USING ACTIVITY THEORY TO UNDERSTAND EFFECTIVE WRITING INSTRUCTION WITH HIGH POVERTY MIDDLE SCHOOL STUDENTS

by

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DEDICATION

I would like to dedicate this to my fellow teachers who strive, on a daily basis, and in adverse situations, to truly do what is best for kids. I would also like to dedicate this to Aunt Ginny, in her spirit of hope, acceptance, and joy.
ACKNOWLEDGEMENTS

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ABSTRACT

Conveying thoughts, ideas, and solutions through written words has been, and will continue to be, a crucial way to demonstrate thinking and learning in both the academic and professional worlds. Because of its importance, and our students’ struggles, writing’s place in education has risen to the forefront, leading to more rigorous writing standards and assessment in correspondence with the English Language Arts Common Core State Standards. Thus, this mixed methods study was designed to analyze Montana's middle school Smarter Balanced Assessment Consortium (SBAC) English Language writing scores to understand patterns of proficiency in writing across schools and student demographics (gender and socioeconomic status). In part one of the study, quantitative data were analyzed from the 2015-2016 school year and included scores from 338 schools serving grades 6-8 with a total of 29,091 students. In alignment with current literature, findings suggest that Montana’s middle school students of low socioeconomic status, on average, perform lower than their peers on the writing portion of the standardized test. In part two of the study, qualitative data were gathered from a Montana middle school where students achieved proficiency on the Smarter Balanced Assessment English Language Arts Performance Task, to examine the way writing instruction is approached in the school. Engeström’s Activity Theory (1987) was used as a framework to describe the system of teacher instruction used to improve students’ writing. Findings illuminate the complex facets of writing instruction from the lens of Activity Theory and provide practical applications for administrators and teachers in navigating a dynamic learning system.
CHAPTER ONE

INTRODUCTION

In considering both the academic and professional worlds, writing is an important way to communicate ideas (Graham, Hebert, & Harris, 2015). Conveying thoughts, ideas, and solutions through written words has been, and will continue to be, a way to demonstrate thinking and learning. While writing competence is essential for success in and out of school, the majority of middle school students assessed in the U.S. do not have proficient writing skills (Graham, Harris, & Santangelo, 2015). On the most recent writing test conducted by National Assessment of Educational Progress (National Center for Education Statistics, 2012), only 30% of grade 8 students performed at or above the “proficient” level. This lack of proficiency has led to what some call a “writing crisis” (Graham & Perin, 2007c). The national response to this crisis was the development of the Common Core State Standards, which expand the literacy focus from solely a reading perspective, to encompass academic writing as well. The effect of the standards, however, is mediated by the enacted curriculum and instruction in the classroom (Troia, Olinghouse, Mo, Hawkins, Kopke, 2015). Current research-based understandings of teacher practice that raises student performance in writing to meet the new standards are inadequate (Graham & Perin, 2007c). As writing plays a significant role in society, educators need to be able to teach it effectively, therefore research to improve practice in writing instruction is necessary.
Importance of Writing

An important part of human history was the advent of written communication when humans developed a way to represent thoughts with symbols. Fast forward to today, when students have the symbols at their fingertips but have to organize thoughts and ideas into coherent written communication. Writing is a complex endeavor, an important tool in all areas of life and is incorporated into all content areas of education. As Graham and Perin (2007c) state, "Most contexts of life (school, the workplace, and the community) call for some level of writing skill, and each context makes overlapping, but not identical demands" (p.9). This creates a need for writing competence that begins with students demonstrating their knowledge through writing in today's classrooms (Harris, Graham, Friedlander, & Laud, 2013). Not only is writing a demonstrative form of learning, but research shows writing about text has a positive influence on reading outcomes (Harris et al., 2013). Overall, proficient writing is so crucial that, "Failure to acquire strong writing abilities restricts opportunities for both postsecondary education and employment" (Harris et al., 2013, p.538). The new Common Core State Standards and their college and career readiness focus have a clear emphasis on writing, which points to the increased importance of the skill (Rothman, 2012).

Student Performance

Writing has become an area of concern and called a “proficiency crisis” by researchers (Graham & Perin, 2007c, p. 4). In 2011, the NAEP administered its most recent assessment in writing. On the examination, only 27% of 8th graders tested
performed at or above the proficient level in writing (National Center for Education Statistics, 2012). This score was down from the 33% who achieved a level at or above proficient on the 2007 test (Salahu-Din, Persky, & Miller, 2008). The Nation’s Report Card in Writing (Persky, Daane, & Jin, 2003) rated 70% of students in grades 4-12 as low-achieving writers. In addition, a comprehensive meta-analysis revealed almost one-third of high school graduates are not ready for college writing courses (Graham & Perin, 2007c).

