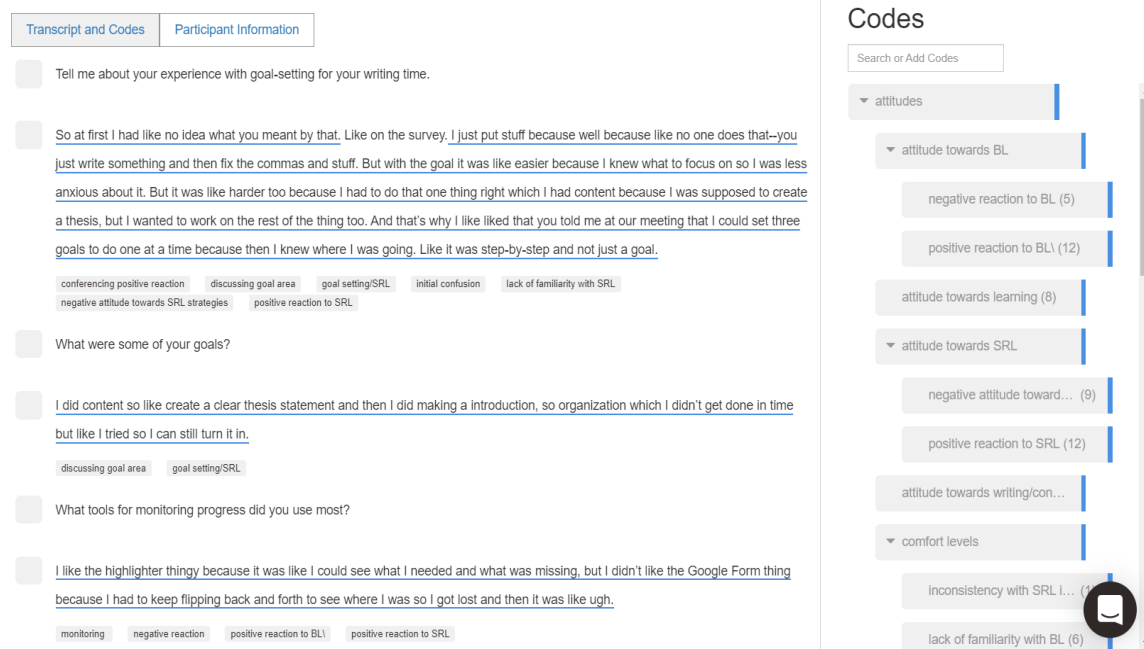


Figure 4.1. *Open coding of interview transcript in the Delve web tool*

Process codes were applied throughout each transcript to highlight specific student actions throughout the intervention (Saldaña, 2016). Simultaneous coding was also used to apply multiple codes to the same sentences, allowing for the addition of concept codes which highlight the connection between interviewee's comments and the theories and practices related to the research questions for the intervention (Saldaña, 2016). An example of an interview excerpt with simultaneous codes is shown in Figure

4.2. Finally, in order to capture an accurate portrayal of students' attitudes and judgements about parts of the intervention, affective (value) codes were applied to each transcript (Saldaña, 2016).

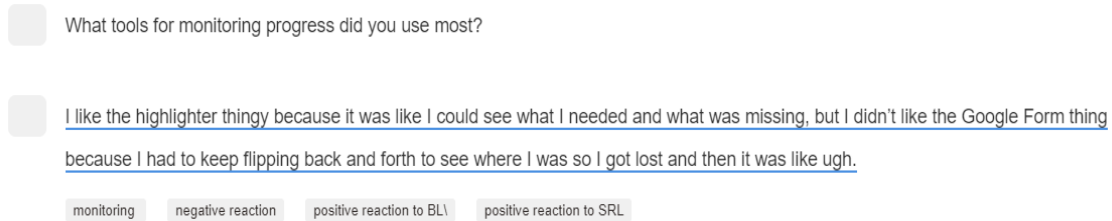


Figure 4.2. *An example of simultaneous coding with a sentence sharing multiple codes*

The first cycle of coding yielded 78 preliminary codes. Before moving on to second cycle coding, preliminary codes were reviewed. Codes that were similar in meaning were combined or revised to better address the essence of the data. For example, *goal area rationale* and *discussing goals* were combined under the code *goal-setting*. The phrasing of some codes was updated to better reflect the research questions for the intervention. For example, *aversion to work on computer* was updated to read *negative reaction blended learning*. All alterations of codes were recorded in the researcher's journal for data collection and analysis. An example of a completed coding scheme is seen in Figure 4.3.

lack of familiarity with BL (6)

Appears in 4/6 transcripts

DM (3) IC (1) LC (1) LPG (1)

Students express reactions towards the newness of blended learning.

Edit

Sort By Most Recent

LPG

I think meeting with my teacher helped me the most. This dang covid and learn from home has been a problem. So it helped to be on my own to get just what I needed. It sort of makes up for only being here three days a week.

attitude towards learning

conferencing positive reaction

lack of confidence

lack of familiarity with BL

LC

At first I was really confused. Like there was so much information, and I didn't quite know what I needed to do with it to make it work for my writing.

Figure 4.3. *Example of a coding scheme*

Second cycle coding. The second cycle of coding consisted of one round of pattern coding. This type of coding allows for the condensing of large amounts of data into smaller chunks which allows for the development of themes (Saldaña, 2016). This process of coding codes from the first cycle of coding allowed the researcher to lump similar codes under big ideas using theoretical coding in order to highlight the theories connected to the research questions. Finally, code mapping, seen in Figure 4.4, was used to arrange like codes together to assist in determining which quotes would best add to the write-up for the intervention.

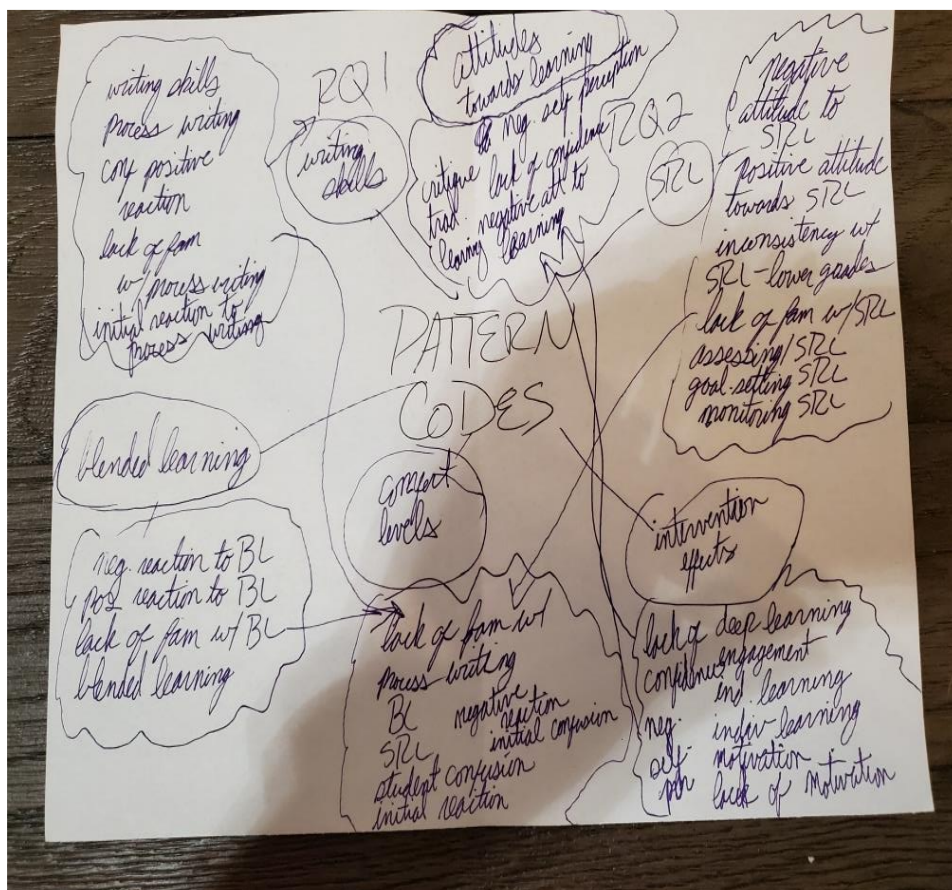


Figure 4.4. Code map used to develop pattern codes

Each pattern code consisted of multiple sub-codes from the first cycle of coding. Codes developed in cycle two align with either self-regulated learning skills, blended learning, or writing skills. For example, all codes related to the different phases of self-regulated learning (goal-setting, monitoring, reflecting, and assessing) were placed under the pattern code self-regulated learning. This code encapsulated student perceptions about self-regulated learning skills as a whole and each disparate phase related to self-regulated learning skills. In order to create these second cycle codes, the researcher hand-wrote the list of first cycle codes from Delve and then arranged them on a bubble chart in the research notebook compiled during data collection and analysis. Four codes, *inconsistent*

application of SRL in previous grades, lack of familiarity, student confusion, and lack of confidence, were placed under the pattern code, *comfort levels*. While these codes were not directly aligned with a concept related to the research questions for the intervention, the trends that emerged from those codes were still significant to understanding the student perceptions of the study. A second pattern code was established to encapsulate assorted intervention effects that did not directly align to one single research question concept. This pattern code contained all first cycle codes where students referred to an overall effect that related to multiple concepts. For example, the codes *deeper learning* and *individualized learning* were identified by students as outcomes of the intervention as a whole and not specifically blended learning or self-regulated learning. The first cycle codes *traditional learning critique*, *negative self-perception*, *lack of motivation*, *motivation*, *social learning theory*, and *cognitive apprenticeship*, did not produce any specific patterns and did not fit into any one category, and they were discarded due to both their insignificance in revealing trends related to the intervention and for their lack of alignment with the research questions (Saldaña, 2016). Throughout the second cycle of coding notes concerning the rationale for each grouping and pattern were made in the researcher's data collection and analysis journal to maintain a record of the relationships between different codes (Mertler, 2017). Through the second cycle of coding, the initial 78 open codes were arranged into 6 pattern codes: *blended learning*, *self-regulated learning skills*, *writing skills*, *intervention effects*, *comfort levels*, and *attitudes towards learning*. These final pattern codes are displayed in Table 4.11.

Table 4.11. *Cycle 2—Final Pattern Codes*

Pattern Codes	Pattern Code Definitions	Example Excerpt
---------------	--------------------------	-----------------

Blended learning	Codes that addressed student attitudes towards independent web-based learning or face-to-face writing conferences	“I really liked the online stuff on my own first because then I knew the information that we needed to talk about in class the next day. So instead of sitting in class wasting my time, I already kind of knew the information.” – Morgan
Self-regulated learning skills	Codes that addressed student perceptions of the self-regulated learning skills infused writing lessons or SRL strategies	“I think it’s cool that I can break work down on my own now.” – Lilly
Writing skills	Codes that address student perceptions of writing instruction, writing skills, or their own writing	“Like I know why I got what I got. Because I had to work with what I did wrong at first and make it better. Instead of just not knowing and keeping on doing what seemed right.” – Bella
Intervention outcomes	Codes that outline student outcomes from the intervention	“You showed me how to pause and replay parts of the video. I like that because then I can hear it again and check my work. And it helped me understand. Now that I know what to do, I wish I could do that with all my classes.” – Lilly
Comfort levels	Codes that outline student confusion/discomfort or familiarity with intervention components	“I mean this was the first time anyone told me to grade myself. And I get what you said about it being important to know how you do at something. And I know I need practice at the self-assessment stuff because it’s really hard.” – Trevor
Attitudes towards learning	Codes that outline how participants feel about learning either in general or as it related to the intervention	“I go to school for my teacher to teach me. It’s just not the same when I have to do it on my own. Like I get the point about having to read ahead in class to prepare for the lesson in advance. But it just doesn’t seem right. It just works better when teachers tell you the stuff you need to know and I copy it off the board. I always got A’s doing that.” – Trevor

Identifying themes. Once the pattern codes were established, the codes were arranged and sorted in an attempt to discover categories and preliminary themes. Another round of “code mapping” as described by Saldaña (2016, p. 218) was used to assist in recording the arrangement of pattern codes to develop themes. Eight initial themes were developed and a descriptive quote from the transcripts was aligned to each initial theme. These were submitted to the dissertation chair for peer debriefing (Lincoln & Guba, 1985; Shenton, 2004). Suggestions were provided to better align the initial themes with the research questions for the intervention because the initial themes were too student-focused. Themes were revised, and the final themes are shown in Table 4.12.

By reviewing participants’ interviews, a theme concerning individualized attention emerged. Participants repeatedly discussed their preference for having lessons, conferences, and feedback that were based on their specific needs and that it made learning new writing skills easier. The pattern code *intervention effects* and *attitudes towards learning*, which was comprised of codes *positive reaction to blended learning*, *conferencing positive reaction*, and *blended learning*, led to the development of categories that addressed individualized learning, conferencing, and goals-based writing instruction. From those categories, the theme, individualized support provided through writing conferences and blended learning helped participants develop both writing and self-regulated learning skills skills, was developed.

Reviewing transcripts also revealed trends concerning the difficulty participants experienced with more student-driven learning models. Participants consistently highlighted the fact that they did not like the transition to active student-driven aspects of blended learning, self-regulated learning skills, especially self-assessment, and process.

The pattern codes attitudes towards learning, blended learning, self-regulated learning skills, and process writing, which was comprised of the codes *negative attitude towards SRL strategies*, *initial reactions*, *negative reactions to BL*, *student confusion* and *assessing/SRL*, led to the development the theme the transition to more active, student-driven aspects of blended learning, self-regulated learning skills writing was difficult for participants..

Table 4.12. *Themes, Categories, and Illustrative Quotes*

RQ1: How do the supplemental use of writing conferences in a blended learning environment affect high school participants' writing skills?		
Theme	Associated Categories	Example Quote
Individualized support provided through writing conferences and blended learning helped participants with writing skills.	individualized support in the blended learning environment individualization through the conference model	"I like it because you can help me without others knowing. I actually write on google classroom. I don't like to type. But it finds my spelling problems." – Michael
Blended learning with self-regulated learning skills-infused writing lessons and face-to-face conferencing led to deeper learning of writing skills.	Promotion of deep learning	"Like because you have to know the writing but then you also have to be able to know the different levels. Like if it's right or not. And like don't laugh cuz im going to sound so dumb, but I had not idea the bullets in the rubric told you what to put in your work." – Bella
The opportunity to pre-learn and practice writing skills in the blended learning intervention was met with positive reactions.	Pre-learning of content in a flipped learning environment	"At first I didn't like it. Like that's not school. You're supposed to have us all copy the slides together while you read them to us. Like I've never had to go over anything on my own first. I don't think that's something we're supposed to do. And I didn't understand what to do. But when I

didn't turn anything in you were all like why didn't I do anything. You showed me how to pause and replay parts of the video. I like that because then I can hear it again and check my work. And it helped me understand. Now that I know what to do, I wish I could do that with all my classes." — Trevor

Conferencing and revision opportunities led to improved writing skills	Writing conferences and feedback Process writing	<p>"So anyway, I really liked the online stuff on my own first because then I knew the information that we needed to talk about in class the next day. So instead of sitting in class wasting my time, I already kind of knew the information. I wrote my confusing things in my agenda. So we could talk about it during our meetings. Like it just makes everything so much more organized if I know the basics before class. It made everything work better. Like I don't think the meetings would have worked if you were having to teach the entire class. Like the lessons made it possible for me to have just my time alone with you to get specifically the information I needed. It's a really cool system. I wish we able to do stuff like that in every class all the time." -Morgan</p> <p>"Like I know why I got what I got. Because I had to work with what I did wrong at first and make it better. Instead of just not knowing and keeping on doing whjat seemed right" — Bella</p>
--	---	--

RQ2: How does the supplemental use of writing conferences in a blended learning environment affect high school participants' self-regulated learning skills skills?

Individualized support provided through writing conferences and blended learning helped	Individualized learning in the blended learning environment	"You showed me how to pause and replay parts of the video. I like that because then I can hear it again and check my work. And it helped me
---	---	---

participants with self-regulated learning skills.		understand. Now that I know what to do, I wish I could do that with all my classes.” –Lilly
The transition to more active, self-regulated learning aspects of blended learning with embedded self-regulated learning skills was difficult for participants.	Student-teacher roles in the blended learning environment Limited self-regulated learning skills	“I don’t enjoy them. I go to school for my teacher to teach me. It’s just not the same when I have to do it on my own. Like I get the point about having to read ahead in class to prepare for the lesson in advance. But it just doesn’t seem right. It just works better when teachers tell you the stuff you need to know and I copy it off the board. I always got A’s doing that.” – Trevor
		“At first I was really confused. Like there was so much information, and I didn’t quite know what I needed to do with it to make it work for my writing.” –Morgan
Goal setting and identification of writing weaknesses led to important improvement in writing skills.	Self-regulated learning to develop writing skills Goals-based learning.	“It never occurred to me to look at a school assignment as a series of goals or to-do list things or whatever. And it literally just makes so much sense because it makes it easier to ask questions and focus on learning what I needed for just that specific task. Like I could just look at the rubric and say like I was weakest in this area and then be like I want to get this score, so to get that score I need to do this, this, and this..” –Morgan
Participants remain critical of self-assessing their writing despite making progress.	Student confidence in self-assessment Student confidence in writing	“I mean on the rubric, it had all the things for a 4, but I gave myself a 2. I just wasn’t sure everything was right, and I didn’t want to give myself a 4 and then have you grade it lower.” – Trevor

The continued review of pattern codes and trends expressed within the interview transcripts led to further themes related to the effects of blended learning and self-regulated learning skills infused writing instruction. The combination of the pattern codes

intervention effects and student attitudes with the pattern codes self-regulated learning skills, writing skills, and blended learning yielded several themes based on participants' discussion of their experiences throughout the intervention.

Validating and finalizing themes. As themes were developed, the researcher worked to locate substantial empirical evidence within coded interviews to ensure sufficient support for each theme. Peer debriefing, and member checking were used to validate the themes. Descriptive, verbatim quotes from the interview transcripts were used to develop thick, rich description to illustrate the different themes (Creswell, 2017; Mertler, 2017). The researcher's data collection and analysis journal contain detailed descriptions of and rationales for each code, as well as decisions made regarding themes to supplement thick, rich descriptions provided through the interview quotes. Peer debriefing (Lincoln and Guba, 1985) was performed with the dissertation chair, who provided feedback concerning revisions to the language of themes and who helped align themes and codes. Member checking (Creswell, 2017; Mertler, 2017) was attempted but proved not to be feasible in this study. Interviewees were given the opportunity to review the finalized list of themes and categories via email; however, by the time this list was finalized, school had moved to being fully virtual due to a spike in COVID-19 cases, and no participants responded.

