Daily Writing in the Content Areas: A Look at How Secondary Teachers Explain Their Experiences with Writing Integration

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by

Hannah M. Carter

Dr. Dianna R. Townsend/Dissertation Advisor

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We recommend that the dissertation prepared under our supervision by

HANNAH CARTER

Entitled

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be accepted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Dianna Townsend, Advisor

Julie Pennington, Committee Member

Diane Barone, Committee Member

Lynda Wiest, Committee Member

Jim Webber, Graduate School Representative

David W. Zeh, Ph. D., Dean, Graduate School
May, 2018
ABSTRACT

Examinations of adolescent literacy practice over the last 10 years have illuminated the significance of an integrated approach to literacy and content area instruction (Applebee & Langer, 2013; Bean, 2000; IRA, 2012). Considering writing specifically, writing in the content areas has positively impacted both students’ writing quality and their disciplinary understandings (Graham & Perin, 2007). Despite this, recent years have not shown increases in writing time or depth in the secondary classroom (Applebee & Langer, 2011a; Gilbert & Graham, 2010).

Using a multicase study design (Yin, 2014) informed by sociocultural theory (Vygotsky, 1978) and zone theory (Goos, 2005), this study explored commonalities across the reflections of teachers who integrate writing daily. Four secondary teachers participated in the study, one from each primary content area. Collected over one academic quarter (10 weeks and approximately 50 instructional days), multiple data sources provided an in-depth look at each case – initial meeting notes, surveys, instructional logs, written reflections, journal prompts, observation protocols, and interview transcripts. A four-phase iterative process to thematic analysis was employed to find patterns and relationships among the four teachers’ experiences with writing integration, as well as constraints and affordances related to writing integration and sustainment (Merriam, 1998; Stake, 2006).

Findings revealed that teachers who integrate daily writing valued the student benefits of writing integration – independence on writing tasks,
disciplinary understandings, and future preparation. The teachers also faced various challenges related to writing integration, which involved both internal conflicts and instructional dilemmas. Lastly, the teachers recognized the pedagogical benefits of writing integration, including a better understanding of their students' learning processes and planning instruction more attentively. Dismantling dichotomies related to literacy in the content areas, teachers negotiated the seemingly productive tensions around writing integration and prioritized their students in their decision making.
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CHAPTER ONE

INTRODUCTION

Examinations of adolescent literacy practice over the last 10 years illuminate the significance of an integrated approach to literacy and content area instruction (Applebee & Langer, 2013; Bean, 2000; IRA, 2012). Considering writing specifically, writing in the content areas both positively impacts students’ writing quality and enhances their disciplinary understandings (Graham & Perin, 2007). Traditionally, language arts teachers remain at the forefront of supporting students’ literacy development, equipping them with literacy skills and strategies that could be utilized in their other courses (Smagorinsky, 2015). Cervetti, Jaynes, and Hiebert (2009), however, question the “decades-long assumption” that “text is text” and that students will automatically transfer the generic literacy skills they have mastered from one context or genre to another. Writing taught “elsewhere in the building” may not transfer from the English wing to the more discipline-specific writing tasks in the content area classrooms down the hall (Cervetti, Jaynes, & Hiebert, 2009, p.17). Furthermore, when not utilized in each course, students miss out on the benefits writing offers their disciplinary learning and understandings.

A shifting paradigm in secondary education recognizes a “shared responsibility” among teachers of all disciplines to promote students’ literacy development and to integrate writing for a variety of purposes in each content area (National Council of Teachers of English, 2011; Thaiss & Porter, 2010).
The Common Core State Standards push writing in the content areas, with writing standards required for each discipline (National Governors Association [NGA] & Council of Chief State School Officers [CCSSO], 2010). Planning in content area courses now requires that all middle and high school teachers consider the literacy demands of their classes, the literacy needs of their students, and the ways in which literacy can be utilized to scaffold content area learning (Alvermann, 1991; Biancarosa & Snow, 2006).

According to Lawrence, Galloway, Yim, and Lin (2013), “Content area teachers should consider daily writing practice to be the diet that prepares novice writers to produce the analytic writing genres indicative of each discipline” (p. 9). While numerous self-report survey studies provide information documenting the type of writing and the amount of writing that takes place in secondary content area classrooms (Applebee & Langer, 2009, 2011a; Gillespie, Graham, Kiuhara, & Hebert, 2014; Graham, Capizzi, Harris, Hebert, & Morphy, 2014; Kiuhara, Graham, & Hawken, 2009), the current study extends this work, providing a more in-depth look at teachers’ perspectives. Existing research on the writing practices employed in content area classrooms, while still limited, is much more abundant than literature on teachers’ experiences with writing, and particularly those teachers who prioritize daily writing in their practice. In 2014, Juzwik and Cushman asserted the following when describing writing: “Teachers' knowledge, methods, theories, and practices are hyperscrutinized, undervalued, and grossly misunderstood, if taken into account at all” (p. 89). The missing voices and
perspectives of content area teachers in relation to writing integration was the impetus for this study.

Additionally, research on writing in secondary schools documents a lack of time (Applebee & Langer, 2006, 2009, 2011; Graham, Gillespie, & McKeown, 2013; Gillespie et al. 2014; Kiuhara et al., 2009), and a lack of depth and length (Lawrence, Galloway, Tim, & Lin, 2013; Wilcox & Jeffrey, 2014); therefore, the current study provides a qualitative examination of teachers’ experiences from classes in which writing takes place on a daily basis. Because writing is a skill important to students’ secondary and post-secondary success (Graham & Hebert, 2010; Norman & Spencer, 2005), teachers’ practice and experiences related to writing merits increased research attention.

Statement of the Problem and Study Rationale

Research-based recommendations have been made to both increase and enhance writing instruction in K-12 classrooms (Troia & Olinghouse, 2013). Support for these recommendations recognizes the interrelated role of writing and the development of early literacy skills (Craig, 2006), as well as writing and general academic success (Graham & Perin, 2007). While the amount of time secondary students spend writing has increased since the 1980s (Applebee & Langer, 2009), the National Commission on Writing (2003) called to at least double the amount of time spent on writing, including writing across the curriculum. Recent years have not revealed an increase in writing time or depth (Applebee & Langer, 2011; Gilbert & Graham, 2010), seemingly reinforcing The National Commission on Writing’s (2003) designation of writing as “the neglected
‘R’” (p. 9). After concluding a five-year study of writing in the content areas in 2011 within 260 schools, Applebee and Langer, eight years later, still concluded the amount of time students spend writing is “distressingly low” (p. 16). Investigating trends in literacy research over the last 50 years, Wilcox and colleagues (2008) also discovered a dramatic decline in publications that focus on writing. Prioritizing writing is of importance in secondary education; however, a number of obstacles impede teachers’ writing integration.

Addressing adolescents’ literacy needs is a complex task that involves engaging students in a range of activities to promote both literacy and content knowledge acquisition (Cantrell & Hughes, 2008). Efforts in tackling integration have been challenging in secondary schools (O’Brien, Stewart, & Moje, 1995). Research suggests that literacy integration, and writing specifically, is most beneficial when used as a disciplinary tool to support content area learning, as opposed to literacy being positioned as the end goal (Cervetti & Pearson, 2012). The CCSS support and extend this notion, as teachers must integrate writing in discipline-specific ways (NGA & CCSS, 2010). However, teachers need support with this endeavor. The push for cross-curricular writing and discipline-specific writing is relatively new. Realistically, neither professional learning agendas in school districts, nor teacher education programs have met the needs of all practicing teachers, as related to increased writing demands. Therefore, many teachers are unprepared for literacy integration more generally, and writing more specifically (Cantrell & Callaway, 2008; Cantrell & Hughes, 2008; Gillespie et al., 2014; Kiuhara et al., 2009). Even at the college level, many educators find
integrating writing in meaningful ways to be a “daunting process” (Cannaday & Kasia, 2016, p. 188). The weight of this process is exacerbated by many teachers feeling unprepared to teach writing.

The increased rigor of recent writing standards merits a look at school districts to ensure that secondary teachers are both confident and prepared to guide students in meeting the demands of writing in the content areas (Dismuke, 2015). Troia and Graham (2003) suggest that writing can both be challenging for the inexperienced writer, as well as “create anxiety, avoidance, and frustration for those who teach it” (p. 75). Many teachers express a lack of the knowledge, skills, and strategies necessary to effectively incorporate writing into their instruction (Troia & Maddox, 2004). Teachers need increased access, opportunity, and support with writing to make up for any preparation gaps in their past experiences (Dismuke, 2015). With teachers feeling unprepared and somewhat burdened by writing integration, a closer look at teachers’ experiences teaching writing in their content areas may provide useful insights to better supporting them.

Teachers’ dispositions, including their beliefs, attitudes, and perceptions, influence the classroom learning environment, as well as student achievement (Organization for Economic Cooperation [OECD], 2010). However, little attention has been given to how these constructs are at play with the writing integration of content area teachers. Research suggests that impacts on teachers’ decision-making, such as teachers’ beliefs and attitudes about literacy instruction, play an important role in the classroom culture. High school teachers may struggle to
teach the demanding requirements of their content area courses, when considering the mulita-faceted role involved with teaching. Adding writing to their time-restricted classes can certainly be challenging. Considering content area teachers’ beliefs about their responsibility and willingness to integrate writing into their courses will be helpful in determining the best ways to support teachers in this endeavor. According to Wyatt (2010), research should investigate the relationships between teachers’ beliefs, knowledge, experiences, and subsequent practice.

Narrowing in on teacher dispositions and beliefs farther, significant relationships between teachers’ self-efficacy and writing instruction exist. Teacher self-efficacy is especially significant to writing integration, as efficacy is context-specific (Tschannen-Moran, Hoy, & Hoy, 1998) and has been linked to effective classroom practices (Ashton & Webb, 1986; Gibson & Dembo, 1984), higher student achievement (Ashton & Webb, 1986; Ross, 1992), and persistence for struggling students (Gibson & Dembo, 1984). Cantrell and Callaway (2008) posit that content area teachers’ senses of efficacy with literacy integration is associated with both their instructional effectiveness and abilities/willingness to address students’ literacy needs in the content areas. Graham, Harris, Fink, and MacArthur (2001) found that elementary teachers’ self-efficacy and writing instruction were positively correlated; yet little is known about how secondary teachers’ writing integration may be impacted by constructs such as dispositions, beliefs, and self-efficacy.
Secondary students should spend more time on writing in the content areas; that writing should include more depth (Applebee & Langer, 2013). A host of barriers exist that can impede teachers from integrating writing into their classes. Two of the most prominent include a lack of preparedness and low self-efficacy for teaching writing.

**Purpose of the Study**

The purpose of this multicase study was to explore commonalities across the reflections of four secondary content area teachers who integrate daily writing, determining those factors that constrained writing integration and those that promoted it. Unlike previous research which is largely documented through surveys and focuses primarily on decontextualized aspects of writing instruction, this study sought to dig deeper into teachers’ experiences with writing integration. Looking beyond simply the specific strategies employed and the time spent on writing, this study looked at teachers’ perspectives around writing in the content areas and how they explained their experiences with writing integration. The affordances and constraints teachers are faced with when integrating writing, both instructionally and otherwise, were revealed. This research, however, was not intended to evaluate teachers in any way, but instead looked at writing integration by way of teachers’ explanations of their experiences.

By exploring teachers’ experiences who are actively using writing as part of their daily practice, this study sought to describe teachers’ perspectives on writing integration as they *experienced* it. When describing how pre-service teachers learn to teach, Diez (2007) stated that as they grapple to make sense of
new ideas, they draw from both prior knowledge and beliefs. Former experiences may also be influential to what and how teacher candidates learn, as well as what and how they teach in their future classrooms (Diez, 2007). Applied to secondary content area teachers, the beliefs they bring to writing integration may be derived from past experiences. Experiences with their own writing or with previous approaches to teaching writing can be authoritative in their decision-making processes. Excluding previous experiences and influences was not a goal of this study; instead actual experience was at the center of the research, as opposed to perceptions about writing integration that are removed from practice. Change, or shifts, in teachers’ knowledge, skills, or dispositions associated with writing integration was also not the aim of the current study. Instead, determining commonalities of content area teachers who integrate daily writing was the goal. The following research question was explored: How do secondary content area teachers explain their experiences with daily writing integration?

**Organization of the Study**

This dissertation is organized into five chapters. Chapter One includes an introduction to the research topic, a statement of the problem this research addresses, and the purpose of the study. Chapter Two delivers a review of literature relevant to the research, including the importance of writing in the content areas, the documented use of writing in the content areas, and teacher preparation and self-efficacy related to writing instruction. This chapter also includes a description of the theoretical framework, including sociocultural theory
and zone theory. Chapter Three explains the research methodology and methods of the study and describes the researcher background and positionality. The setting and participants, data collection and data analysis are also detailed. Chapter Four details the findings of the study, and Chapter Five closes with discussion and implications.
CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

Looking at several bodies of research to frame this study, the review of literature includes both empirical and theoretical perspectives relevant to the research question. First, writing in the content areas is described, including its evolution, the impact of writing on learning, and a description of different ways to approach writing in the content areas. The current state of adolescent writing and writing instruction in the U.S. is then discussed, providing an overview of student performance and the reported lack of time and depth related to writing. Several factors that can both deter and promote content area teachers’ integration of writing are then outlined. Lastly, the theoretical framework for the study, informed by sociocultural theory and zone theory, is detailed.

Writing in the Content Areas

Numerous calls over the past 30 years suggest a reform for writing in the U.S. (Graham & Perin, 2007; National Commission on Writing, 2003), which includes the integration of more writing into middle and high school content area curriculums (Applebee & Langer, 2013). Debates about the intricacies of literacy instruction in the content areas continue; however, since the early 1900s, the value of reading and writing well in the content areas has correlated to student success, and more broadly, productive citizenry (Jacobs, 2008). This has led to a shift in the way writing in the content areas is viewed and approached. Thus, the evolution of writing in the content areas, as well as the ways writing impacts
learning and the ways writing can be approached in the content areas are described below.

**Evolution of Writing in the Content Areas**

The idea of integrating literacy into the subject areas in K-12 classrooms, dating back to the early 1900s, began first with the infusion of reading strategies. Literacy integration gained attention from the educational research community in the first half of the 20th century, even making its way into teacher education programs. The momentum subsided in the mid-1900s as “few innovative theories or practices emerged” (Moore, Readence, & Rickelman, 1983, p. 426).

According to Shanahan (2015), content area reading instruction reemerged in the 1970s with the publication of Hal Herber’s textbook *Teaching Reading in Content Areas*, which introduced reading strategies that could be applied to various texts across all disciplines. Also, during the 1970s, the *Writing Across the Curriculum* (WAC) movement advanced writing as an important component of disciplinary learning at the college level (Thaiiss & Porter, 2010). This dissertation uses term “writing in the content areas,” which is more frequently associated with secondary students’ writing, whereas Writing Across the Curriculum and Writing in the Disciplines (WID) are primarily linked to higher education (Thaiiss & Porter, 2010).

A collaborative effort to endorse the writing skills of students across disciplines is a recurring theme throughout the history of the American university (Russell, 1990). According to Thaiiss and Porter (2010), WAC emerged from the developmental link between writing and learning, with many colleges and
universities seeking to address the writing needs of their students from the first-
year through the senior-year of their college careers. WAC or WID programs
helped to serve this purpose (Faulkner, 2013). Additionally, with The National
Writing Project offering workshops and summer institutes on writing instruction
for teachers of all subject areas beginning in 1974 (Jago, 2003), professional
learning efforts advanced the movement to bring writing into the content areas.
While reaching a large number of teachers for a voluntary program, this
professional learning initiative was not connected to any type of district mandate,
and it required a substantial time commitment. Perhaps impacted by this, it only
had marginal influence in bringing writing into the content areas. Various other
reasons for the slow movement towards writing-centric disciplinary courses exist,
ranging from perceived lack of room in the curriculum, to a disconnect between
literacy and content area goals (O’Brien, Stewart, & Moje, 1995).

Approaches to literacy in the content areas have traditionally honored a
ccontent area literacy approach when implementing reading and writing,
“teach[ing] strategies, routines, skills, language, and practices that can be
applied universally” to all content areas (Faggella-Luby, Graner, Deshler, &
Drew, 2012, p. 69). Criticism arose that these strategies teach students only the
literal ways of interpreting and creating texts (Conley, 2008). The CCSS (NGA &
CCSSO, 2010), mandating literacy standards for all content areas, demand more
complex cognitive work for students in terms of writing tasks (Moje, 2008).
These tasks represent a significant pedagogical change for content area
teachers. While writing integration in secondary schools may have slowly and
faintly emerged decades ago, the recent implementation of the CCSS refocused attention back on writing in the K-12 system (NGA & CCSSO, 2010).

In light of the opposition to content area literacy efforts, current research has shifted from a generic notion of content area literacy to disciplinary literacy (Moje, 2008, 2010; Shanahan & Shanahan, 2008), suggesting that content area teachers attend to more advanced literacy skills specific to their disciplines. A shift toward disciplinary literacy, or "engaging in social, semiotic, and cognitive practices consistent with those of content experts," requires that teachers examine the best practices for promoting students' writing and content knowledge through writing in each content area (Fang, 2012, p. 19).

**Impact of Writing on Learning in the Content Areas**

Over the last several decades, the value of students learning through writing has been more widely recognized (Britton, 1970; Hand & Prain, 2002). The writing to learn movement has also spanned beyond the relationship of writing to reading (Graham & Hebert, 2010), recognizing the impacts of writing on learning in the content areas. Writing is a tool for improving, or enhancing, learning as writing aids students’ comprehension, critical thinking, and the construction of new understandings (Emig, 1977; Klein, 2000; Rivard, 1994).

Findings from three recent meta-analyses (Bangert-Drowns, Hurley, & Wilkinson, 2004; Graham & Perin, 2007; Graham & Hebert, 2010) support the assertion that students’ learning is enriched by and through writing. Each meta-analysis found positive impacts on student learning (in various capacities with various effect sizes) in the majority of the studies reviewed. Underscoring the
importance of writing for content learning, “about 75% of the writing-to-learn studies analyzed had positive effects” in one meta-analysis (Graham & Perin, 2007, p. 20).

Utilizing writing in content area classrooms is multi-purposed, as it can have positive impacts on students’ writing abilities and their content knowledge acquisition. Providing opportunities for secondary students to write in content area courses has numerous benefits, which also include students developing insights to the uniqueness of each discipline (Wallace, Hand, & Prain, 2004).

Using writing as a vehicle to support students’ learning in the content areas is well supported by research. Students’ academic success depends on their ability to grasp the fundamental ideas and concepts in each discipline (Klein, 2000). Because of this, Zwiers (2014) describes all teachers as teachers of writing. In addition to generating new ideas, writing enables the interpretation and use of new ideas (Wingate & Tribble, 2012). Based on both previous research and theory, Gillespie and colleagues (2014) further detail the impact of writing on learning, outlining five specific ways in which writing facilitates learning (p. 1044):

- Writing promotes explicitness, as the learner must make specific decisions about which information is most important when writing about subject matter material.
- Writing is integrative, as it leads learners to make explicit connections between ideas, as they commit them to text and organize them into a coherent whole.
• Writing supports reflection, as the permanence of writing makes it easier to review, reexamine, connect, analyze, and critique ideas once they are transcribed.

• Writing fosters a personal involvement with the target information, as the learner must decide how it will be treated when writing about it.

• Writing helps learners think about what ideas mean, as they put them into their own written words.

This list not only provides a rationale for how writing can enrich students’ learning of content, it also brings to the surface useful instructional implications for content area teachers. Through writing, teachers can promote students’ comfort levels with and understanding of unfamiliar and complex concepts.

Other researchers consider writing a problem-solving activity, allowing writers to use a variety of mental processes to archive certain objectives (Hayes & Flower, 1980). This notion is supported by Newell’s (2006) review of literature on writing to learn. Pulling from three different bodies of research, Newell (2006) provided a conceptual framework that supports the teaching of writing in the content areas.

• First, writing in the content areas provides a way of exploring and making sense of new disciplinary ideas.

• Second, students become aware of the unique conventions, genres, vocabularies, etc. situated in various disciplines through writing in discipline-specific ways.
• Lastly, writing about content area facts transforms the content area information into ways of understanding the writing him/herself and others through the study of different academic traditions. His insights add another layer to writing’s impact on learning in the content areas, suggesting that writing about disciplinary material influences the way the writer views him/herself, his/her surroundings, and the discipline. Emig (1977) also mentions this, noting that students make a number of active, conceptual, personal connections between ideas when writing.

Writing is highly beneficial for learning in the content areas and presents benefits even spanning students’ secondary careers. According to Dismuke (2015), writing in each content area is an attempt to put students on a path to meet the demands of a college-educated workforce, as 90% of American jobs require higher-level literacy skills. The ways teachers can promote these skills, through different ways of writing in their content areas, are discussed below.

Explanation of Writing in the Content Areas

The current study recognizes the importance of scholarship on practical applications of writing to learn, or informal writing, as well as formal writing, such as learning to write, and discipline-specific writing. More specifically, writing to learn subject-area content and learning to write in meaningful ways specific to each discipline, as well as learning to write generally, can each achieve various student objectives in different content areas based on the audience and purpose at hand (Applebee & Langer, 2013). In developing a disciplinary writing framework for science, Drew, Fagella-Luby, Olinghouse, and Welsh (2017)
adapted Shanahan and Shanahan’s (2008) reading-focused disciplinary literacy model by merging it with Bereiter and Scardamalia’s (1987) model of skilled writing. Their framework includes foundational composition (writing to learn content area material); intermediate composition (learning to write generally); and disciplinary composition (learning to write in discipline-specific ways).

Some research suggests that a focus solely on learning to write in discipline-specific ways encompasses the goals of writing to learn (Sampson Enderle, Grooms, & Witte, 2013). However, considering the nature of student development and the practicality of secondary classrooms, the current study considers a view of writing in the content areas that honors the benefits and opportunities that both informal and formal writing, writing to learn and learning to write, may present separately. This view is consistent with the theoretical literature on the content area literacy versus disciplinary literacy framework debate that settles in the “radical center” and builds on what is known both about general strategy instruction and the “processes that discipline experts use to engage in their disciplines” (Brozo, Moorman, Meyer, & Stewart, 2013, p. 354, p. 356).

A Policy Research Brief developed by the National Council of Teachers of English (NCTE, 2011) claims, “Instruction is most successful when teachers engage their students in thinking, reading, writing, speaking, listening, and interacting in discipline specific ways, where literacies and content are not seen as opposites but rather as mutually supportive and inextricably linked” (p. 2). The notion of a mutually-supportive relationship between writing and content
allows for students to develop an appreciation for both content and literacy and the intersection between the two, while engaging in the various text types and purposes for writing that match those of each discipline (NGA & CCSSO, 2010). With this in mind, the following sections describe writing to learn content area material, learning to write in discipline-specific ways, and attending to audience and purpose.

**Writing to learn content area material.** According to Hand and Prain (2002) and Sail (2004), requiring students to write as a means of developing better understandings of content material is one meaningful way to engage students in writing in the content areas. Writing, then, can help students gain conceptual understanding in the subject areas. This approach is often described as *writing to learn* (Graham & Perin, 2007), or informal writing, as the goal is aiding students in learning about and mastering difficult disciplinary concepts, through the act of writing thoughtfully about the content (Emig, 1977). Teachers should ensure they present authentic and meaningful ways for students to write about content, as opposed to only utilizing speaking and listening, or discussing, as teaching tools in each content area (Moje, 2008).

Students should regularly use writing as a tool for learning to investigate new ideas and contemplate meaning (Applebee & Langer, 2013). Writing to learn content area material represents the type of traditional writing that has happened in the disciplines for decades; this type of writing is important in promoting learning, but it is not enough to push students towards mastering the skills necessary for college and career readiness. Additionally, while students
may have the skills to be successful at reading and writing in their literature class, they may not possess the skills to successful write in science class. At the secondary level, it is necessary for educators to recognize the contextually-dependent nature of reading and writing. For students to deeply understand content in each discipline, teachers must guide them to be able to access the oral and written language of each individual discipline in the ways that active members of that discipline participate (Moje, 2008).

Learning to write in discipline-specific ways. Another way to integrate writing into the teaching and learning of the disciplines is by introducing students to the types of writing that are representative of each unique discipline. The language and writing used by the experts of each discipline as part of their discourse is the target in discipline-specific writing (Drew et al., 2017). Writing following this approach is often described as learning to write (Thaiss & Porter, 2010), and is more formal writing, because the main goal is for students to learn a set of writing skills and a writing structure that mimics that of a given discipline.

Students should be producing increasingly complex texts in each content area because the ability to express complex thinking in writing is important in all disciplinary traditions (Lee & Spratley, 2010). Content area teachers should not stop teaching their content to instead focus on teaching more general writing-focused traditions such as a five-paragraph essay (Gabriel & Dostal, 2015), but instead, they should introduce students to the norms and practices that are unique to writing within the discipline at hand (Applebee & Langer, 2013). Student writing should represent important disciplinary practices, such as
emphasizing the forms of argument and evidence, as well as the vocabulary and standards for presenting ideas that are most appropriate for each discipline and discourse community (Applebee & Langer, 2013). Each discipline has a discourse community of its own and similarly has aspects specific to writing that should be considered. Scientists, for example, are expected to write argumentative texts to communicate the results of their investigations; thus, the clarity and depth of their writing often influences their success in science (Yore, Hand, & Florence, 2004). Learning to write in discipline-specific ways pushes students to develop as better writers, while at the same time pushes them to learn disciplinary concepts and learn the norms of discourse communities.

In introducing students to these discourse communities as they engage in writing specific to each discipline, taking an apprenticeship approach is helpful, as students cannot be expected to intuitively know the expectations and norms of writing in discipline-specific ways in each discipline (Moje, 2008). Braunger, Donohoe, Evans, and Galguera (2005) propose an apprentice model drawing on teachers’ expertise as discipline-based readers, which can be easily adapted for writing. The disciplinary context and purposes for literacy use govern instruction in the five-practice model below (p. 24).

- Engage students in more content area [writing].
- Make the teacher’s discipline-based [writing] processes and knowledge visible to students.
- Make the students’ [writing] processes, knowledge, and understandings visible to the teacher and to one another.
• Help students gain insights into their own [writing] processes as a means of gaining strategic control over these processes.

• Help students acquire a repertoire of problem-solving strategies for overcoming obstacles and deepening [composition] of texts in various academic disciplines.