To support student mastery in writing, educators have searched for ways to effectively teach writing and improve student performance. Despite increased efforts, there are still gaps in achievement in particular demographics in the area of writing, such as gender (Fearrington, Parker, Kidder-Ashley, & Gagnon, 2014; Malecki & Jewell, 2003; Scheiber, Reynolds, Hajovsky, & Kaufman, 2015; Sullivan, 2012; U.S. Dept. of Education 1998, 2002, 2007,), and socioeconomic status (Applebee & Langer, 2009; Edman, 2012; NCES, 2012). In the State of Montana, the Superintendent of Public Instruction is calling for a 4 percent increase in English proficiency as well as closing the achievement gap to comply with the Every Student Succeeds Act (Associated Press, 2017). In order to achieve this goal, it is imperative to study sound implementation of best practices to avoid leaving groups of students at a disadvantage. Researchers acknowledge, “opportunities to engage expressively, creatively, and practically in writing are unequally distributed” (Freedman, Hull, Higgs and Booten, 2016, p. 1389). Today in America, public education ensures that not only does everyone have the opportunity to be literate, but they also have the right to insist upon an education that affords them
opportunities, regardless of demographic. Reducing inequality comes in three forms: programs, policy, and practice (Gamoran, 2013). One way to achieve equality in education is through the examination of direct interactions with students that lead to positive achievement outcomes that close long-standing achievement gaps.

**Middle Grades**

Effective instruction is paramount in all grades, but the middle grades are a particularly crucial juncture for students. As students enter the middle grades, reading and writing become intertwined (Fitzgerald & Shanahan, 2000) as a medium for learning content material. This shifts the focus of literacy from learning the skills of reading and writing to using these skills to build and demonstrate knowledge (Reynolds & Perin, 2009). This is a time of transition in multiple ways. Structurally, students may experience a change in location to a new school, or a change in scheduling with more classes and more teachers. Physically and emotionally they begin adolescence. According to a study done by McEachin & Atteberry (2013) of 170,000 students in 4th-8th grade, the middle-grade transition is difficult for students and typically comes with a decrease in overall learning. As a structurally transitional period where students are relocating to a new school, most states see a decline in writing proficiency in the middle-grades as compared with elementary levels (NAEP 2004, 2007, 2011). A lack of skill acquisition and development can be detrimental to students, therefore much research has centered around being able to identify middle-grade students who are at risk of failing academically and dropping out of school (e.g., Balfanz, Herzog, & Iver, 2007; Jerald, 2006; Reardon,
Recent studies in California (Reardon, et al., 2009; Zau and Betts, 2008) and elsewhere (Balfanz, 2009; Balfanz et al., 2007) indicate many students at the greatest risk of high school failure are identifiable during the middle years by their grades, attendance, behavior, and test scores. The middle grades provide an opportunity to identify students struggling academically and provide support to enable them to succeed in high school.

**Middle Grades Self-Efficacy**

Rather than discover a student lacks writing skills at the high school or college level, it is preferable to intervene at an earlier age. Remediation at the college level is not the best-case scenario for student preparedness. There is a correlation between students’ writing performance and their self-efficacy in writing, meaning that early intervention is important to develop skills to promote writing self-efficacy, and concurrent skill development. For example, one particular study (Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, 2013) offered results that students in middle and high school reported increased self-efficacy based on their placement and level in writing courses. Another study determined (Pajares, Johnson, and Usher, 2007) that self-efficacy beliefs in writing diminish as students move from elementary to middle school. A meta-analysis of writing and self-efficacy revealed positive writing self-efficacy does affect writing outcomes in studies that controlled for other variables such as gender, motivation, and previous achievement (Pajares, 2003). This research builds upon Bandura's work (1986), which posits that enactive mastery in a subject can reliably build self-efficacy. Building students’ writing proficiency will help build their mastery, and in turn, their self-efficacy,
reducing some of the risk factors that impede success as middle-grade students move on to high school and college.

The middle grades self-efficacy research is situated in the larger conversation of college and career readiness and the increased expectation of writing standards. According to the most recent data from the graduating class in the State of Montana for the year 2014-2015, ten percent of Montana University students statewide required a writing remediation course, and 14 percent of low SES students required remediation (GEMS). While this seems like a small percentage, it is only the local students attending institutions in the Montana University System (MUS), which is comprised of sixteen public universities and colleges in the state of Montana, not a percentage of Montana students in the national University population. In addition, these are students who are attending college, not the population as a whole.