Themes

Themes were created based on the finalized categories. Categories were developed through the arrangement of common responses among multiple participants based on the two research questions for the intervention (Saldaña, 2016). In this section, each theme is presented along with illustrative verbatim quotes from the interviewees

who have been anonymized through the use of pseudonyms. Eight overall themes were developed from the qualitative data. First, the themes related to RQ1 along with their categories will be presented. Then the themes related to RQ2 and their associated categories will be discussed.

RQ1: How do the supplemental use of face-to-face writing conferences in a blended learning environment with digital Google Classroom instruction affect high school participants' writing skills?

Theme 1: Individualized support provided through writing conferences and blended learning helped participants develop writing skills.

This theme describes the connection participants made between receiving support tailored to their personal needs and their ability to improve their writing skills.

Participants expressed that the goals-based lessons and individualized, face-to-face writing conferences in the blended learning environment enabled participants to learn necessary writing skills as well as clarify new learning in self-regulated learning skills. One interviewee, Michael, described his experience with individualized support by saying, "I like it because you can help me without others knowing. I actually write on Google classroom. I don't like to type. But it finds my spelling problems." He discussed how having the individualized support during writing conferences helped him to learn goal-setting and progress monitoring for his writing, which in turn made it easier for him to focus on his specific needs. A second interviewee, Morgan, discussed how the individualized support helped her to further develop her writing:

Once you helped me with it from our first meeting and it made sense, all of that stuff got a lot easier. So, it ended up being more helpful because it

kept me from just writing like I always had. And it made me look at my old writing to fix it instead of just doing something wrong and having it stay wrong because I had to move on.

In general, all participants who attended the interviews reacted favorably to being able to receive individualized support as part of the blended learning environment.

Theme 1 addresses participants' positive reaction towards being able to receive individualized support related to the development of their writing skills. The following sections will discuss categories related to this theme: 1) individualization in the blended learning environment and 2) individualization through the conference model.

Individualization in the blended learning environment. Two-thirds ($n = 4$) of interviewees mentioned that the goals-based lessons provided through Google Classroom helped participants better learn writing skills because it made the academic material more limited to participants' individual needs. Instead of focusing on all components of essay writing at once or learning all the skills as a whole class, the blended learning component of this intervention made it possible for participants to select one specific area of weakness on their rubric and focus only on that skill. Bella asserted that the online lessons made her feel like her class time was more valuable, stating, "I got to be in a class by myself so I only had to talk about what I needed and then like you just ask a question so I still kind of have to figure something out myself but you can help me with the stuff I need." Trevor concurred with the approval of receiving individualized attention, saying he "liked that it [the intervention] was just about my writing, not stuff I already knew how to do." As both of these students assert, the individualized nature of the lessons for the intervention allowed students at different academic levels to feel they were receiving

more relevant instruction because the lessons were tailored to their personal needs. Overall, interviewees connected their ability to receive individualized support through the web-based component of the blended learning environment with their ability to more completely develop their writing skills.

Individualization through writing conferences. All interviewees (n = 6) expressed positive attitudes towards the individualized support they received during their face-to-face writing conferences. Participants attributed this one-on-one time with the teachers to their ability to improve their writing in two basic ways. One was improved opportunity to receive tailored feedback. As Trevor stated, “[Conferences] helped me see what I was messing up in my writing...I also really liked that we made notes on my draft together while we were talking so you knew what I meant before giving me feedback.” The second way participants the benefits of the face-to-face conference was through the ability to talk over and brainstorm ideas to add in their writing. Lilly, who remained silent during whole-group instruction, expressed the conferences were the most helpful part of the intervention for her because “it made it impossible not to understand because you could correct me when I said something dumb. Plus, I could talk about my ideas to get them straight before I wrote them down.” Another student, Michael, who has an IEP and reads and writes at the third-grade level, said “[Conferences] help me. I don’t know what to write and you help me fix it.” Michael also expressed that he liked the conference model because it allowed him to get individualized help without his classmates knowing that he was struggling. Because the face-to-face time was set up so that everyone received one-on-one support, he felt less singled out asking for help.

Theme 2: Blended learning with self-regulated learning skills-infused writing lessons and face-to-face conferencing led to deeper learning of writing skills

This theme outlines the trend that emerged from interviewees that suggests the combination of blended learning, self-regulated learning skills, and face-to-face conferencing fostered a deeper learning of writing skills. All interviewees (n = 6) acknowledged that they felt they learned the skills related to their personal writing goal on a deeper level as part of this intervention. Theme 2 discusses the reasons and reactions participants had towards their deeper learning of writing skills, as well as their attribution of the deeper learning to different aspects of the intervention. It covers a single category: promotion of deeper learning to be discussed in the next section.

Promotion of deep learning. All interviewees discussed that they believe they learned writing skills more deeply from this unit more deeply. Some participants attributed this to the level of individualized support available because of the blended learning model, while others attributed it to the goals-based nature of the unit made possible by the blended learning model. For example, Morgan attributes her ability to deeply learn new writing skills with being able to focus specifically on her needs. She said, the intervention made “it possible for me to ... get specifically the information I needed. It’s a really cool system.” Morgan explained that being able to focus on one specific skill made it possible to fill in gaps in her understanding so that she learned the skill completely and at a level where she could apply the concept to her own writing. The opportunity to focus on individual needs, rather than a generic lesson for everyone, helped her learn her skills at a deeper level. Even participants who traditionally struggle to learn and retain information acknowledged that they learned content at deeper levels

than they have in the past. For example, Bella, who typically struggles with writing due to a learning disability said, “I had to work with what I did wrong at first and make it better. Instead of just not knowing and keeping on doing what seemed right.” The student continued by explaining that the progress monitoring part of the web-based lesson made her review the skills she was supposed to master and caused her to pay more attention to learning the skills in a way that she could apply consistently on her own.

Interviewees also noted that one important component of their deeper learning of writing skills stems from the fact that they had to be able to discuss their writing process and progress during face-to-face writing conferences and in the progress monitoring materials that were part of their online learning materials. This meant that they had to, not only, read over the notes and complete lessons to demonstrate their conceptual knowledge, but they also had to apply the concepts to their own work to prepare for their writing conference. Lilly mentioned that knowing she would have to discuss her learning during face-to-face time made her focus more on the lessons, thereby learning the skills more deeply. She said, “And you made me talk, so it was like I learned it better than you talking at me. I didn’t have a chance to go to sleep or anything so I learned the lessons.” Lilly continued to admit that, because she knew she would have to discuss the skills she was learning to apply, she spent more time reviewing the online material and rephrasing lessons so that she could work at applying the information, rather than just memorizing terms. One student Morgan discussed that she learned the writing skills from this intervention unit deeply enough to begin applying them to other subject areas. She said,

Like when I did the adding details one, the highlights made it so clear that
I had a solid topic sentence and evidence, but it was also really really clear

that I needed to explain how my evidence supported my thesis better because I didn't have enough lime green, so I added to that. And now I highlight my writing for everything.

In this quote, Morgan explains that the online lesson which addressed self-evaluation of elaboration in paragraphs coached her through applying her writing skills to evaluating her own writing. As a result of the progress monitoring that was part of the web-based lessons and feedback received during face-to-face time, Morgan felt that she learned the skill of elaboration well enough to apply to her history and biology writing assignments as well. Her ability to apply the elaboration skill learned from the intervention to writing in other contexts suggests that she learned the skill deeply enough for it to become transferable.

Theme 3: The opportunity to pre-learn and practice writing skills in the blended learning intervention was met with positive reactions

This theme addresses the assertion made by interviewees ($n = 3$) that they were better able to develop their writing skills through the blended learning model because of the opportunity to pre-learn, practice, and apply their learning to their own writing before class. While a few participants did not react positively to completing work at home, some interviewees acknowledged that this pre-learning time helped them feel more prepared and better able to ask questions during class. As Morgan stated,

I really liked the online stuff on my own first because then I knew the information that we needed to talk about in class the next day. So instead of sitting in class wasting my time, I already kind of knew the information.

Theme 3 relates to the category pre-learning of content in a flipped learning environment, which will be discussed in the following sections.

Pre-learning of content in a flipped learning environment. Several participants (n =3) attribute part of their growth in their writing to the ability to learn content independently before needing to apply skills in class. They felt that this pre-learning of content allowed them to have more time to work with the writing skills and develop questions because they had time before class to realize what their areas of confusion were. The pre-learning of content further allowed participants to use class time to address their personal areas of concern or to discuss their learning and advance their understanding of the writing skills for their coursework. Morgan felt that the pre-learning of content enabled her to feel more organized as she prepared for her writing conferences. Morgan said “I wrote my confusing things in my agenda. So, we could talk about it during our meetings. Like it just makes everything so much more organized if I know the basics before class.” She came to every conference with a list of things she wanted to discuss and was able to essentially conduct her own conference because she had the opportunity to prepare for class in advance by learning and practicing basic skills. On a similar note, Bella asserted that the online lessons helped her narrow down the amount of information she felt she needed to learn, saying “[W]riting is a lot of stuff and I forget it all when I have to deal with it all at once.” Bella continued by discussing how pre-learning the material helped her to work through all her ideas and have a better understanding of how to ask questions and seek assistance during her conference time because she already knew the terminology and basic concepts from her lessons.

Theme 4: Conferencing and revision opportunities led to improved writing skills

This theme addresses the student perception that writing skills improved as a result of writing conferences and required revisions to the essay. Participants expressed that the verbal communication of feedback in face-to-face conferences followed by a required revision process enabled them to more effectively learn the writing skills associated with this intervention. For example, Bella confessed “well like in 8th grade we had a different essay every week. And I’d do it and get a grade but then it was time to do the next essay so I never even looked at the old essay again...so I kind of feel like that’s why my writing stayed bad.” Overall, participants reacted positively to having just one writing assignment which they had more time to perfect and respond to feedback. It offers time to process the skills necessary to improve writing, rather than emphasizing the quantity of writing produced, leading participants to care more deeply about focusing on learning. As Lilly said, “I think I also like getting to re-do stuff. Like it makes me care about actually understanding because the more I understand, the better I do. When I don’t get to re-do, it’s like there’s no point understanding because, you know, you can’t fix it so why bother.” Theme 4 addresses participants liking the opportunity to revise work. This theme is divided into two categories: 1) writing conferences and feedback and 2) process writing. Both will be discussed in the next two sections.

Writing conferences and feedback. Nearly all interviewees ($n = 5$) attributed some of their improvement in writing skills to the face-to-face verbal and written feedback provided during writing conferences. Participants discussed conferences as a way to clarify issues with their writing, discuss their writing process, and evaluate their progress towards their writing goals and work harder to improve their writing skills. Lilly

said, “Like it made it impossible not to understand because you could correct me when I said something dumb. Plus, I could talk about my ideas to get them straight before I wrote it down.” The face-to-face conference and ability to receive private, verbal feedback helped Lilly to feel more confident about writing things down because she was able to clarify her understanding in smaller chunks, rather than become overwhelmed by an entire essay that turned out to be incorrect. Furthermore, Trevor discussed that conferences and feedback provided during the intervention helped him develop stronger written ideas that were less wordy and more organized. He said, “I also really liked that we made notes on my draft together while we were talking so you knew what I meant before giving me feedback.” As an ESOL student, Trevor had been frustrated with the fact that his language barrier had inhibited readers of his work from giving him appropriate feedback. He appreciated the one-on-one feedback because it allowed him to enter into the dialogue of evaluating his work and reduce the language barrier.

Process writing. Half of interviewees ($n = 3$) expressed a positive reaction towards the implementation of process writing, or an instructional approach to teaching writing that emphasizes treating writing as a series of mental processes that interact cyclically, due to the ability to revise drafts multiple times. This enabled some participants to work until they reached a single goal. Lilly stated, “Like I didn’t like that you wanted us to do the same thing over and over again at first, but then it made sense because it’s a lot easier to focus on one thing and then do it right.” Later in the interview, she discussed how the implementation of process writing made it possible for her to practice paraphrasing borrowed information until she was no longer submitting plagiarized work, which was a weakness in her writing that had evolved into a

disciplinary action in multiple classes. Other participants took advantage of the implementation of process writing to work through multiple goals to submit more polished writing. For example, Morgan said,

And then I completed that goal and well I accidentally had to make another goal that I never told you about in our conferences because once I added the detail to my body paragraphs my thesis and introduction made like negative sense, so I spent a day working on those lessons.

The implementation of process writing encouraged Morgan to review her work before submitting, leading her to focus on the quality of her writing. Overall the implementation of process writing helped participants improve their writing skills, regardless of their prior knowledge or skill level.

Research Question 2: How do the supplemental use of writing conferences in a blended learning environment affect high school participants' self-regulated learning skills skills?

Theme 1: Individualized support provided through writing conferences and blended learning helped participants with self-regulated learning skills

This theme outlines the trend in qualitative data that individualized support provided during both the online lessons and face-to-face writing conferences in the blended learning environment may have also helped participants develop their self-regulated learning skills skills. All participants expressed some initial confusion over how to practice self-regulated learning. Two-thirds of participants ($n = 4$) explained that they were better able to learn the skills of setting goals, monitoring progress, self-assessing, and reflecting as a result of the initial face-to-face writing conference with the teacher.

For example, when asked about learning to set a goal for her writing, Lilly said “after you sat with me and told me I was supposed to break my assignment into little pieces and that I could just pick a part of the rubric to focus on I was excited.” The implementation of self-regulated learning skills was the intervention variable most unfamiliar to participants, so multiple participants discussed the need for more explicit teaching of these skills in an individualized setting before being able to implement them in relation to writing.

Theme 5 addresses the participants’ perceived need for individualized support to learn self-regulated learning skills and the positive reaction they had towards working with these skills once individualized support was provided. This theme encompasses the category individualization in the blended learning environment, which will be discussed in the next section.

Individualization in the blended learning environment. Half of interviewees (n = 3) explained that they had no previous experience with academic self-regulated learning skills, and one interviewee expressed having had very limited experience with goal-setting only. For example, Bella expressed her lack of familiarity by saying,

So like at first all the goals and stuff made it harder because like you gave me a essay assignment so I just want to get the writing over and do something else and it was the same with the highlighter thingy and the reflection and the rubric. Like I didn’t know what to do with that stuff so it was annoying to have to learn this whole new set of stuff just to write an essay.

Participants initially struggled to begin implementing self-regulated learning with their writing content. The information on self-regulated learning skills for writing was part of the online component of the blended learning environment. Even though participants reviewed the online material, they struggled to successfully implement self-regulated learning skills with their own writing, and this became a focus of some of the initial conferences, as participants expressed a need for face-to-face, individualized guidance to learn these skills. Trevor stated, “Like I feel better grading myself and making goals once you told me that I was on the right track.” He was capable of reviewing and understanding the material in Google Classroom, but he benefited from the face-to-face time to discuss his learning to ensure he was practicing the new skills appropriately. The blended learning environment with its split between independent web-based work and its face-to-face, individualized instruction made it possible for participants to receive modelling, coaching, and gradual increase of independence when practicing self-regulated learning skills.

Theme 2: The transition to more active student-driven aspects of blended learning with embedded self-regulated learning skills skills was difficult for participants.

Two-thirds of interviewees ($n = 4$) expressed a negative reaction towards the transition from passive, traditional learning to the more active blended learning with self-regulated learning skills embedded in the curriculum. This transition proved difficult for some participants, causing them to express confusion and even frustration with the increased need for independence and ownership of learning. Trevor summed up this negative reaction by providing the following explanation:

I go to school for my teacher to teach me. It's just not the same when I have to do it on my own. Like I get the point about having to read ahead in class to prepare for the lesson in advance. But it just doesn't seem right. It just works better when teachers tell you the stuff you need to know and I copy it off the board. I always got A's doing that.

This pre-existing perception of school and the student-teacher roles within it created a bit of a block for Trevor as he learned how to drive his own learning. Much of this difficulty with transitioning to more student-driven learning highlights a lack of self-regulated learning skills among participants. Theme 2 addresses the expressed student difficulty with adjusting to less traditional, more active models of learning. The theme is divided into two categories: 1) student-teacher roles in the blended learning environment and 2) limited self-regulated learning skills. These categories will be discussed in the following sections.

Student-teacher roles in the blended learning environment. Two interviewees explicitly expressed a struggle with the shifting roles for participants and the teacher in this intervention. Throughout this intervention, the teacher's role shifted from one of delivering instruction to one of facilitating student progress and providing feedback; students became responsible for directing conversations about their learning. Lilly asserts that she had difficulty understanding that school could require her to learn independently by saying,

At first I didn't like it. Like that's not school. You're supposed to have us all copy the slides together while you read them to us. Like I've never had

to go over anything on my own first. I don't think that's something we're supposed to do. And I didn't understand what to do.

Other interviewees expressed some difficulty with things like remembering to complete the independent online lessons outside of the classroom and narrowing down what to do with the content provided in the lessons. For example, Morgan mentioned that starting off with online lessons on her own at home caused some confusion because “there was so much information, and I didn't quite know what I needed to do with it to make it work for my writing. But then it occurred to me that I could replay and pause things.” Morgan went on to discuss how that realization that she could pause and replay content helped her learn to measure her writing and reflect on her progress towards her goal, thereby helping her learn better self-regulated learning skills skills.

Limited self-regulated learning skills skills. The struggle to adapt to a more active learning environment highlights some of the participants' limited self-regulated learning skills skills, especially at the beginning of the intervention. Participants demonstrated unfamiliarity with examining pre-assessment result to develop a needs-based goal. When asked about the process of developing a goal, Bella said “so at first I had like no idea what you meant by that. Like on the survey. I just put stuff because well because like no one does that.” Participants also demonstrated early struggles with task analysis, which may be attributed to participants' confusion over what to do with the web-based lessons in Google Classroom. Finally, participants expressed difficulty in examining criteria and exemplars and using them to assess their own work. Some participants were not even aware of how to read and use a rubric. For example, Bella stated “I had no idea the bullets in the rubric told you what to put in your work.” Due to

these limited self-regulated learning skills skills, it could prove more difficult for participants who are used to a more passive, traditional learning environment.

Theme 3: Goal setting and identification of writing weaknesses led to improvement in writing skills

Overall, interviewees expressed the most comfort with setting writing goals based on weaknesses with initial writing drafts. All interviewees successfully created and explained a goal for their writing, leading to the emergence of theme 3, which suggests that the goal-setting and task analysis phase of Zimmerman's model of self-regulated learning could have led to participants' improvement in writing skills. Interviewees attribute the development of writing goals to their ability to focus on one aspect of writing. For example, Morgan stated "like instead of focusing on just making an A on the whole essay, I could focus on the little pieces that got me to the A." Theme 3 is divided into two categories: 1) self-regulated learning to develop writing skills and 2) goals-based learning. Both of these categories will be discussed in the following sections.

Self-regulated learning to develop writing skills. Two participants noted that, as they became more comfortable with self-regulated learning skills, especially goal-setting, they felt more confident to independently apply their writing skills to other writing tasks.

Morgan said

I had to do a really big biology project last week while I was having to do your essay too, so I made the project rubric into like five goals and worked on one thing each night. It made it so easy to know what I needed to do and what questions to ask and like I was able to pick out a stopping point for my virtual days.