One example Wickens, Manderino, and Glover (2015) discuss of a social studies teacher apprenticing her students to engage as disciplinary insiders during an Industrial Revolution unit involved the teacher modeling her thinking and writing as she created blog posts about the Labor Movement. She positioned herself as a learner and as a writer who questioned texts to form her own evidence-based responses in lieu of searching for a single correct response. While sharing her own expertise, she encouraged her students to engage with her in exploring questions and developing their own interpretations through writing (Wickens et al., 2015). Apprenticing students in this way provides essential opportunities to investigate how texts are created by discussing, writing, and re-reading (Gabriel & Dostal 2015), which allows students to both examine how disciplinary experts write, as well as examine the forms, audiences, and purposes specific to each discipline.

Attending to audience and purpose. The way a student writes up his/her chemistry notes – detailed, impersonal, accurate and procedural steps – is likely unhelpful when writing a historical or literary analysis piece (Heller & Greenleaf, 2007). The contrast of these two types of student writing exemplifies the importance of giving attention to both the audience and purpose, as students
write in the content areas. Differentiating between writing to learn and learning to write lies within the purpose and audience set for the student. When students enter middle school, they must be equipped to navigate multiple content areas, which requires attentiveness to the “texts, tasks, habits of thinking, and language practices unique to each discipline” (Wickens et al., 2015). While any literacy practice is domain specific in that it is intended for a specific purpose and to or with a specific audience, disciplinary literacy practice must consider these same constraints, while also considering the specialized literacy practices of the disciplinary domain at hand (Moje, 2008). Active engagement in a discipline requires engaging with the language, text types, audiences, and purposes for reading and writing that are characteristic of that discipline (Gabriel & Dostal, 2015). Smagorinsky (2015) provides a useful instructional example of contrasting audiences and purposes in the disciplines:

Broadly speaking, writing a lab report for a science class and writing a report on Ernest Hemingway—even though both are reports—require knowledge not only of how to freewrite and format a report but also how to write in ways that show understanding of the audiences from these various disciplines. A scientist can anticipate that a lab report writer will understand the phenomena under study (e.g., distinguish between a liver and a kidney) and adopt the straightforward, clear manner of expression endemic to the sciences. The report might include illustrations or diagrams to make the concepts easier to grasp. In contrast, a report on Hemingway might go beyond simple summary and include an ironic treatment of his alcohol consumption, critique his anthropocentric view of nature, and otherwise depart from unembellished, detached description. (p.142)

Students must be given the opportunity to practice with a range of writing tasks including a variety of purposes and audiences, as represented in the example above. Building knowledge in each content should be at the heart of these tasks,
and for students to meet the writing demands of the CCSS, according to Fisher & Frey (2013), they must be practicing these tasks frequently.

Kibler (2011) proposed that students should be writing for a variety of real, discipline-specific audiences. When addressing these audiences, writers should ensure the purpose and norms of their discipline are honored by making deliberate word choices and modifying their language as needed (Heller & Greenleaf, 2007). While novice writers may compose for purposes such as summarizing knowledge, experts compose in hopes of adding to the body of knowledge in their disciplines. When engaging with discipline-specific writing tasks, students should be pushed beyond simply transmitting content knowledge, to taking on a more critical stance and extending to what they have to say about the content (Wilcox & Jeffery, 2014).

In closing, to illustrate a lesson of a teacher engaging in authentic writing instruction in the content areas, Cervetti, Haynes, & Hiebert (2009) describe a science lesson. After students had previously studied distant solar system objects like planets and moons, students investigated the ways scientists and engineers use technology to gather information about these objects. Students read about various space scientists and their space missions and then designed a spacecraft that could be successful in landing on and gathering data about one of the distant solar system objects. Students then wrote scientific explanations of how their spacecraft design, mission goals, and data collection were appropriate for the conditions of the solar object of study. By learning the model scientists use to study designs, the persistence needed for space exploration, the details of
their space object, the specific ways of reading and writing in scientific genres, and the language of science through rich discussion, students engaged in disciplinary writing and other aspects of disciplinary literacy. This example includes aspects of both learning to write in meaningful ways specific to science and writing to learn about science. The audience and purpose were set to meet objectives for both; however, meaningful writing in the content areas can happen that is focused on just one, if the student objective and disciplinary purpose align with doing so.

A description was provided of the evolution of writing in the content areas and the impact of writing on learning in the content areas. An explanation was also provided of the main ways that writing is categorized within the content areas. Next, the current state of adolescent writing and writing instruction in the U.S. will be detailed.

**Current State of Adolescent Writing and Writing Instruction in the U.S.**

The ability to communicate through writing is imperative to school success, as well as post-secondary success when considering participation in college, the workplace, and society. While adolescent writing achievement in the U.S. remains steady, significant improvements have been absent since the early 1970s (Applebee & Langer, 2009; National Center for Education Statistics [NCES], 2012b). This unfortunate reality can be attributed to various causes; however, one contributing factor that is well-documented by research is the lack of time and depth related to secondary students’ writing. After describing
adolescent students’ recent writing performance, writing instruction in the U.S., particularly related to time on and depth of writing, will be discussed.

**Student Performance**

Despite the continually intensifying need for advanced writing skills in the economic, social, and civic lives of Americans (Shanahan & Shanahan, 2008), student writing performance has remained “stagnant for years” (Fisher & Frey, 2013, p. 96). The relationships between writing competence and various aspects of adult life are evident, including college and career readiness. Yet Graham and Hebert (2010) indicate that many adolescents continue performing less than satisfactory on standardized writing evaluations. For 12th grade students, writing proficiency within the National Assessment of Educational Progress (NAEP) framework means being able to “produce an effectively organized and fully developed response within the time allowed” (NCES 2012b). Responses must also represent appropriate idea development based on the type of thinking for the genre/purpose (Loomis & Borque, 2001, p. 10).

On the most recent administration of the NAEP writing exam, nearly 75% of both 12th and 8th graders performed at or below the basic level on persuasive, explanatory, and narrative writing, those genres required on the exam (NCES, 2012b). This performance signifies that almost three-fourths of students are unable to write at the level required to succeed in secondary school. The majority of students are also, then, not accomplishing the communicative purpose specific to these genres as they approach high school graduation (Willcox, 2014). Equally troubling are the persistent gaps in writing performance
among certain subgroups of students. For example, only 1% of 12th-grade English learners scored at or above proficient (NCES, 2012b).

While NAEP data may be criticized for being decontextualized, as students are forced to operate on demand, highly different than classroom-based performance, similar results from systematically assessed classroom-based writing have been found (Gentile, Martin-Rehrmann, & Kennedy, 1995). NAEP scores represent trends that have endured for decades and still raise important questions, such as those about the likelihood of adolescents’ secondary writing experiences preparing them to meet the expectations of college writing demands (Wilcox & Jeffrey, 2014). This predicament becomes more challenging with the unique writing demands of each academic discipline (Drew et al., 2017).

According to Shanahan and Shanahan (2008), many students lack the discipline-specific proficiencies to interact with difficult texts in science, history, literature, mathematics, and technology. For adolescents to develop these skills, which are important for post-secondary success as well, teachers must promote comprehension and access to a variety of texts that are specific to each content area (Buehl, 2011). Attempts to support and improve students’ writing have led to approaches that embed writing within the content areas (Hunter & Tse, 2013, p. 228); however, writing in every class also has positive impacts on students’ disciplinary learning in the contents areas (NCTE, 2011).

**Lack of Time and Depth**

Despite research documenting the multitude of benefits enjoyed by regularly practicing reading and writing in the content areas, implementation has
been slow, unsuccessful, or both (NCTE, 2011). Of the teachers who shared their writing practices with NAEP in 1999, only one third reported spending 90 minutes per week, 18 minutes each day, or more teaching writing (NCES, 1999). These results document writing practice from almost two decades ago; yet, in the era of CCSS, in which writing is promoted more heavily than ever, results were similar. Upper elementary teachers reported spending 15 minutes per day on writing, with little emphasis on analytic writing genres (Gilbert & Graham, 2010). The numbers did not improve after 3rd grade, with most teachers devoting little time to teaching writing skills or strategies (Applebee & Langer, 2011a; Cutler & Graham, 2008; Gilbert & Graham, 2010; Kiuhara et al., 2009).

Based on the 2011 NAEP student surveys, the time 8th grade students spent on writing assignments of one paragraph or more, composed on paper or digitally, was minimal across the content areas (NCES, 2012a). On a typical school day, over 50% of students spent 15 minutes or fewer writing one paragraph or more, in math, science, and social studies. Many students reported spending no time writing in some disciplines – 37% in math, 18% in science, and 10% in social studies. In ELA, 40% of students spent 15-40 minutes writing, with 21% spending 30-60 minutes writing (NCES, 2012a). Even more startling, teacher reports showed that as many as 9% of secondary students may be doing almost no writing at all, even in their English courses (Applebee & Langer, 2006).

This data should not imply that teachers are unaware of the benefits of writing, nor are they incapable of implementing writing. However, the nature of the current available research, primarily surveys, does not offer the teacher
perspective. In Applebee and Langer’s (2011) study of 260 secondary classrooms, teachers in each content area did show an understanding of how writing can promote students’ learning of content knowledge. Still, less than 8% of class time was spent on student writing, with that writing being “dominated by tasks in which the teacher does all of the composing, and students are left only to fill in missing information” (p. 26). They were not using writing as a tool for learning or for exploring new concepts to develop understanding. Writing to apply the specific norms of the disciplines was even more uncommon (Applebee & Langer, 2013). Wilcox and Jeffrey (2014) also found that over 80% of secondary students’ writing, from almost 4,500 student products across disciplines, did not require composing.

Students’ writing has also tended to be short in length. In a typical week, students wrote a little over one and a half pages for English and two pages for all other core subjects combined, according to Applebee and Langer (2013). Graham, Gillespie, and McKeown (2013) added that students are doing little academic writing both in and out of school. This somber picture of the secondary writing climate is supported by several recent national surveys, with secondary teachers reporting their students both writing infrequently and writing without actually composing (Graham et al., 2013; Kiuhara et al., 2009). Writing instruction has often been overlooked or general classroom instruction has been prioritized over writing (Mo, Kopke, Hawkins, Troia, & Olinghouse, 2014). Although the CCSS emphasizes both the use of various text types and purposes in each content area, targeted writing instruction is rare, even in the English
Based on their large-scale, national examination of writing in content area classrooms, Applebee and Langer (2013) found that writing is not being used consistently to scaffold student understandings or to promote deep thinking about and reflection on disciplinary knowledge. Despite the overall sample not providing reliable results, individual social studies and science teachers emerged from their data analyses who were successfully integrating writing. Applebee and Langer’s (2013) findings offered discipline-specific guidance for teachers.

Two examples are below (Applebee & Langer, 2013, p. 98):

- Use daily writing to help students draw on what they know or to reflect on what they have just learned about a scientific phenomenon in the physical or natural world (science).
- Invite students to develop discipline-based interpretations of issues or events by investigating the original contexts that surrounded an issue or event and the contexts in which it was written about over time (social studies).

In addition to these discipline-specific writing recommendations, below outlines various suggestions compiled from three writing researchers (Applebee & Langer, 2013, p. 179; Gillespie et al., 2013, p. 1069; Locke, 2015):

- Maintain a rich and broad writing curriculum
  - Provide an expanded set of writing possibilities for students (including genres)
- Embed literacy in work appropriate to the discipline
  - Avoid formulaic approaches to the teaching of writing
  - Teach argument well
  - Implement an increased use of real-world writing tasks and genres
- Model how to use writing activities
  - Maintain a commitment to writing alongside students
  - Provide extra instruction to students who may struggle
Help students identify other situations where writing activities are applicable

- Place a greater emphasis on writing as a collaborative practice
  - Have students practice applying writing activities both on their own and with others

- Assess the impact of writing to learn activities
  - Have students assess if the writing activities enhanced their learning

**Factors That Can Constrain and Promote Writing Integration**

Dismuke (2015) describes learning to teach writing as being equally difficult as the process of learning to write itself. Fry and Griffin (2010) concur, stating that even teachers with extensive training often push writing instruction aside. The challenging nature of writing instruction could, perhaps, stray teachers from implementation. The literature presents several other factors that influence teachers’ writing integration, either constraining, affording, or promoting the regular implementation of writing. Claypool (1980) found that teachers with 12 or more years of experience assign fewer writing assignments per year than teachers with less experience, suggesting that tenure may also play a role in writing integration. Another influential factor, the drive to “cover content” can supersede the need to deepen understandings of content through writing (Lent, 2016, p. 62). Both the amount and the quality of writing instruction present in content area classrooms has been predicted by teachers’ preparation, self-efficacy, and attitudes relating to writing instruction (Gillespie et al., 2014; Graham et al., 2013).
Preparation for Writing Integration

Teacher education programs, school systems, and state departments must take a more active approach to all teachers becoming adequately prepared to use writing in the content areas. Research points to a necessary change in teacher preparation if teachers are to help students meet the increased writing demands of the current educational climate. Gilbert and Graham (2013) agree stating that teachers are underprepared to teach writing and do not teach it enough; their suggestion is ensuring that all teachers take one or more courses on writing instruction during their teacher education programs. While this is a promising start for future teachers, it does not reach in-service teachers. Preparing teachers with the necessary knowledge and skills for writing integration should be addressed both at the pre- and in-service levels.

Teacher education. At the level of pre-service teacher education, there is a lack of preparation with regards to writing instruction (Brenner, 2013). The National Commission on Writing (2003) argues that improvements in teacher education are needed relating to in writing across the curriculum, as writing is underrepresented in teacher training programs. Totten (2005) found that among 47 U.S. universities surveyed, only four required all pre-service teachers to complete a writing methods course. Additionally, 80% of teacher educators stated that not only is writing not offered as stand-alone course at their institutions, but little time is devoted to teaching writing at all (Myers et al., 2016). While some states may require prospective teachers to demonstrate knowledge of writing as a part of literacy content knowledge, “in terms of coursework and
competency requirements, the disparity between those for reading and those for writing is striking” (The National Writing Project & Nagin, 2006, p. 60). Literacy curriculum in teacher education programs oftentimes prioritizes reading, with knowledge of writing pedagogy embedded as a smaller piece of literacy (Brandt, 2001). Lack of attention to writing in teacher education programs may lessen the likelihood of content area teachers feeling comfortable incorporating writing practices into their instruction (Cantrell & Callaway, 2008).

**Professional learning.** According to Gilespie et al., (2013), “Bluntly put, teachers did not receive adequate preparation during college or from their school districts in how to use writing to support student learning” (p. 1071). Studies of preservice teacher preparation reveal that most in-service teachers were not required to take a writing methods course for certification, but instead were only exposed to limited writing pedagogy, which was condensed into literacy courses that are centered on reading (National Commission on Writing, 2003). Another survey (Larsen, 2013) investigated the extent to which secondary ESL teachers in the United States consider themselves prepared to teach writing and found that 54% of those respondents felt not at all or only marginally prepared.

Kiuhara et al. (2009) found that high school teachers across disciplines often report that their preparation to teach writing is inadequate. Other national studies suggest that content area teachers not only have little successful experience with writing integration to draw from, most also have little to no training in writing pedagogy (Kohnen, 2013). When we just asked about their preparation to teach writing within their content area, 58% of in-service teachers
agreed to some extent that they had received adequate in-service preparation (Kiuhara et al., 2009). Graves and Rueda (2009) suggest that teachers lack professional development in writing and need a community of practice to successfully teach writing.

**Knowledge and skills.** Many teachers feel a disconnect between their content and the teaching of literacy strategies, including writing, so despite the implementation of the CCSS, writing instruction may be slowly implemented because for certain teachers, teaching it does not come naturally. Even when teachers recognize the value of teaching writing, if they do not possess neither the knowledge nor the skills necessary, this leaves many teachers feeling ill-equipped, especially when working with struggling students (Cantrell et al., 2009; Hall, 2005). Sixty-eight percent of middle and high school teachers reported feeling unequipped to effectively implement literacy instruction, expressing “serious doubts” about their abilities (Cantrell et al. 2008, p. 83).

**Self-Efficacy**

The theoretical foundations of self-efficacy are rooted in Bandura’s (1977b) social cognitive theory, which views individuals as “proactively engaged in their own development.” Psychosocial functioning, from a social cognitive perspective, is a continuous triadic interaction between one’s social environments (e.g., other’s behaviors), internal stimuli (e.g., cognition and feelings), and behavior (Bandura, 1986; Pajares & Johnson, 1994). This theory suggests that a person is a product of the active relationship between the external, the internal, and current and past behaviors. Essential to this theory and
part of its internal stimuli aspect, *efficacy*, is defined as “generative capability in which cognitive, social, emotional, and behavioral subskills must be organized and effectively orchestrated to serve innumerable purposes” (Bandura, 1997, p.36). *Self-efficacy*, then, refers to an individual’s beliefs or judgments about his/her own capabilities to successfully organize and execute a particular course of action in order to attain a specific type of performance (Bandura, 1986).

Wood and Bandura (1989) further define self-efficacy as concerning “people’s beliefs in their capabilities to mobilize the *motivation, cognitive resources, and courses of action* needed to exercise control over events in their lives (p. 364). Because self-efficacy is an evaluation of one’s capabilities when considering a combination of motivation, resources, and action, it goes a step further than confidence and is a mediator for behavioral change. However, self-efficacy theory acknowledges that one’s capabilities must be “orchestrated” before those capabilities can serve meaningful purposes (Bandura, 1997, p.36).

Self-efficacy, then, does not equate to agency (Pajares & Johnson, 1994). Agency, or a person’s “mediated capacity to act” (Ahearn, 2001, p. 112) is said to go a step further than self-efficacy. Self-efficacy does, however, act as the most powerful vehicle within a person’s sense of agency. This relationship between self-confidence, self-efficacy, and agency helps to explain how people with similar knowledge and skills may exhibit very different behaviors from one another (Pajares & Johnson, 1994).

Self-efficacy is an important influence on human behaviors in a variety of settings (Klassen et al., 2011). According to Pajares (1996), self-efficacy affects
behavior in a number of different ways. Individuals’ decision-making processes and their related courses of action are impacted by their self-efficacy. People who engage in those tasks in which they feel competent and confident and avoid those in which they do not, allow self-efficacy to mandate behavior. Self-efficacy beliefs are also a determinant in the amount of effort people apply towards a given task, their perseverance when the task is obstructed, and their resilience when adversity arises. A person's thought patterns and emotional reactions are affected by self-efficacy, leading those with low self-efficacy to believe that situations are tougher than they actually are, which can promote unnecessary “stress, depression, and a narrow vision of how best to solve a problem” (Pajares, 1996, p. 544-545).

Self-efficacy beliefs are formed by interpreting information from four primary sources and can thus, be improved by considering these sources: (1) performance accomplishments, or direct and personal experiences with the goal of mastery; (2) vicarious experiences, or learning from modeling/observing others; (3) verbal persuasion, or social encouragement, support, and judgments; and (4) emotional arousal, or interpretation of physiological and affective states, such as stress or moods that may relate to efficacy (Bandura, 1977a).

**Self-Efficacy for writing integration.** Self-efficacy is an important influence on human behaviors in a variety of settings (Klassen et al., 2011). While teachers may feel highly efficacious, or capable of successfully executing a specific teaching task (Bandura, 1986), in the familiar realm of teaching content within their discipline, they are frequently apprehensive about and less efficacious
regarding any form of literacy integration (Cantrell & Callaway, 2008; Fisher & Ivey, 2005; Hall, 2005). The context-specific nature of efficacy is represented here by a teachers’ ability to exhibit efficacy for one teaching task, yet lack it for another (Tschannen-Moran, Hoy, & Hoy, 1998).

More importantly, efficacy has been linked to effective classroom practices (Gibson & Dembo, 1984), higher student achievement (Ross, 1992), and persistence for working with struggling students (Gibson & Dembo, 1984). Research also suggests that highly efficacious teachers are more likely to implement student-centered approaches, praise students, and have motivated and engaged students (Gibson & Dembo, 1984; Skaalvik & Skaalvik, 2007). Regarding literacy specifically, Cantrell and Callaway (2008) found that content area teachers’ sense of efficacy with literacy integration is associated with not only their instructional effectiveness but also their abilities and willingness to address students’ literacy needs in the content areas. Similarly, elementary teachers’ self-efficacy and writing instruction are positively correlated (Graham et al., 2001). With these links between efficacy, instruction, student outcomes, and particularly literacy, understanding how teachers view themselves as teachers of writing, and how efficacious they are in this role, is important for ensuring that students receive the most effective disciplinary writing instruction.

In a study examining teachers’ self-efficacy through the administration of the Teacher Efficacy Scale for Writing to over 200 elementary school teachers, Graham et al. (2001) discovered that a variation in efficacy scores for teaching writing was related to the beliefs teachers had about the most effective ways to
teach writing. Teachers’ self-efficacy for writing instruction was also related to the number and type of students in a teacher’s classroom after grade, gender, and years of experience were controlled. Those teachers exhibiting high levels of efficacy for teaching writing shared several instructional characteristics including: having students who spend more time composing than the students of low-efficacy teachers; spending more time teaching grammar and usage; and spending more time teaching basic writing processes (planning, text organization, and revising).

The relationship between efficacy and implementation is of utmost importance when new pedagogical focuses such as disciplinary writing are introduced to teachers. For efforts to integrate writing into the content areas to be effective, teachers must develop and sustain self-efficacy for writing instruction (Cantrell & Callaway, 2008), with attention to the type of writing instruction that promotes the learning of content specific to their disciplines. Additionally, as found by Wheatly (2005), teachers’ outcome expectations for teaching practices of which they feel capable are oftentimes very different from the outcome expectations for new teaching methods with which they feel a lack of efficacy. Teachers’ efficacy and outcome expectations affect the type of learning environments they create (Bandura, 1986). Consequently, teachers’ perceptions of their own classroom capabilities are related to students’ academic progress. For example, those teachers who lack efficacy and have low outcome expectations may be more likely to simply assign writing as opposed to teaching it with thorough instruction, support, and scaffolding, less actively encouraging
student growth in disciplinary writing and subsequently disciplinary learning.

Teachers oftentimes lack the necessary preparation and self-efficacy to successfully infuse writing into their content area instruction. Because disciplinary writing is now a reality in the secondary content area classroom (NGA & CCSSO, 2010), we must explore how best to support secondary teachers’ integration of writing within the disciplines.

**Gaps in the Current Literature**

In reviewing the previous literature, several gaps relating to research relevant to teachers’ experiences and perceptions about implementing daily writing were present. The body of literature providing guidance in this area is dominated by quantitative studies, in terms of the research documenting what is currently happening with writing in content area classrooms. While this survey research provides meaningful suggestions for the adjustments teachers may make in their writing instruction and offers some quantitative data on teachers’ preparation and dispositions related to teaching writing in the content areas, this body of work excludes an in-depth look at both teacher and student perspectives, meriting qualitative explorations in this area.

Many studies describing the use of writing in the content areas and the efficacy of specific strategies and interventions on the impact of student achievement exist (Rivard, 2004; Wallace, Hand, & Yang, 2004). Fewer studies have examined content area teachers as they consistently use writing, as well as their learning, understanding, decision-making, and reflections as they do so. Additionally, examinations of the beliefs and perceptions of those teachers who
regularly integrate writing is also absent. Hand and Prain (2002) examine science teachers’ perceptions and Dismuke (2015) looks at pre-service teachers’ perceptions after completing a writing methods course. However, “what happens” in the disciplines as teachers of various contents implement writing is the focus of the current study. According to Gilespie (2013), this is an area of needed research, as knowing not only what writing is taught in the disciplines, but why is of interest.

Research prioritizing teachers’ voices and concerns, as related to meeting students’ writing needs, is minimal at best, with little information available regarding supporting teachers in the transition required from recent shifts toward the shared responsibility of literacy among all teachers. Exploring secondary content area teachers’ experiences as their students write daily provides insights into how teachers adapt to recently increased literacy demands of content area classrooms. In the current discipline-focused educational climate, limited research is available highlighting teachers’ viewpoints in the quest to support their students with writing. While numerous researchers describe pre- and in-service teachers’ learning processes as they develop as writing instructors (Fry & Griffin, 2010), as well as what secondary writing instruction should encompass (Graham, 2010; Graham & Perin, 2007; Sampson, et al., 2013), a gap in the literature exists regarding teachers’ perspectives as they engage in writing integration. The research question for the current study, then, is: How do secondary content area teachers explain their experiences with daily writing integration?
Literature related to writing in the content areas was discussed – the evolution, the impact, and an explanation. The current state of adolescent writing and writing instruction in the U.S. was also described. Lastly, factors that may constrain and promote content area teachers’ writing integration were outlined. The theoretical framework informing this study couples the previously reviewed literature with an acknowledgement of the complex settings in which teachers interact within and beyond the school walls. A teacher does not function in the isolation of a decontextualized classroom; instead, the sets of meaning-making systems, or networks, both internal and external to the teacher, are at play (Vygotsky, 1978).

The theoretical framework for this study was drawn from sociocultural theory (SCT; Vygotsky, 1978) and zone theory (Valsiner, 1997). SCT was the overarching theoretical perspective and lens, while zone theory provided a conceptual tool for making sense of the ways teachers explained their experiences with writing integration. More specifically, zone theory allowed for describing daily writing integration based on the attributes teachers expressed as affording, constraining, and promoting their practice.

**Sociocultural Theory**

Sociocultural theory, primarily grounded in the work of Lev Vygotsky and dating back to the early 1900s, is associated with Piaget’s (1955) genetic epistemology, Bruner’s (1960) learning theory, Bandura’s (1977b) social cognitive theory, and Lave and Wenger’s (1991) situated learning theory. SCT examines the roles of social and cultural elements as mediators of human
thought and activity (Vygotsky, 1978). According to Lantolf and Thorne (2007), while other dynamics are at play, the most critical human cognitive activity cultivates through interaction within social and material environments. SCT offers an understanding of the complex intertwining of the individual, the interactional, and the cultural in meaning making (Nasir & Hand, 2006). Meaning making materializes through interactions with one’s peers, family, and others in “cultural, linguistic, and historically formed settings” within institutional contexts such as schools, structured extracurricular activities, and offices (Lantolf & Thorne, 2007, p. 197).

A number of theories exist under the sociocultural umbrella. Describing sociocultural perspectives as a collection of related theories, then, each of which emphasizes the social and cultural contexts in which meaning making, knowing, learning, and teaching, takes place, is more appropriate (Perry, 2012). Lewis, Enciso, and Moje (2007) suggest that “the word sociocultural has taken on both great prominence” but at the same time a “lack of clarity in application” (p. 1). With this in mind, the three main components of sociocultural theory are detailed below. Their relation to teachers, as associated to the purpose of this study, are also outlined. Wertsch (1985) describes three core tenants of SCT as related to mental processes and human action:

- driven by mediating tools and signs;
- originated though interaction and social activity; and
- best understood developmentally.
Sociocultural views have recognized mental processes as being culturally mediated, socially constructed, and historically developed. While the three themes cannot be completely disentangled, as descriptions of one requires reference to another, each is described below.