Statement of the Problem

Research has demonstrated that factors such as grade level, gender, prior writing achievement, and socioeconomic status can predict significant variance in writing performance, writing knowledge, and writing motivation and self-regulation skills (Olinghouse & Graham, 2009; Troia, Harbaugh, Shankland, Wolbers & Lawrence, 2013; Troia, Shankland, & Wolbers, 2012). This variance in writing performance, knowledge, and motivation leads to gaps in achievement.

Although students’ writing deficiencies are evident, there is limited research in writing to establish a scientifically based approach to instruction (Graham & Perin,
Multiple meta-analyses on writing instruction have discovered a lack of published research in middle school writing practices (see Graham & Perin 2007a, 2007b, 2007c). The lack of depth of knowledge in this subject is despite an increase in writing instruction research conducted in the last 20 years (Graham & Perin, 2007c). Reading has been studied for years as a component of literacy (Yancey, 2009), but the overall body of research on writing is relatively small. Furthermore, within the body of literature around writing instruction, two serious weaknesses exist: writing research has been historically underfunded and it is typically conducted in post-secondary education settings (Juzwik, Curcic, Wolbers, Moxley, Dimling, & Shankland, 2005). Thus, researchers conclude that additional studies on evidence-based practices in writing instruction and assessment need to be conducted (Graham, Harris, and Hebert, 2011).

If writing instruction, in general, has received little attention, middle grades writing instruction has received even less. As one study of analytic writing within the content areas indicated, there is little research or evidence regarding how middle-grade students spend their writing time, or what the researchers refer to as the "writing diet" (Lawrence, Galloway, Yim, & Lin, 2013, p. 152). Another meta-analysis of Writing to Learn interventions in the middle grades revealed the 6th to 8th-grade time frame had lower, or even adverse outcomes compared to elementary or high school writing interventions (Bangert-Drowns, Hurley, & Wilkinson 2004). The authors identified middle-grades writing as an area in need of further research, particularly a holistic examination of the combination of factors supporting student proficiency.
Another area of writing research that lacks depth is standard related. The Common Core State Standards (CCSS) have brought new expectations to the classroom, in hopes that more rigorous standards with a writing focus will increase student achievement. According to a recent study (Troia et al, 2015) of seven states there is a lack of alignment between old standards and curriculum and the new CCSS. This indicates potential incongruity with previous materials and instructional methodology. It is also unclear whether the new standards and complementary assessments will serve their intended purpose of deeper understandings without being reductive.

Writing is an important skillset in both academics and the workplace. Due to its importance, more research is necessary to understand the lack of proficiency, particular for those in demographics experiencing achievement gaps. The research is particularly limited in the middle grades in the context of the new standards. This is a critical juncture where students should receive proper instruction. Examining patterns in assessment data, and extending the knowledge to the school and classroom level is an important part of current research.

Purpose of the Study

Due to the importance of writing and the lack of proficiency nationwide, further research to inform practice is necessary. Unfortunately, the depth of writing research is limited, particularly at the middle grades where students are at a pivotal point in their educational careers. Therefore, this sequential explanatory mixed methods study was designed to identify patterns of writing proficiency across Montana’s middle grade
students and explore successful writing instruction for students who historically struggle. The significance of the exploration was that it can inform an understanding of how teachers influence writing outcomes. The study used Activity Theory (Engeström, 1987) to describe the systemic factors under investigation and to offer a holistic picture of a contextually responsive system of writing instruction that resulted in positive outcomes for students.

**Study Overview**

In order to understand patterns in middle-schools students’ writing proficiency across the state of Montana, and extend the knowledge of effective instruction at the school and classroom level, this study was designed as a two-phase mixed methods study (Creswell, 2009). In the first phase, quantitative analyses explored the relationship between specific demographics (gender and socioeconomic status) and Smarter Balanced Assessment Consortium (SBAC) English Language writing scores in Montana middle schools. The SBAC writing scores were utilized because, according to the Montana Office of Public Instruction (OPI, 2017) in 2016, 97.7% of Montana Students completed the test. It is the only statewide writing assessment, making it the best means for collecting writing assessment data and a starting point to draw comparisons within and among schools. The assessment data can highlight achievement gaps and identify potential success that might lead to instructional improvements.