In this quote, Morgan illustrates that her ability to break her writing into goals, follow a rubric, and analyze her work against the rubric helped her improve in her writing skills across two different subject areas. Another student, Lilly, expressed a similar idea saying “I had the little checker thing you got me off the internet. And it told me when I had too much copied words. I rewrote some stuff a lot until it told me it was all my words.” Lilly was able to learn to use web-based tools to help her monitor and assess the quality of her writing based on her goal of focusing only on submitting plagiarism-free work. As she became more competent with her self-regulated learning skills, she became better able to monitor her own writing and analyze her progress towards her goal—in this case to stop getting write-ups for plagiarism. Finally, as participants developed more competence with self-regulated learning, they became better able to adjust their writing process and progress monitoring independently. Bella stated

I like the highlighter thingy because it was like I could see what I needed and what was missing, but I didn’t like the Google Form thing because I had to keep flipping back and forth to see where I was so I got lost and then it was like ugh.

At the beginning of the intervention and prior to the beginning of the unit, Bella did not do anything academically that was not explicitly instructed by the teacher. As the intervention progressed, she showed increased awareness of what she needed as a learner to more effectively achieve her writing goals, allowing her to make decisions for her own progress monitoring.

Goals-based learning. Two participants also attributed goal-setting to their ability to apply the writing skills from this intervention to writing tasks from other

classes. When Morgan realized she could turn all her large-scale assignments into a series of goals, she excitedly explained in a conference “once I understood that a goal isn’t just some big thing, it just made my life so much easier so now everything is a goal in my agenda.” She demonstrated how she had written out small goals for each day of her virtual learning in her school agenda. This increased willingness to set goals and improving ability to explain the rationale behind using goals for writing demonstrate an increased ability to use this phase of self-regulated learning to improve academic writing skills.

Theme 4: Participants remain critical of self-assessing their writing despite making progress

Theme 4 addresses the qualitative data trend that interviewees struggle to feel confident with the self-regulated learning skills skill self-assessment. While all interviewees demonstrated improvement within their goal area, none of them were confident in assigning an accurate score for themselves based on the rubric criteria. Some of this may be attributed to a lack of familiarity with self-assessment, while some of it may be attributed to interviewees’ need to adjust to more student-driven roles in their learning. Trevor best describes the student difficulties with self-assessment saying “I just didn’t feel right giving myself a 4. It just seems arrogant.” Theme 4 specifically deals with participants’ struggles to confidently assess their own writing. It is divided into two categories: 1) student confidence in self-assessment and 2) student confidence in writing. Each category will be discussed in the following sections.

Student confidence in self-assessment. The self-regulated learning skill over which interviewees expressed the most discomfort is self-assessment. While participants

could accurately select the criteria their revisions met or did not meet in order to set and progress with their goals, they struggled to independently assign an actual rubric score to their work. This lack of confidence seems to stem from a firmly entrenched definition in interviewees' heads that grading is something only the teacher does. As Trevor stated, "On the rubric, it had all the things for a 4, but I gave myself a 2. I just wasn't sure everything was right...I didn't want to give myself a 4 and then have you grade it lower." Participants also struggled with self-assessment initially due to a lack of understanding of how a rubric works. As Bella said, when asked about her experience using rubrics, a rubric is "just something the teacher used so I'd get a grade and then my teachers told me what to fix or I just you know fail and do something else." Half of interviewees indicated that self-assessment was the newest concept for them and that, given time to practice, they felt they could become more confident in this skill. When asked if he might feel more comfortable with self-assessment with more practice, Trevor said, "I guess, maybe. I mean this was the first time anyone told me to grade myself...But I also don't know if I'd ever give myself a 100 because I just don't feel ok saying I'm good like that." In summary, a lack of familiarity contributed to student difficulty independently completing self-assessments.

Student confidence in writing. Three interviewees expressed difficulties with assessing their work because writing is a skill they struggled with significantly in the past. Lilly, who struggles academically and was unsure of her writing skills throughout the intervention, said "It isn't copied anymore. I'm still not sure it's a good essay, but I know it's mine now." Though she made definite progress with her work, she would not assign herself anything other than a failing grade. During the final writing conference of

this intervention, Lilly struggled to assign a self-assessment or select any criteria for her writing from the rubric, even with guidance. She continued to express dissatisfaction with her work, despite having made progress towards her goals, citing the fact that she is just not a good writer. Still other interviewees struggled with self-assessment due to a lack of confidence with process writing. When the intervention concluded, three interviewees expressed difficulty assigning scores within their goal area because they felt the essay was incomplete. Even though participants improved in the skills related to their goal, they graded themselves poorly in all areas because they did not have time during the intervention to address all parts of the rubric. As Abner said, “We both know if [I had] turned that into anyone for real it’s still a fail.” Though Abner met his goal and improved in his writing, he continued to express that his work was not good enough and that he was still failing. This lack of confidence with process writing and acknowledging improvement stems from a focus on final product over improvement and contributed to student struggles with self-assessment.

Chapter Summary

This section discussed the quantitative and qualitative analysis and findings of the study. Quantitative data from the teacher-made pre- and post-assessment and the Self-Regulation Formative Questionnaire were analyzed through descriptive statistics and paired samples t-tests or Wilcoxon signed rank tests, depending on whether data were normally distributed. Quantitative findings associated with RQ1 demonstrate that, while the overall increase in mean score between the pre- and post-assessment was not statistically significant, the overall increase in mean score for the constructed response portion of the assessment was statistically significant, and participants did experience

improved writing skills during the intervention. Quantitative findings associated with RQ2 were not statistically significant. Qualitative data revealed eight themes. These themes focus on student preference for individualized support and feedback as they work to develop writing and self-regulated learning skills in the blended learning environment.

The findings of this study indicate that there is statistically significant data from the pre-and post-assessment to assert that participants increased in their writing skills on both the multiple-choice and constructed response portions. While the findings from the survey did not produce any statistically significant quantitative data to attribute an increase in self-regulated learning skills, some evidence from the qualitative data in the interviews suggests that participants improved their skills in the area of goals-setting, though they remain uncomfortable with self-assessment.

CHAPTER 5

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

The purpose of this action research was to how the supplemental use of face-to-face writing conferences combined with digital Google Classroom instruction in a blended learning environment impacts the writing and self-regulated learning skills of high school students. Quantitative data revealed an increase in writing skills and an increase in self-regulated learning skills skills that was not statistically significant. Qualitative data revealed seven themes which explain the increase in writing and self-regulated learning skills skills. Findings of this study suggest the combination of digital writing and self-regulated learning skills lessons with face-to-face writing conferences in a blended learning environment may improve the writing skills of high school students. This chapter presents the discussion, implications, and limitations of this action research.

Discussion

The quantitative and qualitative data from the study were combined to address the research questions related to this intervention. In order to situate this study within the existing body of research, existing literature on writing instruction, blended learning, and self-regulated learning skills was analyzed to guide these findings. In this section, the researcher will first discuss findings and existing research related to blended learning and writing skills, followed by findings and existing research on self-regulated learning.

Research Question 1: How does the supplemental use of writing conferences in a blended learning setting affect the writing skills of high school students?

The findings of this study suggest that face-to-face, individualized writing conferences in a blended learning setting can improve student writing skills. Graham and colleagues define writing skills as the body of learned material that allow people to communicate independently and effectively in school, work, or daily life in writing (Graham and Perin, 2007; Kuihara, et. al., 2009; Mason and Graham, 2008;). Literature indicates that writing skills can be improved in multiple ways: making the shift away from instruction that teaches writing as a formulaic product, reinforcing teaching as a process, providing detailed, targeted feedback, and incorporating authentic, 21st century skills in writing instruction (Applebee & Langer, 2011; Cutler & Graham, 2008; Graham, 2006; Graham & Perin, 2007; Harris & Graham, 1992a; Kiuuhara et al., 2009; Mo et al., 2014; Schwartz, 2014). The change in scores from the pre-assessment ($M = .74$, $SD = .72$) to the post-assessment ($M = 2.5$, $SD = .93$) indicates that there was statistically significant gain in writing skills on the constructed response portion of the assessment during the intervention. These positive results confirm the findings of previous studies on the incorporation of blended learning into the English/Language Arts curriculum. For example, in a 2012 action research study into at-risk students and blended learning, Alvarez (2012) found that failure rates decreased from 59% to 12% once blended learning was implemented into the ELA classroom. The following sections will discuss study findings which contributed to the increase in writing skills: 1) individualized support, 2) opportunities to pre-learn and practice writing skills, and 3) opportunities to

receive feedback and revise work. These findings will then be discussed in relation to the results of previously conducted research.

Individualized support. One outcome of the blended learning environment in this study was the possibility of providing students with individualized support through writing conferences. Qualitative data from participant interviews suggests that this individualized support contributed to the increase in writing skills demonstrated in the pre- and post-assessment. Previous studies have found that student learning of skills may be more effective when instruction is tailored to individual students' specific needs. In their study of high school math classrooms, Meyer and Turner (2002) found that students who received individualized feedback on their learning progress, as opposed to students who received whole-group only instruction, learned new skills more quickly and were better able to retain those skills throughout their education, even in later years. In a similar study focused on goals-based writing instruction, Flaherty (2019) found that individualized support in the ELA classroom can lead to deeper learning of skills, improved motivation to write, and quicker acquisition and better retention of transferable writing skills. Finally, Alexandre and Enslin (2017) found that the individualized instruction that can be provided through the implementation of blended learning boosts academic achievement, especially in math and ELA.

Pre-learn and practice of skills. Another component of the blended learning environment established for this intervention that may have led to the increase in student writing skills is the opportunity for students to pre-learn and practice skills before submitting work for conferencing and submitting drafts. Dudley-Marling and Paugh (2009) assert that students need extended time in which to independently work on writing

in order to make sense of both their own ideas and the writing skills they are practicing. Multiple participants in this intervention indicated that they felt working through the online lessons and then writing and evaluating their drafts prior to class made their class and conference time more productive. This finding is supported by previous studies. For example, Danker (2015) found that students reported significantly increased feelings of productivity in a blended learning environment, as opposed to a traditional classroom because they had access to lectures and materials prior to class and that those materials were readily available for multiple reviews if needed. Some studies have also found that these opportunities to access, learn, and review material prior to class can make students more aware of their own prior knowledge and thinking processes, which in turn allows students to better learn, apply, and articulate skills in academic content (Engin, 2014; Larsen, 2012). More recently, Hweng et. al. (2020) found that the implementation of flipped learning is associated with gains in student academic achievement as well as higher-order thinking ability, in part because of students' ability to work with introductory information independently before coming to class to work on application, evaluation, and synthesis of those skills in class.

Feedback and revision. Another outcome of the intervention highlighted in the qualitative data is that an increased focus on feedback and revision enabled students to improve their writing skills. A shift to developing writing instruction that focuses on process, with an emphasis on revising work, rather than product, which usually emphasizes formulaic organization and correction of surface-level errors, has been found to lead to improvements in writing skills (Applebee & Langer, 2011; Cutler & Graham, 2008; Graham, 2006; Graham & Perin, 2007; Harris & Graham, 1992a; Kiuhara et al.,

2009; Mo et al., 2014; Schwartz, 2014). Multiple studies found that, by shifting to a focus on the writing process and encouraging revision opportunities, students more effectively learn higher-order skills in content development and organization, thereby producing higher quality writing. Graham (2019) asserts that, in order for students' writing knowledge to improve, instructional models must provide time for students receive specific, targeted feedback on their writing, and to revise work to meet requirements.

Research Question 2: How do supplemental writing conferences in a blended learning environment affect students' self-regulated learning skills skills?

The findings of the intervention related to student self-regulated learning skills skills revealed some misalignment. The increase in self-regulated learning skills skills from the pre-survey to the post-survey was not statistically significant; however, the qualitative data found through the participant interviews demonstrated some gains in student self-regulated learning skills, especially in the areas of goal-setting, task analysis, and progress monitoring. Previous research supports the qualitative data from this study and suggests that the implementation of blended learning with face-to-face writing conferences may lead to gains in student self-regulated learning skills skills. Larsen (2012) and Banditvlai (2016) both found that, due to the independent, digital instruction offered through blended learning, students have the opportunity to practice self-regulated learning skills skills, especially in the areas of pacing, time management, and goal-setting; however, previous research has also found that blended learning environments may be less effective when students do not possess these critical self-regulated learning skills skills. This is because poor self-regulated learning skills may prevent students from effectively completing the independent learning component (Banditvlai, 2016;

Culbertson, 2018). In research that investigates the combination of writing instruction and self-regulated learning skills instruction, research shows that instructional approaches where self-regulated learning skills like goal-setting and self-assessment were taught as a supplement for writing skills produced an effect size of 0.50, which was a greater effect size than instruction where self-regulated learning skills were not a factor (Graham et al., 2012).

Individualized support. Qualitative data from this study indicates that self-regulated learning skills were improved because the blended learning environment afforded students the opportunity to receive individualized support as they learned and practiced new skills in academic self-regulated learning skills. Several existing studies indicate that the implementation of blended learning may help boost student self-regulated learning skills due to the necessity of applying these skills during independent online learning, while still affording students face-to-face time to receive guidance with these skills (Danker, 2015; Engin, 2014; Larsen, 2012). Rasheed et. al. (2020) found that, in flipped classrooms where students received instruction and support in self-regulated learning skills and academic content, both self-regulated learning skills and academic skills were increased more than in classrooms that did not offer students support in developing their skills of self-regulated learning skills. Furthermore, research on Self-Regulated Strategy Development (SRSD), a model for writing instruction which encourages the dual teaching of writing strategies and explicit instruction in self-regulated learning skills, indicates that students who receive explicit, individualized instruction in academic self-regulated learning skills more effectively learned self-regulated learning skills that were transferable to different

content areas (Ray & Graham, 2019). Furthermore, research suggests the explicit instruction of self-regulated learning skills in a digital learning environment may enable special needs and language learners to more effectively and equitably access academic curricula due, in part, to individualized assistance in learning how to practice goal-setting, self-pacing, and self-assessment.

Goal-setting and identification of weaknesses. Qualitative data from this intervention also suggests writing conferences in a blended learning environment led to student gains in the forethought areas of Zimmerman's model of self-regulated learning skills, especially in goal-setting (Zimmerman, 2000). This finding is supported by existing research. Ray and Graham (2019) suggest that the implementation of SRSD writing instruction, coupled with opportunities for students to practice skills independently and receive targeted feedback, can lead to increases in student ability to independently assess their own writing weaknesses and develop goals to address those weaknesses because students learn how to plan their writing. This was a feature of the independent, online lessons developed as part of the blended learning unit for this study. Rasheed et. al. (2020) also found that students in a flipped learning environment learn to better apply self-regulated learning skills, like goal-setting and self-assessment of needs and weaknesses, better than students in a traditional learning environment because they must learn to apply those skills independently as part of the independent, digital portion of their learning.

Transition to active learning. One thing revealed in the qualitative data for this study is that students struggled somewhat with transitioning from a traditional, passive, whole group instructional model to a more active, student-driven model. Students

initially struggled with making decisions for their own learning, analyzing their task to determine what to do, monitoring their progress, and other self-regulated learning skills skills. Previous research also suggests that students may initially struggle with this transition between learning models. Larsen (2012) and Culbertson (2018) both found that students needed explicit training in self-regulated learning skills, such as time management, task analysis, and goal-setting, before the implementation of blended learning in order for the more active learning model to be effective. Other research indicates that students perform best academically and in their application of self-regulated learning skills when they already possess strong self-regulated learning skills (Al-Abdullatif, 2020). Other studies suggest that student perceptions of learning as a traditional, passive environment prevent successful implementation of self-regulated learning skills or the blended learning model and that time must be invested in training all stakeholders prior to implementing shifts in learning in order for such interventions to be successful (Banditvlai, 2016; Larsen, 2012; Simmins et. al, 2020). This previous research supports the struggle with the transition revealed in this intervention by proposing possible explanations for the student struggles with adjusting to more active learning models.

Challenges with self-assessment. The component of self-regulated learning skills students struggled with most in this intervention was in the area of self-assessment. Prior research supports this finding. Robbins et. al. (2020) found that, in their implementation of the flipped learning environment with the writing curriculum, students' self-regulated learning skills skills, most notably in the area of self-assessment, decreased except in environments where peer learning was implemented within the new learning model.

Furthermore, Orluwene et. al. (2020) found that students best learn skills of self-regulated learning skills when the learning environment employs a mix of self- and peer-assessment, since the opportunity to discuss assessment with peers allows students to develop a deeper understanding of the processes involved in self-assessment. The intervention designed for this study did not implement any peer learning opportunities, which may explain the struggle among students to master skills of self-assessment.

This study offers insight into the use of blended learning and writing conferences to address student writing and self-regulated learning skills skills. Quantitative and qualitative findings indicate that blended learning combined with face-to-face writing conferences may help improve student writing skills as a result of individualized support, opportunities to pre-learn and practice skills, and a shift to focus on writing as a process that includes targeted feedback and revision. Qualitative data suggests that this intervention may also lead to a boost in the self-regulated learning skills skills of goal-setting and progress monitoring, though quantitative data on this research question was statistically non-significant.

Implications

This study used action research to gather data through mixed methods, and it has influenced my teaching of writing skills and self-regulated learning with high school students by prompting a deep analysis of instructional methods and curriculum design. I have been able to carefully examine aspects of the intervention which worked well to improve students' writing and self-regulated learning skills skills, as well as some aspects which did not work well. The findings of this study are significant for future curriculum design and teaching practice in the areas of blended learning, writing instruction, and the

incorporation of self-regulated learning into the English curriculum. First, the findings suggest that the teaching of self-regulated learning skills through a blended learning environment can lead to an improvement in writing skills. Second, this study has informed decisions for my classroom instruction as well as for decisions made department wide with regards to revising the current curriculum. Third, findings may be used to drive future research or development of writing curricula. The next three sections will describe 1) personal implications of the study, 2) implications for curriculum design, and 3) recommendations for future research.

Personal Implications

Through this study, I have found a number of personal implications which will have a lasting impact on both my academic and professional practice. While there have been numerous personal implications, this section will focus on discussing 1) lasting scholarly experiences and 2) teaching practice.

Lasting scholarly experiences. My work on this dissertation has left me with lasting knowledge in academic research and data analysis. This dissertation has introduced me to work with statistics and quantitative data analysis, which is an area of my previous educational experiences that was missing. While there is still significant room for growth in the area of statistical analysis, I feel confident in my ability to interpret the results of basic statistical tests thanks to the guidance of my dissertation chair. Prior to this dissertation process, my comfort with statistical analysis was almost exclusively limited to examining means and medians. Because of this lack of familiarity with quantitative data and statistical analysis, I selected a survey for this study based on the wording of the Likert items and how I felt my students would do with comprehending

the survey questions, rather than the reliability measures presented in the research. I am now equipped with an understanding of descriptive statistics, parametric and nonparametric results, normality, and statistical significance, as well as how these types of quantitative data are tested, analyzed, and interpreted. I am also better equipped to select appropriate instruments for use in future studies. This new skill has personal implications for future scholarly research, as I look forward to being able to add more analytical depth to any future studies I may be involved with.