**Cultural Mediation**

Mental processes are driven by their mediating tools and signs (Wertsch, 1985); different contexts and related cultures are the source of this mediation. The process of mediation, regulating internal and external interrelations (Lantolf & Thorne, 2007), is a critical feature of human action. In his research, Vygotsky (1978) approached human action as being facilitated by a number of tools and signs, primarily language that individuals use to negotiate between person and environment.

While cultural tools play a vital part in shaping action, cultural tools alone cannot cause action. Vygotsky acknowledged the “neurobiological base” of the human mind as influencing thought at lower levels (Lantolf & Thorne, 2007). To regulate our mental activity, however, Vygotsky (1997) proposed that biological and cultural elements systematize to control mental functioning, where “biology provides the necessary functions and culture empowers humans to purposely use those functions” (p. 55).

Technical, or physical, tools are a means of influencing the environment, or a person’s external activity. Physical tools, which are culturally-constructed objects, afford humans greater ability than their natural capabilities alone will allow. For example, a book is a physical tool that can afford me more information
than I have on my own when I need to find information about a new topic. These tangible tools can be used to change the world around a person as needed (Lantolf & Thorne, 2007). Psychological, or symbolic, tools are a means of psychologically influencing the behavior of oneself or another (Wertsch, 1985, p. 77). Symbols, such as language, writing, symbols, or signs are used as tools to mediate psychological activity. Symbolic tools allow humans, unlike other species, to delay the functioning of automatic biological processes (Lantolf & Thorne, 2007). As humans we have the self-control to mediate our instincts when a situation presents itself. In considering the relationship between tools, mediation, and culture, Vygotsky (1981) described culture as “the product of social life and human social activity” (p. 164), further explaining culture as almost tangibly existent through social processes.

**Social Construction**

Mental processes originate through interaction and social activity (Wertsch, 1985); both face-to-face interactions with others, as well as individual interactions at the societal or institutional level play a role in mental processing (Wertsch, 1985). Because meaning making is so closely tied to social interactions, the role of social and discursive practices, as well as culture, are fundamental to meaning making processes. Understanding development, then, requires looking at how individuals participate in everyday, authentic activities with their peers, activities, and artifacts (Vygotsky, 1978).

The knowledge that constitutes any given domain is *distributed*, or extended across the physical and social contexts, of which it is used (Bell, 2005).
Lave (1988) describes the idea of distributed cognition as being “stretched over, not divided among—mind, body, activity and culturally organized settings (which include other actors)” (p. 1). The idea of distributed cognition recognizes the interrelated nature of the actual and social environments in development and reinforces the need for social contexts and social interaction.

While social, rather than individual, processes take precedence in the development of sophisticated mental functions the two cannot be separated (De Valenzuela, 2006). Individuals, directed by their own mental functioning, participate in their social lives in a variety of ways. According to Vygotsky (1997), mental functioning materializes twice, first between individuals on the interpsychological plane and next inside individuals on the intrapsychological plane. This transition from social encounters happening outside the individual to those social influences metastasizing inside the individual, represents the process of mental functions becoming internal (Wertsch, 1985). Socialization, then, plays a meaningful role in internalization (Wertsch, 1985), a key component of SCT. Internalization is known as the process in which cultural tools, such as language, become part of an individual’s psychological functioning. When a person is able to internalize cultural tools, they can then intentionally and thoughtfully utilize them to regulate their own thinking and behavior.

Internalization includes a progression in which a person’s activity is first mediated by other people or objects and is then controllable by the person. This process is not simply a replacement of skills from external/social to internal/individual, but instead, is a process of knowledge transformation.

In the first stage, object-regulation, objects from the environment are used to support thinking, such as a student manipulating tangible letters to remember the alphabet. Other-regulated, the second stage, involves both implicit and explicit mediation from a variety of interactions with others. A discussion of more knowledgeable others and the zone of proximal development, exemplifying other-regulation, follows. Lastly, self-regulation, involves a person being able to accomplish activities with little to no external support. At some point the child will no longer need tangible letters to manipulate in recalling the alphabet, thus remembering the alphabet has become a self-regulated activity. It is important to note that some activities are never conducted completely outside of one’s head, yet this does not automatically classify them as object- or other-regulated. Lantolf and Thorne (2007) offer the example of adults using paper and pen to complete multi-digit multiplication problems. In this case, the process of multiplication is not object-regulated simply because the problem was completed using paper. The steps involved in the act of multiplication are internalized and can be completed independently. In addition to being socially constructed, human mental processing also develops historically and is best understand from a developmental perspective.
Historic Development

Mental processes are best understood developmentally (Wertsch, 1985). Vygotsky (1978) recommended contemplating human mental functioning based on developmental changes over time, which he referred to as studying them “historically” (p. 64). He suggested a focus “not on the product of development but on the very process by which higher forms are established” (p. 64). Cognitive development, from a sociocultural perspective, includes “revolutionary shifts,” or turning points, as opposed to quantitative incremental movement (Wertsch, 1985, p. 19). No sole factor and corresponding set of explanatory principles can adequately describe a given change in development (Wertsch, 1985); instead, development simultaneously occurs on multiple levels, or within multiple domains (Cole, 1998).

Studying different domains provides a comprehensive account of human mental functioning. One example is the genetic method, which allows for investigations of how an individual’s nature and behavior can be explained by developmental domains (Rowe & Wertsch, 2002). Vygotsky proposes the analysis of four genetic domains including: phylogenetic, ontogenetic, microgenetic, and sociocultural (Table 1). The phylogenetic domain involves changes in the evolution of an entire species, or adaptations to contexts across generations, while the ontogenetic domain involves changes within an individual’s mental functioning over periods of time, perhaps the duration of the lifespan (Cole, 1998). The microgenetic domain concerns transformations, or moment-to-moment changes, between the learner and the environment, resulting
from particular interactions in specific sociocultural settings. Lastly, the cultural/historical domain concerns the external world and development over time in the cultural tools valued within a given context (Rowe & Wertsch, 2002).

**Table 1**

*Genetic Domains of Development*

<table>
<thead>
<tr>
<th>Domain</th>
<th>Developmental study of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phylogenetic</td>
<td>Species through evolutionary processes</td>
</tr>
<tr>
<td>Ontogenetic</td>
<td>Individuals over time though natural and cultural processes</td>
</tr>
<tr>
<td>Microgenetic</td>
<td>Particular act(s) between the individual and environment though natural and cultural processes</td>
</tr>
<tr>
<td>Sociocultural history</td>
<td>Culture through mediation processes</td>
</tr>
</tbody>
</table>

(Adapted from Rowe & Wertsch, 2002)

With developmental approaches to thinking and learning, sociocultural perspectives honor the notion of a "more knowledgeable other" in supporting learning to provide guided assistance, and to subsequently promote deeper independent learning (Vygotsky, 1978). Knowledgeable individuals are capable of successfully participating in their sociocultural contexts by using applicable practices such as rituals and cultural tools to flourish. In the learning process, the role of mentors to mentees, experts to novices is prioritized. The concept of the Zone of Proximal Development (ZPD) involves hypothetical zones describing both a learner’s current developmental level, as well as the next level that is attainable with the assistance of a knowledgeable other. Vygotsky (1978) defined ZPD as “the distance between the actual developmental level as
determined by independent problem solving and the level of potential
development as determined through problem solving under adult guidance or in
collaboration with more capable peers” (p. 86). This model provides a concrete
example of the social origin of development for learners. It suggests that learners
are given tasks, slightly beyond what that can achieve independently, to
collaboratively complete with assistance. Learning ensues as a result of the
learner internalizing the interaction that permitted more successful participation.
Contrasting traditional measures, which focus only on a child’s current level of
development, the ZPD model suggests that current assisted performance
predicts future independent performance.

To conclude, sociocultural perspectives on knowing and learning can be
summarized based on Vygotsky’s focus on the nature of mental functioning being
culturally mediated, socially constructed, and historically developed. Research
informed by SCT can be viewed as a developmental examination of how mental
processes originate in social action and are shaped by semiotic mediation. Next,
an explanation of how SCT informs the current study is explained.

**Sociocultural Perspectives on Writing Integration**

Sociocultural theory was drawn on in the current study to ground findings
emerging from how teachers explained their experiences integrating daily writing.
The school contexts in which writing instruction takes place are made up of the
communities of practice in which the teachers and students engage.
Administrators, curriculum, standards, assessments, other mandates, and
additional factors within the learning environment shape writing and writing
Adopting a sociocultural perspective on teachers’ experiences with writing integration accounts for how these various factors may be at play.

While sociocultural theory is frequently used in studies examining child or student development and learning, SCT also serves as a meaningful lens for work on teacher practice (Goos, 2013). Any consideration of teaching practice and experience is rooted in assumptions about learning and the nature of knowledge. The complex nature of teaching seemingly situates teachers in a dualistic position, based on how they approach learning and learners, as well as how they perceive themselves as teachers.

Recent research on teaching and teacher education extends the use of SCT for topics informative to this study. Examining beginning teachers’ journey from novice to expert, Confait (2015) studied teachers’ efforts to work toward their schools’ expectations of effective teaching. A SCT perspective revealed that as a result of their quest to meet institutional expectations, the teachers’ views about effective teaching shifted. Additionally, Ebadi and Gheisai (2016) examined the daily classroom practice of one EFL teacher using SCT to document her changing attitudes about professional learning and the factors related to those changes. Lastly, the self-inquiry of a language teacher educator was detailed through a SCT lens as she evaluated her students’ reflective journals. Analysis revealed that by recognizing the causes of her negative feelings toward this experience, she was able to reframe her understanding of the teacher educator as a learner (Golombek, 2015).
Presenting a SCT lens on educators’ perspective shifting, attitude changing, and role reframing, provides insights on the usefulness of SCT to teachers’ writing integration. Below details how the current study used a SCT lens when looking at teachers’ experiences with writing integration and considering how aspects of teachers’ daily writing integration may be culturally mediated, socially constructed, and historically developed.

**Cultural mediation.** The various cultural practices and tools encompassed in a teacher’s pedagogy, as well as the many cultural factors, on a more global scale, that are at play in his/her teaching, can shape the way writing is integrated. Additionally, enculturation, which attempts to explain the gradual acquisition of the characteristics and norms of a culture, is particularly relevant to the present study. Vygotsky’s (1978) notion of “distributed” cognition, in which a community of learners engages in a shared cognition that is disseminated across the learning context, is seen when content area teachers employ cultural tools in their quest to bring students into the discourse communities of the disciplines.

According to Moje (2008), literacy is embedded in the unique social and cultural dynamics of classrooms, schools, and larger cultures. The teaching of writing in each content area, then, is both a culturally and socially and bound activity. Teachers’ decision making around writing integration in each content area is impacted by social and cultural influences but also by knowledge and beliefs related to their academic disciplines, writing, and associated pedagogies (Shulman, 1986). Various genres can be considered artifacts or practices previously created by others with identifiable text types that change to reflect
community norms and expectations (Bakhtin, 1986). For example, in biological sciences, what is presently expected from a scientific report in an academic journal could vary in the future based on the changing views of the disciplinary community.

Various conceptions of culture exist in different facets of educational research. Scholarship on the learning and achievement of minority students has positioned individuals as passive carriers of culture, with culture being a more static set of characteristics, beliefs, and practices (Nasir & Hand, 2006). The sociocultural view of culture, on the other hand, is one in which culture is “produced and reproduced in moments as people ‘do’ life” (Nasir & Hand, 2006, p. 450), deeming culture as an active and changing construct, formed through interactions with others in more local contexts. According to Nuthall (1997) calls for a dual view of culture, considering both “the culturally embedded nature of the classroom processes and the central role that cultural norms and artifacts play in structuring learning and the way we view learning” (p. 711). The current study considers culture in terms of those cultures in which students and teachers associate, the classroom cultures in which teachers are engaged, and the broader sociocultural and societal views at play that implicitly and explicitly impact teachers’ teaching. Each cultural perspective impacts teachers in some way and is, therefore, embedded in holistic look at teachers and their teaching, as is the way teachers perceive social interaction in their teaching.

**Social construction.** Pedagogy positions social processes in relation to learning processes based on the epistemology of the teacher. A teacher’s
personality, beliefs, and values come to fruition though social interactions by way of various domains of instruction within a learning environment. Teachers can be classified as the “director of the social environment” (Vygotsky, 1997, p. 339), and this role entails guiding their courses based on the ways in which they value knowledge exchange occurring by students.

Teachers’ interactions within the learning environment are also significant. When looking for patterns, or inclinations to surface in teachers’ writing practice, considering the numerous interactions a teacher regularly experiences, including teacher-student, teacher-parent, student-student, teacher-administration, teacher-content, and student-content, etc., is one point of reference. Both the local and global contexts of teachers influence their teaching, with the specific disciplinary, writing, and teaching-related discursive communities of teachers positioning them in particular ways. Teachers’ responses to those positions can affect how they engage, discuss, and implement writing (van Langenhove & Harre, 1999). Teachers developing a “way of behaving, feeling, valuing, or acting toward writing” (Piazza & Siebert, 2008, p. 275) that dictates their writing integration.

**Historic development.** From the sociocultural perspective, both the process of learning to teach and the act of teaching are complex (Vygotsky, 1978); these processes are shaped over time by numerous factors that occur in diverse contexts. Teacher learning and development (Shulman, 1986), and the opportunities afforded for teacher preparation and professional learning related to writing, lead to differentiation in writing integration among teachers. Approaches
in each content area may vary based on beliefs about the appropriate use of
writing within the disciplines. Cultural tools are fashioned across time within the
contexts they are used; thus, a meaningful learning context is characteristically
both sociocultural and historical in that it is socially evolved, and it employs
culturally and historically-developed tools (Rowe & Wertsch, 2002).

Notions of the zone of proximal development, and teachers’ approach to
scaffolding and mentoring, are relevant in relation to their experiences with
writing. A SCT view of writing considers writing development over the lifetime for
an individual, but also the moment-to-moment increments (Rowe & Wertsch,
2002) in which writing progresses. This developmental stance on writing
suggests learners gradually acquire the skills and knowledge to write in
meaningful ways. When considering writing in the disciplines, developmental
approaches to disciplinary literacy have been suggested for secondary learners
(Fagella-Luby, Graner, Deshler, Drew, 2012; Shanahan, 2012). Teachers’
methods for writing in the content areas will be influenced by their beliefs about
developmental approaches.

SCT examines the relationship between human action, in this study,
teacher’s writing integration, and the related cultural, institutional, and historical
situations in which action occurs (Wertsch, 1985). Teaching and learning are
highly contextualized and situated, thus the context in which learning and
teaching takes place, and the embedded cultural aspects of each is part of
teachers’ experiences with writing integration. Zone theory offers a framework for
presenting commonalities amongst the teachers, while at the same time considering the unique contexts in which they interact.

**Zone Theory**

In efforts to better understand teaching and learning, zone theory (Valsiner, 1997) both extends and narrows sociocultural theory, integrating the role of personal histories, beliefs, and values, as well as cultural practices and institutional contexts (Goos, 2014). Zone theory includes multi-zone system allowing for descriptions of development based on relationships between the physical environment and the people in it. As previously discussed, Vygotsky’s (1978) concept of the Zone of Proximal Development (ZPD) represents an individual’s current level of capability and potential level of achievement, or as Valsiner (1997) proposed, the learner’s intellectual readiness. Zone theory recognizes two additional zones, providing a more well-rounded view of development – the Zone of Free Movement (ZFM), which acknowledges the social setting, and the Zone of Promoted Action (ZPA), which acknowledges endorsed goals and behaviors (Goos, 2014). As depicted in Figure 1, learning, or canalization of development, is represented by the connection of the three circles, and is possible when the ZPD (possible development) intercedes with ZPA, promoting actions that are reasonable when considering ZFM, contextual constraints (Blanton et al. 2005; Goos, 2014).
Zone theory, then, conceptualizes potential development conveyed by knowledge and beliefs and shaped by interactions with others and the environment (Geiger, Anderson, & Hurrell, 2017). Broadly speaking, the ZFM includes the ways an individual is allowed to or reframed from acting within an environment, while the ZPA includes any influences fostering action within a given environment (Geiger et al., 2017). Zone theory, established to study child development (Valsiner, 1997), has been further adapted to explore pre-service teacher learning (Goos, 2013), teacher identity (Bennison, 2015), teacher practice (Blanton et al., 2005); teacher change (Goos & Geiger, 2010), issues influencing instructional decision making (Geiger et al., 2017), factors influencing technology integration (Goos, 2005); and elements of teacher learning (Goos, Dole, & Makar, 2007). To date, two primary approaches to zone theory, described below, have been employed.
Zone Theory Approach One: Student-as-Learner

In a student-as-learner approach to zone theory, the ZPD centers on student development. This approach positions the teacher as actively generating the environment in which the learner develops (Blanton, Westbrook, & Carter, 2005), and student learning occurs at the interception of the ZPD, ZPA, and ZFM. The ZFM is a “binding agency” by which teachers can confine learners’ access to “areas, objects, or ways of acting on such objects” (Blanton et al., 2005, p. 6). The way teachers organize the ZFM foreshadows the nature of the child’s thinking about the concept being taught currently, and in the future, ultimately canalizing the development trajectory. For example, to illustrate a teacher manipulating the ZFM, consider a teacher designating a specific area of the classroom in which writing conferences with the teacher are conducted. The classroom is further compartmentalized, narrowing the ZFM, by designating peer feedback work tables. Through this process, the distinctive ways writing activities are internalized by students will be reflected in future writing activities. Additionally, teachers encourage students to think or act in particular ways. The ZPA describes what the teacher is promoting based on his/her instructional choices. For example, while the ZFM may both allow and constrain a student’s development, the ZPA includes that which promotes development.

The ZFM and ZPA, according to Goos (2014), are “dynamic and interrelated,” establishing a ZFM/ZPA complex that is continually restructured by teachers based on their purposes (p. 443). Teachers constrain or promote the child’s thinking and behavior through manipulation of the ZFM/ZPA complex.
Learning opportunities for students are determined by this manipulation (Blanton et al., 2005). Valsiner’s (1997) theory suggests that what is promoted (ZPA) by teachers can only be within what is allowed (ZFM). Additionally, if what is promoted (ZPA) is not within the individual’s ZPD, then optimal development cannot occur.

**Zone Theory Approach Two: Teacher-as-Learner**

Adapting zone theory to suit teacher learning, Goos (2005) stated that the three zones establish a system that can account for 1) the development of teachers’ pedagogical identities (ZPD); 2) the dynamic relationships between contextual constraints and affordances of the teaching environment (ZFM); and 3) the teaching actions specifically promoted within that environment (ZPA) (p. 38).

When the teacher is positioned as a learner, the ZPD is a symbolic space focusing on the teacher’s identity (Goos, 2005), with teacher learning happening at the interception of the ZPD, ZPA, and ZFM. The proximal development represents a set of possibilities for growth in new knowledge, expanding beliefs, and improved practice (Goos, 2014). Some considerations may include disciplinary knowledge, pedagogical content knowledge, beliefs about the discipline, and beliefs about how content is best taught and learned (Goos, 2005); however, Goos (2013) adds that teacher learning is “participation in social practices that develop teachers’ professional identities,” as opposed to simply internalizing new knowledge, beliefs, or skills.
Considering learning contexts and professional learning strategies, the ZPA represents teaching actions or skills that various stakeholders, such as preservice teacher education programs and professional development initiatives, may promote. More informal interactions such as those with school colleagues and mentors would also fit into the ZPA. ZPA may be multi-faceted and contradictory when considering the numerous stakeholders teachers engage with regularly.

The ZFM centers on the professional context and applicable constraints and affordances, recognizing those teaching actions that are still permitted despite the limitations within the school environment. ZFM displays the structure of how one accesses and interacts with elements of the environment (Goos, 2005). Within the external realm of the ZFM, teachers’ interpretations of the environment may lead to the construction of personal, internal ZFMs, that create additional constraints or affordances (Goos, 2005). Examples may involve teachers’ perceptions of their students, whose abilities, background knowledge, motivation, and behavior may impact teaching actions. Also, curriculum and assessment mandates, which can impact instructional decision making, and stimuli acting as barriers such as access to resources, organizational cultures, outside attitudes toward related curriculum and pedagogy, etc. are housed within the ZFM.

For teacher learning to occur, teachers’ knowledge and beliefs (ZPD) must engage with events from the learning context (ZPA) to promote teaching approaches that the individual believes are feasible within their professional
context (ZFM). Additionally, teacher development and socialization are impacted by the deficiencies represented between present and potential abilities (ZPD), as well as by context (ZFM) and priorities in that context (ZPA).

**A Zone Theory Approach to Daily Writing Integration**

Zone theory is an advantageous framework for this study because of its ability to combine teaching, learning, and context. As described above and summarized in Table 2, two connected layers of zone theory have been explored thus far: 1) Student-as-learner, contemplating classroom Zones of Free Movement and Promoted Action that structure student learning, and 2) Teacher-as-learner, negotiating the broader ZFM/ZPA complexes that structure teacher learning and identity.

**Table 2**
*Zone Theory Configurations*

<table>
<thead>
<tr>
<th>Student as Learner (Valsiner, 1997)</th>
<th>Teacher as Learner (Goos, 2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone of Proximal Development (ZPD): Current and potential attainment</td>
<td>Zone of Free Movement (ZFM): Constraints/allowed actions (based on environment)</td>
</tr>
<tr>
<td>Possibilities for student development</td>
<td>What is allowed in the classroom (by the teacher)</td>
</tr>
<tr>
<td>Possibilities for teacher development</td>
<td>Teaching actions allowed by constraints within the school environment</td>
</tr>
</tbody>
</table>
Manipulating these zone configurations can provide can be useful for exploring teacher practice. In considering possible manipulations for explaining daily writing integration, the current study was informed by various adaptations of zone theory. Zone configurations prioritizing a more holistic view of the teacher and his/her teaching, some of which are detailed below, were considered to determine the best conceptualization for looking at teachers’ experiences with daily writing integration. For example, Gieger and colleagues (2017) focused on determining issues that impact mathematics teachers’ instructional decision making. By positioning teachers’ actions as the outcome, or canalization, this study looked at how ZPD, ZFM, and ZPA formed a complex that represented the intersection of possibilities and limitations for teachers’ actions. Additionally, when studying collaborative learning approaches in primary school mathematics, Hussain, Monaghan, and Threlfall (2013) examined the interrelated ZFM/ZPA transformations of both teachers and students. Both how the teachers created new ZFM/ZPAs for their students (student-as-learner emphasis), as well as how the teachers improved their relationships with students and adapted their use of other mathematical objects in the classroom (teacher-as-learner emphasis) were described.

Another meaningful adaptation is that of Goos (2005), in her endeavor to understand how pre-service teachers’ technological identities shifted as they became beginning teachers. Goos compared elements of the teachers’ ZPD, ZFM, and ZPA to examine how the changing relationships between the zones shaped a teachers’ identities. Lastly, Lamb and Branson (2015) looked at
principals’ impact on curricular change by structuring a zone configuration that includes aspects of both principals’ and teacher practice and how the two interact within the school environment. In developing the framework for the current study, ideas around instructional decision making, interrelated teacher/student ZFM/ZPA complexes, and the power of the interaction between zones to shape teacher identity and behavior were combined from the above studies.

The current study explores teachers’ experiences with writing integration to discern commonalities amongst teachers across content areas who integrate writing daily. Thus, the concept of zones was used to focus on those aspects that may afford, constrain, or promote writing integration. Combining and refining previous zone theory research (Gieger et al., 2017; Goos, 2005; Hussain et al., 2013; Lamb & Branson, 2015), a modified model, as shown in Figure 2, was developed for daily writing integration. Combining and adapting the two previously described models (student-as-learner and teacher-as-learner), with a more holistic approach to writing integration, the modified model considered the complex settings of teachers and both the internal and external factors affecting their writing integration. Merging the student zones and the teacher zones to account for a more well-rounded picture of teachers’ writing integration provided a better understanding of teachers’ experiences.

Unlike previous research utilizing zone theory that has emphasized student learning or teacher learning, the current study, instead emphasizes daily writing integration, investigating the interaction of factors contributing to that
routine. As shown by the connection of three zones in Figure 2, this emphasis positioned daily writing integration as the target, or at canalization. Because a commitment to daily writing integration was constant within the learning communities of teachers in this study, a somewhat reverse model was of interest, looking at the interplay of factors happening around writing integration. This configuration includes teachers' personal conditions (Zone of Proximal Development), professional contexts (Zone of Free Movement), and promoted actions (Zone of Promoted Action), as well as how these factors interacted within the learning community to result in daily writing integration (canalization).

**Figure 2**
*Personal, Professional, and Action-Promoting Zones Influencing Daily Writing Integration*

(Adapted from Gieger et al., 2017; Goos, 2005; Hussain et al., 2013; Lamb & Branson, 2015)
**ZPD: Personal conditions.** Valsiner (1997) describes the zones as fuzzy abstractions, however, to provide a point of reference for comparison across teachers, the zones for this study are loosely described below. When adapting zone theory for use in classrooms, Hussain and colleagues (2013) suggest that teachers' ZFM/ZPA complexes shape their students' ZFM/ZPA complexes. Thus, both complexes must be recognized in a zone configuration that investigates teachers’ practice, or the influences on that practice. In the modified model, the ZPD considers personal, or internal, conditions, such as the knowledge, beliefs, attitudes, and values that teachers bring to their schools, classrooms, and students. ZPD represents the relevant skills required for teachers to imbed writing integration into their daily practice. Teachers’ capacity to teach daily writing in their disciplines, then, is part of the ZPD, which involves their consideration of how writing fits into their students’ ZFM/ZPA complexes, as well as writing impacts students’ ZPDs (Lamb & Branson, 2015).

**ZFM: Professional contexts.** The ZFM is related to environmental factors that constrain or afford teachers’ actions, thinking, and learning in relation to daily writing integration. A question to consider, then, when shifting zone theory to classroom use, is who sets the constraints for and promotes the actions of teachers; Hussain and colleagues (2013) recognize all “voices” that impact their practice (p. 288). Both environmental influences, and individual’s responses to the environment are housed in the ZFM. Contextual conditions include those in the classroom, such as student needs, as well as those influences from broader
contexts. While the ZFM has constraining or supporting properties, the ZPA facilitates canalization.

**ZPA: Promoted actions.** ZPA conveys how the teacher’s actions, thinking, and learning, as related to writing integration, are promoted or encouraged through aspects of the environment and the actions of others, such as teacher peers or school leaders. Professional learning experiences that endorse actions are also part of the ZPA. The promoted action in the current study was daily writing integration. The ways in which teachers themselves promote writing integration, or facilitate canalization, in terms their instructional decision-making and practice are also included in the ZPA. The ZPA includes all those factors encouraging the teacher to perform “positively, constructively, and confidently” toward canalization (Lamb & Branson, 2015, p. 1013), or according to Scott and Graven (2013), ZPA houses “the forces that seek to drive canalization” (p. 5).