Following this macro-level analysis, phase two focused on one case study school, selected due to test scores that outperformed others with similar demographics.
Interviews, observations, and artifacts were used to probe one purposefully sampled middle school with proficient writing results by exploring aspects of the Activity System (Engeström, 1987) of writing instruction. The reason for combining both quantitative and qualitative data is to view this research problem in depth by merging the broad numeric trends with a detailed view of a well-performing school. This design is a pragmatic approach (Creswell, 2009) concerned with the real world applications of educational policy. By analyzing examples where students succeed, research is conducted in context, providing rich descriptions of model systems. These type of in-depth accounts can be used to design programs and interventions to improve writing performance in schools with similar demographics.

**Theoretical Framework**

Writing instruction and assessment, as a component of education, is a complex and diverse undertaking. Various theories have been used to help understand the complex nature of writing instruction. Activity Theory (AT) (Engeström, 1987) is one theory particularly well suited to this task because it was designed to account for the multiple factors that shape systems. Activity Theory stems from Lev Vygotsky's work in sociocultural theory. Two of Vygotsky's underlying concepts are present in Activity Theory (1978). First, learning is understood to be a contextually embedded and socially constructed activity; second, specific tools play a key role in mediating this activity within a system. The unit of analysis in AT is the activity system. An activity system consists of dynamic action, leading to an outcome reached through the production of
various objects. It is a "powerful socio-cultural and socio-historical lens through which we can analyze most forms of human activity" (Jonassen & Rohrer-Murphy, 1999, p.62). It focuses on both the social and the cognitive aspects of people in their environments.

Activity systems focused on writing outcomes can provide a picture of how the pieces of writing instruction, assessment, and intervention work together. An activity system is composed of several key elements including the subject, object, artifacts, community, and division of labor. The subjects are the individual, or groups of individuals, involved in the activity. The object in the activity system is the motivation behind subjects' participation in the activity and is created or transformed through the activity (Koschmann, Roschelle, & Nardi, 1998). The mediating artifacts in the activity system are simply the tools such as the symbols, signs, and conceptual understandings serving as physical and psychological implements that help the subject achieve its objective. A community is defined as the subjects' cultural or social group, with explicit rules or social norms that regulate and influence behavior. The division of labor defines how tasks and responsibilities are shared among system participants as they engage in an activity (Engeström, 1999b). In the course of activity, the system can change in response to changes in needs and underlying motives (Engeström, 1999a) (Figure 1). The outcome is not a part of the direct system, but is the purpose of the system, in this case, students who can write proficiently.
Many studies have used Activity Theory as a lens by which to understand educational issues: in mathematics education (Nunez, 2009), science education (Garcia, 2011), technology integration in education (Anthony, 2012; Behrend, 2014; Scanlon & Issroff, 2005), teacher education (McNicholl & Blake, 2013), broad literacy research (Kostogriz, 2000), curriculum design (Jonassen & Rohrer-Murphy, 1999), evaluating school partnerships (Yamagata-Lynch & Smaldino, 2007), and Common Core State Standards (CCSS) implementation (Barrett-Tatum, 2015). AT is useful for educational research because it helps examine teaching and learning within and across systems (Roth & Lee, 2007).
This study was designed to answer the following questions: (1) Do the scores of Montana middle grades students differ on the Smarter Balance Assessment Standardized Writing test by gender and socioeconomic status? (2) What are the school-wide systemic factors that may contribute to writing proficiency for middle grades students who struggle? And (3) How specifically do tools, roles, and rules shape middle grades writing instruction?

**Conceptual Framework**

Engeström's (1987) Activity Theory (AT) was used as a lens for the study as well as the framework. The research questions are addressed in the sequential explanatory mixed methods design. After first exploring the quantifiable data, the researcher examined a high-performing school using Activity Theory to understand the system in which the teachers provide instruction. Activity Theory is well suited to study education. Stemming from Vygotsky's (1978) sociocultural theory and having roots in constructivism, AT and writing share many characteristics. AT assumes there is social context within the system. Writing is not simply a cognitive process; it is a socially constructed process. Therefore, the dynamic, socially constructed nature of activity theory coheres to the dynamic, socially constructed process of writing, and is a logical methodology to employ for systematic study of writing instruction. The basic elements of the activity system include subject, object, mediating artifacts or tools, rules, community,
and roles (Engeström, 1987). This study specifically highlighted the tools, roles, and rules that framed the context of the teachers’ writing instruction in the case study school.

**Definition of Terms**

**Activity Theory** (Engeström, 1987) – Cultural Historical Activity Theory is a descriptive framework and lens. An activity system is used in the theory to describe a dynamic system including a subject, object, tools, roles, rules, and an outcome.