This process has also instilled in me a deeper understanding of precise use of academic terms, theories, and research processes. When I initially approached this process with my background as an English major, I found that much of the academic vocabulary was similarly worded or that I paraphrased material imprecisely. I spent a lot of time in this process misinterpreting educational theories and learning models because I assumed changing words did not alter the meaning. As a result of this process, I have learned that, in the realm of educational research, precise and exact wording is critical to maintaining an accurate explanation of research conducted in this field. It has forced me to ensure throughout the process that I do not alter meanings or improperly implement a model or theory by making minor changes in word choice. I have developed a much better understanding of paying attention to detail as a result.

Teaching practice. This process has also left me with a lasting impression of how to improve in my practice as a classroom teacher. During the intervention, I was able to observe how much better equipped students with strong self-regulated learning skills are to succeed in the high school classroom, especially with tasks which require high levels of independence. I have also been able to observe how many of my students

struggle to develop these critical skills. From working on this dissertation, I have a much clearer idea of how to incorporate thinking and learning skills into my curriculum, and I have been exposed to new research that has made me increasingly aware that, in order to better teach my content, I must build in opportunities for students to learn and practice self-regulated learning skills.

This dissertation process has also afforded me the opportunity to understand what my students feel when they struggle with academic skills and concepts. For much of this program, I have felt like I was incapable of getting the process or the wording right, and that there was a critical part of my education that was missing in order to feel successful. Through this struggle, I have gained important insight into the struggles of my students who are not always equipped to verbalize what their struggles are. Because of this, I have attained critical new empathy skills that will allow me to better serve my future students.

Curriculum Design Implications

This research evaluated the effects of individualized writing conferences in a blended learning environment on students' writing and self-regulated learning skills. Both quantitative and qualitative data indicate an increase in writing skills, while qualitative data supports a slight increase in self-regulated learning skills. This data poses several implications for curriculum design. These implications are most prominently in the areas of 1) curriculum design and 2) integrating academic content and self-regulated learning skills instruction.

Curriculum design. The findings of this study can help inform the design of writing curricula for high school students. The design of this unit featured online, goals-based writing lessons with face-to-face writing conferences. The unit emphasized writing

as a process with students developing multiple drafts of a single essay to develop skills. The change in score from the pre-assessment ($M = 1$, $SD = 1$) to the post-assessment ($M = 30$, $SD = 70$) and qualitative data from student interviews indicate that this could be a good way to deliver writing instruction in a way that improves student writing skills. However, because this unit lasted only 15 classes, students did not have the opportunity to develop goals for all writing skills addressed in the South Carolina ELA Standards for Writing (South Carolina Department of Education, 2015). The implication here is that designing a writing curriculum that is goals-based and focuses on the writing process will need to encompass a longer duration of time than traditional writing units. This will enable students to have time to work through their goals and revise issues with their writing in order to more effectively apply skills. The data from the intervention also suggests that student writing skills improve when the curriculum design provides time for students to discuss their writing and revise work.

Integrating academic content and self-regulated learning skills instruction.

Another implication of this study highlights the need for more teaching of self-regulated learning skills in advance of implementing the blended learning model. Qualitative data revealed that students struggled initially with applying self-regulated learning skills, especially goal-setting, progress monitoring, and self-assessment, because these were not skills they had previous experience applying. The intervention also leaves room to speculate that explicitly teaching students to apply academic self-regulated learning skills to their work may make the transition to more active, student-driven learning models more effective because students would already be familiar with the skills needed to successfully complete tasks independently.

Implications for Future Research

The findings of this study offer implications for future research. This study can be used as part of the groundwork for future studies in analyzing the impact of self-regulated learning skills, blended learning, and writing conferences on writing instruction in the high school setting. These possible implications can be divided into the following categories: 1) updated curriculum and lasting effects.

Updated curriculum. In accordance with action research (Creswell, 2014; Mertler, 2017), the curriculum implemented in this study could be improved and tested. In the previous section, possible changes to the intervention and recommendations for curriculum design and implementation were discussed. In follow-ups to this study, future research could implement these changes to analyze the effects of the updated curriculum on student writing and self-regulated learning skills skills. For example, the study could be conducted over a longer period of time or in a setting where self-regulated learning skills skills are a pre-existing part of the curriculum. Additional research could also be conducted to analyze the effect of the intervention in a writing unit that focuses on authentic writing tasks rather than a formal essay. Finally, further research could be conducted into the impact of peer learning on students' writing and self-regulated learning skills skills in the blended learning environment.

Lasting effects. Further research into the lasting events of this intervention is another area for possible future research. The findings of this study suggest that blended learning with face-to-face writing conferences may help increase student writing skills and self-regulated learning skills skills in high school students. Further research could be conducted to determine whether the intervention leads to lasting gains in writing and self-

regulated learning skills skills. Additional research could also be conducted to investigate whether the skills acquired through the intervention leads to writing gains in other content areas or in cross-curricular units.

Limitations

While this study provides insights into possible implications for the implementation of face-to-face writing conferences in a blended learning environment as a way to increase student writing and self-regulated learning skills skills, there are a number of limitations to this study. The limitations present areas to be addressed through further research. The following limitations will be outlined as they relate to 1) methodology, 2) context, 3) participants, and 4) the researcher.

Methodology

One limitation associated with this study stems from its classification as action research. While action research is a systematic research process that employs planning, action, and reflection (Mertler, 2017), research of this nature is highly contextualized, and data may not be suitable for generalization beyond the original research setting. Action research is not intended to produce conclusive results but rather a set of possible solutions based on observations and data that are applicable to a specific setting (Mertler, 2017).

Furthermore, this study did not employ an experimental research design, which further limits generalizability of the data. This study followed the ethical concept that all participants receive the same treatment (Creswell, 2014). Because of these circumstances, no hypotheses were tested, nor was there a set control environment against which to measure results. This makes generalization of results problematic due to the possibility of

unforeseen variables impacting the results. Further research into this topic should include experimental designs to generate generalizable data.

Another limitation associated with this study stems from the use of the Self-Regulation Formative Questionnaire. It is possible that participants did not have enough knowledge of self-regulated learning skills or their own learning to accurately respond to the items on the survey. This could have led to skewed survey data which did not reflect the actual self-regulated learning skills of the participants in this study.

Furthermore, the survey was selected for use in this intervention due to its currency and the fact that the survey items were phrased to be specific to self-regulated learning skills in writing and for the age group associated with this intervention. The reliability scores for the subscales in the survey were low, which could have also led to skewed survey data. Further research is needed to determine the reliability of the survey, as well as the reliability in general of using surveys on self-regulated learning skills with this age group, which might not be aware enough of the metacognitive processes involved with self-regulated learning skills to accurately respond to the survey items.

Participants were informed that they should answer the assessment, survey, and interview questions honestly and not simply the way they felt I wanted them to; however, there is no way to know for sure that this occurred. Furthermore, because I was acting as both researcher and instructor I was a direct participant in all class activities, rather than an uninvolved observer. It is possible that some interactions were missed over the course of the intervention while I was working with other students. It is possible to overcome these limitations by conducting future research with independent instructors and researchers. Finally, this study used mixed methods to collect data, and as such, features

qualitative data to inform the study (Creswell, 2014). Interpretations of qualitative data are subjective and are the result of the researcher examining them through her own personal lens (Creswell, 2014; Mertler, 2017). While every attempt was made to limit subjectivity and improve the trustworthiness of the data, it is possible that another researcher might interpret the qualitative data differently due to his or her own subjectivities.

Context

Another limitation of this study stems from the lack of baseline knowledge among between participants' prior knowledge of writing, self-regulated learning skills, and familiarity with academic work on the computer. This led to students having different amounts of face-to-face time in the early phases of the intervention. It also caused some students to spend more time and cognitive energy early on learning how to navigate the online lessons and complete the self-regulated learning skills tasks in Google Classroom, which may have affected their ability to progress with their writing skills.

Participants

Another limitation to this study lies with the participants in the study. The sample size for this study is limited in size by the course cap. While the demographic makeup within the pool of participants is fairly evenly distributed in race, ethnicity, and sex, the sample size is small and not likely to be generalizable beyond the classroom where the study was conducted. Further research on the effects of blended learning and conferences on writing and self-regulated learning skills with a larger and more diverse group of participants is necessary in order to acquire generalizable data. Adding more research

sites and incorporating random sampling should be used in order to improve limitations related to the sample size.

Another limitation to this study's participants lies in the stress created for the participants as they navigated the changes to school during the Covid-19 pandemic. Prior to the regulations put in place to limit the spread of the virus, many students did not participate in classes that required any use of technology, and in several cases, students had no access to internet and very limited proficiency in using technology, like Chromebooks, for academic purposes. As a result of the pandemic, participants were faced with the stress of learning to use an entirely new set of skills, materials, and learning models in order to succeed in school. The students at the school where this study was conducted had also undergone multiple changes to their class schedules and their school schedules as the district policies related to the number of days students were in school face-to-face shifted from two days in a cohort model to three days of in-person education. Additionally, during the time this study was conducted, the school district was experiencing a spike in the numbers of students, teachers, and staff being quarantined for exposure to the virus. The combined effect of all the changes to the school routine and the uncertainty related to working through the pandemic may have affected the outcomes of the study.

Conclusions

This research study was devised to examine answers to two research questions:

1. How does the supplemental use of writing conferences in a blended learning setting with digital Google Classroom instruction affect the writing skills of high school students?

2. How do supplemental writing conferences in a blended learning environment with digital Google Classroom instruction affect students' self-regulated learning skills?

Findings from the intervention suggest that implementing blended learning into the high school writing curriculum leads to an increase in both writing skills and self-regulated learning skills for high school students. While more research is certainly needed to find definitive answers to these questions, this study certainly offers insight into blended learning, writing conferences, writing skills, and self-regulated learning in high school. Previous research has highlighted both an extreme need to understand and update how writing instruction is addressed and a scarcity of research in this area, especially in the general ELA high school setting and especially in the wake of COVID-19. The pandemic has caused stark shifts in many of society's day-to-day functions—not the least of which is the way students access and learn information, highlighting a need to better implement digital, independent learning that not only provides students with access to content knowledge, but also to an understanding of how to learn, self-regulate, and succeed in 21st century life. Written communication and self-regulated learning skills are an integral part of success in academia, the workforce, and daily life, and these are skills which this study has explored in an attempt to offer insight into better preparing high school students for life beyond high school.

REFERENCES

- ACT. (2018). *The condition of college and career readiness* (National Report No. MR00912). American College Testing.
<https://www.act.org/content/dam/act/unsecured/documents/cccr2018/National-CCCR-2018.pdf>
- Al-Abdullatif, A. M. (2020). Investigating self-regulated learning and academic achievement in an eLearning environment: The case of K-12 flipped classroom. *Cogent Education*, 7(1), 1835145.
- Alcoser, M. E. (2017). *Intentional implementation: A self-study examining and evaluating instructional implementation of digital tools to foster academic writing in the english secondary classroom* [Doctoral Dissertation]. University of Maryland.
- Alexandre, J., & Enslin, C. (2017). The relationship between personalized instruction, academic achievement, knowledge application, and problem-solving skills. *National Teacher Education Journal*, 10(1), 5–15.
- Alvarez, B. (2012). Flipping the classroom: Homework in class, lessons at home. *Education Digest: Essential Readings Condensed for Quick Review*, 77(8), 18–21.
- Andrade, H. L., & Cizek, G. J. (2010). Students as the Definitive Source of Formative Assessment: Academic Self-Assessment and the Self-regulated learning skills of Learning. *NERA Conference Proceedings 2010*, 19.

- Applebee, A. N., & Langer, J. A. (2011). A snapshot of writing instruction in middle schools and high schools. *The English Journal*, 100(6), 14–27.
<https://doi.org/10.2307/23047875>
- Banditvilai, C. (2016). Enhancing students' language skills through blended learning. *The Electronic Journal of E-Learning*, 14(3), 220–229.
- Baumeister, R. F., & Vohs, K. D. (2004). *Handbook of self-regulated learning skills: Research, theory, and applications*. Guilford Press.
- Bauwens, A. (2010). The use of method triangulation in probation research. *European Journal of Probation*, 2(2), 39–52. <https://doi.org/10.1177/206622031000200204>
- Bayraktar, A. (2012). Teaching writing through teacher-student writing conferences. *Procedia - Social and Behavioral Sciences*, 51, 709–713.
<https://doi.org/10.1016/j.sbspro.2012.08.229>
- Beach, R. (2012). Uses of digital tools and literacies in the english language arts classroom. *Research in the Schools*, 19(1), 45–59.
- Bernard, H. R., Wutich, A., & Ryan, G. W. (2017). *Analyzing qualitative data: Systematic approaches* (2nd ed.). SAGE.
- Birks, M., Chapman, Y., & Francis, K. (2008). Memoing in qualitative research: Probing data and processes. *Journal of Research in Nursing*, 13(1), 68–75.
<https://doi.org/10.1177/1744987107081254>
- Bland, J. M., & Altman, D. G. (1995). Multiple significance tests: The Bonferroni method. *BMJ*, 310(170).
- Boekaerts, M., Pintrich, P. R., & Zeidner, M. (2000). *Handbook of self-regulated learning skills*. Academic.

- Bonk, C. J., & Sugar, W. A. (1998). Student role play in the world forum: Analyses of an arctic adventure learning apprenticeship*. *Interactive Learning Environments*, 6(1–2), 114–142. <https://doi.org/10.1076/ilee.6.1.114.3611>
- Bourelle, T. (2012). Bridging the gap between the technical communication classroom and the internship: Teaching social consciousness and real-world writing. *Journal of Technical Writing and Communication*, 42(2), 183–197. <https://doi.org/10.2190/TW.42.2.f>
- Bowerman, B., & O’Connell, R. (2007). *Business Statistics in Practice*. McGraw-Hill Irwin Publishing Co.
- Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper (Ed.), *APA Handbook of Research Methods in Psychology* (Vol. 2, pp. 57–71). American Psychological Association.
- Camahalan, F. M. G., & Ruley, A. G. (2014). Blended learning and teaching writing: A teacher action research project. *Journal of Instructional Pedagogies*, 15, 1–13.
- Carr, W. (2006). Philosophy, methodology and action research. *Journal of Philosophy of Education*, 40(4), 421–435.
- Carter, A. M. (2018). *An eye toward change: Examining requests in teacher-student writing conferences* [Doctoral Dissertation]. Indiana University of Pennsylvania.
- Chin, J. (2015). *Highlight Tool* [Google]. Jason Chin. https://jsonchin.github.io/highlight_tool/index.html
- Chung, G. K. W. K., Delacruz, G. C., Dionne, G. B., Baker, E. L., Lee, J., & Osmundson, E. (2007). Towards individualized instruction with technology-enabled tools and

- methods. *Online Submission*. Annual Meeting of the American Educational Research Association, Chicago, IL.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Nature (2nd ed., Vol. 506). Lawrence Erlbaum Associates. <https://doi.org/10.1038/506274a>
- College Entrance Examination Board. (2016). *2016 college-bound seniors: Total group profile* (National Report No. 1966–67). <https://secure-media.collegeboard.org/digitalServices/pdf/sat/total-group-2016.pdf>
- Collins, A. B., Brown, J.S & Newman, S.E. (1989). Cognitive apprenticeship: Teaching the craft of reading, writing and mathematics. *Resnick, LB Knowing, learning and instruction*, 453-494.
- Creswell, J. W. (2007). *An Introduction to Mixed Methods Research* [PowerPoint]. SSP, University of Nebraska--Lincoln.
- <file:///C:/Users/ladya/Desktop/Introduction%20to%20Mixed%20Methods.pdf>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications, Inc.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and Conducting Mixed Methods Research* (3rd ed.). SAGE.
- Culbertson, P. (2018). *High school blended learning courses: Teacher beliefs, perceptions of experiences, and recommendations* [Doctoral Dissertation]. State University of New York.

- Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology, 100*(4), 907–919.
<https://doi.org/10.1037/a0012656>
- Dailey, E. M. (1991). *The relative efficacy of cooperative learning versus individualized learning on the written performance of adolescent students with writing problems* [Doctoral Dissertation]. Johns Hopkins University.
- Danker, B. (2015). Using flipped classroom approach to explore deep learning in large classrooms. *IAFOR Journal of Education, 3*(1), 171–186.
<https://doi.org/10.22492/ije.3.1.10>
- DeMott, M. L. (2006). *Writing conference interaction and scaffolding: The possible and the actual* [Doctoral Dissertation]. Auburn University.
- Dennen, V. P., & Burner, K. J. (2004). The cognitive apprenticeship model in educational practice. In *Handbook of research on educational communications and technology* (Vol. 3, pp. 425–439). Lawrence Erlbaum.
- Dewey, J. (1963). *Experience and education*. Collier Books.
- Dudley-Marling, C., & Paugh, P. (2009). A classroom teacher's guide to struggling writers. Portsmouth, NH: Heinemann.
- Engin, M. (2014). Extending the flipped classroom model: Developing second language writing skills through student-created digital videos. *Journal of the Scholarship of Teaching and Learning, 14*(5), 12–26. <https://doi.org/10.14434/josotlv14i5.12829>
- Ewert, D. E. (2009). L2 writing conferences: Investigating teacher talk. *Journal of Second Language Writing, 18*(4), 251–269.
<https://doi.org/10.1016/j.jslw.2009.06.002>

- Fanetti, S., Bushrow, K. M., & Deweese, D. L. (2010). Closing the gap between high school writing instruction and college writing expectations. *The English Journal*, 99(4), 77–83.
- Ferdig, R., Cavanaugh, C., & Freidhoff, J. (2012). *Lessons learned from blended learning programs: Experiences and recommendations*. iNACOL, Vienna, V. A.
- Flaherty, A. (2019). *The use of writing conferences to improve writing skills* [Doctoral Dissertation]. Brenau University.
- Flanagan, S. M., & Bouck, E. C. (2015). Supporting written expression in secondary students with a series of procedural facilitators: A pilot study. *Reading and Writing Quarterly*, 31(4), 316–333.
<https://doi.org/10.1080/10573569.2013.857975>
- Gaumer Erickson, A. S., & Noonan, P. M. (2018). Self-regulation formative questionnaire. In *The skills that matter: Teaching interpersonal and intrapersonal competencies in any classroom* (pp. 177–178). Corwin Press.
- Gibbons, J. D., & Chakraborti, S. (2011). *Nonparametric statistical inference* (5th ed.). Boca Raton, FL: Taylor & Francis Group, LLC.
- Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, 204(6), 291–295. <https://doi.org/10.1038/bdj.2008.192>
- Goldstein, L. M., & Conrad, S. M. (1990). Student input and negotiation of meaning in ESL writing conferences. *TESOL Quarterly*, 24(3), 65–85.