**Summary.** According to Goos (2013), using zone theory in research on teacher practice relies on the notion of “productive tensions between teachers’ thinking, actions, and professional environments, and how such tensions can become opportunities for teacher change” (p. 521). These tensions can surface from the various dissatisfactions teachers may experience when their ZPD does not connect, or align, to ZFM/ZPA complex in ways that promote desired canalization. Tensions are considered productive if resultant action activates change that causes the zones to align. The desired canalization, in this study, daily writing integration, results from zone alignment. This happens when the
ZFM or the ZPA are adjusted. For example, a teacher may seek out professional learning opportunities relating to writing that shift the ZPA in ways that mediate the ZFM and allow for canalization. Productive tensions, however, were not overlooked as teachers’ ZPD, ZFM, and ZPA were evaluated.

Teachers in each content area make countless decisions on a daily basis, meaning what they promote and allow, as a result of personal, professional, and action-promoting circumstances, can be demonstrated with zones to show how their practice may be affected. The idiosyncratic ways in which a teacher comes to know, think, and feel about a discipline, and in this case about writing, will be reflected in the classroom culture he/she creates. That culture is seemingly impacted by many factors, which from a SCT perspective, shed light on teachers’ experiences and approaches to writing integration.
CHAPTER THREE
RESEARCH METHODOLOGY

Methodology refers to the overarching way a research topic is approached—principles, plan of action, procedures—whereas method identifies the specific technique(s) being employed to achieve the desired outcomes (Crotty, 1998). The current chapter explains the research methodology and methods by detailing the following sections: Researcher Background and Positionality, Multicase Study, Setting and Participants, Data Collection, Data Analysis, and Limitations.

A multicase study design (Yin, 2014) was used to understand teachers’ experiences with and perspectives on implementing writing in the content areas. The purpose of this study, framed by sociocultural theory (SCT; Vygotsky, 1978) and zone theory (Goos, 2005), was to explore commonalities across the reflections of teachers who integrate daily writing, determining those factors that constrained writing integration and those that promoted it. To answer the research question, this investigation included surveys, instructional logs, written reflections, weekly journaling, observations, and interviews. Teachers’ reflections allowed for an in-depth deliberation of the following research question: How do secondary content area teachers explain their experiences with daily writing integration? An important part of this research process is revealing the researcher’s subjectivities; therefore, the next section describes the researcher’s background and positionality.
Researcher Background and Positionality

Reflexivity involves the researcher intentionally locating him/herself in the research and reporting personal biases, values, and beliefs (Palaganas, Sanchez, Molintas, & Caricativo, 2017). This self-awareness of potential subjectivities acknowledges how positionality may affect the research process. Relevant aspects of my background and positionality, related to teacher education, writing, and my relationships with the teachers in the study, are briefly discussed below.

Although I am a licensed K-12 educator, with certifications in various subjects, I never completed a traditional undergraduate teacher education program. I developed an interest over time in what these programs entail for pre-service teachers, as well as how efficacious they are in preparing future teachers. Working closely with teacher candidates through various field experience supervisory roles, many have expressed a desire over the years for more explicit guidance in their journeys as writing instructors. Coupled with my own preconception that reading and literature take precedence over writing in educational settings, both K-12 and teacher preparation, this work with pre-service teachers sparked my interest farther about writing and teacher self-efficacy.

With the writing narrative in K-12 schools rejuvenated by the CCSS, I question if in-service teachers are being supported for the classroom implications of these more rigorous writing standards. As content area teachers are now responsible for attending to writing in more robust ways, this emphasis on writing
in each content area does not seem to be replicated in the preparation of pre-
and in-service teachers. This mismatch comes despite the adoption of the CCSS
approaching the 10-year mark in some regions. I find this misalignment in
teacher accountability to teach and promote writing, and the perceived lack of
preparation to do so, troubling. With this, how are effective writing teachers
developing and sustaining their practice and what role does self-efficacy play?

Despite the changing nature of curriculum, standards, and policy, the
research base supporting writing as a means to promote learning in the
disciplines is sound. Teachers will likely, and hopefully, be held accountable
long-term for writing in the content areas. With this as a motivating factor for the
current study, understanding how teachers experience the implementation of
writing on regular basis, as well as the dispositions of those teachers who
implement daily writing, is a worthwhile consideration. Writing in the content
areas is a reality for today’s secondary teachers, as indicated by the previously
reviewed research. Writing has long been an important aspect of my own
personal life and K-12 teaching practice, and the decision to pursue teachers’
experiences with daily writing in the content areas was driven by the need to
deliver the perspectives of teachers for whom writing is a regular instructional
activity.

Throughout this research, I took on dual researcher roles. In studying
teachers’ explanations through their reflections, I positioned myself both actively
and passively when best suiting the goals of the study. For the observations in
each classroom, I acted as a silent observer. These observations primarily
served as a point of reflection for the teachers, thus, my detailed observation protocols, notes, and questions were valuable to the study. Within the classroom, I disrupted the environment minimally. I introduced myself to each class, explaining that I was studying writing. This led to little interference during my observation of the students during guided and independent work, which was important to documenting teacher’s business-as-usual practice. On the other hand, while the interviews were structured for teachers to lead the discussion, I did take on a more active role during interviews. Engaging with teachers in reflective dialogue about their practice, perceptions, and beliefs, interview dialogue allowed me to probe teachers’ reflection based on my continual review of their documented writing integration and other reflections.

Approaching this type of reflective work with teachers necessitates a “collaborative stance, one that allows for mediation and negotiation of power and knowledge from the onset by both the researcher and participant” (Stevens, 2004, p. 197). My relationship with each teacher began one to two school years prior to the current study. The teachers were previously involved in professional learning, research, or both through university/school partnerships in which I was involved. While the teachers knew me as a current graduate student and teaching/research assistant employed by the university, they also knew me as former secondary English teacher. As the lead researcher on this study, I positioned myself as an associate to the teachers. A teacher interested in learning about the writing practice of other teachers, I was learning from them. To facilitate a safe place for authentic reflection, maintaining a collaborative
relationship with the teachers was important. Cuban (1988) states that teachers are often "unconvinced by those who are unfamiliar with the classroom as a workplace" because they attempt to tell teachers how they should teach, rather than first asking how they do teach" (p. 343). I consciously entered each interaction with teachers inquiring in non-evaluative ways about how and why to learn about the complexities behind their thinking and teaching.

**Multicase Study**

This was a qualitative, multicase study including four secondary teachers and their explanations of how they experience integrating writing into their content areas each day for one quarter. Yin’s (2014) approach to case study allowed for an investigation of individual cases through a theoretical lens. Relevant literature, as discussed in Chapter Two, was reviewed prior to conducting this study. Using a theoretical framework of SCT (Vygotsky, 1978) and zone theory (Goos, 2005), a focus on providing a holistic look at teacher’s experiences with writing integration was emphasized.

The goals of any study drive the methods. Multicase study was selected as the most appropriate design for this study, given the need for a description of teachers’ experiences within their content areas and school contexts, as well as an explanation of commonalities across the bounded systems (Stake, 2006). Data from multiple cases were considered more compelling than the investigation of a single case (Yin, 2014), enhancing the articulation of why the experiences occurred as they did. This design also allowed for an exploration of daily writing integration without manipulating the classroom setting (Merriam, 1998; Yin,
Additionally, the collective case study approach was especially valuable within the school setting, a social setting, where the context the participants operate within and the point of observation were inseparable (Goddard, 2010).

While varying perspectives on the parameters for defining cases exist (Merriam, 1998; Stake, 2006; Yin, 2014), Miles and Huberman’s (1994) understanding of the case was looked to in the current study. A case is a “phenomenon of some sort occurring in a bounded context” (Miles & Huberman, 1994, p. 25). Clearly defining the case is important in viewing it as a precise and identifiable entity in relation to time, place, or physical boundaries (Creswell, 2013). In this study, representing the voices of teachers in relation to writing integration was prioritized; thus, the teachers’ experiences with daily writing integration was the phenomenon of study (Yin, 2014), viewed through the teachers’ reflections and explanations. Stake’s (2006) notion of a bounded system (by way of Louis Smith) categorizes each case as an individualized unit. Bounded within each are the people, experiences, and details relevant to that case. The bounded system in this study included one teacher and one focal class for each teacher, in which writing was integrated each day.

The cases were holistic, in that while both within-case and cross-case analyses were conducted, conclusions about the phenomenon, teachers’ experiences with daily writing in the content areas, was ultimately the focus of study. Holistic cases are similar to instrumental cases, in which each is designed to develop an understanding of a particular theory or issue (Barone, 2011; Stake,
2006). In this instance, affordances and constraints teachers face when integrating daily writing served as an issue of note.

Case study research required the investigation of numerous data sources (Yin, 2014). The extensive data collection for each teacher, as later described, allowed for exhaustive consideration of how teachers explained the ways in which writing integration played out in their classrooms over the quarter. Characteristic of case study research, countless more variables of interest were at play in this study than data points could be collected (Yin, 2014). Also important to case study research, trustworthiness was ensured.

Trustworthiness for this study was approached in several ways. First, the study was conducted over a full quarter. This time with the teachers allowed for gathering data from various sources to paint a genuine picture of teachers’ perspectives. This included a multi-interview process (Seidman, 1991) over the 10 weeks, offering credibility, or confidence in the truth of the findings (Bowen, 2005). Determining findings based on different types of data guaranteed triangulation and further safeguarded credibility. Robust data collection promoted thick descriptions of how the teachers explained their experiences. Through these descriptions, details permitting others to transfer the findings to similar contexts are provided. Bowen (2005) described transferability as the likelihood of other researchers being able to apply research findings elsewhere.
Setting and Participants

The study spanned over one quarter in the local school district, which consisted of 10 weeks and approximately 50 instructional days. Thinking holistically over one quarter of teaching provided a more natural way for teachers to reflect on their experiences with writing integration. Teachers engaged in business-as-usual practice, exercising the autonomy to make instructional choices as they saw fit.

Participants for this study were secondary in-service teachers working in a large school district housed within a midsized city in the Northwest. The district included 107 schools and over 66,000 students, 16% of whom were designated as English Language Learners (ELL) and 13% of whom had Individualized Educational Plans (IEPs) (U.S. Department of Education Institute of Education Sciences, 2017). Over 3,200 teachers were employed in this district, 35% of whom worked with secondary students (U.S. Department of Education Institute of Education Sciences, 2017). In choosing these teacher participants, purposeful sampling methods were used (Creswell, 2013). To obtain information-rich cases, ensuring participants have experienced/are experiencing the particular phenomenon, the use of purposeful sampling in case study research is valued.

Teacher Selection

Teachers were selected based on their abilities to accomplish the purpose of the study, which was exploring experiences with daily writing integration. Teacher recruitment began with reaching out to teachers known through previous involvement in literacy-related professional learning initiatives and/or research.
Snowballing techniques were also employed. Contacting those teachers who were already dedicated to authentic literacy practices was a purposeful start, as working with teachers who were integrating writing each day was the goal. The study purpose, participant expectations, and time commitment was explained to several teachers through email and in-person meetings.

Using purposeful sampling, the main objective of recruitment for this study was securing participants based on their daily writing integration. Three inclusion criteria were set for choosing the participants. Teachers were sought after who were:

- Committed to daily writing integration
- Secondary content area teachers (from the four primary areas)
- “Experienced” with three or more years of teaching in their current content area

Working with teachers who were integrating writing on a daily basis was the best way to learn about teachers’ experiences with writing integration and the only way to learn about the experiences of teachers who have their students engaging in writing daily. As suggested by previous research, an increase in the amount of writing that happens in secondary classrooms is needed. While research exists on the nature of writing in content area classrooms, teacher voices are missing. Teacher voices form classrooms that involve consist writing integration are even rarer, hence, my desire to find teachers who integrate writing daily to study their experiences. Seeking out a person-in-practice approach
allows for interpretation of knowledge and beliefs within teachers’ professional contexts (Goos, 2013).

In hopes of delivering insights about teachers’ experiences with writing integration from each of the primary content areas, the choice of including four teachers was purposeful. Writing demands in the current policy context impact all teachers, with a shared responsibility for literacy spanning all contents; thus, including the voices of teachers across all content areas allowed for a better understanding of teachers’ experiences with writing integration.

Additionally, teachers with at least three years of experience in their content areas were sought after. The school district for the study also had a two-year induction and mentoring program for all new teachers. This program included approximately four mandatory professional development sessions each year in addition to other requirements for the mentoring program. After the three-year mark, new teacher district responsibilities have concluded, and teachers have had some time to adjust to the demands of teaching and perhaps settle in their disciplines. Setting the three-year minimum possibly increased the likelihood for teachers to actively and meaningfully participate in research.

**The Teachers**

Based on the inclusion criteria set above, four teachers were chosen as participants in this study. Each teacher represented a different content area and worked at a different school in the district, allowing for responses from diverse perspectives and for an examination of teachers’ writing experiences in different contexts. Table 3 describes each participant’s experience and education, with
further information on each participant following. Participant pseudonyms will be used throughout the remainder of this document.

**Table 3**  
*Participant Experience and Education*

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Content Area</th>
<th>Years Exp. (total)</th>
<th>Years Exp. (focal course)</th>
<th>Degree(s) Held</th>
</tr>
</thead>
</table>
| Craig     | Social Studies | 13                 | 5                         | Bachelor of Science in Secondary Education (Social Studies emphasis)  
Master of Secondary Education (Social Studies emphasis) |
| Jennifer  | Science      | 17                 | 4                         | Bachelor of Science in Biological Sciences |
| Brittany  | English      | 5                  | 5                         | Bachelor of Secondary Education (English emphasis)  
Master of Education (Literacy Studies) |
| Ashley    | Math         | 7                  | 0                         | Bachelor of Secondary Education (Math emphasis)  
Master of Secondary Education (Math emphasis) |

**Craig.** In addition to his bachelor’s and master’s degrees, both emphasizing secondary social studies, Craig was nearing the final stages of his PhD in Literacy. He was passionate about furthering his education, and he planned to remain in the secondary classroom after graduating. Craig once described his motivation for pursuing doctoral studies in this way: “I’m hoping to open doors where I can have more influence at the macro level, while still keeping an attachment to the micro level...I want to be a practitioner and a PhD.”
For the last five years of his 13 years as a teacher, Craig had worked in his current position. His high school was one of the oldest in the district, and 19% of students received free and reduced lunches. He taught two sections of Personal Finance (12th grade), as well as four sections of AP U.S. History (11th grade), his focal course, which included 36 students. His large course size played a role in his writing integration, as providing feedback was challenging. The first week of school, Craig reflected: “I need to develop a better method of managing the large number of students I have with regard to giving meaningful feedback.” In total, he had over 150 students. Craig also expressed institutional frustration with his course size impeding his feedback. While he never mentioned this, his high school had a student-teacher ratio of 23 to one (U.S. Department of Education, 2017), in comparison to his AP course, which had 36 students. When asked to describe the variety of student needs in his focal course, Craig stated that because it is an AP course, modifications were minimal. Modifications were usually a result of time crunches and falling behind on coursework, as opposed to academic challenges.

From the beginning of the year, Craig’s students engaged in literacy routines. After each reading, the class briefly discussed any language from texts that was problematic to their understanding. Small group discussions and collaborative writing were regular practice. Additionally, writing was included on all formative and summative assessments.

The College Board AP U.S. History exam was a high-stakes assessment his students faced at the conclusion of the school year. The exam presented
challenges for Craig timewise. Many of his responses referred to the need to stay on the timeline. He described working chronologically through U.S. history until two weeks prior to the test in May when he would review each day with his students, focusing on three areas of the test. Craig explained that the writing demands on the AP test included three short-answer prompts, one DBQ, and one free response question.

For Craig, it was the AP context that made him feel as though writing was simply part of what he must do as a teacher. In one of his survey responses, which asked about how writing fit into what he felt his responsibilities were as teacher of social studies, he responded: “As an AP instructor, I would be remiss if I didn't include writing every day. Since a little more than 50% of the AP exam is writing, my students deserve all the meaningful exposure I can give.” Describing writing as both the most important part to passing the AP exam and “the most difficult part of teaching AP U.S. History,” Craig regarded the role of writing in his teaching as one of importance.

Jennifer. Unlike the other three teachers, whose degrees were housed in colleges of education, Jennifer’s bachelor’s degree was from her discipline, biological sciences. She completed additional courses to obtain her teaching credential, and she also started a master’s program in education. Only a few courses from completion, unforeseen personal circumstances kept her from finishing.

Jennifer taught three sections of Anatomy and Physiology, with 11th and 12th graders, as well as three sections of Biology I, primarily including 9th graders
with some 10th graders. Her focal course was Biology I, which she had been teaching for four of her 17 total years as an educator. Biology I included no high stakes testing, as a required proficiency exam had concluded in the previous school year.

Describing her focal course, which had 29 students, she indicated that it included many students with IEPs, behavioral issues, and language needs, as well as a few students who are gifted and a few students who have familial needs beyond the teacher's control. When discussing her writing integration, occasionally Jennifer did mention her students working toward behavioral goals. Mentioning her class size, Jennifer noted the immense student learning needs represented, which were challenging to address on her own. A co-teacher helped her previously, but the teacher was removed from her course a few weeks into the school year. Forty-nine percent of students at Jennifer's high school received free or reduced lunch, and the student to teacher ratio included 20 students (U.S. Department of Education, 2017).

To support students, Jennifer scaffolded her lessons to meet the needs of her students, viewing literacy as a means to scaffold Biology. Several literacy routines were established in Jennifer’s classroom. The students explored Biology vocabulary homework each week using Frayer models. Students also wrote in their science journals daily at the beginning of class, which entailed addressing a prompt or question to review the previous day's material or to explore the topic of the day. Jennifer also included writing on all formative and summative assessments. The assessment policy posted for Jennifer's high
school suggested the use of rubrics from the International Baccalaureate Middle Years Programme (MYP), which she sometimes incorporated into her writing. Below are the four assessment criteria.

1. Knowing and understanding
2. Inquiring and designing
3. Processing and evaluating
4. Reflecting on the impacts of science

When asked if her overall teaching was impacted by her commitment to daily writing integration, Jennifer’s sense of responsibility for writing was clear: “Is what or how I teach influenced by my integration of writing? Not necessarily. I think it's just part of what I do. It just has to happen.”

**Brittany.** Shortly after completing her bachelor’s degree in secondary English education, Brittany received her master’s in literacy studies. Of her five years teaching, she had remained in her current role as the English teacher of Honors American Studies (10th grade) and Honors World Studies (11th grade), teaching four and two sections respectively. Brittany’s focal course was Honors American Studies – English, an interdisciplinary course she co-planned with a social studies teacher. When describing the nature of this course, Brittany stated, “I think that's the great thing about American Studies is that we can get that depth. Together, we have 100 minutes so we're able to delve a little bit deeper. You really can go more in-depth on a topic and look at different perspectives.”
Prior to this year, the course was co-taught and included two consecutive class periods, but because of increased student enrollment, this was the first year for the course to be separated into a one-period English section and a one-period social studies section. The struggle to keep her English course on the same timeline as the social studies section often left Brittany lacking the time she desired for students’ writing, particularly working through the writing process.

However, Brittany had established several literacy routines for her students. Each day they began her class with 10 minutes of reading and free writing in response to their reading. They read novels of their choice. She kept her classroom separated into pods of four desks, as collaborative writing was a daily occurrence. She also included writing on all formative and summative assessments. No high-stakes tests were attached to this course; however, most of Brittany’s students took the ACT and/or SAT at some point during the year, which included a writing portion, as well as the Accuplacer, which had no writing.

Brittany’s high school was a Title I school with 95% of students receiving free or reduced lunch, and the student to teacher ratio included 18 students (U.S. Department of Education, 2017). When describing the range of student needs in her focal course, Brittany discussed the dichotomy between formal designations and instructional demands. She stated that of the 32 students enrolled, only two were classified as former ELL students, only one student had an IEP, and no students were formally designated as gifted. Nevertheless, the range of diversity amongst the learners within the class was vast regarding reading levels and writing abilities.
Brittany described daily writing integration as “fairly easy” because “it just sort of comes naturally…I always have them have writing…Writing is always there for me.” One aspect of writing instruction Brittany did mention as challenging for her was breaking down the writing process, as that was not how the she personally wrote. Brittany felt her major responsibilities as an English teacher went split evenly between reading and writing.

**Ashley.** Ashley obtained both a bachelor’s and master’s degree in secondary math education. She had seven years of teaching experience in math; however, this was her first year teaching her focal course, Pre-Calculus with Trigonometry. She had four sections, as well as one section of Pre-College Math and one section of Math 095/096, both of which were hybrid college-preparation courses. Each of Ashley’s courses included students from various grade levels.

When describing the 39 students in her focal course, none were designated as ELL or had IEPs. Almost half of her focal class was enrolled in STEM program within the school, which followed a nationally-recognized four-year curriculum. Additionally, no high-stakes testing was required in her course. Twenty-five percent of the students at Ashley’s high school received free or reduced lunches, and the student-teacher ratio included 23 students (U.S. Department of Education, 2017).

In Pre-Calculus, Ashley viewed herself as positioned to make writing an inherent part of the course. Although she had developed a culture of writing in the previous math courses she taught, her commitment to daily writing this year
stemmed from her desire to bring that writing in the new courses she was teaching. “Intellectually, as teacher, we know [writing is] good practice. But it's harder sometimes and I think -- especially in math, it's easy to not have writing.”

The math department at her school planned in teams, so Ashley’s commitment to writing was in contention at times with her team teacher. In the department, staying on the course timeline was prioritized, which did not always align with Ashley’s use of writing. Ashley described that she began eventually “thinking about math and literacy as one.” She worked to shift her colleagues thinking in this direction. Ashley’s formal evaluator, an administrator, was in support of daily writing integration, however, and with persistence, Ashley eventually shifted the department’s thinking about writing in math courses.

Several literacy norms were established in Ashley’s Pre-Calculus class. Students were accustomed to specific discussion norms. Collaboration through discussion or through writing or both were regular practice. Students also completed self-evaluations after each assessment to reflect on their learning and performance. Ashley was working towards adding writing to each assessment.

**Summary.** All four of the teachers were committed to daily writing integration for various reasons. At the pre-quarter meeting, each teacher talked of how they used writing daily in some form but how they also had specific plans or goals for the upcoming quarter. When asked about their goals for starting the school year, and if they hoped to increase the amount of writing they integrate or add depth to their writing integration, the teachers’ responses are included in Table 4. While evaluating the teachers’ writing practice was not an objective of
this study, it is important to note that the teachers not only sustained their goals of integrating writing each day, but they also set goals for the remainder of the year.

Table 4
Teachers’ Pre-Quarter Writing Goals for Focal Course

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Goal(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craig</td>
<td>“My kids would benefit from more writing and depth followed up with a lot more feedback. My goal is to sustain the writing I have established in years past, but also to integrate better/quicker feedback to my students. Reading and providing meaningful feedback is difficult in an AP class, but it needs to be done in order for students to grow. I need to have a clearer picture in my mind at the beginning for what this will look like.”</td>
</tr>
<tr>
<td>Jennifer</td>
<td>“My goal for the year is a combination of increasing the amount of writing students do regularly and increasing the depth of their writing.”</td>
</tr>
<tr>
<td>Brittany</td>
<td>“My goal this year is to add depth to my writing instruction. I want to maintain the amount of writing I do with my classes but deepen the intensity and the length of students’ writing. I’m also thinking of giving a prompt towards beginning of the year to see where students are at and letting their performance guide our planning throughout term.”</td>
</tr>
<tr>
<td>Ashley</td>
<td>“My goal is to both increase the amount of writing I integrate, especially as I have never taught this subject before, and also add depth to students’ writing. In math, there often isn’t any writing at all! I also hope to focus on using more writing, not just discussion to have students explaining why, in addition to being able to work out problems. I also want to use writing for the small things.”</td>
</tr>
</tbody>
</table>

Data Collection

Consistent with case study design, multiple data sources were collected to provide an in-depth look at each case (Yin, 2014). As described in Table 5, data collection included an initial meeting, surveys, instructional logs, written
reflections, journal prompts, observations, and interviews. Data collection was designed to provide well-rounded insights on teachers’ experiences with daily writing integration, including their preparation, beliefs, perceptions, values, instructional decision making, and the related constraints and affordances to integration and sustainment. The data sources provided teachers with concrete experience from the quarter on which to reflect (when considering their weekly instructional logs and observed lessons), as well as allowed for previous experiences, perceptions, and beliefs related to writing to emerge (surveys, journal prompts, interviews).
### Table 5
Description of Data Sources

<table>
<thead>
<tr>
<th>Type of Data</th>
<th>Purpose</th>
<th>Time of Completion</th>
<th>Number Per Teacher</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initial Meeting</td>
<td>Discuss study and writing plans for quarter</td>
<td>Pre-quarter</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2. Survey</td>
<td>Document teacher perceptions and reflections</td>
<td>Pre-, mid-, and post- quarter</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>3. Instructional Log</td>
<td>Document writing integration</td>
<td>Daily (submitted weekly)</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>4. Written Reflection</td>
<td>Reflect on writing integration from week</td>
<td>Weekly</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>5. Journal Prompt</td>
<td>Reflect on overall writing practice</td>
<td>Weekly</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>6. Observation</td>
<td>Document writing practice for reflective dialogue in interviews</td>
<td>Pre-, mid-, and post- quarter</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>7. Interview</td>
<td>Engage in reflective dialogue on observed lessons, previous reflections and journals, and other topics related to writing</td>
<td>Following observations: Pre-, mid-, and post- quarter</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

**Initial Meeting and Surveys**

Before the quarter began, Phase One of data collection commenced with an initial meeting and a survey. The meetings took place with each teacher individually. Beyond securing participation in the study and ensuring teachers were comfortable with the study procedures, the purpose of these meetings was to discuss teachers’ goals and plans for their students’ writing in the new quarter.

A focal course for the study was also determined by each teacher. The pre-
quarter survey was open-ended and provided information about teachers’ backgrounds and influences on their writing integration. Teachers typed and emailed in the surveys. As outlined in Table 6, data were systematically collected throughout the quarter to ensure a comprehensive representation of teachers’ experiences.