**Common Core State Standards (CCSS)** – According to the Common Core State Standards Initiative, “To ensure all students are ready for success after high school, the Common Core State Standards establish clear, consistent guidelines for what every student should know and be able to do in math and English language arts from kindergarten through 12th grade” (www.corestandards.org).

**Middle Grades** – In this study, the middle grades are defined as grades 6-8.

**Middle Level** – The Association for Middle Level Education defines the middle level as students ages 10-15 (NMSA, 2010).

**Proficiency** – The level of performance needed to meet or exceed grade-level standards. The groups of member states of the Smarter Balanced Testing Consortium collectively set the proficiency cut scores to be used by all members for federal reporting (Doorey, N. & Polikoff, M., 2016). Smarter Balanced Test defines Proficiency as a Level 3 or 4, based on a 4-point rubric.

**Smarter Balanced Assessment Consortium (SBAC)**- One of two consortia funded by federal grants that developed Common Core assessments (Chingos, 2003). In this study,
the focus is the performance-based writing task from the English Language Arts (ELA) section.

**Limitations of the Study**

This study’s use of Activity Theory to provide an in-depth look at quantifiable data highlights contextual influences on policy, but there are limitations to consider that may influence the final interpretation of the findings. The study used one year of quantitative data collection and analysis to determine the sample. A longitudinal study would provide multiple data points, ensuring the school’s success was not an anomaly. This was a cross-sectional study comparing multiple groups using a single test. Multiple data sources for levels of proficiency would provide a more well-rounded and comprehensive picture of school success. In addition, there could be multiple variables that contribute to a student’s performance on a standardized assessment, outside of gender or socioeconomic status, such as grades or attendance, that were not available in the dataset. Another limitation is the measure of writing performance that was utilized. The Smarter Balanced Test has not been used over time and vetted as a reliable measure of writing proficiency. Standardized tests can provide reliable data but are summative and have been argued to be too far removed from daily writing instruction (Troia, 2007). In addition, using Free and Reduced Price lunch (FRPL) is not the best measure of socioeconomic status. Many factors contribute to SES, such as parent or grandparents’ educational attainment and occupations (Duncan & Magnuson, 2005) and FRPL serves as simply a proxy indicator for this complex factor. Finally, because of the contextual
specificity, the findings from this study may be difficult to generalize to another context (Creswell, 2002). More field studies of writing are needed in a variety of contexts, including classrooms in a range of grade levels, schools, districts, and cultural communities to more fully understand the context of teaching writing in the State of Montana.

Assumptions

The assumptions of the study are based on the tenets of learning as depicted in Activity Theory. This theory has its roots in constructivism and is aligned with the ideas that learning is a social activity and knowledge is constructed through experience. Constructivist thinking views learning as both "subjective and personal and a product of our cognitions" (Schunk, 2012, p. 231). Activity theorists view education as an historically constructed, object oriented, social dynamic that consists of tools and people that are in turn made up of materials, values, and emotions. Within that system students can learn if the instruction is customized and related to their individual contexts and prior knowledge. This concept closely aligns with Vygotsky’s Zone of Proximal Development (1978). This zone is a student’s learning potential. If student performance is taken within the context of learning as a starting point for evaluation rather than as an individual aptitude, our use of assessment becomes more valuable.
Delimitations of the Study

This study focused on the systemic practices of one Montana middle school, and therefore one system. The research was designed to identify and explore one successful school, excluding schools that are performing in alignment with the literature and nationwide trends. The concept behind the study design is to investigate positive models of intentional practice therefore research was not completed in schools not meeting proficiency standards. Montana is also not an urban state, so though it provides a unique perspective, it lacks certain demographics that also struggle greatly in writing. Finally, while the study was intentionally designed to investigate the work of the consistent classroom presence of the teachers, student perspectives could provide an additional perspective of the activity system.

Significance

This study is a valuable tool to aid in understanding the elements of a system that support writing proficiency for all students, including demographics that typically struggle. For similar districts, the model school might provide insight to support useful strategy implementation. This study is situated in the larger conversation of college and career readiness and the increased expectation of writing standards. With increased expectations in the realm of writing put forth by the Common Core State Standards, a model system could be a useful tool to move students forward in their writing performance. Research in the use of the successful practice of moving students in the middle grades towards proficient writing, particularly those from demographics that
suffer from an achievement gap historically, can be used purposefully in writing instruction. It is also unclear as to whether the new standards and complementary assessments will serve their intended purpose of deeper understandings without being reductive. Examining patterns in assessment data, and extending the knowledge to the school and classroom level is an important part of future research. Using Activity Theory to describe a system where typically low-performing students have found success can begin to lead in the right direction. These type of in-depth accounts can be used to design programs and interventions at a system level to improve writing performance.
CHAPTER TWO