- Graham, S. (2006). Writing. In *Handbook of educational psychology* (2nd ed., pp. 457–478). Routledge.
- Graham, S. (2019). Changing how writing is taught. *Review of Research in Education* 43.1, 277-303.
- Graham, S., Capizzi, A., Harris, K. R., Hebert, M., & Morphy, P. (2014). Teaching writing to middle school students: A national survey. *Reading and Writing*, 27(6), 1015–1042. <https://doi.org/10.1007/s11145-013-9495-7>
- Graham, S., & Harris, K. R. (1996). Self-regulated learning skills and strategy instruction for students who find writing and learning challenging. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 347–360). Routledge.
- Graham, S., Harris, K. R., & Mason, L. (2005). Improving the writing performance, knowledge, and self-efficacy of struggling young writers: The effects of self-regulated strategy development. *Contemporary Educational Psychology*, 30(2), 207–241. <https://doi.org/10.1016/j.cedpsych.2004.08.001>
- Graham, S., McKeown, D., Kiuahara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology*, 104(4), 879–896. <https://doi.org/10.1037/a0029185>
- Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, 99(3), 445–476. <https://doi.org/10.1037/0022-0663.99.3.445>

- Graham, S., & R. Harris, K. R. (2000). The role of self-regulated learning skills and transcription skills in writing and writing development. *Educational Psychologist*, 35(1), 3–12. https://doi.org/10.1207/S15326985EP3501_2
- Graves, D. H. (1985). All children can write. *Learning Disabilities Focus*, 1(1), 36–43.
- Hammann, L. (2005). Self-regulated learning skills in Academic Writing Tasks. *International Journal of Teaching and Learning in Higher Education*, 17(1), 15–26.
- Harper, M., & Cole, P. (2012). Member checking: Can benefits be gained similar to group therapy? *The Qualitative Report*, 17(2), 510–517.
- Harris, K. R., & Graham, S. (1992a). *Helping young writers master the craft: Strategy instruction and self-regulated learning skills in the writing process*. Brookline Books.
- Harris, K. R., & Graham, S. (1992b). Self-regulated strategy development: A part of the writing process. In *Promoting academic competence and literacy in school* (pp. 277–309). Academic Press.
- Harris, K. R., & Graham, S. (1994). Constructivism: Principles, paradigms, and integration. *The Journal of Special Education*, 28(3), 233–247.
- Harris, K. R., Graham, S., Brindle, M., & Sandmel, K. (2009). Metacognition and children's writing. In *Handbook of metacognition in education* (pp. 131–153).
- Harris, K. R., & Pressley, M. (1991). The nature of cognitive strategy instruction: Interactive strategy construction. *Exceptional Children*, 57(5), 392–404.
- Harris, M. (1986). *Teaching one-to-one: The writing conference*. National Council of Teachers of English.

- Healey, B. (2019). A linguistic toolkit for writing conferences. *Literacy Learning: The Middle Years*, 27(2), 1–13.
- Hogg, R. V., Tanis, E. A., & Zimmerman, D. L. (2015). *Probability and statistical inference* (9th ed.). Pearson.
- Hung, D. W. L. (1999). Activity, apprenticeship, and epistemological appropriation: Implications from the writings of Michael Polanyi. *Educational Psychologist*, 34(4), 193–205.
- Hwang, G. J., & Chang, C. Y. (2020). Facilitating decision-making performances in nursing treatments: a contextual digital game-based flipped learning approach. *Interactive Learning Environments*, 1-16.
- Johnson, R. B., & Christensen, L. (2019). *Educational research: Quantitative, qualitative, and mixed methods approaches* (4th ed.). SAGE Publications, Inc.
- Juarez, L. M. (2014). *Transforming literacy instruction: Exploring pre-service teachers' integration of tablet technology in reading, comprehension, and writing* [Doctoral Dissertation]. Texas A&M University.
- Keiner, J. F. (2017). *Padagogy and process: A case study of writing in a hybrid learning model* [Doctoral Dissertation]. Indiana University of Pennsylvania.
- Kiuhara, 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. <https://doi.org/10.1037/a0013097>
- Kramer-Simpson, E. (n.d.). *Learning from feedback: How students read, interpret, and use teacher written feedback in the composition classroom*. 197.

- Krefting, L. (1991). Rigor in Qualitative Research: The Assessment of Trustworthiness. *American Journal of Occupational Therapy*, 45(3), 214–222.
<https://doi.org/10.5014/ajot.45.3.214>
- LaMorte, W. W. (2017). [Boston University School of Public Health]. Nonparametric Tests: Wilcoxon Signed Rank Test. http://sphweb.bumc.bu.edu/otlt/mph-modules/bs/bs704_nonparametric/BS704_Nonparametric6.html
- Larsen, L. J. E. (2012). *Teacher and student perspectives on a blended learning intensive English program writing course* (p. 3437741) [Doctor of Philosophy, Iowa State University, Digital Repository]. <https://doi.org/10.31274/etd-180810-1937>
- Li, J. (2019). An analysis of the teaching methods for english writing in high school from the perspective of constructivism learning theory. *Proceedings of the 2nd International Conference on Contemporary Education, Social Sciences and Ecological Studies (CESSSES 2019)*, 356, 376–381. <https://doi.org/10.2991/cesses-19.2019.89>
- Lietz, C. A., & Zayas, L. E. (2010). Evaluating qualitative research for social work practitioners. *Advances in Social Work*, 11(2), 188–202.
<https://doi.org/10.18060/589>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. SAGE Publications, Inc.
- Lutz, S. T., & Huitt, W. G. (2004). Connecting cognitive development and constructivism: Implications from theory for instruction and assessment. *Cognitivism in the Human Sciences*, 9(1), 67–90.

- Martin, J., & McLellan, A. (2008). The educational psychology of self-regulated learning skills: A conceptual and critical analysis. *Studies in Philosophy and Education*, 27(6), 433–448. <https://doi.org/10.1007/s11217-007-9060-4>
- Mason, L. H., & Graham, S. (2008). Writing instruction for adolescents with learning disabilities: Programs of intervention research. *Learning Disabilities Research & Practice*, 23(2), 103–112. <https://doi.org/10.1111/j.1540-5826.2008.00268.x>
- McBride, R., & King, V. (2010). Improving writing skills using blogging in the elementary classroom: Choosing tools they use. *Society for Information Technology & Teacher Education International Conference*, 2768–2774.
- Mcdonald, J. H. (2009). *Handbook of biological statistics* (2nd ed.). Sparky House Publishing.
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies* (No. ED505824). U.S. Department of Education.
- Mertler, C. A. (2017). *Action research: Improving schools and empowering educators* (5th ed.). SAGE Publications, Inc.
- Meyer, D. K., & Turner, J. C. (2002). Using instructional discourse analysis to study the scaffolding of student self-regulated learning skills. *Educational Psychologist*, 37(1), 17–25. https://doi.org/10.1207/S15326985EP3701_3
- Miles, M. B., Huberman, A. M., & Saldana, J. (1994). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). SAGE.
- Mills, G. E. (2011). *Action research: A guide for the teacher researcher* (4th ed.). Pearson.

- Mo, Y., Kopke, R. A., Hawkins, L. K., Troia, G. A., & Olinghouse, N. G. (2014). The neglected “r” in a time of Common Core. *The Reading Teacher*, 67(6), 445–453.
<https://doi.org/10.1002/trtr.1227>
- Moos, D. C., & Ringdal, A. (2012). Self-regulated learning in the classroom: A literature review on the teacher’s role. *Education Research International*, 2012, 1–15.
<https://doi.org/10.1155/2012/423284>
- Myroup, S. (2020). Writing conferences for effective instruction. *Virginia English Journal*, 70(1), 8.
- Nanni, A., Hooper, D., & Hale, C. C. (2018). Conversation analysis in language teacher education: A approach for reflection through action research. *Hacettepe University Journal of Education*, 33, 54–71.
<https://doi.org/10.16986/HUJE.2018038796>
- National Center for Education Statistics. (2012). *The nation’s report card: Writing 2011* (NCES 2012-470). Institute of Education Sciences, U.S. Department of Education.
- National Writing Project, & Nagin, C. (2012). *Because writing matters: Improving student writing in our schools*. John Wiley and Sons.
- Nickel, J., Power, B. M., & Hubbard, R. S. (2001). When writing conferences don’t work: Students’ retreat from teacher agenda. *Language Arts*, 79(2), 136.
- Nystrand, M. (1990). Sharing words: The effects of readers on developing writers. *Written Communication*, 7(1), 3–24.
<https://doi.org/10.1177/0741088390007001001>

- Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research and Method in Education*, 5(6), 66–70.
- Orluwene, G., & Ekim Dick Ekim, R. (2020). Promoting self-regulated learning through self-and peer assessment techniques among secondary school students. *International Journal of Arts and Commerce*, 9(4), 1-16.
- Palikas, L. A., Horowitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2013). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42, 533–544.
- Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, 8, 1–28.
<https://doi.org/10.3389/fpsyg.2017.00422>
- Panadero, E., & Alonso-Tapia, J. (2017). Self-assessment: Theoretical and practical connotations. When it happens, how is it acquired, and what to do to develop it in our students. *Electronic Journal of Research in Education Psychology*, 11(30).
<https://doi.org/10.14204/ejrep.30.12200>
- Pappas, P. A., & DePuy, V. (2004). An overview of non-parametric tests in SAS: When, Why, and How. *Duke Clinical Research Institute*. Durham: North Carolina.
Retrieved from <http://analytics.ncsu.edu/sesug/2004/TU04-Pappas.pdf>.
- Paroussi, M. (2014). Blogging in a blended-learning pedagogical model, as a medium for the enhancement of 6th grade primary school learners' writing skills and e-literacies. *Research Papers in Language Teaching and Learning*, 5(1), 181–198.

- Piaget, J. (1950). *The psychology of intelligence*. Routledge and Paul.
- Picciano, A. G., Dziuban, C. D., & Graham, C. R. (2014). *Blended learning: Research perspectives* (Vol. 2). Routledge.
- Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In *Handbook of Self-regulated learning skills* (pp. 451–502). Elsevier.
<https://doi.org/10.1016/B978-012109890-2/50043-3>
- Ponce, O. A., & Pagán-Maldonado, N. (2015). Mixed methods research in education: Capturing the complexity of the profession. *International Journal of Educational Excellence*, 1(1), 111–135. <https://doi.org/10.18562/IJEE.2015.0005>
- Poon, J. (2013). Blended learning: An institutional approach for enhancing students' learning experiences. *Journal of Online Teaching and Learning*, 9(2), 271–289.
- Pressley, M., Harris, K. R., & Marks, M. B. (1992). But good strategy instructors are constructivists! *Educational Psychology Review*, 4(1), 3–31.
- Prior, P. (2006). A sociocultural theory of writing. In *Handbook of Writing Research* (pp. 54–66). Guilford Press.
- Pytash, K. E., & O'Byrne, W. I. (2014). Research on literacy instruction and learning in virtual, blended, and hybrid environments. In *Handbook of research on K-12 online and blended learning* (pp. 179–200). ETC Press.
- Rasheed, R. A., Kamsin, A., Abdullah, N. A., Kakudi, H. A., Ali, A. S., Musa, A. S., & Yahaya, A. S. (2020). Self-regulated learning in flipped classrooms: A systematic literature review. *International Journal of Information and Education Technology*, 10(11).

- Ray, A., & Graham, S. (2019). Effective practices for teaching students who have difficulty with writing. *Learning Difficulties Australia Bulletin*, 51(1), 13-16.
- Read, S., & Landon-Hayes, M. M. (2013). The knowing/doing gap: Challenges of effective writing instruction in high school. *Teaching/Writing: The Journal of Writing Teacher Education*, 2(2), 6–14.
- Robbins, M. M., Onodipe, G., & Marks, A. (2020). Reflective writing and self-regulated learning in multidisciplinary flipped classrooms. *Journal of the Scholarship of Teaching & Learning*, 20(3).
- Roth, A., Ogrin, S., & Schmitz, B. (2016). Assessing self-regulated learning in higher education: A systematic literature review of self-report instruments. *Educational Assessment, Evaluation and Accountability*, 28(3), 225–250.
<https://doi.org/10.1007/s11092-015-9229-2>
- Sagy, J., Ravi, R., & Ananthasayanam, R. (2009). Mastery learning through individualized instruction: A reinforcement strategy. *Journal on School Educational Technology*, 4(4), 46–49. <https://doi.org/10.26634/jsch.4.4.533>
- Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Santangelo, T., Harris, K. R., & Graham, S. (2007). Self-regulated strategy development: A validated model to support students who struggle with writing. *Learning Disabilities*, 5(1), 1–20.
- Schoonenboom, J., & Johnson, R. B. (2017). How to construct a mixed methods research design. *KZfSS Kölner Zeitschrift Für Soziologie Und Sozialpsychologie*, 69(S2), 107–131. <https://doi.org/10.1007/s11577-017-0454-1>

- Schunk, D. H., & Ertmer, P. (2000). Chapter 19—Self-regulated learning skills and academic learning: Self-efficacy enhancing interventions. In *Handbook of Self-regulated learning skills* (pp. 631–649). Academic Press.
- Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self-efficacy and self-regulated learning skills of reading and writing through modeling. *Reading & Writing Quarterly*, 23(1), 7–25. <https://doi.org/10.1080/10573560600837578>
- Schwartz, L. H. (2014). Challenging the tyranny of the five-paragraph essay: Teachers and students as semiotic boundary workers in classroom and digital space: Semiotic boundary workers. *Literacy*, 48(3), 124–135. <https://doi.org/10.1111/lit.12021>
- Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (3rd ed). Teachers College Press.
- Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research*, 10(4), 319–334. <https://doi.org/10.1177/1558689815575861>
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63–75. <https://doi.org/10.3233/EFI-2004-22201>
- Shih, R.-C. (2011). Can Web 2.0 technology assist college students in learning English writing? Integrating Facebook and peer assessment with blended learning. *Australasian Journal of Educational Technology*, 27(5). <https://doi.org/10.14742/ajet.934>

- Simmons, J. A. M. (1979). *Testing the effectiveness of the one-to-one method of teaching composition* (No. ED261725). Los Angeles Community College.
- Simmons, M., Colville, D., Bullock, S., Willems, J., Macado, M., McArdle, A., ... & Reser, D. (2020). Introducing the flip: A mixed method approach to gauge student and staff perceptions on the introduction of flipped pedagogy in pre-clinical medical education. *Australasian Journal of Educational Technology*, 36(3), 163-175.
- Soiferman, L. K. (2017a). *Teaching high school students how to write: The importance of direct explicit instruction and teacher training* (Evaluative No. ED572369; p. 25). ERIC Online Submission.

<https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED572369>
- Soiferman, L. K. (2017b). *The importance of direct explicit instruction and teacher training*.
- South Carolina Department of Education. (2015). *South Carolina college- and career-ready standards for English Language Arts*. South Carolina Department of Education. <https://ed.sc.gov/scdoe/assets/file/programs-services/59/documents/ELA2015SCCCRStandards.pdf>
- South Carolina Department of Education. (2018). *Profile of the South Carolina graduate*. South Carolina Department of Education. <https://ed.sc.gov/about/profile-of-sc-graduate/>
- South Carolina Department of Education. (2018). *2017 report cards: Strom Thurmond High School* [State]. <https://ed.sc.gov/data/report-cards/state-report-cards/2017/opportunities/students/?d=1901&s=002&t=H&y=2017#eval>

- Spillane, J. P., Pareja, A. S., Dorner, L., Barnes, C., May, H., Huff, J., & Camburn, E. (2010). Mixing methods in randomized controlled trials (RCTs): Validation, contextualization, triangulation, and control. *Educational Assessment, Evaluation and Accountability*, 22(1), 5–28. <https://doi.org/10.1007/s11092-009-9089-8>
- Spires, H. A., Hervey, L. G., Morris, G., & Stelpflug, C. (2012). Energizing project-based inquiry: Middle-grade students read, write, and create videos. *Journal of Adolescent & Adult Literacy*, 55(6), 483–493. <https://doi.org/10.1002/JAAL.00058>
- Staker, H., & Horn, M. B. (2012). Classifying k–12 blended learning. *Innovation Institute*, 1–22.
- Stuckey, H. (2015). The second step in data analysis: Coding qualitative research data. *Journal of Social Health and Diabetes*, 3(1), 7–10. <https://doi.org/10.4103/2321-0656.140875>
- Tarnopolsky, O. (2012). *Constructivist blended learning approach: To teaching English for specific purposes*. Versita, Versita Ltd.
- Taylor, C. B. (2010). *A qualitative study of the systemic use of one-on-one teacher-student writing conferences in a secondary environment* [Doctoral Dissertation]. Arizona State University.
- Tharp, R. (1993). Institutional and social context of educational reform: Practice and reform. In Contexts for Learning: Sociocultural Dynamics in Children's Development. In *Contexts for Learning: Sociocultural Dynamics in Children's Development* (pp. 269–282). Oxford University Press.

- Thomas, D. R. (2003). A general inductive approach for qualitative data analysis. *American Journal of Evaluation*, 27(2), 237–246.
- Tobin, M. A. (n.d.). *Guide to Item Analysis*. Schreyer Institute for Teaching Excellence.
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851.
<https://doi.org/10.1177/1077800410383121>
- Tucker, C. R. (2012). *Blended learning in grades 4–12: Leveraging the power of technology to create student-centered classrooms*. Corwin Press.
- University of Washington. (2018). Understanding Item Analyses. Office of Educational Assessment. Retrieved from <http://www.washington.edu/assessment/scanning-scoring/scoring/reports/item-analysis/>.
- USATestPrep. (2019). *English 2 Writing Assessment*. USATestPrep.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Vygotsky, L. S. (1986). *Thought and language*. MIT Press.
- Warfa, A. M. (2016). Mixed-methods design in biology education research: Approach and uses. *CBE—Life Sciences Education*, 15(4), 1–11.
<https://doi.org/10.1187/cbe.16-01-0022>
- Weick, K. E. (2007). The generative properties of richness. *Academy of Management Journal*, 50(1), 14–19. <https://doi.org/10.5465/amj.2007.24160637>
- Weinstein, C. E., Husman, J., & Dierking, D. R. (2000). Self-regulated learning skills interventions with a focus on learning strategies. In *Handbook of Self-regulated learning skills* (pp. 727–747). Academic Press.