**Table 6**

*Phases of Data Collection*

<table>
<thead>
<tr>
<th>Phase</th>
<th>Data Source(s)</th>
<th>Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>1. Pre-Quarter Survey</td>
<td>July 5</td>
</tr>
<tr>
<td></td>
<td>2. Initial Meeting Notes</td>
<td>July 24-Aug. 4</td>
</tr>
<tr>
<td></td>
<td>4. Written Reflection</td>
<td>(Weekly throughout quarter)</td>
</tr>
<tr>
<td></td>
<td>5. Journal Prompt</td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td>6. Observation One</td>
<td>Week of Aug. 28</td>
</tr>
<tr>
<td></td>
<td>7. Interview One</td>
<td></td>
</tr>
<tr>
<td>Three</td>
<td>8. Observation Two</td>
<td>Week of Sept. 25</td>
</tr>
<tr>
<td></td>
<td>9. Interview Two</td>
<td></td>
</tr>
<tr>
<td>Four</td>
<td>10. Mid-Quarter Survey</td>
<td>Sept. 29</td>
</tr>
<tr>
<td>Five</td>
<td>11. Observation Three</td>
<td>Week of Oct. 23</td>
</tr>
<tr>
<td></td>
<td>12. Interview Three</td>
<td></td>
</tr>
<tr>
<td>Six</td>
<td>13. Post-Quarter Survey</td>
<td>Oct. 30</td>
</tr>
</tbody>
</table>

Two other surveys were also completed by the teachers at mid- and post-quarter. The second survey was primarily open-ended but also included a few Likert-type and ranking questions eliciting teachers' beliefs and values, and the third survey was open-ended. Both surveys were completed online through Survey Monkey. The surveys focused on teachers' preparation, successes and difficulties with writing integration, student and teacher responses to writing.
integration, and uses and inspirations for writing. The three surveys can be found in Appendices A, B, and C.

**Instructional Logs**

While an in-depth case analysis of the teachers’ instructional practices during the quarter was beyond the purpose and scope of this study, teachers documented their writing practice by completing daily instructional logs to serve as a point of weekly reflection. Over the course of the 10-week quarter, teachers submitted their logs at the end of each week through email. The purpose of the logs was to document the writing-related aspects of teachers’ practice. Research completed on the validity of teacher-reported daily logs has demonstrated their comparability to observation data when at least 20 daily logs were collected (Rowan & Correnti, 2009). The Language Arts Teacher Daily Log was developed by researchers in The Study for Instructional Improvement (SII; Ball & Rowan, 2004) to examine how content-aligned professional learning influenced teachers’ instruction. One of the three log sections, writing instruction, was adapted for use in this study. Each day, teachers documented the items below.

- Type and description of the writing in which students engaged
- Type and description of instruction provided
- Duration of time allotted for writing
- Purpose of each writing
Written Reflections and Journal Prompts

Teachers also completed written reflections each week after reviewing their instructional logs. The purpose of these reflections was to document teachers’ thoughts, feelings, and experiences throughout the quarter, providing a check in with teachers on off-weeks between the interviews and observations. The routine written reflections also provided teachers the time and space to regularly reflect on their practice and perceptions. Teachers were asked to record general reflections from the week about their writing integration. For an additional type of reflection, teachers were provided one journal prompt to respond to each week. While the written reflections focused on the specifics from each week, structured guided journaling, was used to elicit teachers’ thoughts, more generally, on their overall writing practice. (See Appendix D.) Journaling has been widely used as a successful qualitative data source in teacher research for various purposes (Cohen-Sayag & Fischel 2012; Stooksberry, Schussler, & Bercaw 2010).

The ongoing weekly data sources that were submitted digitally by teachers were structured systematically. The researcher checked in with each teacher through email every Friday afternoon throughout the study. An email attachment including a Word document with an updated instructional log, space for written reflection, and a journal prompt was sent for teachers’ convenient response.

Observation and Interview Cycles – Reflective Dialogue

A series of three observation and interview cycles was completed. The cycles were completed at strategic points throughout the quarter – after three weeks of instruction, after six weeks of instruction, and after nine weeks of
instruction. Non-participatory observations were conducted, and an observation protocol was used during each lesson. All lesson components were documented, but the protocol ensured that the lesson objective, all instances of writing and instruction around writing, and the purpose of the writing, were detailed to provide context for how writing fit into the lesson’s objective and disciplinary purpose.

Observations provided further rapport building experiences with teachers and context-building for the researcher to gain some understanding of the setting. The observational data were not considered independently in data analysis but were instead used to capture non-evaluative snapshots of the teachers’ instruction throughout the quarter. Because the teachers’ instructional decision making was prioritized over coding or evaluating teachers’ instruction, the observations served as a point of reflection for the teachers during the interviews.

In-depth interviews engaged teachers in reflective dialogue about their practice and sought information about their plans and rationales for the observed lessons. Relevant happenings and elements that influenced teachers’ goals, methods, and writing integration were discussed. Interviews were semi-structured to encourage participants to tell stories about their experiences and explore their interpretations. Flexibility in the conversational flow, which encouraged opportunities for teacher elaboration and clarification, was also prioritized (Kvale, 2001).
Interview protocols (Appendix E, F, G), were created for each of the three interview sessions. These served as a guide rather than a script. Influenced by the work of Applebee and Langer (2011b), each interview protocol included three sections. Teachers were first asked to reflect on the observed lesson by answering questions such as: How did students engage in writing today, and how was the writing connected to your main goal for the lesson? What did you want students to learn about your discipline from/through the writing? Next, teachers were asked about their experiences with writing in prior weeks. By simply asking teachers to talk about their overall experiences integrating writing since the meeting, teachers were able to discuss what was meaningful to them.

Next, based on a review of their instructional logs and reflections from the preceding weeks, teachers were asked follow-up or extension questions. To close, more general questions about teachers’ perceptions, beliefs, and experiences related to writing were discussed. For example: Is your overall teaching being influenced in any way by your implementation of daily writing? If so, how? What factors drive your decision-making as you implement daily writing? What type or types of writing do you value most in your content area?

Teachers chose the location and time of each interview. Most interviews took place in their classrooms during planning periods, lunches, or immediately following school. The interviews lasted from 16 to 46 minutes, averaging 30 minutes. The audiotaped interviews were transcribed verbatim by a professional transcriber for analysis.
Data Analysis

Data analysis procedures for this study were qualitative in nature and guided by the works of Bruan and Clark (2006), Merriam (1998), Stake (2006), and Yin (2014). With a focus on understanding the participants’ point of view, data were analyzed using a thematic approach (Bruan & Clark, 2006). The ways in which teachers explained their experiences with daily writing integration were explored, and meaningful commonalities in relation to teachers’ daily writing integration were identified. Preliminary data analysis was completed simultaneously as data were collected to ensure that modifications to the data gathering process were made as needed (Yin, 2014). One example involved a slight modification to the instructional logs, providing clearer directions for each section.

Analytic memos were written throughout the data analysis process to explore understandings of the data, document thinking, and identify significant relationships that emerged within the data. This process was useful in considering the theoretical categories that were meaningful to this research. For example, teacher and student learning/development as related to writing (and teacher approaches to each), contexts (both the classroom and broader considerations) and the role of both in teachers’ writing integration, as well as those factors that promote writing integration, were considered as data were collected and analyzed.

A four-phase iterative process to thematic analysis (Table 7) was employed to find patterns and relationships among the four teachers’
experiences with writing integration (Merriam, 1998; Stake, 2006). Phase One looked at each teacher individually and began by observing descriptive data to create several case study tables – teachers’ experience and education, teaching assignments, writing goals, description of focal students, and testing requirements in focal course. These charts were helpful in first understanding the teachers’ contexts. An individual Excel spreadsheet was then created for each teacher on which the data were entered and analyzed. Informed by zone theory (Goos, 2005) and more broadly SCT (Vygotsky, 1978), data were separated into four overarching categories as a starting point for organization: influences on writing integration, least and most meaningful uses of writing, instructional decision making, and challenges and rewards of writing integration. All data from every data source were included, with the exception of a few instances where personal information irrelevant to the study was excluded.

**Table 7**
*Phases of Data Analysis*

<table>
<thead>
<tr>
<th>Phase</th>
<th>Within Case</th>
<th>Cross Case</th>
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<td>One</td>
<td>Descriptive Chart Creation</td>
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<td></td>
<td>Initial Data Organization</td>
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<td>Individual Data Source Coding</td>
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<tr>
<td>Two</td>
<td>Category Creation – Within Cases</td>
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<tr>
<td>Three</td>
<td>Category Collapsing - Across Cases</td>
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<tr>
<td>Four</td>
<td>Finding Identification</td>
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The surveys and journal prompts were reviewed first to provide an overview of the teachers’ backgrounds, practice, and perceptions more broadly. The weekly reflections and interviews were then considered to look more closely at teachers’ reflections on their practice. Each data source was considered chronologically to look at teachers’ thinking as it naturally occurred. The observations and instructional logs were reviewed but were not analyzed to evaluate teachers’ practice or coded in hopes of finding relationships in their writing practice across the content areas. As data were organized, they were simultaneously coded by hand, using the following guidelines:

(1) Statements were read and repeatedly reread to determine the meaning of each thought.

(2) When any thought was unclear, the statement was put aside for later contemplation.

(3) Open coding was used in the analysis of each thought.

a. The data were considered line-by-line to glean meaning from each part of teachers’ explanations; however, the teachers’ individual thoughts were kept intact. This meant that where appropriate, some chunks of data were coded multiple times to capture the various ideas represented. The context of the entire thought, however, was preserved.

Phase Two of data analysis involved developing another iteration of each teachers’ spreadsheet in which further contemplation of the coded and organized data continued. The data was sorted by codes to create a visual representation
of the thoughts and ideas most prevalent among each teacher. The coded data were organized into relevant categories for each teacher. The resultant thick and thorough descriptions (Merriam, 1998) encompassed in each teachers’ spreadsheet allowed an in-depth understanding of the four teachers’ experiences with writing integration to be captured. After each case was approached separately, the most appropriate way to compare and present the cross-case findings, depends on the purpose of the study (Stake, 2006). Because the goal here was presenting teachers’ perspectives on how they experience daily writing integration, the collective voices of teachers, through the cross-case analyses were prioritized.

Moving from what was unique about each individual teacher to what was shared among all the participants, Phase Three began the cross-case analysis. All the categories, a total of 59, were compared to find commonalities. A final iteration of each teacher’s spreadsheet was developed to begin recategorizing the data into meaningful and collapsed categories that were pertinent for all teachers. A master chart was also created to summarize the data for all teachers in one place. After working within the teacher spreadsheets and on the master chart, four broad categories were determined with several subcategories in each, as shown in Table 8. Ideas emerged about how factors relating specifically to the teachers, such as how they viewed their role and preparation, tied into their writing integration. Contributing factors to their writing integration emerged relating to their affect, specific influences, reasons they value writing, and
In the fourth and final phase of analysis, all four case studies were read and reread numerous times to consider emerging cross-case findings. A deeper consideration of the categories and subcategories was sought after by creating an outline of potential findings that included participant quotes, as well as counterevidence.

Throughout data analysis, I engaged in recursive comparison and contrast to validate my findings, thus moving back and forth amongst the teachers during cross-case analysis. At the conclusion of this process, findings were identified, each of which is elaborated on in Chapter Three. While each individual case was

Table 8
Data Categories and Subcategories

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rewards. Additionally, aspects of how they approach their practice and more specifically their instruction, as related to writing, emerged.

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important, the common findings across all cases provided an in-depth description of teachers’ experiences with writing integration and allowed for commonalities among teachers to be presented.

**Limitations**

Despite the meaningful findings from this study, the possible limitations within the research must be acknowledged. While each primary content area was represented, the study was limited to only the experiences of the four teachers involved. The number of participants is appropriate for the chosen methodology; however, a deeper, more diverse understanding of teachers’ writing integration could be explored across a larger number of teachers that span grade levels, disciplines, school districts, and levels of experience.

The teacher participants were not chosen to be representative of any population. Instead they were picked based on their commitment to integrating writing each day. However, it should be noted that this sample only included White teachers, possibly limiting the unique perspectives that are possible with a more diverse sample. Likewise, the inclusion of teachers from other specializations, outside the primary content areas, would also allow for a more diverse look at writing integration.

One class was chosen by teachers as a focal class for this study. Aspects of data collection did elicit teachers’ thoughts on writing integration from a broader lens. Looking at teachers’ writing integration across all their courses, however, may have provided a more in-depth perspective on their experiences. By studying teachers and their writing integration across all classes taught, the
unique interactions and cultures within in each class, both of which may impact writing integration, could be explored.

Similarly, while one quarter is a substantial amount of time, this study looked at teachers’ experiences with writing during the first portion of the school year. Each of the four teachers had motivations and goals for their writing instruction that remained intact for the duration of this study. Checking in with teachers to collect follow up data toward the end of the school year would provide an interesting perspective based on how teachers have progressed, digressed, or remained stagnant with their writing integration. A more comprehensive consideration of teachers’ experiences could be provided by following teachers throughout an entire school year. These limitations suggest several opportunities for meaningful future research.
CHAPTER FOUR

FINDINGS

Over one quarter of the school year, secondary content area teachers who integrate writing each day reflected on and explained their experiences. Teachers kept instructional logs of their writing integration each day for the 10 weeks as a point of reference for their weekly reflections. They also responded to weekly journal prompts in which they explored their writing practice more broadly. Through three cycles of observations and interviews, the teachers engaged in reflective dialogue about their instruction and about their beliefs and perceptions related to writing and writing instruction. The teachers completed surveys as well to describe other aspects of their teaching and attributes as a teacher in relation to writing.

In the following chapter, data are presented to show commonalities across how teachers described their experiences with writing integration. Teachers in each content area defined personal, professional, and action-promoting circumstances that contributed to their views about the use of writing within their disciplines and to their related instructional decision making. While each teacher sustained his or her daily use of writing throughout the quarter, the teachers expressed their thoughts and feelings about how their writing integration was both promoted and constrained in various ways. Teachers integrating daily writing explained their experiences in ways that tied back to four common features. First, they valued the student benefits of writing integration. They also mediated numerous challenges in the quest to use writing consistently. They
recognized the teacher benefits of writing integration. Finally, they all prioritized their students.

**FINDING ONE: Teachers Valued the Student Benefits of Writing Integration**

Teachers discussed both general reflections about writing benefiting their students, as well more specific value-laden reasons for their use of writing impacting students positively. On many occasions each teacher simply recalled the differences they noticed in their classrooms, stating some type of positive overall change in comparison to those times when they did not use writing on a regular basis.

Throughout the quarter, teachers overwhelmingly identified writing as profiting their students. In a conversation about Jennifer teaching some students twice (once in Biology, her focal course, and again later in the advanced science course she teaches), she was asked if she thought her students’ writing was different when she had them the second time. Jennifer responded, “I think [their writing is] different by the end of the year with me…I expect a lot from them. They sink or swim in here…I am a core class. It's the way it is, and you have real work.” She later reflected on how her views of writing use in science have changed over time as a result of student benefits:

My beliefs about writing are now different than in previous years. I see it as more beneficial. I set a goal to use writing every day this term because I looked at my MYP stuff and realized even more writing was needed. It has gone well, and even though I don't like the grading, I have kept doing it. The kids get a lot out of it.

Ashley shared similar feelings in one of her weekly reflections, stating that "Daily writing offers more to students. It's definitely more beneficial to them!" Craig also
thought of his use of writing as “mak[ing] a big difference” with his students. At the end of the term, when discussing how he had approached writing in AP U.S. History, Craig was asked what he thought were some of the most meaningful aspects of his approach. He responded:

The key thing is they write something every day. One of them told me that they felt like they write a lot in here. But that's the thing, they're doing it all the time. They write, and that makes a big difference.

In addition to these general reflections about valuing writing because it benefits their students, teachers also detailed explicit ways for which their writing integration afforded advantages to their students. Based on teachers’ experiences with daily writing in their own classrooms, they found writing to be beneficial to students’ writing development, content knowledge development, and beyond. Teachers found that writing promoted students’ independent writing skills, as well as their learning in each discipline. Additionally, the role that writing plays in preparing students for their futures was another reason mentioned by all teachers for their writing integration.

**Independence on Writing Tasks**

  Early in the quarter, teachers were asked about their students' writing skills in comparison to the expectations for writing in their courses. Each of the teachers only slightly agreed that their students were on par to perform adequately on writing tasks in each content area. When elaborating on their responses, teachers primarily discussed their push for students to move towards writing more independently, including taking more responsibility for their own writing. For example, Jennifer stated that while many of her students were
producing the type of writing she was looking for, their written products resulted from abundant scaffolding and close guidance. “If I can come over and show them what I want and prompt them, they can do it, but on their own, they aren’t there yet” (Jennifer). Likewise, Brittany referred to her students as needing various levels of teacher support to write in relation to course goals, which she hoped to having them working towards more independently. One sub-finding that emerged over the quarter, however, was the teachers valuing daily writing for its power to advance students’ independent writing skills. Students became more willing to write, were able to shift from collaborative to individual tasks, and produced more substantial products.

One aspect of daily writing that seemed to promote independent writing skills among the students was the notion of establishing writing routines in the teachers’ classrooms. Teachers reported that after students realized that writing was the norm, they became more willing to write. On several occasions throughout the term, Jennifer conveyed her students’ seemingly increased willingness to “just get out the paper and write.” She mentioned this as she reflected on her students’ writing over the 10-week period:

They grew during the first term…The more that I worked with them, I noticed that when I gave them paper and asked for a few lines or when I asked them to write a few paragraphs on a test, they could do it. We gradually built up to that. They knew they had to write, and it became ok. What I’m getting now is amazing. I’m getting typed writing from students who have never submitted writing before. The growth just from one month to the next is pretty cool.

Jennifer was overjoyed at the conclusion of the quarter as she described her students’ abilities to now produce writing in Biology more independently.
For Ashley, she felt the nature of Pre-Calculus left her students apprehensive to write in her course at the beginning of the year. She was adamant, though, about instilling in them the belief that writing was an important part of their course, of their learning, from day one. In our initial meeting, before the school year commenced, she talked of how even though she was teaching a course she never had, the success in continuing her endeavors with writing in math (from previous courses) would lie in starting now. She stated, “It just comes down to whatever you want, you have to start at the beginning and not wait. And that's not easy, I think, sometimes to put into practice.” Ashley’s proactivity and perseverance towards writing in her course paid off when it came to having her students write more independently. When the quarter concluded, she reflected, “Students definitely didn't want to ‘write in math.’ Once they realized it wasn't going away, they stopped complaining and were able to do it.” For both Jennifer and Ashley, the culture of writing they had established in Biology and Pre-Calculus enhanced their students’ willingness to write.

As students wrote each day, they not only become more independent writers by taking initiative towards their writing, daily writing also helped students shift to completing collaborative tasks more independently. One struggle Brittany faced in American Studies was having her students produce the types of writing she was looking for in response to the frequent dense texts the class needed to unpack. Towards the end of the quarter, Brittany realized that her students were shifting towards dissecting and writing about texts in more independent ways:
I guess the biggest reward from this week is seeing them work toward independence on the tasks. We started doing a lot of the reading and writing together and then as the week progressed, they were working in small groups and then were able to work completely independently.

In earlier weeks, her students had oftentimes not made it to the independent portion of that cycle, to writing individually, and instead relied more on collaborative writing.

Similar to Brittany, Craig saw advances in his students’ capacity to write individually. When considering the ways his students were benefitting from writing each day, Craig indicated “the constant exposure” to writing as helping students progress as independent writers. He saw this constant exposure as pushing students from being able to articulate their ideas through discussion when working in groups to also articulating those thoughts in writing. “Some of my students can verbally express themselves at a higher level than they can when writing. Daily writing has let them hone their writing craft” (Craig). Jennifer also noticed she was able to gradually release control towards independent writing on her assessments. She was assessing students more frequently and including more writing on each assessment. On independent in-class assessments, a shift from some collaborative and some take-home assessments, Jennifer was pleased with her students' performance: “If the test is not just writing, there is always a writing component, so they expect it now. They are doing well, even the students with minimal English. And this is in class, not take home, so I’m getting impressive results.” Brittany, Craig, and Jennifer
valued their writing integration for its command to progress students on the trajectory from cooperation to independence.

Daily writing also resulted in students producing more substantial written products. Brittany realized that as her students read their student-chosen novels and freely responded in writing to those texts each day, they increasingly produced lengthier responses. They become more invested in their daily reading responses. Brittany began her American Studies – English course each day with this assignment, comprised of 10 minutes of reading and writing. On a reflection toward the end of the quarter, she indicated:

The biggest reward was seeing students enjoy reading their books and writing about them daily. I see a lot of kids writing longer and longer responses each day as they get into their books, which is really exciting to see.

Jennifer was also excited by her students’ output on a recent reflection. She acknowledged that the reflections represented a variety of student developmental levels, but her satisfaction was rooted in the students’ writing performance as related to their longevity while producing their reflections:

They had to do the first reflection [for their community-based learning project]. They were really confused about what they were supposed to do. So we had 15 or 20 minutes left, and I explained exactly what they needed to do and gave them a piece of paper if they didn't have one. Here they are. You can see the different levels in their writing, but, my god, they wrote. And they wrote and wrote. I was happy. So that made me a little warm and fuzzy today.

Another example of daily writing leading to more substantial writing was mentioned by Ashley. Although her students were apprehensive about writing in Pre-Calculus at the beginning of the quarter, by mid-quarter, she felt they were
“used to the writing that [she was] asking of them.” When describing the way students wrote about the concepts they were learning in class, she was impressed with their level of detail. “Some students, you can tell, must be great writers in their other classes because they make sure to explain something or write something in great detail in here” (Ashley).

The teachers noticed over the quarter that with daily writing, their students were gradually becoming more independent writers. Students became more willing to write, were able to shift from collaborative to individual tasks, and produced more substantial products. The four teachers valued their students’ development of independent writing skills through daily writing, as well as their deepening of disciplinary knowledge.

**Disciplinary Understandings**

Another benefit of the students’ daily writing valued by teachers was a deepening of their content knowledge. While the four teachers approached writing in different ways, based on what they felt was appropriate for their students and their content areas, Jennifer, Ashley, Craig, and Brittany saw writing as a means of learning for students in their disciplines. Each teacher employed writing tasks to build content understandings grounded in their specific disciplinary purposes, and they witnessed daily writing increase their students’ content knowledge.

**Biology I.** Jennifer found that through their writing, her students “better comprehend[ed] content,” as they engaged in thoroughly explaining Biology concepts and processes and making connections between them. Jennifer
explained several aspects of her students’ increased disciplinary understandings that she attributed to daily writing – increased vocabulary exposure, exploration of difficult science concepts, opportunities for differentiation and scaffolding, and analysis of science relevance.

When asked to describe the most significant ways she felt daily writing impacted her students over the quarter, each of Jennifer’s thoughts was related to her students’ increase in Biology knowledge. Students’ consistent writing improved their ability to more easily comprehend and navigate discipline-specific texts. Jennifer predicted these improvements were a result of additional exposure to and practice with science vocabulary through their writing. Because the academic vocabulary in science is such an important aspect of disciplinary understanding, students’ use of vocabulary promoted their understanding of science terms, and subsequently science texts (Templeton, Bear, Invernizzi, Johnston, Flanigan, Townsend, & Helman, 2015). Jennifer stated,

It’s the application of academic vocabulary that makes the difference...They recognize and understand academic vocabulary words better. They don’t look so lost during lecture. If we discuss genetics, for example, this can be environmentally changed. This phenotype can be environmentally modified. They are able to make those meaningful connections between the academic terms.

Writing helped Jennifer’s students to own vocabulary, as well as larger concepts, making Biology “less foreign,” as she described. Increased vocabulary knowledge in science courses was the key to increased content knowledge, according to Jennifer.
Using writing frequently was also a way to seamlessly differentiate and scaffold to promote students’ disciplinary understandings. Writing was a meaningful means of content knowledge acquisition that eventually became seamless. Jennifer even felt that she was “almost tricking them” because exploring difficult science concepts through writing, which her students were once apprehensive to do, eventually become a mundane exercise.

I think the students find writing to be easier now because they don’t think of it as science. They think of it as just writing. Their perception of writing is now different. Because they think, ‘Oh I just have to write something,’ They don’t realize they are writing about genetics or ecology. So when I prompt them to write about pollution or ask them why people in Kentucky are blue or if you were a genetic counselor, what would you tell this person to do to not pass this trait on? They are doing science through their writing, and they’re critically thinking, and they don’t know it. It’s almost like I’m tricking them.

One specific writing assignment (Figure 3) that Jennifer described as differentiated and scaffolded had the purpose of explaining symbiosis. The expectations ranging from the poster to the short story increased in difficulty, and students completed this writing after having taken notes, watched a video, and written in their science journals about the concepts. Jennifer allowed students to choose a genre (mini poster, news article, or short story) in which to present their explanations; students also chose one of three types of symbiosis to focus on, while still attending to the other two in their writing. They worked individually but were allowed to complete online research from their phones and use their notes to support their writing.
Jennifer felt that writing was also a way to have students relate science concepts to the real world and to their lives, which ultimately led to deeper application of the content. One example of this was her use of songs. Students listened to and read the lyrics of various songs, and then wrote about and analyzed Biology concepts. “Big Yellow Taxi” by Joni Mitchell, for example, allowed students to explore environmental issues.
Later in the quarter, when reviewing the writing portion of her initial Student Learning Objectives (SLO) Assessment (Figure 4), Jennifer described a “crying moment” when she noticed the students’ application of content knowledge through their writing:

At the end of the term, they had to write an essay on one of their tests about why we have excess carbon in the atmosphere and how humans made it that way. Some students went into full detail about the carbon cycle and all the processes humans are engaging in, such as burning fossil fuels and burning forests. Their explanations showed a very high-level understanding of climate change. That was actually my SLO, and I was very impressed with the various concepts analyzed but also the environmental implications explained. I taught each of these pieces separately, but they really brought it all together for me in their writing. I would say three fourths of my students got full credit, and it was a crying moment.

Figure 4
Writing Question on Jennifer’s SLO Assessment

Biology I Flow of Matter and Energy Assessment (SLO-Quarter One)

23) Choose 1 long answer question and answer to the best of your ability.
A) In a short paragraph EXPLAIN the difference between how matter (Molecules) moves in an ecosystem and how energy flows in an ecosystem. (LS2-4)
B) In a short paragraph EXPLAIN TWO human created reasons that the carbon cycle is no longer in balance. (LS2-5)

In Biology I, Jennifer’s students gained deeper understandings of the content through daily writing. Through writing, their exposure to vocabulary, exploration of difficult concepts, benefit of differentiation and scaffolding, and analysis of science relevance each led to their building of further disciplinary understandings.
**Pre-Calculus with Trigonometry.** In discussions about including writing in her instruction and on her summative assessments, Ashley was proud to see that her use of writing pushed to students to think deeply about the math concepts, as opposed to simply memorizing necessary information. She believed that writing not only forced students to contemplate concepts on a deeper level, but it was a precursor to executing problems correctly, and it helped students to understand what it meant to explain in math and not just show.