REVIEW OF THE LITERATURE

In order to explore middle grades writing there are several key areas that are included in this review. A background in writing research and student performance helps set the stage for the study. To provide additional context, the unique needs of middle school students is discussed. It is within the middle grades context that a description of current practices and assessments provide information on how instruction is delivered. Further, an understanding of writing instruction and its relationship to Activity Theory (AT) is necessary to understand this study. Discussion in this chapter is organized into the following sections: Importance of Writing, Student Performance, Middle Grades, Current Middle Grades Writing Pedagogy, and Activity Theory.

**Importance of Writing**

The discussion of writing instruction is a complicated conversation. First, there is no agreed upon definition of good writing (Wilson, Olinghouse, & Andrada, 2014), perhaps due to its myriad uses. Students use writing to share perspectives, make arguments, and engage in discourse (Moje, 2008). The type of competencies required to produce proficient writing can vary based on the different purposes, and can vary across genres (Deane, Odendahl, Quinlan, Fowles, Welsh & Bivens-Tatum, 2008). Researchers summarized that proficient writing must at least include text production, or expressive skills, the receptive skills of self-monitoring and revision, and planning and evaluation.
skills through reflection (Deane et al. 2008). The countless skills that must come together for a student to produce coherent text purport the difficulty in determining a universal definition. For the purposes of this research writing is defined as an activity designed to create text for an audience. Further, the academic writing referenced in the research is formal writing where the author must meet standards for spelling, grammar, and other rules of good communication (Hayes, 2012). Prominent researchers (e.g. Hayes & Flowers, 1983) have created models of writing that describe the processes involved in the writing task, however those will not be the focus of this research, though it is important to note the multiple pieces that must come together in students to create proficient writing. Perhaps this complex and indefinable skill set is why writing has not been studied in the same vein or with the same depth as reading (Graham and Perin, 2007). In their meta-analysis of writing instruction Graham and Perin (2007a, p.469) made the well-researched case, "neither federal (e.g., Institute of Education Sciences in the U.S. Department of Education or National Institute of Mental Health) nor private agencies devote much money to funding research in this area or the preparation of new researchers. Such investment is critical to make continued inroads into solving the writing difficulties exhibited by so many adolescents in this country.” The focus on writing has shifted, but not nearly at the same rate or quantity as reading research. The National Reading Commission began creating reports in 1985 (Anderson, 1985), while the first National Commission on Writing report was published in 2003(College Entrance Examination Board, 2003). Writing is complex and multi-faceted learning topic that has been historically underfunded and only recently has come into the realm of academic research;
therefore it continues to be an area of concern.

There is no question to the importance of writing in academics or the 21st-century workforce. Organized writing displays active literacy and coherent thinking, and this ability is important in all content areas (Lee and Spratley, 2010). In the middle grades, writing becomes a pre-requisite for student achievement (Jitendra, Edwards, Choutka, & Treadway, 2002). When students enter college, they are expected to write using multiple sources, present and defend a point of view, organize information into a coherent written report, and use writing as a tool for learning (ACT, 2005). Recent research notes these are the same writing skills needed for success at work (National Commission on Writing, 2004). The National Commission on Writing (2004) surveyed 120 major corporations and concluded that; "writing is a ‘threshold skill’ for both employment and promotion, particularly for salaried employees" (p.3). Writing teachers agree, “To participate fully in society and the workplace in 2020, citizens will need powerful literacy abilities that until now have been achieved by only a small percentage of the population” (National Council of Teachers of English Standards for the English Language Arts, 1996, p.3). The year 2020 is only three years away. Currently we are not faring as well as would be optimal. U.S. private industry spends an estimated $3.1 billion annually to bolster the literacy skills of entry-level workers (National Commission on Writing, 2004). According to the National Institute for Literacy, as high as 75 percent of unemployed people experience writing difficulties (The National Institute for Literacy). Of American adults with low literacy skills, about 1 in 7 is unemployed. (U.S. Department of Education, 2017). A strong writing skillset is an important 21st-century attribute for students to achieve.
Writing is essential for success in today's world; yet American students are not proficient. The Montana Office of Public Instruction defines proficiency as meeting the standards. NAEP defines proficiency as, “Solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter” (NAEP Achievement Levels, 2012). Because definitions of proficiency are difficult to navigate, most assessments develop anchors to ensure appropriate scoring. In the case of NAEP standards for the 2011 test, a body of work method was used. This method involves a rigorous procedure where panelists review a series of work samples and assign each sample to one of several performance categories (Hambleton & Pitoniak, 2006). The BOW method (Kingston, Kahl, Sweeney, & Bay, 2001) is the method deemed most appropriate for writing assessments, as it was developed specifically for use with performance assessments that are designed to measure student achievement using open-response items (Measured Progress, 2011). According to the National Center for Educational Statistics, only 27% of 8th-grade students are skilled writers (NCES, 2012). Specifically, results from the NAEP (2004, 2007, 2011) indicate significant achievement gaps in writing proficiency for demographic groups including gender and socioeconomic status.
Gender