- Winne, P. H. (1997). Experimenting to bootstrap self-regulated learning. *Journal of Educational Psychology*, 89(3), 397–410. <https://doi.org/10.1037/0022-0663.89.3.397>
- Winne, P. H. (2011). A cognitive and metacognitive analysis of self-regulated learning: Faculty of education, Simon Fraser University, Burnaby, Canada. In *Handbook of Self-regulated learning and performance* (pp. 29–46). Routledge.
- Winne, P. H., & Hadwin, A. F. (1998). Studying as self-regulated engagement in learning. In *Metacognition in educational theory and practice* (pp. 277–304). Lawrence Erlbaum.
- Wong, B. Y. L., Butler, D. L., Ficzere, S. A., & Kuperis, S. (1996). Teaching low achievers and students with learning disabilities to plan, write, and revise opinion essays. *Journal of Learning Disabilities*, 29(2), 197–212. <https://doi.org/10.1177/002221949602900209>
- Yamalee, E., & Tangkiengsirisin, S. (2019). Effects of integrated feedback on academic writing achievement. *Arab World English Journal*, 10(3), 250–270. <https://doi.org/10.24093/awej/vol10no3.17>
- Zappe, S. E., Leicht, R. M., Messner, J., Litzinger, T., & Lee, H. W. (2009). Flipping the classroom to explore active learning in a large undergraduate course. *ASEE Annual Conference and Exposition, Conference Proceedings*. American Society for Engineering Education Annual Conference and Exposition.
- Zeidner, M., Boekaerts, M., & Pintrich, P. R. (2000). Self-regulated learning skills: Directions and challenges for future research. In *Handbook of self-regulated learning skills* (pp. 749–768). Academic Press.

- Zimmerman, B. (1985). The development of “intrinsic” motivation: A social learning analysis. *Annals of Child Development*, 2, 117–160.
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, 81(3), 329–339.
<https://doi.org/10.1037/0022-0663.81.3.329>
- Zimmerman, B. J. (2000). Attaining self-regulated learning skills: A social cognitive perspective. In *Handbook of Self-regulated learning skills* (pp. 13–39). Elsevier.
- Zimmerman, B. J., & Risemberg, R. (1997). Becoming a Self-Regulated Writer: A Social Cognitive Perspective. *Contemporary Educational Psychology*, 22(1), 73–101.
<https://doi.org/10.1006/ceps.1997.0919>

APPENDIX A

CONSENT AND ASSENT FORM

UNIVERSITY OF SOUTH CAROLINA CONSENT TO BE A RESEARCH SUBJECT

Blended Learning and Goals-Based Writing Instruction

KEY INFORMATION ABOUT THIS RESEARCH STUDY:

You are invited to volunteer for a research study conducted by Ashley Galloway-Speight. I am a doctoral candidate in the Department of Curriculum and Instruction, at the University of South Carolina. The University of South Carolina, Department of Education is sponsoring this research study. The purpose of this study is to how the supplemental use of face-to-face writing conferences combined with digital Google Classroom instruction in a blended learning environment impacts the writing and self-regulated learning skills of high school students. Your student is being asked to participate in this study because he/she is enrolled in my English 2 CP or English 2 H class . This study is being done at Strom Thurmond High School and will involve approximately 25 volunteers.

The following is a short summary of this study to help you decide whether to be a part of this study. More detailed information is listed later in this form.

The study is expected to last for approximately 15 classes, beginning in September and ending in mid-October. As part of this study, participants will participate in computer-based writing instruction, goal-setting, self-evaluation, and teacher-student writing conferences. Students will be asked to revise a single writing multiple times throughout the study and will not receive a grade on their writing until the study has concluded. This is so that students can learn to examine feedback to improve, rather than relying on a numerical grade to determine their skill. Benefits of this study include learning to self-monitor progress, learning to set goals and make plans for completing large assignments, feedback that is tailored to each student's individual needs as a writer, and possibly improving in writing skills.

PROCEDURES:

If you agree to participate in this study, you will do the following:

1. Take a pre-survey to determine attitudes towards writing and a pre-assessment to determine writing skills

2. Self-assess writing using a rubric.
3. Conference with your teacher a minimum of 3 times during the study to set goals, explain progress, and reflect on the writing process.
4. Revise writing multiple times based on self-assessment and teacher feedback.
5. Complete a post-survey to determine any changes in attitudes towards writing and a post-assessment to determine changes in writing skills.

DURATION:

Participation in the study involves 15 classes over a period of 2 months. Each study visit will last about 100 minutes.

RISKS/DISCOMFORTS:

- Final grades for the writing produced during the study will not be posted until the study has concluded.
- Students may be asked to work independently to produce or revise writing (may have less direct instruction for the teacher), which can be unfamiliar and uncomfortable for some students.
- Students will be asked to continuously revise writing over the course of the study.

BENEFITS:

Taking part in this study could personally benefit you/your child by:

- creating opportunities to learn independently
- learn to use rubrics and models to self-assess writing
- offering tailored, goals-based feedback on writing.

Participating in this study could also inform curriculum decisions at your/your child's school.

COLLECTION OF IDENTIFIABLE PRIVATE INFORMATION

Information about you (such as name, grade, schools, etc.) will not be disclosed to anyone but the teacher/researcher for grading purposes. Names will be removed from interviews, surveys, and writing samples used in the dissertation. No student's privacy or confidentiality will be violated during this study. s

CONFIDENTIALITY OF RECORDS:

Information obtained about you during this research study will remain confidential. Study information will be securely stored on password-protected computers. Results of this research study may be published or presented at seminars; however, the report(s) or presentation(s) will not include your name or other identifying information about you.

VOLUNTARY PARTICIPATION:

Participation in this research study is voluntary. You are free not to participate, or to stop participating at any time, for any reason without negative consequences. In the event that you do withdraw from this study, the information you have already provided will be kept in a confidential manner. If you wish to withdraw from the study, please call or email the principal investigator listed on this form.

Primary Researcher Contact Information:

If you have any more questions about this study, you can contact Ashley Galloway-Speight at (803) 804-0429 or angalloway@edgefieldcountyschools.org

Concerns about your rights as a research subject are to be directed to, Lisa Johnson, Assistant Director, Office of Research Compliance, University of South Carolina, 1600 Hampton Street, Suite 414D, Columbia, SC 29208, phone: (803) 777-6670 or email: LisaJ@mailbox.sc.edu.

I have been given a chance to ask questions about this research study. These questions have been answered to my satisfaction. **Initial:**

If I have any more questions about my participation in this study I am to contact Ashley Galloway-Speight at (803) 275-1768 or angalloway@edgefieldcountyschools.org.

Initial:

I agree to participate in this study. I have been given a copy of this form for my own records. **Initial:**

If you wish to participate, you should sign below.

Signature of Subject / Participant

Date

Signature of Parent/Guardian:

Date:

INSTITUTIONAL REVIEW BOARD FOR HUMAN RESEARCH

DECLARATION of NOT RESEARCH

Ashley Galloway-Speight
136 Sierra Dr
Aiken, SC 29803 USA

Re: **Pro00102333**

Dear Mrs. Ashley Galloway-Speight:

This is to certify that research study entitled ***Flipping Writing in High School English: Using Flipped Learning to Develop Writing Skills and Self-Regulated Learning*** was reviewed on **8/4/2020** by the Office of Research Compliance, which is an administrative office that supports the University of South Carolina Institutional Review Board (USC IRB). The Office of Research Compliance, on behalf of the Institutional Review Board, has determined that the referenced research study is not subject to the Protection of Human Subject Regulations in accordance with the Code of Federal Regulations 45 CFR 46 et. seq.

No further oversight by the USC IRB is required. However, the investigator should inform the Office of Research Compliance prior to making any substantive changes in the research methods, as this may alter the status of the project and require another review.

If you have questions, contact Lisa M. Johnson at lisaj@mailbox.sc.edu or (803) 777-6670.

Sincerely,

Lisa M. Johnson

ORC Assistant Director and IRB Manager



Signature of Qualified Person Obtaining Consent

Date:

APPENDIX B

WRITING CONFERENCE GUIDING QUESTIONS

General Questions

1. Tell me about your work on this revision.
2. What are three of the biggest strengths in this draft? You can select indicators from the rubric if necessary.
3. What was your goal for this draft?
4. What strategies did you review as you worked on this draft?
5. What do you think is the most important revision you made to this draft?
6. How have your revisions changed your work?

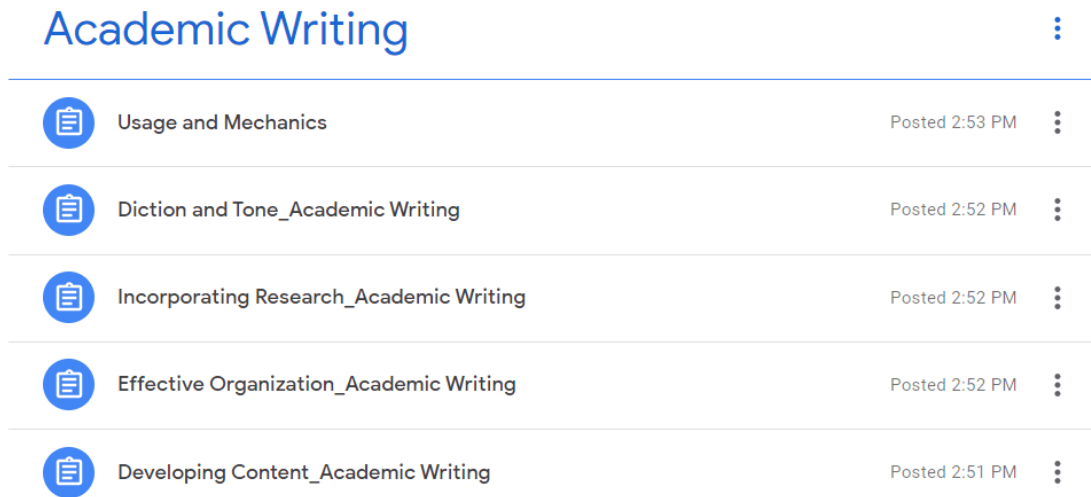
Self-Assessment Questions

1. What score did you give yourself in the area of the rubric that addresses your goal?
2. What indicators on the rubric for your goal did you improve on?
3. What indicators are a struggle for you?

APPENDIX C

CONTENT DEVELOPMENT INSTRUCTIONAL MATERIALS

Students will access instructional content from the Classwork section in Google Classroom by selecting the assignment related to their goal.



To streamline the appearance of the digital learning, students will access only their checklist from this platform. The checklist (Figure 2 in the Intervention section) appears below. Once students have selected their competency, they will spend approximately 30-45 minutes independently reviewing notes, models, and practice. Each checklist begins with students setting their goal for the writing session and describing three specific things they will do to achieve that goal. The checklist has notes and practice for each competency listed in Figure 1 of the Intervention section. Students are only required to review the assignments related to their goal; however, they may complete any additional

tasks they deem necessary to complete their draft. For notes, students will choose either a short teacher-created how-to video or review notes through Google Slides.

My goal for this writing session is:

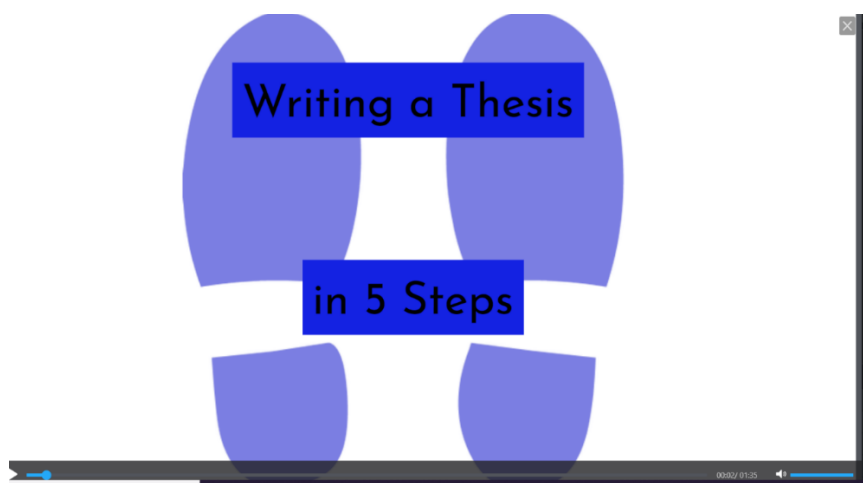
Three things I will do/strategies I will use to complete this goal are:

Learn!	<p>Select ONE method for accessing your notes. You MUST review the notes related to your goal, but you may look at anything that will help you.</p> <p> Creating a Thesis Video Reading Develop Thesis-Driven Content Video Reading Adding Sufficient, Relevant Detail Video Reading Introductions w/ Background Information Video Reading Develop Conclusions Video Reading </p>
Observe!	<p>Click below to view the teacher model.</p> <p>Book Review Sample</p> <p>Click below to view student samples (Examples reflect a range of levels; not all examples received full credit)..</p> <p>Sentence frames</p> <p>Thesis and body paragraph</p>
Practice/Plan!	<p> Thesis development Practice Apply Thesis-Driven Content Practice Apply Adding Sufficient, Relevant Detail Practice Apply Introductions w/ Background Information Practice Apply Develop Conclusions Practice Apply </p>
Do!	<p>Create the content for your essay assignment. Return to your draft in Google Docs.</p>
Reflect!	<p>Use the rubric for ONLY the section related to your goal to highlight the indicators you feel match your work.</p> <p>Use Revision Assistant, too and Highlight Tool to examine areas of strength and areas for improvement. Guide Available Here</p>

The how-to videos were created using the free teacher's edition in Moovly and each offer five steps to producing the video topic. Google Slides was used to develop the slideshow notes for students who prefer to read notes at a slower pace. Exemplars appear in the next task for students to work on. Students will be able to choose to watch a teacher model of content development in academic writing or view student samples of varying quality. In

order to prevent students from simply copying the examples, the models provided are from a different writing assignment. After examining the exemplars, students will move on to practicing or applying their learning. Students may choose to skip the practice assignment if they feel they are ready to begin planning their own writing; however, if a student submits a draft for conference that does not reflect understanding of the material, the practice will be assigned as a remediation strategy. All students will be required to complete the planning assignment related to their goal. The planning assignments require students to outline content based on the elements presented in the notes. After completing the planning, students will revisit the draft they began during the pre-test. They will apply their new learning to their only the part of the draft related to their goal. In other words, a student whose goal is to write an effective thesis will compose only the thesis for this session's writing draft. After completing the draft, students will complete the technology-enhanced reflection before the face-to-face conference. The competencies for content development and their associated materials are below.

Developing a strong thesis



Creating the Thesis

- Prompt: Present one research-based solution for a problem at your school.
 - Determine the keywords in the prompt
 - Solution
 - Problem
 - School
 - Use these words in your thesis statement.

DETERMINE WHETHER EACH EXAMPLE IS EFFECTIVE OR NOT EFFECTIVE. DRAG EACH EXAMPLE TO ITS PROPER CATEGORY. FOR EXTRA CREDIT, YOU MAY EXPLAIN WHAT YOUR INEFFECTIVE EXAMPLES ARE MISSING.

For people to enact effective change in our world they should create fun school related activities for people/kids to do after school or on the weekend

Abigail will destroy everything in her path, until she gets what she wants, but John doesn't want her back because he has his reputation to uphold.

One way people can create effective change is by preventing drug abuse because it can cause bad death rates and lead to more crime

There are many similarities and differences between a horse and a human.

The publication of the Gutenberg Bible represents the beginning of modern publication technology, which changed the world intellectually, economically, and socially.

This world needs respect, without respect no one gets along. And when no one gets along, people end up doing something crazy.

Effective

Not Effective

Follow the steps below to develop your thesis statement:

1. Prompt:
 - a. What are the keywords in the prompt?
2. Stance
 - a. What is your response to the question being asked?
3. Topics
 - a. What topics will you discuss in the body of your paper?
4. Completed thesis:

Developing thesis driven content



Process

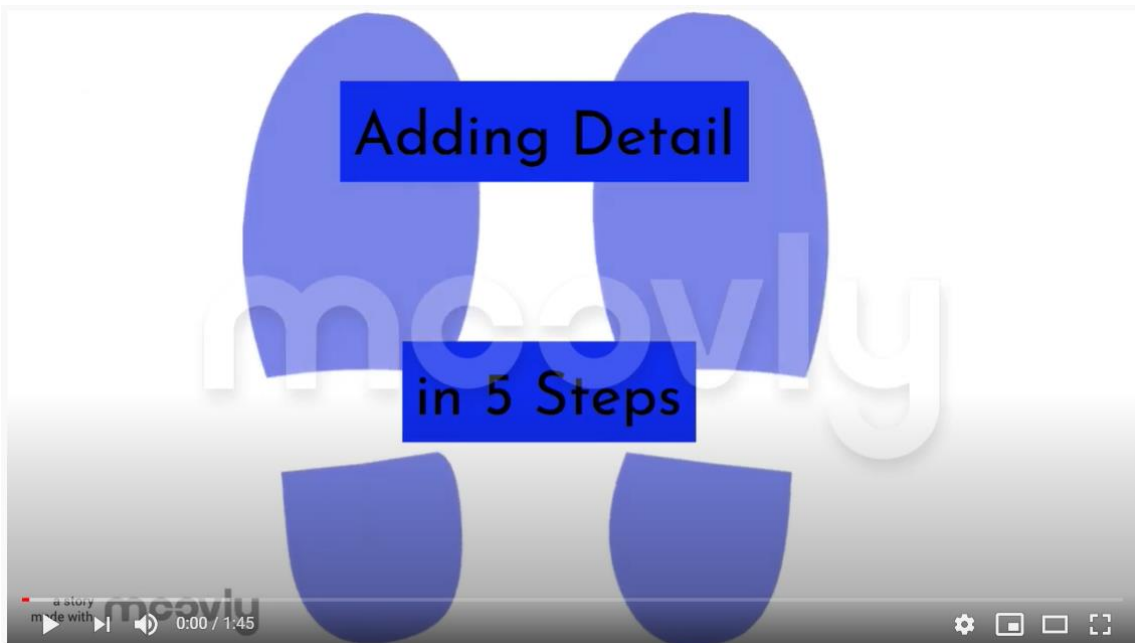
1. Finalize your thesis
 - a. The problem of low student grades due to tardiness and absence at STHS could be solved by creating an exam exemption program, because it would reward good choices, easily address all issues, and not add any cost to the school.
2. Develop one topic sentence for each topic outlined in your thesis.
 - a. Use similar wording and construction
 - b. An exam exemption program would reward good choices.
 - c. An exam exemption program could easily address multiple needs.
 - d. An exam exemption program would be easy to implement without adding any cost to the school.