When talking about pushing students to think more deeply, Ashley described how some students were displeased with the writing on one test, as well as her feedback, as they were accustomed to only being held accountable for solving the problems, with no expectation of explanations.

I noticed with some of these other questions, like the horizontal asymptote especially, they just-- some of them just memorize. So I would be like, 'Well, what do N and M actually stand for?' And some of them did explain it. But it was interesting, because some of them just put the letters, and I wrote, 'I don't know what that means.' And so some of them kind of got mad at that. But I said, 'Well, you're not telling me what N and M actually are. They could be anything.' And so I think for them, too, it allowed them to see, 'Oh, I have to be more specific in what I write.'

This depth of moving students beyond the numbers to understanding not just what they were doing, but how and why, was the impetus for Ashley’s writing integration. She regularly described this approach to furthering her students’ understandings and increasing their content knowledge. When describing her students’ understanding of asymptotes, she spoke about the efficacy of having students explain the concept in writing first, before they moved on to practice problems:
The one where they had to explain their asymptotes, 90% of them did the problem correctly if they could explain the idea correctly first. Which is really good because asymptotes are a hard thing for kids to grasp. This is why we really wanted to get them thinking about it and putting it in their own words first.

Ashley continued to challenge students’ thinking processes by using writing in different ways. With the students’ success on executing problems correctly after first writing about the concepts involved, she used this approach in her instruction as well. Ashley found that being able to write about concepts usually meant students could also correctly use those concepts.

One activity she was pleased with was an adapted quotation mingle. Students first described in writing how to graph a polynomial function, and then as they constructed the graph, they verbally explained the process to another student, or “mingled.” On this occasion, she found the conversations to better than normal. A similar example was an activity she called “trade-up cards” (Figure 5). Several cards were taped to the whiteboard, and each included a problem with an explanation of the solution. Students were given one card at a time. As they finished each problem, they walked to the board to check their work. They also explained their work to Ashley individually, then “trading” in their current card for the next card. This allowed for a discussion of any misconceptions. Ashley described the first several trade-up cards as “lead ins” because they required students to write about ideas that would lead them to success on the remaining cards.
Over the quarter, she continued experimenting with different ways of integrating writing at various points in her lessons to promote disciplinary understanding. Ashley’s students wrote at strategic periods in their learning processes of math concepts, as a goal of hers was making students cognizant of their thought process when they solved problems. In one of her last written reflections, she described a positive aspect of her writing use over the quarter as her students “understanding what ‘explain’ meant and how it was different from ‘show’…I definitely find [writing] meaningful as it gets students to explain the why and not just memorize the steps of the problem!”
Both Jennifer and Ashley’s use of writing in Biology and Pre-Calculus were consistently spread throughout their instruction and assessments. They felt this continuity important for the students to expect writing frequently, but it was also important for students to both develop and demonstrate their understanding of content knowledge in their courses.

**American Studies – English.** For Brittany, contemplating and analyzing various texts was an important disciplinary goal. Thus, response to literature was a frequent way that students engaged in writing. She described her decision making as driven by the Common Core and by her personal agenda of connecting literature and history. According to Brittany, her students were negotiating the challenging texts she presented them by the end of the quarter, as they continued writing both collaboratively and independently in response to these texts. “It was exciting because they’re hard texts and to be able to do that with them, especially with Colonial and Puritan time periods…They were able to begin to [analyze the texts] on their own” (Brittany). Brittany valued the depth of understanding that students achieved through their writing in her discipline. Brittany expressed, “I think they engage deeply when they’re writing about their books. I really do…I think I’ve got a few who really reflect on what they’re reading and engage deeply with that.”

She later went on to explicitly describe what she felt like was a link between students’ writing and reading.

Anecdotally I saw a connection between students’ reading and writing, especially when compared to the beginning of the year. Most students
improved in their ability to write a claim about a text and support it with evidence from the text.

By improving in their claim writing and use of evidence from texts, students were progressing in terms of analyzing and understanding the texts in American Studies. Through consistent writing practice, students were working towards the overarching disciplinary goals for Brittany’s course, which she was clear about as hinging on the interconnectedness of literature and history. The importance of analyzing texts and exploring and displaying understandings of those texts through writing were frequently mentioned by Brittany. In reflecting on this, Brittany once commented:

Learning to write well is a huge part of the English curriculum. There are ten Common Core state standards specifically for writing. For the American Studies program, I want students to be able to represent in writing (in various styles and forms) how literature is a reflection of history and vice versa.

She also recognized the act of writing as part of students’ disciplinary learning and understanding in her course. She strived to equalize the time her students spent using writing as a means to internalize content from literature and history and the time students spent developing as writers. Brittany interpreted the first portion of the quarter as focused on writing to learn “since students are using writing to show me what they know/understand about the content”. With a formal essay following that week, she described an upcoming shift in her writing focus to learning to write. She closed this reflection stating, “I’m hoping to find more balance between the two.”
Disciplinary understandings in American Studies – English included learning about social studies and literature, as well as writing about both. Brittany saw her students’ development toward mastery in each of the three as a student benefit of daily writing.

**AP U.S. History.** In AP U.S. History, Craig also saw daily writing as deepening disciplinary understandings in terms of pushing students in writing and in content. Experiencing it himself, he viewed writing was a way of internalizing. One way this played out for his students was the connections they were making across time periods.

Like Brittany, Craig felt the pressure to both teach content and writing skill and find unity amongst the two. In an early written reflection, Craig stated,

> This week was learning to write, mostly format and technique. This will morph into more learning to write and writing to learn as the students will have to learn and write concurrently in the future.

His focus on formal writing early in the quarter, and the use of daily writing was in part driven by Craig’s displeasure with AP exam scores from the previous year, and his quest to try out a new method in the current year. After shifting from a focus on the multiple-choice portion of the AP exam to a more writing-rich approach this year, Craig noticed an increase in his students’ content knowledge only three weeks into the quarter. Comparing the two, he revealed:

> I feel like looking at the score reports and the analysis from the College Board, [last year’s students] couldn't make the big connections to disparate areas of US history. This year, they write on every quiz, whereas, last year they never wrote on quizzes just because I was trying to get them ready, with a focus on multiple choice. So this year you can already see them making bigger connections across time periods...So
after that first quiz, they were like, oh. I've really got to know this stuff because this is different…

Craig mentioned another concrete example of this several weeks later. He had students write up a comparison, contemplating socioeconomic class, of Bacon's Rebellion and Shays’ Rebellion, which are 100 years apart. He reflected: “Most of them did really well. I was pleased. This was a pretty challenging prompt and most of them got it. They've been doing a good job on their quizzes.”

Craig stated that his decision to shift his practice this year to include more writing was driven by two assumptions – students needed more writing practice and students would gain content knowledge by writing more frequently. These were assumptions grounded in his own experience as a student. When reflecting on the demands of the writing in his graduate work, he realized how much he learned through writing. This impacted his perception of writing use in his course:

When I was writing all the time, I quickly realized that through writing, I got a lot smarter. I just naturally did. I could reference things that I didn't know I knew. I could reference authors I didn't know I had memorized just because I had written about them.

Students in AP U.S. History were developing disciplinary understandings related to Craig’s objectives as a result of their daily writing.

Disciplinary understanding was recognized by each of the four teachers as a way that daily writing benefitted their students. To the teachers, building content knowledge was defined and approached in various ways. In Biology, Pre-Calculus, AP U.S. History, and American Studies – English, however, writing
daily was valued for its power to develop disciplinary understandings in each
course. A benefit of daily writing also valued by teachers was future preparation.

**Future Preparation**

An aspect of frequent writing use that teachers described as
advantageous to their students was its role in their future preparation. When
asked about their perceptions of the relationship between writing and students’
post-secondary success, the four teachers strongly agreed that writing is
essential. They were unsure, however, if their students always left high school
ready for college and the workplace, as related to writing. Teachers also
believed that some of the writing skills important to students’ prospective success
were overlooked in secondary school.

Describing the writing mandated by the Common Core and how those
demands involuntarily shifted the writing narrative in all content area classrooms
(NGA & CCSSO, 2010), Craig revealed that his own pedagogy shifted toward a
culture of writing at a different time. The writing demands in his own graduate
program reminded him of the necessity of students being equipped for writing at
the collegiate level if would succeed. He characterized writing as “the commodity
of exchange” in colleges, going on to state that for those students who are
planning for the future, “I mean, they just have to write.” Ashley shared Craig’s
belief that writing was crucial to college preparation. In discussing the addition of
writing to a recent exam at the beginning of the quarter, Ashley explained this
choice stating, “Part of it is, we are just preparing them for college.” By having
students extend beyond their procedural knowledge of correctly executing the
steps necessary to obtain the correct numbers in a given answer and explain their thought process in doing so, Ashley felt students were practicing and refining skills they would use in college. Because most of the students in her focal course were college bound, she was cognizant of how her instructional decision making had implications beyond the short term.

The teachers’ opinions varied when asked if they trusted their students leave their high schools equipped with the necessary writing skills to successfully approach their college and workplace endeavors. Craig and Ashley, the social studies and math teachers, were in slight agreeance that students were prepared both for college writing and writing in the workplace upon graduating from their high schools. Speaking of his own course specifically, Craig mentioned that he felt good, in this regard, about his writing-centered approach to AP U.S. History this year. Anecdotally, from the feedback of his students and his department chair, it was more rigorous than the previous year.

The science and English teachers, Jennifer and Brittany, had different perspectives on students’ writing readiness beyond secondary school. Jennifer felt students were more prepared for college writing, while Brittany felt students were more prepared for writing in the workplace. Upon discussion, Jennifer explained that students face writing expectations in the workplace that are specific to each job, and thus they are likely less prepared for those demands than for the writing in college. She stated that hopefully in the current educational climate, students will enjoy an amplified preparation for college writing because of the continuity between the expectations in high school and
college courses. Teachers’ unanimous belief that writing is necessary for students after high school, and their concurrent lack of certainty that students are prepared upon graduating, is perhaps one driving force for the teachers’ choice to integrate writing daily.

Brittany and Jennifer both felt that some of the writing skills important to students’ success in college may be overlooked in secondary education. They described this as another influence on their writing use; they felt it relevant to consider working with students on writing skills that they may not be practicing elsewhere. For example, Jennifer sensed, based on having worked with students at various grade levels, that students were not developing the notetaking skills required to prosper in college-level science courses. Her mother, who taught college-level English courses, had trained her on an efficient note-taking system. Jennifer wanted to help her students cultivate their own note-taking systems to practice so that they were prepared for “what they’re coming up against” and were outfitted for the challenge.

Similarly, as Brittany evaluated one writing assignment, she cited aspects that she hoped had gone differently and highlighted her feelings of responsibility for “the practical pieces” of college writing. She stated,

Even some of the stupid stuff, like formatting the document, is important because in those beginning English classes in college, those things will really matter. Those are skills they don’t have, and I need to teach them.

While Brittany felt it was part of her responsibility as their English teacher to ensure her students left her course equipped with these practical writing skills for
college, she also hoped to prepare students in ways that would promote their success in future high school English courses. This included practice with the ins and outs of more formal essays.

Teachers strongly agreed that writing is essential to students’ post-secondary success. While they had different perspectives on their individual schools’ abilities to do this, and they believed that some writing skills important to students’ success were overlooked, they valued the future preparation that daily writing promotes.

Based on teachers’ experiences with daily writing in their own classrooms, they found writing to be beneficial to their students. Students’ writing development, content knowledge development, and readiness for post-secondary endeavors were a few of the benefits of daily writing that teachers valued. Teachers found that writing promoted students’ independence on writing tasks and disciplinary understandings, as a result of their regular writing in each content area. Lastly, the teachers see writing as a necessity in preparing students for success beyond high school. Although each teacher regarded writing as overwhelmingly beneficial for their students, daily writing integration did not come without challenges.

**FINDING TWO: Teachers Faced Challenges with Writing Integration**

Daily writing integration presented a variety of challenges for teachers in each content area. Internal tensions, such as battling the implicit factors driving writing in the course and the inclination to expect polished products from students, were at play for teachers. Tensions related to the teacher’s instruction,
such as the best use of writing in each content area, were also a consideration for teachers. The way teachers viewed their roles in their content area, specific course, or the larger classroom context arose as sometimes posing barriers to their quest to integrate writing daily. The philosophies that the teachers had in relation to teaching their content, writing, or both, oftentimes also presented conflicts that were rooted internally, yet had direct implications for their practice and their students. Teachers who integrate writing daily negotiated a number of challenges. Internal tensions included well-rounded writing versus test preparation writing and conventions versus content. Instructional tensions included formal writing instruction versus content coverage and writing versus discussion.

**Internal Conflicts**

Teachers often discussed internal conflicts that somewhat contested the position of writing in their courses. Though these conflicts never overpowered teachers’ commitment to their students, and thus, writing, teachers still explained these conflicts as part of experiences with writing integration that were constraining. When asked to describe her feelings about the use of writing in her instruction, Jennifer admitted,

> Writing is a chore. It doesn’t make me happy or excited, but I know it’s meaningful, so I do it. I know how much the students get out of it. Do I enjoy doing it? No. Is it something I feel I have to do for the good of students? Yes.

In some form, the other teachers shared similar feelings to Jennifer’s of a personal dislike for using writing or of writing adding to their workload. They also,
like Jennifer, worked to negotiate this internal tension to better their students. For example, according to Jennifer, she “keeps doing [writing] even though it’s frustrating because it’s beneficial to students.” Craig mentioned an additional but related internal tension between his acknowledgement that writing is important and the difficult and unnatural nature of writing for him. He admitted that for him, writing instruction is no easy or enjoyable task: “I mean, writing's hard. It's not easy. It doesn't come naturally. And I don't care for writing, personally. So it's not like I love writing. But it is important.”

In addition to the general internal tensions teachers explained as part of their experiences with writing, two more specific tensions also arose. For Craig, the struggle was preparing students as well-rounded writers, which was in some ways competing with the need to prepare students for test preparation writing. For Jennifer, allowing students to focus solely on content in their writing, discarding the need for edited work was internal struggle for her.

**Well-rounded writing preparation versus test preparation writing.** It was clear that Craig felt a responsibility to have students writing daily in part because of the weight writing held on the AP exam. It was also clear, however, that this presented a struggle for him. He explained being torn between the importance of ensuring his students passed the AP exam, essentially the end-of-year assessment for his course, as well as instilling in them the dispositions of academic writing. When discussing the types of writing the AP exam valued in contrast the types of writing that he valued, he explained that the issue was not necessarily that the two kinds of writing were different. Instead, he stated: “My
concern is always that we are creating robots for one test in May and not developing the dispositions of good writers. I think the key, though, is making them [write] all of the time."

He even described his students’ views of writing as slowly becoming jaded due to a culture of continued AP courses and the nature of writing involved. Writing was often a “tactical play” on passing the test that has become more of a “necessary evil for most as they see it merely as a means to an end.” This AP culture also crafted a stigma around feedback that Craig dealt with on a variety of levels. A desire for writing perfection and a demand for immediate feedback were a few of the affective circumstances at play when providing feedback to Craig’s students. Related to this interesting culture was his students’ sense of identity, which he described as to closely attached to AP exam scores. Craig felt that he needed to “undo everything they came with” in order to “convince them that the test does not define who they are as a student.” The tension Craig experienced between the AP exam and his desire to work towards his students valuing and producing meaningful and authentic writing was evident when he deliberated the factors that drove his decision making around writing:

Well, selfishly and egotistically I want my kids to pass the test because I work really hard and, they work really hard, so I want a good pass rate. But I try to convince them that—I had a professor tell me that until it’s written down it means nothing. Your ideas mean nothing…[Writing is] something of value. So how you craft it is super important, and at the end of the year I hope that’s really arrived because we spend a lot of time, especially the deeper we get into it, reading really important, powerful writing. Like Frederick Douglas talking about what the 4th of July means to a black person or Ta-Nehisi Coates talking about The Case for Reparations in the 21st-century context. All these issues around social justice, I hope they realize that type of writing has the ability to
change people and impact them. I want them to be academic. I want them to be leaders and writers. The world is a scary place, and it's run by interesting people so…

Craig’s desire to prepare his students for writing on the AP exam, while at the same time presenting writing in ways that would engage students in writing that leads to the development of positive writing dispositions was an internal tension that had no easy resolve. He believed both goals were important to his teaching, but he also saw them at odds in practice often; he negotiated this tension by striving to craft his practice in ways that could serve each purpose.

**Conventions versus content.** One tension that Jennifer frequently discussed was her students using writing as a means to learn and display their knowledge of content, in informal ways, versus the need to have them practice and present their writing in more polished ways. This was an internal conflict for Jennifer because she found informal writing displeasing, yet she understood the value of both uses of writing. On one hand, she disagreed with not holding students accountable for editing their writing. This may in part have stemmed from instances in which non-polished work prevented her from deciphering what students were writing about the content. Putting a question mark on writing assignments was a reoccurring problem because of handwriting, spelling, and other aspects of unedited writing that prohibited her from understanding if a student had mastered Biology concepts.

When talking of more formal writing assignments, such as dissections reports, she described “I just can't handle when we’re told to accept something like that” in reference to unpolished work. Her department and, more broadly,
her school seemed to push for little attention to students’ writing craft and conventions on content-driven writing. With the IB/MYP projects that she assisted in grading each year, which were a cumulative assignment for students, Jennifer was told to focus only on content, disregarding the student’s writing style and errors. When discussing this experience, she explained, “I don’t like it. I have a really hard time with that. It makes me want to scream. I read a book for pleasure, and my brain will correct the errors as I’m reading it.”

She did, however, promote the use of bullets and incomplete sentences during class, when her purpose was having students merely get their thoughts onto the page or take notes. She felt this was a more efficient way of having her students write about the content. The benefits of informal, writing to learn activities for her students were valuable to her:

I’m not the English teacher, so when I’m telling my students to reflect on a video or do an exit ticket, I tell them to simply jot down their thoughts, instead of forming complete sentences and editing their writing because we don’t think in complete sentences. I get a lot more from them when I do that…

Edited, polished writing was of value to Jennifer, and she felt producing writing in this manner was a skill important for her students to be practicing. For the students in her Biology course, Jennifer was able to let the purpose of the writing guide what was expected of them. She mediated her internal tension of polished work versus content because she understood the student benefits of using both for the purposes that were appropriate.

Internal tensions arose as challenging for the teachers in each content area. Two specific tensions for Craig and Jennifer that required negotiation as
they integrated writing daily were the opposition between writing to write and writing for test preparation and writing for content or writing in polished ways. The internal tensions teachers negotiated influenced their decision making, as did other tensions they experienced related to their instruction.

**Instructional Dilemmas**

When planning and executing writing each day, teachers faced tensions in their practice that posed instructional challenges. Making the best decisions for their students led to teachers’ contemplation of the best writing and discussion balance, as well as the most effective approach to learning to write and writing to learn.

**Writing versus discussion.** Ashley’s initial meeting was somewhat centered around her quest to make a shift in Pre-Calculus from a discussion-focused course to a more writing-focused course. The discussion-writing balance for Ashley involved a number of considerations, with an emphasis on her specific students’ needs. In which instances were discussion and writing most effective in Pre-Calculus? When both were employed, what order was effective in what situations? In terms of a goal to prioritize writing, what ratio of writing to discussion was appropriate for Pre-Calculus? Each of these questions was explored in Ashley’s interviews, surveys, and reflections. She felt strongly about the role of collaboration in learning and the use of partner and group discussions and writing. When describing collaboration on practice problems, Ashley stated: “Sometimes they [write] when they're working with their groups…Even when they
don’t write, they’re still talking to each other and they’re still explaining to each other."

As a first-time teacher of this course, Ashley aspired to bring her writing practices from previously taught math courses into her new course. She admitted that she felt confident utilizing discussion but negotiating the discussion-writing balance in Pre-Calculus for the first time would be challenging for her. In addition to the time constraints of her departmental course guide, Ashley listed several other aspects of her decision making when incorporating discussion, writing, or both:

The thing I’m considering is what I am really wanting students to get out of the activity. So what is the purpose of the writing? What is the purpose of the discussion? Do I want them talking to each other? Do I want them to be able to write and reflect? Or do I want them to come together as a group and think about, ‘What do we know about this specific topic?’ And I think it depends on the topic. Is it a review topic versus a brand-new topic? Is it something I’m wanting them to make their own connection to? Is it something that while reviewing, they can work on together as needed? Is it something I want done quickly, so I put this up here just as something to get them going and get them talking about it.

Throughout the semester, Ashley experimented with the ordering and use of discussion and writing to promote student learning.

Early in the semester, Ashley successfully had students write before they practiced. She then added discussion. The use of individual writing was a springboard for small group discussions about new math concepts. Ashley believed this promoted students’ independent contemplation of the concepts first, expanding their understandings through discussion. This deep understanding of the concepts moved them into successful practice. Later in the semester, she
had students try practice problems first before then explaining their work in written form and finally explaining it verbally. She described her rationale for this choice:

Even if have them do the math first, some get caught up in the numbers and still don't necessarily always fully understand or know how to explain the steps that they did. They'll go, 'Well, I just did what you did,' or, 'I followed along.' So on the second day, after we had gone over the concept and the notes, we did some more examples. After they would do a practice problem, I had them put their notes away and think about, 'What did all this stuff mean?' We talked about X-intercepts and Y-intercepts and N behavior. [Writing] actually gave them some time, I think, to decide what those meant and how they fit into the larger picture, rather than just doing the math. They actually had to think about what all that meant first, so that when they went to explain it to someone else, they knew exactly what they were doing.

Nearing the end of the term, Ashley reflected on her goal to shift from discussion to more writing. She predicted that she was using half writing and half discussion at that time. She did allow the students to continue engaging in cooperative writing often, but that usually served her purpose of having students both collaborate and write to promote their understanding of math concepts. Although a tension throughout the quarter for Ashley was achieving the most effective discussion and writing balance in her instruction, her thinking around the best method was driven by what she felt was best for students in any given lesson.

**Formal writing instruction versus content coverage.** In addition to tensions related to instructional decision making around discussion, teachers also experienced tensions involving the ways that informal writing for idea exploration and more formal, polished writing played out in their practice. Craig and Brittany, the social studies and English teachers, felt immense pressure
related to teaching both content and writing skill and found finding the best approach to the two challenging.

When discussing the writing tasks they employed, both Brittany and Craig made references to writing from a developmental perspective. They described those writing activities they used for writing to learn purposes as informal, viewing these as separate from that writing in which their students engaged after they provided formal instruction. According to Brittany, “I feel that writing is like a spectrum. We were in pretty tame territory as far as writing goes, summarizing, and taking notes, and that sort of thing.” In talking about this type of informal writing, Craig described it as “the bottom level of the pyramid.” In Craig’s pyramid reference, he went on to describe that what his students produce at the top of the pyramid is the result of “much practice.” This type of writing for Craig involved having students model the types of texts they read in class from experts in the field, primarily built around argumentation. For Brittany, it meant analyzing texts to make important connections and responding to the literature in critical ways. Both teachers recognized the importance of having their students write to promote content acquisition, as well as write to encourage skilled writing; yet Brittany and Craig seemed to be continually negotiating the tension between the two in their classrooms.

Teaching their students the specific types of writing they felt appropriate to each course was in constant competition with Craig and Brittany’s simultaneous desire to ensure students were learning content. In describing this battle, both
mentioned their assumptions that all teachers encounter similar issues.

According to Craig,

There's this continuous tension in AP, I'm assuming all social studies AP courses, where you have to cover content and you have to teach this big toolbox of skills. And how to do both at the same time. Because the content is so large, and the skills are so complex.

Craig referred to his writing instruction in U.S. History as “skills work,” in which students were building the skills specific to historical writing. He went on to describe the tension between formal writing instruction and content coverage as “a manipulation of one or the other, every single day.” Craig mentioned on multiple occasions his longing for a comprehensive writing plan for his students for the entire school year. He felt if he spent the time to construct this writing plan, it would aid him to “balance the mountain of content to prepare the kids for the AP exam in May.” In the second week of the quarter, Brittany also communicated her feelings of being torn between content and writing:

The biggest challenge I'm facing at this point in the year is finding enough time to do daily reading and writing and the actual course work. I really love giving my students the opportunity to read and write every day, but I'm concerned about time management.”

In her reflection, Brittany presented attending to the literature and social studies content of American Studies, while at the same time attending to her students’ writing, as two separate entities.

Because their perspective on approach their students’ writing with an eye on the “top of the pyramid,” including more specialized, polished products that required formal writing instruction, the teachers felt the need to attend to students’ writing development in their courses as a distinctive instructional goal.
Unlike Jennifer and Ashley, who prioritized writing to learn in their courses, Brittany and Craig also ensured they crafted objectives that led students toward becoming better writers in their disciplines. Each strived to include more formal writing instruction and frequently described their struggle to do so. In working toward mediating this tension, Brittany and Craig had students use their informal writing as a scaffold for formal writing, as well as combined writing and content instruction.

**Guiding informal writing into formal writing.** Certain time periods and corresponding content presented challenges to Brittany’s writing instruction. She often described the difficulty she faced at the beginning of the school year in developing writing tasks for her students that served the many purposes that were important to her. Providing writing tasks that deepened students’ knowledge of the content and were realistic time wise, Brittany felt often came at the expense of authentic, engaging writing that pushed students as writers.

I feel like in a lot of these earlier units, I'm using writing more for note-taking or for annotating or answering questions. And I'm not getting into more substantial writing... I don't want to make annotating seem not important. Because it is. But more developed writing maybe is the right word to use. And I don't know how I would because a lot of these first units are doing the Revolutionary War and Colonialism. A lot of the texts are shorter and a lot of them require-- I don't know. I feel like they require them to answer those big questions because they're hard texts. They're not easy to read.