Existing national data points to a gender gap in writing performance. Females demonstrated higher writing scores on group achievement tests. On the 2011 NAEP writing test, female students in the eighth grade scored 19 points higher on average than male students (NAEP, 2012). Research corroborates the results of the NAEP assessment. Scheiber, Reynolds, Hajovsky, and Kaufman (2015) conducted a study on gender differences in writing performance. They used the Kaufman Test of Educational Achievement and tested students aged 6-21. They found a gender gap in writing was present and that the gap increased with age. Another study done by Malecki and Jewell (2003) revealed a female advantage in writing that increased with age during the school years. A performance gap between males and females has been evident nation wide since 1998 (U. S. Department of Education). This gap has also been present in the state of Montana, for example in 2007 on the most recent NAEP test, male students had an average score 24 points lower than female students. Overall, boys perform less proficiently in literacy the longer they stay in school. Another concern is in the last twenty years, the literacy gap between males and females has been increasing.

Socioeconomic Status

Students from higher socioeconomic backgrounds perform better in measures of overall academic achievement. Drawing from research and reports from the NAEP and the NCES the William T. Grant foundation summarized the trends in socioeconomic gaps and discovered that socioeconomic gaps have remained steady in the areas of attainment and widened in achievement (Gamoran, 2014). Research institutes corroborate this data,
stating testing gaps are clearly seen in writing scores based on socioeconomic status (Pell Institute, 2011). Socioeconomic Status (SES) is broadly defined by the National Forum on Educational Statistics as "one's access to financial, social, cultural, and human capital resources" (NCES, 2012 p. 5). There are various means to determine SES. The most commonly used proxy for SES in education is Free and Reduced Price Lunch Status (FRPL). Though other means are favored by researchers such as parent education and occupation (Duncan & Magnuson, 2005), this measure is used by local, state, and the U.S Department of Education to target school resources, determine program availability, in research, and for accountability purposes (National Forum on Education Statistics, 2015). According to the NCES, “High-poverty schools are defined as public schools where more than 75.0 percent of the students are eligible for FRPL, and mid-high poverty schools as those where 50.1 to 75.0 percent of the students are eligible for FRPL. Low-poverty schools are defined as public schools where 25.0 percent or less of the students are eligible for FRPL, and mid-low poverty schools as those where 25.1 to 50.0 percent of the students are eligible for FRPL”(U.S. Department of Education, 2017).

According to the Nation's Report Card (National Center for Educational Statistics, 2013), eighth-graders eligible for free or reduced-price lunch scored lower in 2011 than their peers. The average scale score for those who were eligible for FRPL was 134, while the score for those not receiving FRPL was 161. In 2007, students who were eligible for FRPL scored an average 21 points lower than students who were not eligible. This performance gap was not significantly different from 1998 when the spread was 17 points (National Center for Educational Statistics, 1999). In the state of Montana in 2007
students who qualified for FRPL had an average score 21 points lower than their peers. This gap was not significantly different than the 17-point gap reported in 1998 (National Center for Educational Statistics, 1999). These scores are an indication our increased efforts in writing have not benefitted students already at an economic disadvantage. A focus on writing is important to lessen achievement gaps with consistency. In fact, high poverty schools where a majority of students passed high-stakes tests had a common characteristic: a strong emphasis on writing (Reeves, 2000).

**Middle Grades**

If we understand the importance of writing as a way to move successfully into academics and the workforce, we must also understand the importance of writing research at the middle level. The term "middle-level" education was derived to describe educational services to adolescent students (NMSA, 2010). Middle-Level education, then, refers to larger efforts for adolescents, whereas “middle school” references a particular school that philosophically espouses the ideas of middle level education. A more recent term, “middle grades”, is used when referencing the teachers or specific practices in those grades (NMSA, 2010). This is an important period of adolescent development because of the rapid changes that occur from the age of 10-15 (NMSA, 2010). It is a time when students’ perceived competencies in all areas tend to significantly decline from their beliefs in middle childhood (NMSA, 2010). Middle school is a crucial transitional time for students academically. It is a seen as a link in the preK-16 continuum (NMSA, 2010). Addressing the developmental and academic needs
of middle grades students is therefore crucial in all areas, and in the focus of the current study, writing.