Directions: Type your essay in the template below. Items in red are items you should replace with your ideas. **Work with no in-text citation will not receive a score**

Type your prompt here:

- I. Introduction
 - A. Background information:
 - 1.
 - B. Thesis
 1. Develop your thesis (Answer the prompt question)
- II. Body Paragraph 1 Topic Sentence (Break apart your thesis topics)
 - A. Give evidence to support your topic. Cite each piece of evidence.
 - B. Explain how your evidence connects to your thesis.
 - C. Summarize your paragraph
- III. Body Paragraph 2 Topic Sentence (Break apart your thesis topics)
 - A. Give evidence to support your topic. Cite each piece of evidence.
 - B. Explain how your evidence connects to your thesis.
 - C. Summarize your paragraph
- IV. Body Paragraph 3 Topic Sentence (Break apart your thesis topics)
 - A. Give evidence to support your topic. Cite each piece of evidence.
 - B. Explain how your evidence connects to your thesis.
 - C. Summarize your paragraph
- V. Conclusion
 - A. Summarize your major ideas
 - B. Reinforce the importance of your work

Adding relevant and sufficient detail



Guidelines

- Follow the 1:3 model
 - For every sentence you write that contains research, add 3 sentences explaining why you used that research.
- Connect all the dots
 - Make it clear how your evidence connects to your thesis
 - Lead your reader to the conclusions you want them to make
- Explain technical or unfamiliar terms
 - Ensure your audience knows what they need to know to understand your work

Directions: Make a copy of this document for yourself. Evaluate the details provided in the body paragraph. What errors, if any, are present in the presentation of the details provided.

Thesis: The invention of the printing press represents the beginning of modern publication technology, which changed the world intellectually, economically, and socially.

The invention of the printing press was a big deal because it made it a new way to read in 1546. People didn't used to read. The book he printed was the Bible that people started to read in church. So people learned to read. the invention of the modern printing press made information available to a larger percentage of the population who were, "of course, eager for information of any variety. Libraries could now store greater quantities of information at much lower cost" (Krauss)

Writing strong introductions



Developing your introduction in four steps

2. Develop a complete understanding of your central idea (background)

- a. Do not present evidence, yet
- b. Do any of the following that apply to your essay:
 - i. Define key terms
 - ii. Explain the situation
 - iii. Summarize history or development
 - iv. Generally describe the problem, setting, or concept
- c. Last semester 90% of the student population received at least one tardy. Disciplinary actions taken for offenses related to attendance continue to increase every year, leading to referrals to the alternative school, truancy cases, failures due to absence (FA's), and struggles to keep up academically.

The invention of the cell phone has changed the world by allowing people to communicate over the phone, which influenced communication, language and technology. The invention of the cell phone has changed the world throughout many ways.

Effective

Ineffective

"Finding X is only necessary if you are a pirate." Well not quite; algebra can be used in many ways that are practical and apply to life. Algebra is the process of breaking down and balancing equations to find the value of a variable. Algebra is used in mostly all forms of higher math all around the world. It is utilized in industry, architecture, and other fields. However, it can be used in more common activities like going to the grocery store and even setting up a lemonade stand. The world is forever changed since the start of the development of algebra. The invention of algebra was a revolutionary advancement in mathematics, which changed the world scientifically, educationally, and practically.

Effective

Ineffective

Select one of the ineffective introductions from section 1. Explain which elements were missing.

B

U

T

◦

☺

🖼️

🔗

🔍

→

Ω

x₂

x²

↺

↻

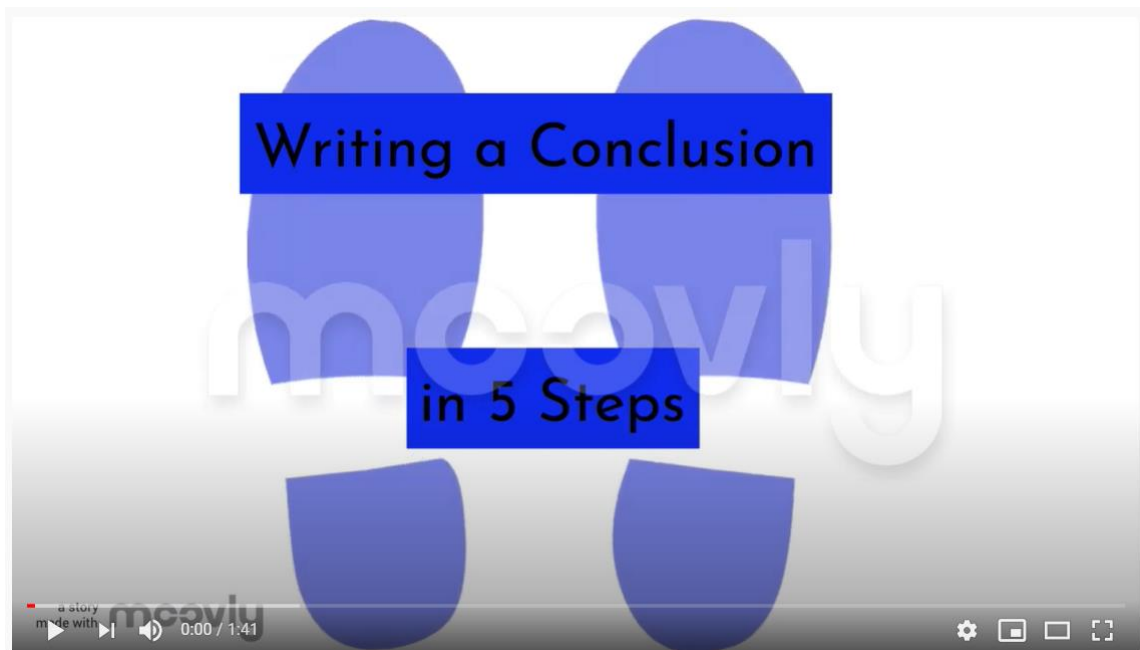
✎

Write your answer...

Follow the steps below to develop your introduction.

1. Hook
 - a. Get the audience's attention.
2. Background information
 - a. Highlight the types of background that apply to your essay.
 - i. Define key terms
 - ii. Explain the situation
 - iii. Summarize history or development
 - iv. Generally describe the problem, setting, or concept
 - b. Present background information
3. Establish relevance
 - a. Why is this topic important enough to write about?
4. Thesis

Writing Conclusions



Developing Conclusions

1. Review your thesis.
 - a. DO NOT repeat yourself
 - b. Thesis: The problem of low student grades due to tardiness and absence at STHS could be solved by creating an exam exemption program, because it would reward good choices, easily address all issues, and not add any cost to the school.
 - c. Start of conclusion: Creating an exam exemption program for all students could solve the problem of low grades due to tardiness and absence.

IN CONCLUSION, THE BOMBING OF PAN-AM FLIGHT 103 MARKED THE BEGINNING OF INCREASED TERRORIST ATTACKS, THIS AFFECTED THE WORLD MENTALLY, ECONOMICALLY, AND SOCIALLY. THE ECONOMIC IMPACT AFFECTS US IN THE WORK INDUSTRY. THE MENTAL IMPACT PUTS FEAR INTO OUR LIVES AND CAN HAVE AN INCREASE IN PTSD. LASTLY, SOCIAL IMPACT AFFECTS US IN OUR LIFE IN THE WORLD. IF THIS EVENT WOULD NOT HAVE HAPPENED, OUR AIRPORT SECURITY WOULD NOT BE WHAT IT IS NOW. IT ALSO WOULD NOT HAVE INTRODUCED A HIGH TECH NEW EXPLOSIVES TO OUR WORLD, BUT THIS CAN HAVE A NEGATIVE IMPACT. THIS COULD BE DANGEROUS BY GIVING THE WRONG COUNTRY RESPONSIBILITY TO HAVE THESE NEW EXPLOSIVES IN THE PALM OF THEIR HANDS.

a Effective

b Ineffective

OVERALL THE DROPPING WAS A REALLY BIG DECISION IN THE SAFETY AND FUTURE OF THE UNITED STATES AS WELL AS THE REST OF THE WORLD. IT CHANGED THE WORLD'S SOCIETY BECAUSE IT CHANGED AND DICTATED THEIR VIEWS ON THE BOMB. IT CHANGED THE WORLD'S TECHNOLOGY BECAUSE OF ALL THE RESEARCH AND TESTINGS THAT TOOK PLACE TO CREATE THE BOMB. AND LAST IT CHANGED THE WORLD'S ETHICS BECAUSE A LOT OF PEOPLE THOUGHT THAT IS WAS WRONG TO USE THE BOMB AND OTHERS THOUGHT IT SHOULD BE USED BECAUSE IT COULD END THE WAR FASTER WITHOUT SACRIFICING AMERICAN LIVES. THIS DROPPING HAD A BIG EFFECT ON THE WORLD SO THEREFORE IT DID CHANGE THE WORLD.

a Effective

b Ineffective

SELECT ONE OF THE INEFFECTIVE CONCLUSIONS FROM SECTION 1. EXPLAIN WHAT ELEMENTS ARE MISSING OR WHAT MAKES THE CONCLUSION INEFFECTIVE.

Follow the steps below to develop your conclusion.

1. Review thesis
 - a. Reiterate the idea using new words and structure.
2. Review major points
 - a. Use topic sentences to develop a short statement of major topics
3. End with an attention-grabbing statement
 - a. Drop the mic

APPENDIX D

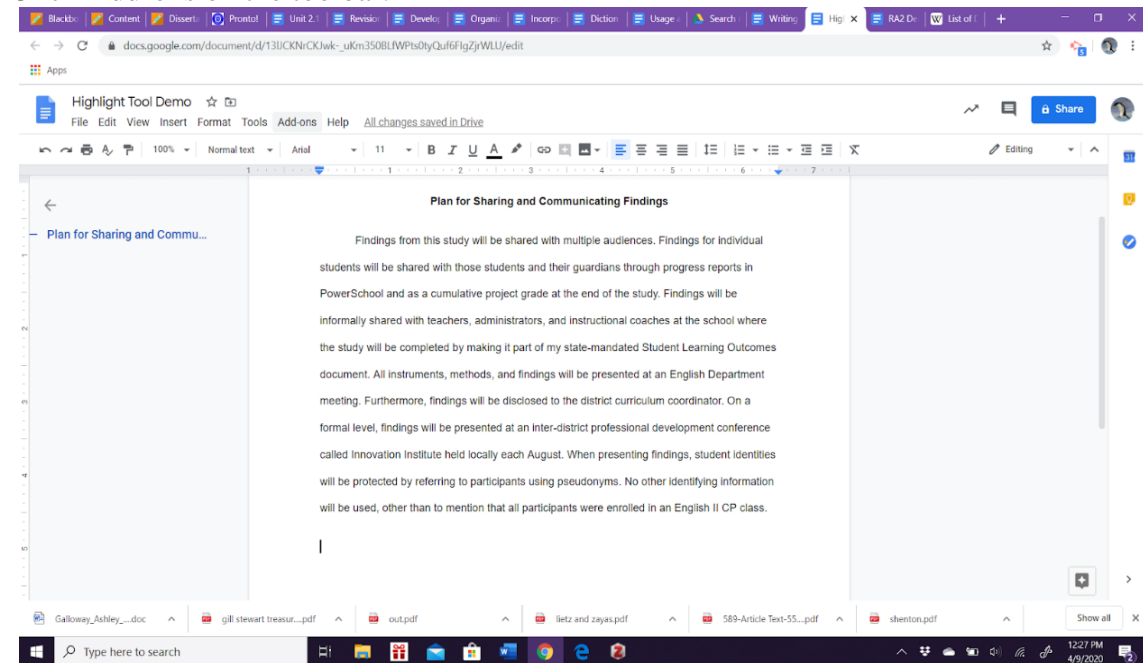
WRITING ANALYSIS ADD-ON'S GUIDE

Highlight Tool

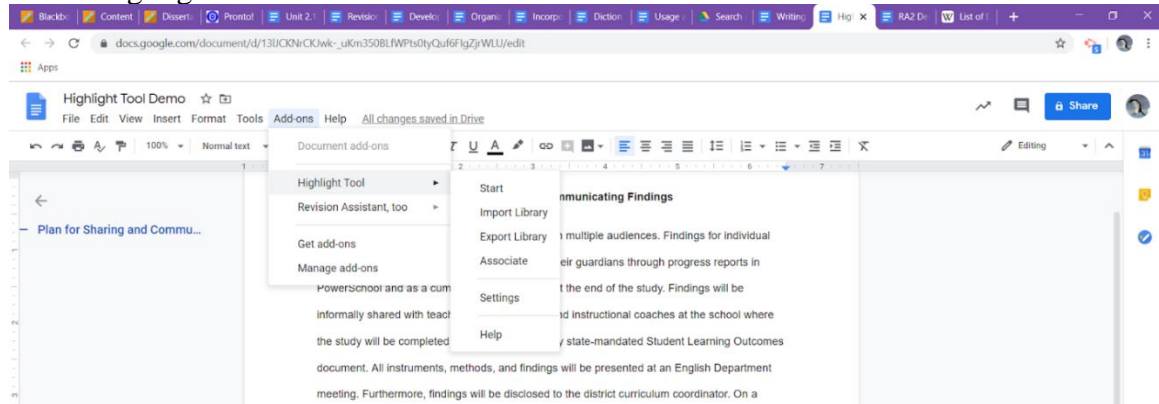
Use this Add-On if your goal is related to organization or creating content.

Write your draft.

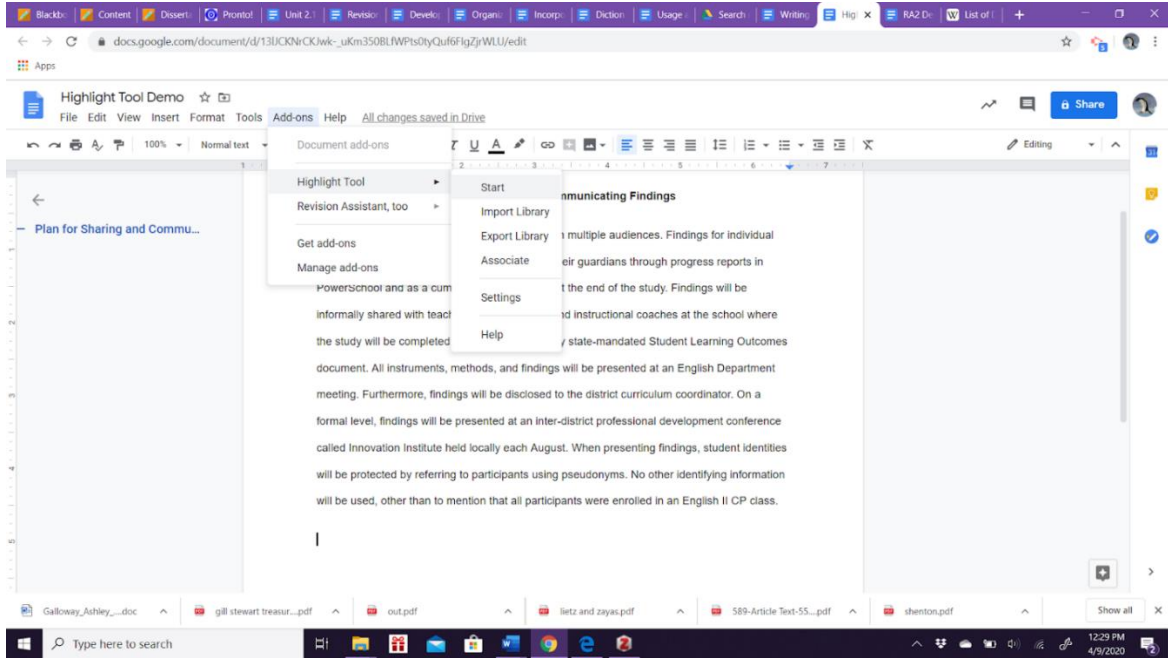
Click Add-ons on the toolbar.