While Brittany struggled with her use of writing in correspondence with certain difficult texts, her instructional decisions were seemingly purposeful and planned to serve the students’ writing long term.
For example, Brittany described her use of annotating as serving the purpose of developing an understanding of the big ideas in the time periods of study. These annotations also served a larger purpose in preparing students for cumulative writing assignments on particular content. The writing to learn strategy, which she had students use in a variety of forms, led to up to later learning to write activities. In describing their upcoming novel, Brittany stated, "We'll talk about what the essay is for the book first, so they understand that 'Yes, it actually is important for you to annotate while you read' because you're going to have to write an essay about it." Similarly, in preparation for an upcoming formal writing assignment on Immigration During the Industrial Revolution, she had students write stories to connect personally to the topic of immigration. After reading the class a picture book about a man emigrating to a new land, the class discussed the powerful photographs. The students then had the choice to either write a story telling about their own family's immigration to America or a story narrating the immigration of one of the people from the book. A student writing sample from this informal assignment on immigrant narratives, which led up to the formal assignment on Immigration During the Industrial Revolution, is provided in Figure 6.
This was gonna be the biggest decision of my life. I've grown up around this town, these people, and these streets. I know leaving will give me a better life, but what if I fail? I'll be a disappointment and a failure for leaving this familiar town. I can't afford to think like that; my future will benefit in some way. I saved all my money for years, and finally I was applying for the visa to go to the United States. I waited around for a while. My sister decided to do it too so I wasn't alone, but that would leave them here in El Salvador with just my brothers. Eventually, they will do it too. But now it's just me and my sister. We got something in the mail, addressed to me and there was one for my sister. It was a paper that would change our lives forever. The key to our better lives; it was hard to just leave to another country. The United States accepted us, and the opportunity can't be wasted. We bought our tickets and left to Los Angeles. Family had lived there so it was best to travel there first and go later. Reno was the city we were gonna live. It was a small city that was not populated. Visiting family was easy, but in the city, we didn't know many people.

We got jobs to support ourselves and it was mostly just the two of us.
Another example included her students’ creation of research posters on different labor unions. After conducting online research, they summarized their findings on posters for a class gallery walk. This informal writing to learn activity was an additional revision step to their formal essays on Immigration During Industrialization Revolution (Figure 7), which also served as Brittany’s initial Student Learning Objectives (SLO) Assessment. The posters provided an opportunity for students to add more supporting details to their writing.

**Figure 7**
*Writing Prompt for Brittany’s SLO Assessment*

<table>
<thead>
<tr>
<th>Industrial Revolution/Immigration Writing Prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss immigration during the Industrial Revolution. Give its historical perspective (i.e. describe what influenced it, one specific aspect surrounding it, and what the effects were). Include how literature was affected by this, referencing specific literature during this time period and citing a quote, to support your answer. Be sure to also include analysis of the three documents provided in your answer.</td>
</tr>
<tr>
<td>Should be 5-7 paragraphs and include a thesis statement.</td>
</tr>
<tr>
<td>Document #1: political cartoon</td>
</tr>
<tr>
<td>Document #2: Chinese Exclusion Act</td>
</tr>
<tr>
<td>Document #3: excerpt from <em>The Jungle</em> by Upton Sinclair</td>
</tr>
</tbody>
</table>

When discussing the same essay, Brittany’s goal of process writing emerged:

I think my class could benefit from more depth to the writing they do. With that though is always a time constraint. I’d like to give them more opportunities to really go through the stages of the writing process but it’s difficult with short classes and other time constraints. That’s why hopefully they’re able to use the time to make solid revisions to their papers.

Despite Brittany’s strategic use of informal writing, she continually pushed to add more formal process writing to her instruction.

This desire was the subject of many of her reflections, as well as much of her interview dialogue. She recognized the time involved in process writing, the
time constraints she faced, and the need to “make more time for going through the writing process.” On numerous occasions she expressed her disappointment that her students’ products did not make it through more steps of the writing process:

I feel like we should do more structured writing…I think that's so important, but it takes a lot of time, and I definitely don't do it enough because it takes so much time. It's an easy thing to cut, as well as spending time editing and revising…I would love to be able to do more of that across the board…In a perfect world, if I had less time constraints, that's what I would wish for more of. I think I do my best. I try my hardest, but there's always room for more.

Brittany also tried out new writing assignments to mediate her challenge of time on content and not enough time for process writing. One example was an outline following their reading of The Red Badge of Courage. The students engaged in prewriting to analyze themes and develop claims. To practice the structure of developing a persuasive essay, they completed a fully developed outline. To stay on track with her social studies counterpart, this was Brittany’s solution to not having the time for a full essay but still allowing her students to engage in formal writing that included parts of process writing. She was, however, still dissatisfied:

Even though the outline demonstrated their ability to respond to the novel, it still would have been nice to develop the full essay, so they get adequate practice with that style of writing… I felt disappointed that we couldn't write the complete essay and go through peer editing/revising for it.

*Blending content and writing instruction.* Like Brittany, Craig felt the pressure to both teach content and writing skill. Part of the content versus writing tension for Craig was figuring out how to tactically merge the two to ease the
underlying tension of the strict chronology associated with preparation for the AP exam. When describing his students’ writing performance, he reflected on his approach to this merge:

I have to find that balance, which is always difficult. How much content, how much writing skills work, and how do I blend the two… It is hard, though, to balance content and skills work. One usually suffers for the sake of the other.

When asked about his recommendations for how pre-service teachers in his discipline may approach daily writing integration, Craig also mentioned the importance of the blending of content and writing, this time emphasizing less formal writing:

They just have to think about how they can integrate content coverage and writing at the same time. And writing doesn't always need to be this big event on a pedestal. It could just be a quick little five-minute write. It doesn't always have to be formal. I do Jimmy Fallon thank you notes or suggest an awkward book title from George III summarizing American religion. It can just be a quick, but the putting of the pen to paper and forming ideas is critical.

While the tensions between content and writing emerged often for Craig, one of his lessons at the beginning of the school year presented an example of students engaging with content and practicing argumentative writing simultaneously.

He described the purpose of this lesson as having students “authentically engage in deconstructing historians work and also practice writing.” The writing on the AP exam, which required academic vocabulary and academic writing similar to the what students were doing on this day, was the motivation for this lesson. The lesson was built around the focal question: Was the Salem witchcraft hysteria caused by a fear of women? Students read either the affirmative or
negative sides of the argument for homework from *Taking Sides: Clashing Views in American History*.

They were grouped with other students who read the same position. Using a guided note-taker, students developed what Craig instructed was their “best argument” focusing on “quality, not quantity.” Citing page numbers, the students first worked with their groups to develop an argument paragraph for their side using supporting details from their source. Next, the students collaborated with a different group to discuss the opposing arguments. Students wrote a summary paragraph about the argument of the opposition. After each student shared their written summary with their group, the groups came to a consensus. They wrote a paragraph with evidence from both sources to support their consensus. Lastly, they used MAGPIES, an acronym for the major themes in AP U.S. History (Table 9), to write one question that would explain the Witchcraft hysteria.

Craig structured the lesson with requirements for students to write in multiple forms (summary and argumentative paragraphs), use evidence and citations from multiple sources, practice the structure of argumentation, develop a theme-based question around their consensus, and engage in meaningful discussion about the disciplinary reading. While Craig described the tensions of writing and content, and merge of the two, as a struggle, this lesson demonstrates one example of how he often skillfully engaged students in both skills work and content acquisition.
Each of the four teachers faced challenges as they integrated writing each day. Persevering in their commitment to daily writing integration, the teachers negotiated various tensions that arose internally and instructionally. More specifically, the quest to mediate approaching writing to promote positive dispositions, as well as test preparation, and to mediate the internal struggle of allowing both content-focused and polished writing, were part of teachers experiences with writing integration. The balance between discussion and writing and formal writing instruction and content coverage was also difficult. Two specific ways teachers mediated this tension was by blending content and writing instruction and guiding informal writing into formal writing. Though teachers negotiated a number of challenges, they valued the student benefits and recognized the teacher benefits associated with writing integration.

<table>
<thead>
<tr>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration and Settlement (MIG)</td>
</tr>
<tr>
<td>American in the World (WOR)</td>
</tr>
<tr>
<td>Geography and the Environment (GEO)</td>
</tr>
<tr>
<td>Politics and Power (POL)</td>
</tr>
<tr>
<td>American and National Identity (NAT)</td>
</tr>
<tr>
<td>Work, Exchange, and Technology (WXT)</td>
</tr>
<tr>
<td>Culture and Society (CUL)</td>
</tr>
</tbody>
</table>
FINDING THREE: Teachers Acknowledged the Pedagogical Benefits of Writing Integration

Part of teachers’ experiences with daily writing included not only their value for the student benefits of writing integration and the negotiation of numerous challenges, but also the benefits they experienced from a teacher standpoint. Having students engage in consistent writing led teachers to a clearer understanding of their students’ learning processes and a more focused and thoughtful approach to planning.

Understanding Student Learning Processes

Teachers explained that a valuable aspect of their commitment to daily writing was their heightened understanding of students’ learning. Through formative assessment in written form, as well as writing for other purposes, teachers were able to better determine what their students knew, how they were learning, and where gaps needed filling. They knew their students better and were able to push students’ thinking further through the use of writing. Teachers were also continually looking at ways to understand their students learning processes better.

Jennifer described writing as imperative to her assessment of students because she admitted that speaking with every single student as regularly as she hoped to assess them was simply unrealistic. She could, however, evaluate their understanding through writing, which was concurrently reinforcing their learning. After reviewing their writing, she was able to grasp what concepts to revisit.
Daily writing led Jennifer to understanding her students’ needs better than she ever had, as she explains below:

**Hannah:** Your use of writing on assessments. Do you think that's been similar or different to other years in Biology?

**Jennifer:** I'm doing a lot more formative assessments this year than I ever have before. I'm trying to pick it up quick, and it's leading to a lot more work and struggle on my part, but I think I know the kids a lot better than I ever have. And I can go over to a student and not only know who they are but know a little bit about how they think. So I can give them--like even write down a little guide for them on the side of their paper to help them think about things.

Ashley also found the use of writing valuable to her understanding of students’ learning, as it clarified the way students were thinking about and understanding Pre-Calculus. She provided an example of how useful seeing students’ thought process through their writing was to her:

It’s really interesting for me to see how their thought process works. Because there's the way I explain it, but some of them take it and internalize it, differently. Which is not wrong...And then, it's funny seeing how more in-depth--you can tell how their different brains work--because some of them will go more in-depth. Some of them will bullet. Some of them will number, like, ‘First I did this, then I did this.’ I like it because I really get to see how they make connections. And some of the connections--our asymptote problems, some of them got them mixed up.

More specifically, by using their writing to have a clearer understanding of the students' thinking, Ashley was able to parse out the nuances of their comprehension of math concepts. If students had only memorized certain steps, for example, or if they had mastery of applying the concept in various situations became clear through their writing. This allowed her to target where students had made connections and “where [she] could get their thinking to go deeper.”
An example was one quiz in which students demonstrated their understanding of whether a relation was a function. Looking at the parts of the definition students connected to, Ashley was able to attend to misconceptions. She also described one example of students working out a problem in a way she had not presented or even thought of. Through their written explanations, the students’ reasoning was clear.

Another way Ashley utilized writing to further understand her students’ learning processes was through having them regularly reflect about their own learning. While she found student self-assessments to be helpful, she also considered them an empowering exercise for her students. “If nothing else, even if I don't get much out of it, they got something out of it, which is really what it's about. It was about them reflecting on their mathematical practice and their tests” (Ashley). The examples from Jennifer and Ashley above highlight their explanations of better understanding their students’ disciplinary learning as a result of daily writing.

Brittany and Craig shared their belief about this benefit of consistent writing; however, throughout the quarter, Craig was searching for a way to better understand his students’ learning processes as writers. Perhaps because of Craig’s struggle with time and the tension to find a manageable system for feedback and grading that met his needs for the timeline of AP preparation, while at the same time satisfied his students’ desire for frequent feedback, understanding his students’ writing development was a continued goal. Efficient ways to track student writing over time was a topic of discussion on several
occasions. He had various ideas for approaching this goal, but he questioned their efficacy based on the number of students in his four AP U.S. History sections (150) and his timeline for the AP exam. While the two can certainly coexist, his goal of having students complete more informal writing, without the expectation of feedback and grading, in hopes of promoting a culture of writing, was conceivably constraining his goal to track student writing development.

A benefit of writing integration teachers explained in each content area was an increased understanding of their students' learning processes. By using both formative assessments, as well as writing in other forms, teachers determined what their students knew, how they were learning, and where gaps needed filling. This was helpful to ensuring they thoughtful and purposefully planned their lessons.

**Planning Attentively**

Another teacher benefit of writing integration recognized by the teachers was improvement in their attention to planning. Part of this involved their evaluative stance to their own practice, in which there was “always room for improvement” (Brittany). Each of the four teachers mentioned multiple times throughout the quarter that they were looking to improve their practice, in relation to writing, and overall. According to Ashley, “There's always things that can be changed. You have to change them based on each class…If that's what they need this year, then that's what they get, right?” When it came to what was working for their students, what was not, and how they could use this in their planning to improve their practice, the teachers consistently evaluated
themselves, in a variety of ways. Table 10 lists only a few examples of short statements in which each teacher targeted a specific area of improvement that either impacts or is impacted by their planning.

**Table 10**

*Selected Evaluative Teacher Statements Related to Planning*

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashley</td>
<td>I wasn’t as conscious about using writing this week. Sometimes, when I asked students why or to explain, there wasn’t a lot of explanation required.</td>
</tr>
<tr>
<td>Craig</td>
<td>I must be more mindful of my daily writing practice. I always feel the tension of the chronology associated with the test… Need to just teach writing for writing.</td>
</tr>
<tr>
<td>Brittany</td>
<td>I need to devise ways to get my students writing on a deeper level. I’m bummed about not going through the full writing process with this essay.</td>
</tr>
<tr>
<td>Jennifer</td>
<td>I’m still not seeing the growth I want, so I haven’t increased the amount of writing required yet. I want to come up with a better rubric for grading.</td>
</tr>
</tbody>
</table>

The teachers’ evaluative stance towards practice improvement speaks to their approach to planning, as they were both open to and searching for ways to better plan to meet the needs of their students. In addition to their evaluations of practice guiding their planning, the teachers described several other aspects of how daily writing influenced their planning. Daily writing made them more aware of their writing practice, kept them working towards purposeful integration and conscious efforts to integrate, and promoted consistent evaluation of their writing purposes.

Teachers who integrate writing daily described being aware of their writing practice. They explained part of their experience as recognizing the types of
writing and writing instruction that they were and were not using. They also described expanding their repertoire for writing in their content areas as a result. According to Brittany,

> Daily writing has made me more aware of the types of writing I use in my classroom and has helped me try to step out of my comfort zone and try newer ways of doing things. It has made me more mindful of what writing I value most in the classroom and what I want my students to be able to do by the end of the year

She also stated that using writing every day reminded her that writing integration can be easy. Daily writing also made her aware of the ways she needed to improve her writing instruction. For example, at the beginning of the year she often felt like the writing she used was “minimal on the DOK levels. However, as the year progressed, and we got deeper into American history, I feel like the types of writing intensified.” Ashley also noted finding herself more aware of the writing used in her lessons. After integrating writing daily for an extended period, she found herself more conscious of continually trying to find ways to add more writing.

Naturally, heightened awareness led to more conscious and purposeful instructional decision making. Ashley strived to ensure that she was not only having students write often but was having them write to serve disciplinary purposes. She admitted this “seamless integration” was a challenge, but she never wanted to approach writing in way that left students “not understanding the why or making the connection themselves.” Brittany’s stronger awareness of her writing practice also caused her to plan more purposefully, “as opposed to just doing it because it's what I've always done.” Craig similarly described using
writing daily as resulting in “more focused planning day to day.” This focus then required him to be more creative in attempts to integrate writing each day. Ashley agreed that the more she was using writing, the more attentively she contemplated the “how” related to her writing use. The daily use of writing allowed Craig to determine trends what he had his students writing, as well as realize gaps in the writing assignments that needed attention. He adjusted his instruction to account for both.

The teachers described that purposeful planning required deliberate efforts to both plan and execute meaningful writing. Ashley often mentioned the evidence-based literacy practices for math she learned at a valuable literacy professional leaning initiative she attended. The challenge, she felt, was ensuring that she consciously and continually used what she knows works. At the beginning of the quarter, Ashley was also battling her department because they follow a strict timeline for their courses. Ashley’s use of daily writing oftentimes hindered that timeline. A few weeks in, she mentioned that after sitting down to closely evaluate the timeline, herself she would no longer “allow the curriculum overpower [her].” Craig slowly became more deliberate about his writing plans over the term as well, a goal he set early in the year. He described the quarter as a combination of the old and the new; he referred to “the old” as the requirements of the College Board for what his students were to be proficient in by May. “The new” was his formatting and sequence of instruction. According to Craig, he “made a more conscience effort this year to pre-plan how the different writing activities link together.”
The teachers were also continually evaluating the purposes for which they were having their students write. Ensuring authentic writing for their students that was aligned with their course goals, while at the same time appropriate for their students’ needs, was the target for teachers. Brittany and Craig talked of the value of having students practice. At the beginning of the quarter, Craig stated, “Writing fluency doesn't simply come from exposure to language, but practice applying the language as well.” Brittany agreed as she discussed the benefits of daily writing: “I think it's just the practice of writing, putting ideas down on paper, and the practice of responding to a text and realizing that the text isn't void.” Brittany went on to discuss the importance of having students write for the purpose of reacting to issues that are happening around them as they respond to texts:

I want them to understand that no text is written in a vacuum. The author is responding to something that happened in their life and in society and, therefore, is writing about it and hoping people will read it, and respond to it, and really think about those deep issues. So I'm hoping that they can respond to the text through their own writing and put their two cents in.

Brittany also described the need to have students writing in a variety of forms including more practical reasons that are rooted in real world purposes. She felt that the podcast script assignment her students completed was valuable for its practicality and the experience it gave them preparing a proposal. Jennifer valued real world applications in Biology as well, such as having students reflect on the impacts of science. Her emphasis on the MYP/IB curriculum had also shifted her writing purposes from “more basic recall” in previous years to having students explain, describe, and apply their knowledge through writing. While
Ashley and Craig had their students writing for a variety of purposes, their evaluation of writing practice was oftentimes referenced back to a few specific goals. For example, Ashley valued having students explain what they were doing and why. She looked closely at her instruction to ensure she crafted writing that had students carefully engaging in these overarching purposes. Similarly, Craig wanted to ensure that despite the type of writing students were engaging in, their writing was leading them towards building understandings that supported the main essential questions to each unit.

Teacher benefits of daily writing integration included understanding students learning processes more acutely, as well as planning lessons more attentively. Each of the four teachers took an evaluative stance to their planning, continually looking to improve their practice. They were aware, purposeful, and deliberate in their planning. This thoughtful planning was one of the many ways teachers showed that they prioritize their students.
CHAPTER FIVE

DISCUSSION

The purpose of this multicase study was to explore commonalities among secondary content area teachers who integrate writing daily. This was executed by investigating the following research question: How do secondary content area teachers explain their experiences integrating writing each day?

Previous chapters included both a review of related literature and a description of the methodology and methods used. The research reviewed suggested that an increase in writing has been needed in secondary classrooms for decades (Fisher & Frey, 2013); yet it also suggested that even after the implementation of the CCSS, increases in writing amount and depth are rare (Applebee & Langer, 2013; NCES, 2012b). The findings from the current study, however, revealed that teachers who integrate writing daily tied their experiences with writing integration to their value of the student benefits of writing. They also faced challenges throughout the quarter related to their writing integration, but they still acknowledged the benefits of writing integration for their own practice. In this final chapter, interpretations and conclusions of these findings are shared through a sociocultural lens, using zone theory to describe the ways in which teachers’ daily writing integration was impacted by various factors.

Understanding Daily Writing Integration from a Sociocultural Perspective

To unearth the commonalities across teachers’ experiences, the influences on their use of daily writing were considered. Significant factors that both constrained and promoted teachers’ integration of daily writing were also
Identified. Each teacher began the quarter with a commitment to integrate writing daily, as well as specific plans related to their students' writing.

The teachers' personal conceptions and beliefs about writing were represented by what the teachers valued, as related to the student benefits of writing integration. They valued the students becoming independent writers, who were knowledgeable in the disciplines and prepared for the future. In Gillespie and colleagues (2013) and Newell's (2006) description of writing to promote learning in the content areas, they suggest writing to promote explicitness in which the learner autonomously makes decisions. This suggestion aligned with students’ development of independent writing skills through the use of daily writing in this study. From a sociocultural perspective, writing is utilized in ways that learners would engage outside of the classroom in their everyday lives, for real-world purposes (Jacobson, Degener, & Purcell-Gates, 2003). The teachers valued daily writing for its utility in preparing students for their futures, an important “real-world” purpose for their students.

Sociocultural theories related to literacy focus on what people actually do with texts in real-world contexts in their everyday lives. Writing in such a context provides many opportunities for learning both from a teacher and from peers through discussions and interactions about how genres are structured and how language functions to make meaning. Learning through discussion and collaboration was a large part of each teacher's instruction, as was various modes of scaffolding. One example is vocabulary. Jennifer and Craig were committed to their students' vocabulary acquisition specific to their disciplines, as
a means to scaffold students’ disciplinary learning. Both on reading and writing tasks, the teachers promoted vocabulary to in turn promote content knowledge.

The writing purposes teachers promoted in their classrooms also aligned to research-based suggestions. A meta-analysis by Graham and Perin (2007), which described effective strategies to improve adolescent writing, includes various practices seen in all the teachers’ classrooms including collaborative writing, setting specific product goals, prewriting, process writing, the study of models, and writing for content learning. Ashley’s Pre-Calculus course was built around the various ways she had her students engaging collaboratively through discussion and writing; she also set clear and specific goals for them. Brittany used models and prewriting frequently in her quest to incorporate more process writing. She was continually pushing students towards learning both content and writing skill, which was a tension for her.

Because of the unique contexts of the teachers, including their different content areas and the learning communities they established, their writing goals throughout the term developed and came to fruition in personalized ways. The teachers dismantled dichotomies and mediated productive tensions, while keeping their students at the forefront of their priorities.

**Dismantling Dichotomies**

The four teachers in the current study were considered within their “complex systems of political, cultural, and linguistic action that constitute[d] ‘pedagogy’” (Juzwik & Cushman, 2014, p. 89). Not surprising, as teachers who integrate writing each day as part of their complex pedagogies, these teachers
dismantled dichotomies related to literacy that oftentimes exist in secondary classrooms. Specializing in a single discipline, a dichotomy can develop within a disciplinary teacher’s identity between content and literacy, when contemplating how roles and responsibilities are identified and prioritized (Brozo et al., 2013). This dichotomy affects how teachers position themselves and the use of literacy within their content areas (Hall, 2005; O’Brien & Stewart, 1990). Consequently, where and how writing fits into a given course is also impacted.

The teachers in this study had seemingly accepted sharing the responsibility for their students’ literacy development and taking on that responsibility was not just a mandate, but a priority for these teachers (NGA & CCSSO, 2010). Ashley, the Pre-Calculus teacher, described that over time and through professional learning, her thinking had shifted to “thinking about math and literacy as one.” The teachers viewed literacy, and writing more specifically, as an important aspect of their students’ learning, and thus their practice. According to Zwiers (2014), “All teachers are writing teachers” (p. 219). In ways appropriate to their contexts, each of the four content area teachers positioned themselves as being a teacher of writing by continually using writing to serve their students’ learning in a variety of ways. The teachers discussed their feelings about and struggles with their dual positioning as teachers of content and writing. Craig even described this as the most difficult aspect of his teaching.

While difficult, the teachers viewed writing as “mutually supportive and inextricably linked” to their disciplines (NCTE, 2011, p.2), regarding writing as a
“way of knowing” for their students (Richardson, 2000, p. 923). This was the impetus for prioritizing writing in their courses. Their strong views toward the power of writing to promote student learning perhaps shifted teachers’ ZPD/ZFM/ZPA complexes as needed, allowing for some of the constraining factors in their professional contexts, as shown in Table 11, to be suppressed. As previously mentioned, while Craig found writing to be difficult, and he faced other constraining factors such as the great demands of his AP students, his value for writing and its importance to learning in AP U.S. History did not change.
### Table 11
Zone of Free Movement (ZFM): Professional Contexts – Aspects Mentioned by Each Teacher

<table>
<thead>
<tr>
<th>ZFM Indicator</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational structures and cultures</strong></td>
<td>Craig, Jennifer, Brittany, Ashley</td>
</tr>
<tr>
<td>Class size</td>
<td>Class size</td>
</tr>
<tr>
<td>“All the other” that makes everything hard</td>
<td>Co-teacher removed from class</td>
</tr>
<tr>
<td>“Budgets are continually cut but expectations are continually raised.”</td>
<td>Culture of collaboration in English and social studies departments</td>
</tr>
<tr>
<td>First year to co-plan with social studies counterpart</td>
<td>First year to teach all new courses</td>
</tr>
<tr>
<td>Interdisciplinary course</td>
<td>Department resistant to writing in math</td>
</tr>
<tr>
<td></td>
<td>Administration brings literacy to PLCs at least once per quarter</td>
</tr>
<tr>
<td><strong>Perception of students</strong></td>
<td>Craig, Jennifer, Brittany, Ashley</td>
</tr>
<tr>
<td>Student lack of effort and motivation (writing seen as “tactical play” for AP exam)</td>
<td>Large number of EL students</td>
</tr>
<tr>
<td>No IEPs</td>
<td>Student behavioral challenges</td>
</tr>
<tr>
<td>Open enrollment-some students with previous AP experiences; some without</td>
<td>Some students need support “outside the teacher’s control”</td>
</tr>
<tr>
<td></td>
<td>Student writing skills to succeed in content-moderate</td>
</tr>
<tr>
<td></td>
<td>Student push back on formal writing</td>
</tr>
<tr>
<td></td>
<td>Wide range of student reading and writing abilities</td>
</tr>
<tr>
<td></td>
<td>Student writing skills to succeed in content-moderate</td>
</tr>
<tr>
<td></td>
<td>Student pushback-Writing stigma in math</td>
</tr>
<tr>
<td></td>
<td>Primarily college-bound students</td>
</tr>
<tr>
<td></td>
<td>Student writing skills to succeed in content-moderate</td>
</tr>
<tr>
<td><strong>Curriculum and assessment requirements</strong></td>
<td>Craig, Jennifer, Brittany, Ashley</td>
</tr>
<tr>
<td>AP U.S. History exam</td>
<td>International Baccalaureate Middle Years Programme (MYP) expectations</td>
</tr>
<tr>
<td>Struggle with feedback/grading load</td>
<td>Demand to stay on historical timeline with social studies course counterpart</td>
</tr>
<tr>
<td></td>
<td>Struggle with grading load</td>
</tr>
<tr>
<td><strong>Perceptions of student/parent expectations</strong></td>
<td>Craig, Jennifer, Brittany, Ashley</td>
</tr>
<tr>
<td>High demands of AP students</td>
<td>Demand to stay on course timeline with team teacher</td>
</tr>
</tbody>
</table>
The teachers’ approaches to writing also dismantled the dichotomy between disciplinary literacy and content area literacy debates (Moje, 2008; Shanahan & Shanahan, 2008). They employed writing as a tool to serve authentic purposes that were appropriate for their disciplines, for their contexts, and for their students developmentally. For example, both Brittany and Craig continued to mediate the tensions they faced in American Studies and AP U.S. History between content and writing. Craig worked to prepare students for the AP exam and worked towards developing writing dispositions. His commitment to discipline-specific purposes for writing in social studies (a focus on historical thinking and analysis), purposes for writing within his context (the AP exam), and students’ needs (striving to provide feedback), pushed him to approach writing from a lens that served his students well. For him, this meant evaluating what type of writing promoted learning in each situation and providing a variety of writing experiences for his students. Even in AP U.S. History, with his focus on promoting skills specific to his discipline, he approached writing based on the students in his context. A sociocultural stance on disciplinary literacy asserts that teachers must adapt strategies for their disciplinary purposes that will assist their students with constructing knowledge (Gillis, 2014). The debate then becomes less about general strategies versus discipline-specific strategies, and the focus is shifted to the students at hand and helping them meet authentic disciplinary objectives (Brozo et al, 2013). While each teacher showed evidence of this, another specific example is Heather’s attentiveness to her student population, not approaching writing from discipline-specific or general content-area way, but
from both ways, with a priority on her students’ needs. In addition to dismantling dichotomies related to content and literacy, teachers in this student also negotiated productive tensions.