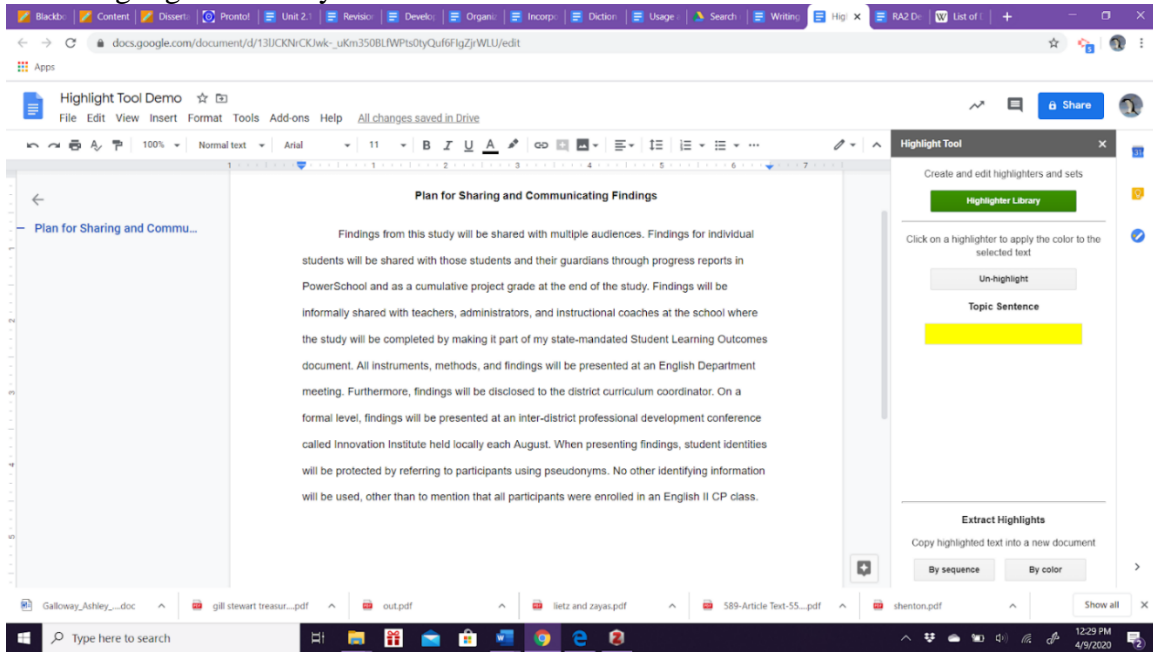
Select Highlight Tool



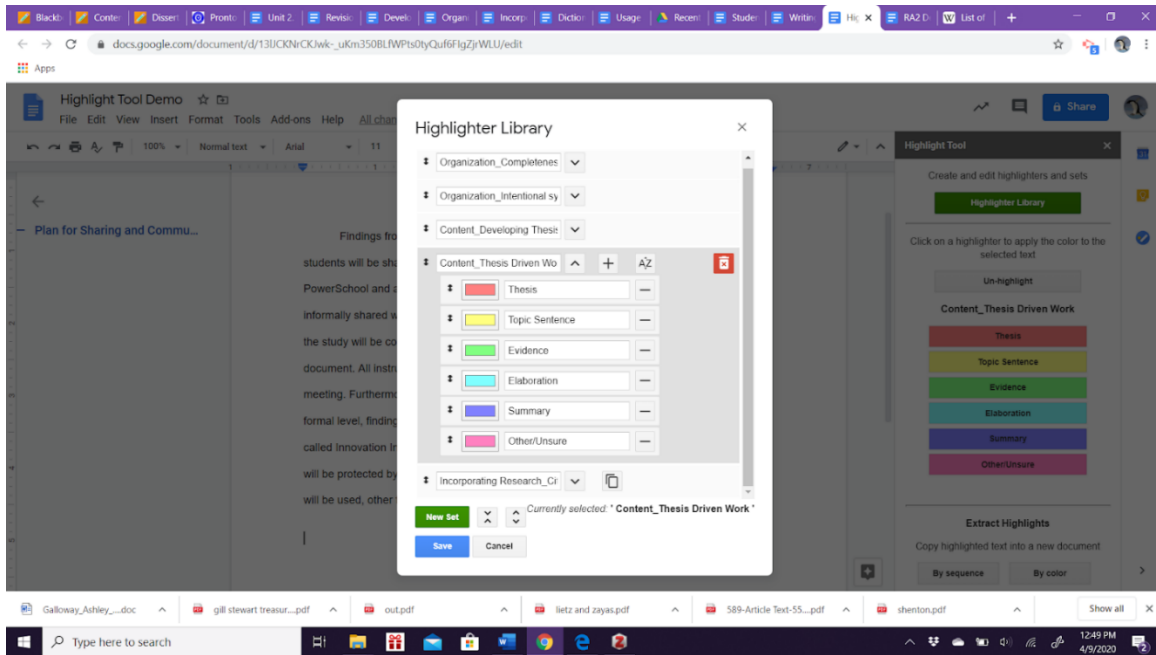
Click Start



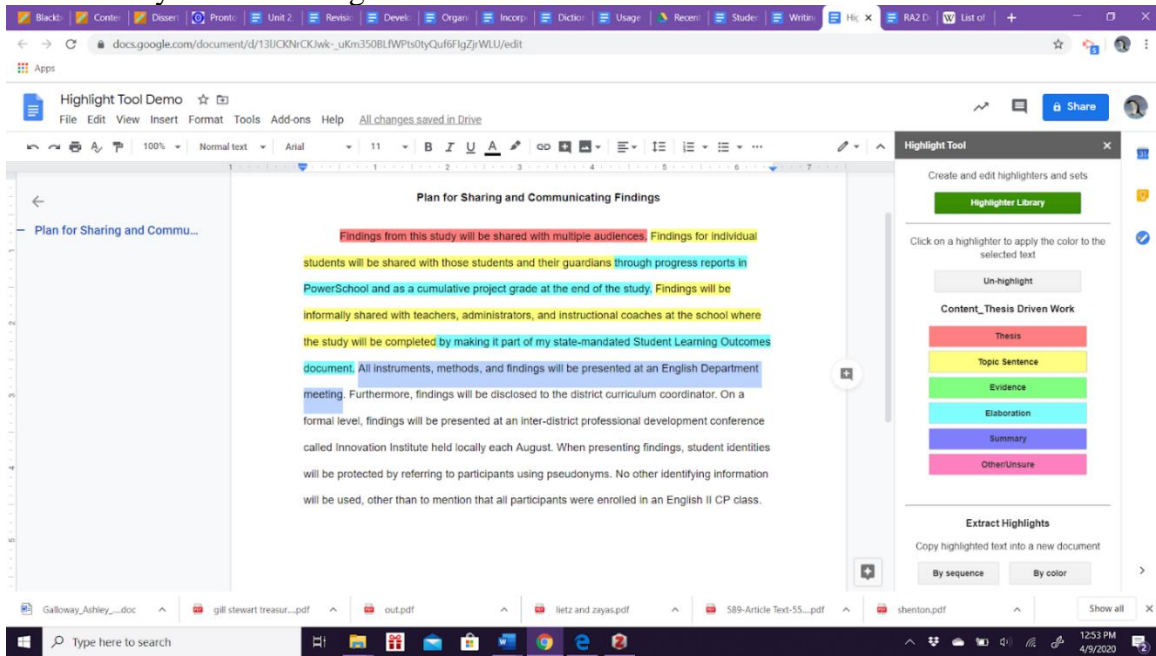
Click Highlighter Library



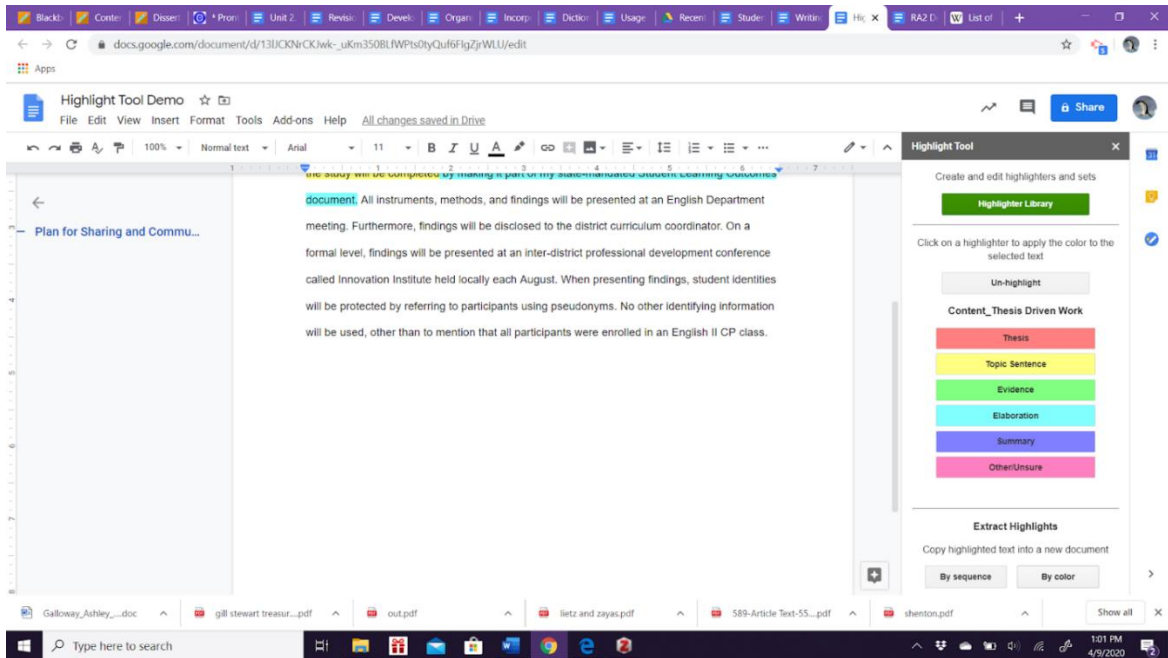
Select the Highlighter Set related to your goal.



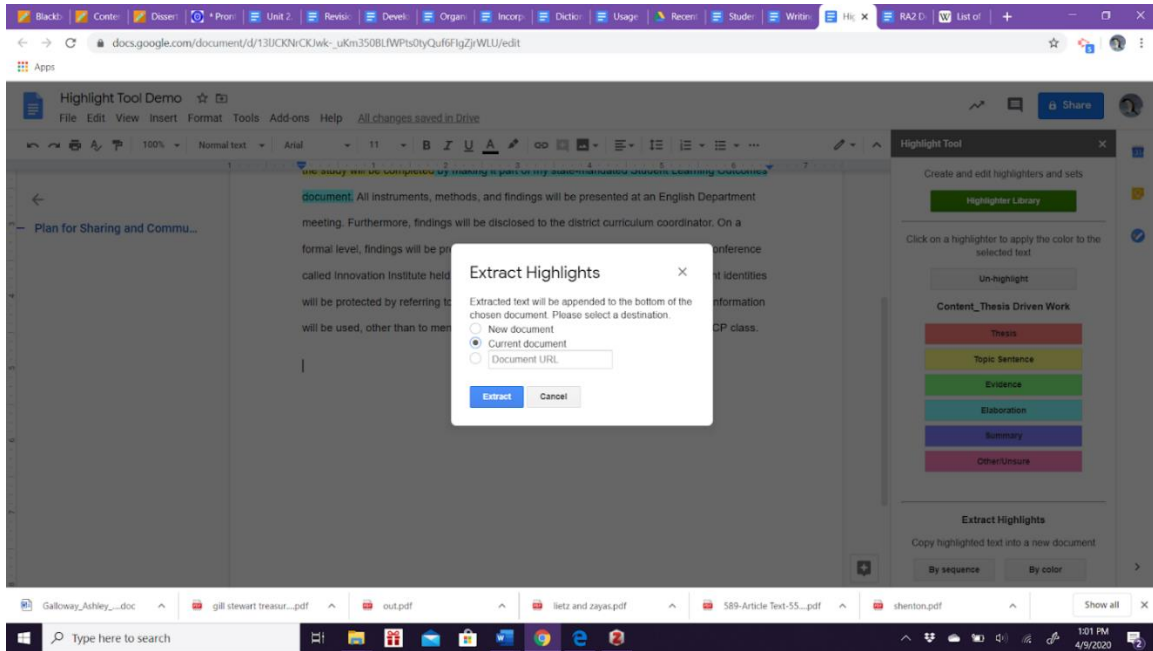
Color code your work using the available sets.



Under Extract Highlights, click by color to check for completion OR by sequence to check for pattern



Select current document and click extract



The extraction creates a table to show you a breakdown of your highlights

The screenshot shows a Google Docs document titled 'Highlight Tool Demo'. The document contains two tables of highlighted text. The first table has two rows: 'Thesis' (red background) and 'Topic Sentence' (yellow background). The second table has two rows: 'Elaboration' (cyan background) and 'Summary' (purple background). The Highlight Tool sidebar on the right shows a 'Highlighter Library' with color-coded buttons for Thesis, Topic Sentence, Evidence, Elaboration, Summary, and Other/Unsure. It also has an 'Extract Highlights' section with buttons for 'By sequence' and 'By color'.

Label Name	Extracted Text
Thesis	Findings from this study will be shared with multiple audiences.
Topic Sentence	Findings for individual students will be shared with those students and
Elaboration	their guardians Findings will be informally shared with teachers, administrators, and instructional coaches at the school where the study will be completed through progress reports in PowerSchool and as a cumulative project grade at the end of the study. by making it part of my state-mandated Student Learning Outcomes document.
Summary	

Once your highlights are completed, reflect on what you see

- Does your work follow the pattern discussed in your lessons?
- Are all your elements accounted for?
- Are all your elements effective?

APPENDIX E

ENGLISH 2 WRITING SKILLS ASSESSMENT

1. As the leader of his family, Jessie was unsure what decision to make. Jessie alone had the legal power to decide whether or not he should sell the 20,000 acres of forest he and his large family of cousins owned. On the one hand, several of the cousins were firm in their belief that land is the greatest treasure there is and should never be sold. Some other cousins did not want to sell the land out of environmental concerns for protecting the trees and wildlife. But most of his cousins wanted to sell the land because they would make a lot of money.

Which sentence would work best as a concluding statement to this paragraph?

- A) Jessie was troubled by all the sides of the issue.
- B) Sometimes families have a hard time getting along, but they make it through.
- C) Jessie was not only the leader of the family, but he loved to run marathons.
- D) The land in question was very beautiful--pine tree forests, deer and turkey, even a hidden lake.

2. You have been assigned to compose an expository essay on the migration patterns of Eastern Europeans to the United States in the 19th century.

Which choice would best function as an introductory sentence for this essay?

- A) Immigrants come to America from all over the world.
- B) There is a lot of debate about immigration in America.
- C) Eastern European American immigrants to America have a rich and storied history.
- D) Most of America's founding stock was from Western Europe, and many immigrants have also hailed from this part of the world.

3. You have been assigned an argumentative writing task where you are to defend to use of cell phones as instructional aids in the classroom.

Which is the BEST example of a precise claim you might make for your argument?

- A) Lots of teachers think that students can't use cell phones in school, but they are wrong.
- B) Cell phones can look up all kinds of information in a matter of seconds, and many people like to use them to learn about the world they live in.
- C) My teacher always tells everybody to put their phones away before we can even start class because she thinks we'll just play games all day.

- D) Though many teachers think students will be distracted by using phones, there are actually a number of ways that phones can be used in the classroom.

4. Many people argue that video games cause young people to become too violent, but scientific research has not been able to clearly prove that. Some studies say that there is a clear link between playing violent video games and violent crimes, but other studies say that there is no link. The debate rages on, and it seems that each time something happens that involves violence, people on both sides of the issue take to the internet and the airwaves to make their opinions known. The fact remains that people will continue to discuss video game violence and wonder at its effect on young people.

Which sentence does not relate to the focus of the paragraph?

- A) All of the sentences relate to the focus of the paragraph.
- B) Video games can improve hand eye coordination and often prove to be very fun to play.
- C) Some argue that violent images in video games actually cause kids to take violent action against other people.
- D) Some argue that video games give kids a way to work out their aggression without actually resorting to violence.

5. Music Requirements

Daveed Trellis

Most schools have some sort of fine arts elective requirement that students must complete in order to graduate. Students often take music appreciation or drawing or sometimes even dance. I believe, however, that all public schools should require students to learn to play at least one musical instrument instead of allowing them to take any art elective. I have many reasons for suggesting this graduation requirement. First and foremost, I believe that students should be required to learn to play a musical instrument because it is fun.

Which sentence would add an effective supporting detail to this argument?

- A) Practicing an instrument can be a tedious and repetitive task for the person learning to play.
- B) Studies have shown that learning to play a musical instrument improves a person's ability to memorize material.
- C) Musical instruments are very expensive to purchase, and sometimes parents have to purchase instruments on payment plans.
- D) Parents often complain about having to listen to misplayed notes and terrible squeaks while their child learns to play an instrument.

6. The Olympic Games that people celebrate today are much different from the Olympics that began in ancient Greece. When the Olympic Games began, only men who spoke Greek could compete. The ancient Olympics had just a few sports in which athletes competed. Additionally, the ancient Olympic Games were always held in Greece.

Although the Olympic Games still include a number of athletic competitions, their format has greatly changed. Today, both male and female athletes from many different countries and backgrounds come together to compete in the Games. The Olympics are held in different cities around the world every four years.

Which of these statements best fits into paragraph 2?

- A) Greek mythology says that the Olympics were started by Heracles.
- B) Women were not allowed to watch the Olympic Games in ancient Greece.
- C) The ancient Olympics included sports such as running and chariot racing.
- D) The athletes in the modern Olympic Games compete in many different sports.

7. You are writing a paper about how trolls are portrayed in Norwegian legends, and you are using the following source:

Howard, Donald. *Norwegian Myths and Legends*. San Francisco: Little Brown, 1995. Print.

You are trying to paraphrase the information in the following passage from Howard's book in your essay.

In Norway legends, trolls are clearly trouble to all human beings they encounter, but that does not mean that the trolls are necessarily *evil*. They might be more properly characterized as mischievous. Norwegian parents to this day might joke with a particular naughty child that "you have a little bit of troll inside you," indicating that while trolls may cause problems, they aren't horrific, terrifying monsters. You might even go so far as to claim that some Norwegians have a fondness for trolls--or at least the idea of them.

Which answer choice is the best paraphrase of the information in this passage?

- A) According to author Donald Howard, Norwegians see trolls as somewhat troublesome, but not particularly as evil or malevolent creatures.
- B) Trolls are dangerous, but not particularly evil to most Norwegians who often like to joke that their children have troll-like traits in their personalities.
- C) The author Donald Howard claims that "trolls are clearly trouble to all human beings they encounter, but that does not mean that the trolls are necessarily *evil*."
- D) In Norway legends, trolls are clearly trouble to all human beings they encounter, but that does not mean that the trolls are necessarily *evil*. They might be more properly characterized as mischievous.

8. You are writing a paper about fashion styles of the 1920's and using the following source:

Aglan, Enrique. *Looking Good in the 1920's*. New York: Harpers, 1975. Print.

The sentence you want to use from this source is from page 27 and listed below:

"Unaware of the impending stock market crash and future Great Depression of the 1930's, style in the 1920's was marked by an extravagant use of material both in cost and the actual amount of material used in a dress"

Which answer choice smoothly and correctly integrates this source?

- A) "Unaware of the impending stock market crash and future Great Depression of the 1930's, style in the 1920's was marked by an extravagant use of material both in cost and the actual amount of material used in a dress" (page 27).
- B) In his book, *Looking Good in the 1920's*, Enrique Aglan marvels over how much material was used in the manufacture of women's dresses, calling its use "extravagant" (27).
- C) Aglan says that the impending stock market crash and future Great Depression of the 1930's, style in the 1920's was marked by an extravagant use of material (27).
- D) "Unaware of the impending stock market crash and future Great Depression" Aglan claims the 1920's were a time of extravagant style and use of costly material.

9. Your math teacher has asked you to write an essay about Fermat's Last Theorem

Which sentence could you use in your essay that has the most appropriate academic vocabulary and tone?

- A) Fermat's Last Theorem was finally proven after 358 years of efforts in 1994 by Cambridge professor, Andrew Wiles.
- B) There was this French lawyer who came up with what ended up being the world's most difficult math problem.
- C) The problem in the world that is the way hardest to solve is definitely the one called Fermat's Last Theorem
- D) There was this man named Andrew Wiles and he was really good at math and proved Fermat's Last Theorem.

10. You have been assigned to compose an expository essay about the bluebird's migratory habits. Given that you must assume a formal tone, which of these choices would NOT be appropriate to use?

- A) The bluebird's migratory habits are fascinating and complex.
- B) Bluebird's migratory habits differ from those of other birds.
- C) If I were a bluebird, what a fantastic and amazing life it would be!
- D) Bluebirds migrate to find better weather and more promising resources.

11. Which sentence reads most coherently AND functions best as a thesis statement to a persuasive essay?

- A) Who first came up with the idea of a mandatory draft?

- B) Because to instill a sense of patriotic duty, a mandatory draft ought to be reinstated.
- C) Although many people believe otherwise, a mandatory draft is or isn't the best choice for our times.
- D) In order to instill a sense of patriotic duty in our youth, a mandatory draft ought to be reinstated.

12. Which choice displays appropriate use of parallel structure and correct use of commas?

- A) To boat, to ski, and sunbathing are three activities in which a person can take part at the lake.
- B) To boat, to ski, and to sunbathe, are three activities in which a person can take part at the lake.
- C) To boat, skiing, and to sunbathe, are three activities in which a person can take part at the lake.
- D) Boating, waterskiing, and sunbathing are three activities in which a person can take part at the lake.

13. *Many high school basketball players want to play college ball. Some seek college scholarships. They must take the ACT. They must score at least a seventeen on the test.* These sentences need to be arranged into one, effective sentence. Which option best accomplishes this task without changing the writer's original meaning?

- A) To play college ball you have to make a high score on the ACT.
- B) Basketball players hoping for college scholarships must score at least a seventeen on the ACT.
- C) College scholarships are hard to get, especially if you don't make a high score on the college entrance exam.
- D) If you play basketball in high school and want to play it in college, you have to get a scholarship and a high score on the ACT.

Constructed Response:

Prompt: Mahatma Gandhi was an Indian lawyer and nationalist who used peaceful protest to lead India to independence from England. One of his best known sayings is "You must be the change you wish to see in the world." What personality traits enable people to change the world?