**Negotiating Productive Tensions**

Goos (2005) described the notion of productive tensions as instances when the ZPD, ZFM, and ZPA do not align as teachers hoped. Because of the resulting tensions, teachers are productive in some way, or benefit in some way. Productive tensions were certainly present in the current study, as no matter what challenges the teachers faced, they interpreted them with a lens focused on their students. The teachers ZPD/ZFM/ZPA complexes were ultimately always realigned to their writing goals.

Teachers’ advocative stances towards writing in their disciplines were not innate for each of the teachers, however. As shown in Table 12, one aspect of teachers’ ZPDs, or their personal conditions, that did not align with their daily writing integration, was their limited formal preparation for writing. Both in their teacher education programs and throughout their careers (including all professional learning), even the English teacher, Brittany, only felt adequately
<table>
<thead>
<tr>
<th>ZPD Indicator</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Craig</td>
</tr>
<tr>
<td>Highest degree</td>
<td>Graduate degree in education</td>
</tr>
<tr>
<td>Experience</td>
<td>13 years</td>
</tr>
<tr>
<td>Initial teaching experiences</td>
<td>“ Barely had kids write”</td>
</tr>
<tr>
<td>Formal preparation for teaching writing</td>
<td>None (teacher education program)</td>
</tr>
<tr>
<td></td>
<td>Extensive (overall preparation)</td>
</tr>
<tr>
<td>Past experiences with own writing</td>
<td>Viewed writing as a “Way of knowing” after graduate school courses</td>
</tr>
<tr>
<td>Beliefs about teaching writing</td>
<td>Would be “remiss” to not have students write daily</td>
</tr>
<tr>
<td></td>
<td>Student-centered</td>
</tr>
<tr>
<td>Attitudes about writing instruction</td>
<td>Most difficult part of job</td>
</tr>
<tr>
<td>Confidence</td>
<td>“Love job and feel good about doing it”</td>
</tr>
</tbody>
</table>
prepared for using writing. Others felt minimally prepared, and Craig even stated that he received no preparation for writing in his teacher education program.

While a lack of formal preparation for writing aligns with teachers across grade levels and content areas (Gillespie et al., 2014; Kiuhara et al., 2009), what is uncommon is the teachers in this study still had an advocative stance and still used writing consistently, despite their lack of preparation. Usually cited as a barrier to writing integration, or even a reason for avoidance, preparation, or a lack thereof, did not impede the daily writing integration of these teachers. It did, however, possibly impact the point at which the teachers began to use writing regularly. For example, each of the teachers described using writing significantly less in their early careers. Each of the teachers also spoke highly of one specific professional learning experience that was meaningful to their knowledge of and views regarding the use of writing. While the teachers were not satisfied with their writing preparation in teacher education or in their careers overall, their ZPA, or promoted actions may have shifted their ZPD regarding writing preparation. Their lack of teacher education and overall writing preparation, part of their ZPD, was impacted by one meaningful literacy-related professional learning, part of their ZPA (shown in Table 13). This speaks to the sociocultural nature of the teachers’ developmental process toward writing integration (Vygotsky, 1978). There was no straightforward or linear transmission of skills or knowledge that resulted in the teachers’ daily writing integration. Instead, gradual movement from external, socially mediated activity led to the teachers eventually integrating writing daily.
<table>
<thead>
<tr>
<th>ZPA Indicator</th>
<th>Teacher</th>
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<tr>
<td><strong>Peer interactions with colleagues/school leaders</strong></td>
<td><strong>Craig</strong>: Department head as influential mentor who values writing</td>
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<td></td>
<td><strong>Jennifer</strong>: Co-plans with social studies counterpart (also values writing)</td>
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<td><strong>Brittany</strong>: Co-plans with team teacher (Ashley advocated for writing in math, shifting department)</td>
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<td><strong>Cultural structures and expectations—school/classroom</strong></td>
<td><strong>Craig</strong>: Writing is a “focus of our department in our PLCs”</td>
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<td><strong>Jennifer</strong>: Content, not conventions in writing</td>
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<td><strong>Brittany</strong>: Culture of writing promoted in classroom</td>
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<td><strong>Ashley</strong>: Evaluator supportive of school-wide literacy</td>
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<td><strong>Cultural structures and expectations—school/classroom</strong></td>
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<td><strong>Teachers’ promotion of student writing</strong></td>
<td><strong>Craig</strong>: Writing for historical analysis and understanding</td>
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<td><strong>Jennifer</strong>: Writing to promote critical thinking about science</td>
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<td></td>
<td><strong>Brittany</strong>: Writing to relate science to students’ lives</td>
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<td></td>
<td><strong>Ashley</strong>: Writing to explore connections between literature and history</td>
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<tr>
<td><strong>Meaningful literacy-related PL</strong></td>
<td><strong>Craig</strong>: School-Wide Social Studies</td>
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<td></td>
<td><strong>Jennifer</strong>: Middle Years International Baccalaureate Programme (MYP)</td>
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<td></td>
<td><strong>Brittany</strong>: District-Wide Social Studies</td>
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<td></td>
<td><strong>Ashley</strong>: Striving Readers</td>
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<tr>
<td><strong>Literacy routines</strong></td>
<td><strong>Craig</strong>: Vocabulary discussions after all readings</td>
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<td></td>
<td><strong>Jennifer</strong>: Weekly journals, weekly vocabulary homework (concept maps)</td>
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<td></td>
<td><strong>Brittany</strong>: Writing on all formative and summative assessments</td>
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<td></td>
<td><strong>Ashley</strong>: Written reflections after each assessment</td>
</tr>
<tr>
<td><strong>Goals throughout quarter</strong></td>
<td><strong>Craig</strong>: Comprehensive writing plan (starting at beginning of year)</td>
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<td></td>
<td><strong>Jennifer</strong>: Better attitude toward grading</td>
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<td></td>
<td><strong>Brittany</strong>: More formal writing instruction and writing tasks</td>
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<td></td>
<td><strong>Ashley</strong>: Students frequently use academic vocabulary in discussions and writing</td>
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<td></td>
<td><strong>Goals throughout quarter</strong></td>
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Table 13
Zone of Promoted Action (ZPA) – Aspects Mentioned by Each Teacher
Perhaps trial and error with writing and evaluation of student learning and needs resulted in internal mediational control by teachers (Wertsch, 1985). The internalization of writing integration may also be a result of the teachers’ prolonged teaching and continued education and reflection. At the time of this study, while some of the teachers were new to their courses, they had been teaching five to 17 years. They had each also sought out advanced degrees. Here a productive tension between their perception of lacking preparation and their value for student writing, pushed them to keep moving forward with their use of writing, and even seek out professional learning to fill gaps.

Teachers valued the benefits their students experienced from daily writing, which seemingly played a large role in their writing integration. Previous research documents the value of writing as a factor promoting writing use in those classrooms in which little writing was still happening (Graham et al. 2014). In Applebee and Langer’s (2011) study of 260 secondary classrooms, teachers in each content area did show an understanding of how writing can promote students’ learning of content knowledge. Still, less than 8% of class time was spent on student writing, with that writing being “dominated by tasks in which the teacher does all of the composing, and students are left only to fill in missing information” (p. 26). One difference the teachers in the current study showed was their sustained use of writing. Teachers were able to see this value on regular basis, unlike the teachers from other studies who may value writing but use it minimally. The positive impact of writing on the teachers and their students was present and clear, providing usable meaningful information to push their
student-centered approaches to instruction forward. The teachers talked of knowing their students better than ever and planning more thoughtfully than ever, both as a result of consistent writing. When experiencing these positive attributes, the value of writing was no longer abstract. The constraining influences on their writing integration were also easier negotiated when the student and teacher benefits were easily visible on a daily basis. This speaks to the notion of experiential, or informal learning for teachers (Kolb, 1986). While the current study was not designed around teaching learning, studying teachers who were integrating writing each day was a purposeful choice. Teachers that were experiencing the phenomenon, in this case writing integration, on a daily basis were able to more easily see the potential of writing. Other teachers who value writing, yet integrate it minimally, may benefit from experiential learning experiences that solidify their value for writing, as have the teachers in this study.

Prioritizing Students

While the various challenges within teachers’ personal and professional contexts were mentioned, discussions and reflections, both verbal and written, centered on the teachers’ deep concern about their students. The ways writing benefitted their students and the ways they were struggling to most effectively use writing for the betterment of their students was by far the focus of teachers’ dialogue throughout this study. Previous research with ESL and ELA teachers found the opposite (Kibler, Heny, & Andrei, 2016). Despite the teachers’ desire to promote their students’ success with writing, the institutional tensions they
faced dominated their reflections, as opposed to contemplating negotiations, such as the teachers in the current study.

In the search for commonalities across content area teachers who integrate daily writing, this points not to the factors that impacted teachers’ writing integration, but instead, to the way that teachers responded to those factors. As depicted in Figure 8, Stooksberry, Schussler, and Bercaw (2009) described dispositions as both a point of convergence and a point of inception. Convergence represents the merging of external influences of the teaching environment and the teacher’s individual schemata. Inception represents the origin of teachers’ thinking and his/her actions. From this view, when influences from the professional context, or the ZFM and ZPA, merge with personal influences, or the ZPD, dispositions are the center of that merge and the response, or actions of such.
The findings from the current study, then, which looked to describe common features of teachers who were integrating writing each day, lies at the notion of dispositions. The teachers shared dispositions that led to their use of daily writing. The underlying impetus for writing use was their priority for students. Looking past institutional barriers and negotiating internal and instructional tensions, the teachers held to their commitment of daily writing. Each teacher exhibited *inclinations* to continue their writing use based on their priority for their students (Stooksberry et al., 2009). These inclinations resulted from the interplay of the convergence of outside influences and their beliefs and values related to writing.

A focus on students was overall the most frequently mentioned aspect of teachers’ explanations when describing their experiences with writing integration.
Whether they were describing positives and negatives over a week of writing, evaluating their instruction, or developing goals, their gaze was adamantly set on their students, their students’ needs, and their students’ learning. Through analysis of reflections, interviews, and surveys, each of the four teachers collectively related their reasoning for and decisions around daily writing to the betterment of students. Each of the teachers had a variety of motives as to why writing was imperative in their courses. Across the teachers, their writing integration was influenced by their value for writing promoting independence on writing tasks, disciplinary understandings, and future preparation.

The four teachers faced a number of challenges as they integrated writing each day. Each teacher described the internal and instructional struggles they experienced, and they also described the ways that they negotiated these tensions, again, pointing back to their priority lying first with their students. Confronting both internal and instructional challenges, the teachers mediated tensions, and created productivity. The AP context left Craig contemplating the best approach to ensuring that he prepared well-rounded writers who could successfully write on their AP exam. This endeavor was driven by his desire to best serve his students in the short term and in the long term. In Biology I, a lower-level course, which for Jennifer included a number of language and behavioral demands, she suppressed her own desire for always-edited writing and used more writing to learn in science. This ultimately better served the needs of her students. For Brittany and Craig, balancing formal writing instruction and content instruction was rooted in their hope of ensuring their
students both progressed as writers and developed understandings in their disciplines. Lastly, Ashley, guided by a hope to deepen her students' knowledge of Pre-Calculus, negotiated the balance of discussion and writing that most effectively promoted student learning. In each instance, the teacher was aware of a challenge, but he/she pushed forward with writing integration because of the belief that writing was important for students.

Aside from the challenges, teachers also recognized how daily writing integration benefitted them. Explaining the ways in which they better understood their students' learning processes, teachers utilized this information, planning more attentively to better meet students' needs. Again, the teachers' attention was ultimately focused on prioritizing students.

**Implications**

For teachers who are using writing regularly, such as those in this study, their experiences, as outlined in Chapter Four, and a look at those contexts influencing their experiences, provides insights into how other teachers, and future teachers, may approach making consistent writing integration a reality in their classrooms. Teacher education programs can promote the increase in time and depth on writing suggested in secondary classrooms by first increasing the emphasis and value on writing in their programs (Totten, 2005). Despite the CCSS and various organizations suggesting that teacher candidates should be equipped for writing in their content areas when they enter their first classroom, unfortunately, many teacher preparation programs do not currently emphasize writing in their secondary programs (Myers et al., 2016). Instead, literacy-based
courses in education programs are often primarily focus on reading. One way to further emphasize writing instruction in teacher education programs is to incorporate writing as larger portion of numerous classes, such as disciplinary methods courses. Leaving writing instruction to be learned and valued by all content area teachers, solely from one literacy course, may be unrealistic.

The approach taken to writing instruction in teacher education and professional learning also matters. The intersection of content and writing, or what has been referred to as “synergy” between disciplinary knowledge and literacy (Drew & Thomas, 2018), should be prioritized. Even the veteran teachers in this study, who were committed to writing, were still grappling with this. Writing should also be approached in a value-added manner, as opposed to approaching writing as a policy requirement. Teachers’ buy-in may be improved if writing is not approached as something that should or must be done, but instead if writing is approached based on the student benefits in each content area. Whether direct, or indirect through pedagogical benefits, both pre- and in-service teachers may be more invested in writing integration if they understand the positive impacts on their students. Reflective practice, then, beginning early in teachers’ careers is key (Cohen-Sayag & Fischl, 2012). These teachers came to their understanding of the importance of using writing regularly as a result of sustained reflection on their practice.

Lastly, this study suggests several areas of future research. How do teachers’ dispositions, such those represented in this study, develop? While the teachers shared dispositions that led to their use of daily writing, what is unclear
is how and why those dispositions began and continued to develop. Also, a look at teachers’ writing experiences exclusively within each content area may better reveal the intricacies of disciplinary writing instruction. While the current study was useful in looking at teachers’ experiences across content areas, teachers’ experiences with writing within each content area may also provide meaningful implications for instruction. Those teachers who have taught for almost a decade now under the Common Core (which significantly enhanced writing expectations) would also be a meaningful group to look at in relation to writing experiences.

**Concluding Thoughts**

The overarching contexts the four teachers in this study functioned within simultaneously interacted to form a canalization in which daily writing was allowed throughout the term studied. This configuration included teachers’ personal conditions (Zone of Proximal Development), professional contexts (Zone of Free Movement), and promoted actions (Zone of Promoted Action), as well as how these factors interacted within their learning communities. According to zone theory (Valsiner, 1997), for each teacher, the factors constraining writing within the teacher’s ZPD and ZFM were overpowered by supports in the ZPA.

Findings revealed that teachers’ experiences with writing integration tied back to their value of the student benefits of writing. They also faced challenges throughout the quarter related to their writing integration, but they still recognized the benefits of writing integration for their own practice. The most prevalent and promising conclusion arising from teachers’ explanations of their writing integration was their centeredness on prioritizing their students. Letting their
decisions as teachers be guided by what they felt best for their students was a commonality among all four teachers. Part of this included writing. The teachers, while admittedly not personally connected to writing overall, were led to the use of daily writing by their prioritization of bettering their students. Furthermore, each of the teachers mentioned progressively increasing their writing integration over time. This progression of increased writing was informed by their “tweaking” of practice, which led to the consistent realization that writing played an important role in their students' learning. Teachers valued the benefits their students experienced from daily writing, which then reinforced regular writing integration.
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Appendix A

Survey One

1. What specific courses are you teaching for the 2017-2018 school year? (Please include the grade level for each.)
2. Please designate one focal course for our work with writing during the fall term. (Or begin thinking about this, and we can discuss it in person if you would like.)
3. Will students in this class take a high-stakes test in this subject? (E.g., state, district, AP, IB exam.)
   - No
   - Yes - this year
   - Yes - in a later year
   - If yes, please specify the exam name:
     - Also, does the exam require any writing? If the exam requires writing, please describe the types of questions that require writing.
4. How many years have you been in your current teaching role/position?
5. How many years of teaching experience do you have?
6. What degree(s) do you hold?
7. How does writing fit into your role as a teacher of [INSERT YOUR CONTENT AREA]?
8. How do you choose to utilize student writing to help attain your course goals?
10. What are/have been the main influences on the ways you use writing in your classroom?
11. What have been the most significant influences on your understanding of/confidence in implementing/teaching writing both generally, as well as writing specific to [INSERT YOUR CONTENT AREA]?
Appendix B

Survey Two

1. Describe the variation of student needs in your focal course when considering EL designations, IEP modifications, GT learners, different reading levels, etc.

2. Describe your students’ current writing performance in relation to your course goals.

Please rate the following statements based on your level of agreement/disagreement.

3. My students have the writing skills they need to meet my expectations for work in my class.
   - STRONGLY AGREE
   - MODERATELY AGREE
   - AGREE SLIGHTLY
   - DISAGREE SLIGHTLY
   - MODERATELY DISAGREE
   - STRONGLY DISAGREE

4. Writing is an essential skill for students after high school.
   - STRONGLY AGREE
   - MODERATELY AGREE
   - AGREE SLIGHTLY
   - DISAGREE SLIGHTLY
   - MODERATELY DISAGREE
   - STRONGLY DISAGREE

5. Most students leave high school with the needed writing skills to be successful in college.
   - STRONGLY AGREE
   - MODERATELY AGREE
   - AGREE SLIGHTLY
   - DISAGREE SLIGHTLY
   - MODERATELY DISAGREE
   - STRONGLY DISAGREE

6. Most students leave high school with the needed writing skills to be successful in the workplace.
   - STRONGLY AGREE
   - MODERATELY AGREE
   - AGREE SLIGHTLY
   - DISAGREE SLIGHTLY
   - MODERATELY DISAGREE
   - STRONGLY DISAGREE
7. Describe the most meaningful writing instruction/activity/assignment that has taken place in your focal course during the first term and why it was the **most meaningful**.

8. Describe the writing instruction/activity/assignment that has taken place in your focal course this term that was the **least useful, most disappointing**, etc. and why it did not meet your expectations.

9. When helping students meet your course goals, consider the purposes for writing that you value most in your focal class. Please rank the purposes below from MOST important (1) to LEAST important (6).
   _____To connect personal experience to the topic being studied
   _____To summarize what has been learned
   _____To provide practice in spelling, punctuation, and other aspects of correct usage
   _____To develop, consolidate, or expand on new understandings
   _____To provide practice with particular types of writing
   _____To apply concepts to new situations

10. In what way(s), were you impacted, if any, were you impacted during the first term by having the goal to, or continuing to, integrate daily writing? Please explain.

11. In comparison to other aspects of your overall instruction, how do you, as the teacher, **feel** about the integration of writing into your content area (planning, instruction, grading, etc.)?

12. How would you describe the way you most commonly grade student writing?

13. Describe a **life** experience that has influenced or continues to influence you as a teacher of writing in your content area.

14. Describe an experience **from your own education** (K-12, undergraduate, graduate) or **professional development** that has significantly influenced or continues to influence you as a teacher of writing in your content area.

15. How would you describe your **formal** preparation for teaching writing in undergraduate teacher education courses **during college**? (Please highlight.)
   - NONE
   - MINIMAL
   - ADEQUATE
   - EXTENSIVE

16. How would you describe all other preparation to teach writing you have engaged in/received **beyond your undergraduate degree** (e.g., workshops, reading books and articles, assistance from other teachers/mentors, in-service preparation at your school/district, advanced degrees, etc.)? (Please highlight.)
   - NONE
   - MINIMAL
   - ADEQUATE
   - EXTENSIVE
Appendix C

Survey Three

1. What is the official title of your focal course?
2. If your focal course had/will have an end-of-term assessment/semester exam, will written responses be included? If so, please describe.
3. When you started this school year, was your goal to sustain the writing you established in previous years, increase the amount of writing you integrate, or deepen the depth of your writing? Please explain.
4. In your focal course, were you satisfied with your use of writing during the first term? Please explain.
5. Discuss some of the successes you’ve experienced during the first term with integrating writing routinely in your content area (from the teacher perspective, student perspective, or both).
6. Discuss some of the difficulties you’ve experienced this term with integrating writing routinely in your content area (from the teacher perspective, student perspective, or both).
7. After reflecting about your writing instruction for ten weeks of the first term, what is one specific way you hope to change/improve your future writing integration?
8. In what specific way(s) does writing fit into what you consider your role/responsibilities as a teacher of your content area?
9. After having the goal to implement daily writing for one term, are your beliefs/thoughts/feelings about writing instruction similar or different than in previous terms?
10. Did you see a relationship between your students’ reading and writing in the first term (when considering what you know about them anecdotally, from assessments, their motivation, etc.)? Please explain.
11. What were the most significant way(s) your students benefitted from writing daily in your focal course during the first term?
12. What has been a takeaway or benefit of reflecting about your writing integration during the first term?
13. What are a few specific goals you have for writing integration for future terms?
Appendix D

Journal Prompts

Week 1
After integrating daily writing in this course over a week’s time at the beginning of the school year, what was the biggest challenge and the biggest reward?

Week 2
Beginning this school year with laying the groundwork to promote a culture of writing in your course, how are students taking to writing on a regular basis? What are their attitudes, dispositions, etc. as you incorporate routine writing into your discipline?

Week 3
How does planning with daily writing integration in your discipline as a goal impact your instructional decision making?

Week 4
Does the writing your students engaged in this week (or in the last four weeks overall) relate more to purposes of learning to write (further developing as writers in your discipline) or writing to learn (further developing content knowledge within your discipline)? Moving forward, will this remain the same?

Week 5
Since the beginning of this school year, have you primarily engaged students in types of writing you have utilized in the past, new writing activities you had never tried with your students before, or a combination of the two? What guided this decision making?

Week 6
During this term, what feedback (teacher or peer), if any, have you utilized to enhance students' writing skill, content knowledge, or both? Were you pleased/displeased with the use of this feedback, and why?

Week 7
Have you found the types of writing/ways to integrate writing that you value most in your content area have been realistic for you to bring into your focal course on a regular basis this term? Please explain.
**Week 8**
Does writing regularly play a role in the way you assess your students? Do you find this is meaningful, and what factors influence your decision to include writing in assessment?

**Week 9**
After reflecting on your writing integration for eight weeks, what would you say that your focal course would benefit most from – more writing, more depth to the writing they have been doing, a combination of the two, neither. Please explain.

**Week 10**
Does the reality of grading student writing impact your decision making when it comes to writing integration? Please explain.
Appendix E

Interview One Questions

TODAY’S LESSON:
1. For today’s lesson, how did you integrate or use writing?
2. Why did you use writing in this way?
3. Was this typical practice for you?
4. What did you want your students to learn about [INSERT CONTENT] from this writing?
5. Do you feel using writing in this way was successful based on your purpose?
6. What would you do differently, if anything, if you were to teach this lesson again?

GENERAL QUESTIONS:
7. When you think about your experiences integrating writing over the last few weeks, talk to me about anything that stands out to you (in relation to you as the teacher or in relation to the students).

8. What need, if any, do you feel is being met in your classroom by integrating daily writing?
9. What purposes have you most commonly used writing for in [INSERT CONTENT] thus far and why?
10. What factors drove your decision-making as you implemented daily disciplinary writing?
11. Do you plan to implement writing in the same or different ways for the remainder of the term, and why?
12. Is your overall teaching being influenced in any way by your goal to implement daily writing integration? If so, how?

13. Clarifying questions from Instructional logs and Survey One that are specific to each teacher.
Appendix F

Interview Two Questions

**TODAY’S LESSON:**
1. What was your main goal for students in today’s lesson?
2. In what ways did students engage in writing today?
3. What was your purpose for having students write in this way, and how was it related to your main goal for the lesson?
4. What did you want your students to learn about your content from their writing today?
5. What seemed challenging and/or easy for students as they engaged in writing during this lesson?
6. Was support needed as students wrote today, and if so, how was it provided?
7. How would you describe student engagement in this lesson, as related specifically to the writing?
8. Was this writing connected in any way to previous or future student work?
9. What would you do differently, if anything, if you were teaching this lesson again?
10. Include clarifying questions from the LESSON.

**REVIEW SINCE PREVIOUS INTERVIEW:**
1. Talk me about your overall experience integrating writing since we last talked. What stands out to you about the last several weeks?
2. Include clarifying questions from INSTRUCTIONAL LOGS/REFLECTIONS 3-6.

**GENERAL QUESTIONS:**
1. How do you decide their learning is best served by discussion, collaborative writing, or individual writing?
2. What do you use most and why – discussion, collaborative writing, or individual writing?
3. What type or types of writing do you value most in your content area?
   a. Have you realistically been able to integrate this type of writing this term?
Appendix G

Interview Three Questions

TODAY’S LESSON:
1. What was your main goal for students in today’s lesson?
2. In what ways did students engage in writing today?
3. Why did you have students write in this way, and how was the writing related to your main goal for the lesson?
4. What did you want your students to learn about your content from their writing today?
5. What seemed challenging and/or easy for students as they were writing during this lesson?
6. What support did you find yourself providing as students wrote today?
7. Was this writing connected in any way to previous or future student work?
8. Include clarifying questions from the LESSON.
9. Would you do anything differently if you were teaching this lesson again?

REVIEW SINCE PREVIOUS INTERVIEW:
1. Talk me about your overall experience integrating writing since we last talked. Does anything specific stand out to you over the last few weeks?
2. Include clarifying questions from INSTRUCTIONAL LOGS/REFLECTIONS 7-9.

GENERAL QUESTIONS:
1. What purposes have you most commonly used writing for this term, and why?
2. When considering the whole term, what have been some of the most meaningful aspects of your writing integration?
3. When considering the whole term, what have been some of the most challenging aspects of your writing integration?
4. Did you experience any specific gaps this term in your expectations for student writing and their writing performance?
5. How was your writing integration this term been similar or different from previous terms?
6. If you could give advice to brand new teachers in your discipline who plan to integrate writing on a regular basis, what might that be?