According to the National Middle School Association (NMSA), it is during this time that, "the stage will be set for success in high school and beyond, or for disengagement and the likelihood of becoming a high school dropout” (NMSA, 2010, p.1). It is at this time writing skills typically decline. Bangert-Drowns, Hurley, and Wilkinson's (2004) meta-analysis of forty-eight studies on writing discovered an overall decrease in writing performance in middle grade students. Success in core subjects in the middle grades correlates to success in high school; for example, in California students' scores on standards-based tests in English language arts can predict whether they will pass the California High School Exit Exam, which students first take in grade 10 (Reardon, et al., 2009; Zau and Betts, 2008). In addition, most states see a dip in middle grade proficiency compared with elementary levels, as measured by the NAEP (2012). The middle grades are an opportunity to identify students who may fail academically and provide intervention to enable them to succeed in high school. Recent research confirms the middle years as being crucial, and educators might identify students who are at greater risk of failing academically by their grades, attendance, behavior, and test scores. (e.g., Balfanz, 2009, Balfanz, Herzog, & Iver, 2007; Jerald, 2006; Reardon, Atteberry, Arshan, Kurlaender, 2009; Zau and Betts, 2008).

**Middle Grades Self-Efficacy**

The middle school years are defining times for student self-efficacy (Eccles and Roeser, 2011). Young adolescents experience an increase in perceived knowledge of their
current personal and academic abilities. This awareness can cause students to disengage from areas of interest, or areas of struggle, due to feelings of inadequacy when compared to their peers (NMSA, 2010). Their self-esteem tends to fluctuate, and levels of self-competence in academic subjects often decline significantly from the pre-adolescent levels (NMSA, 2010). The middle years are a critical time in the development of "self" for young adolescents (Willis, 2009). Developing negative feelings towards a subject because of a perceived lack of ability is a common issue in the middle grades (Willis, 2009). There is a direct link between positive feelings towards academics and cognitive abilities, as neurologist and educator Judy Willis states, "self-confidence, positive feelings for teachers, motivation, and engagement in activities, among other factors, increase comfort levels, and cognitive abilities" (Willis, 2009, p. 72). This concept is called self-efficacy, which is the socio-cognitive descriptor for a student's perception of his or her ability to perform a task, and how that perception affects the actual completion of the task (Bandura, 1986). Klassen (2002) synthesized previous work in self-efficacy stating, “children begin to accurately differentiate between performance and effort, and ability around the age of 10, and that children who doubt their competence begin to show less perseverance for difficult tasks at around age 10” (p. 174). Students are 10 years old when they enter grade 6, the first year of the middle grades.

**Current Writing Pedagogy in the Middle Grades**

Graham and Perin (2007a,b,c), conducted three meta-analyses of writing instruction, and determined that the current research in writing is predominantly in three
areas: process writing, strategy instruction, and word processing. Other study areas included: grammar, sentence combining, summarization, text structure, prewriting, inquiry, procedural facilitation, peer assistance, study of models, product goals, feedback and extra writing time. The researchers acknowledge the literature is shallow in most areas and specifically that, “we do not know what combination of activities or how much of each of the recommended activities is needed to maximize writing instruction for adolescents” (Graham and Perin, 2007, p. 468). This lack of a holistic model is a serious concern across the profession. Thus, the researchers concluded that there are a variety of instructional strategies that can improve writing instruction and recommended particular practices that produced the largest effect sizes. Those are: teach strategies for planning, revising and editing; teach strategies and procedures for summarizing; use instructional arrangements to facilitate collaboration; set clear and specific goals; make word processing the primary tool; and teach sophisticated sentence creation (Graham and Perin, 2007). A more recent meta-analysis and meta-synthesis (Graham, Harris, and Santangelo, 2015) came to similar conclusions. Their research looked at writing intervention strategies in grades K-8, as well as the practices of exceptional literacy teachers. The results yielded high effect sizes for Strategy Instruction (1.00), Goal Setting (.80), Vocabulary Instruction (.78), collaborative processes (.66), prewriting (.54), word processing (.47) and process writing (.37). One should note that these strategies are often combined. For example, many exceptional teachers use collaborative writing as part of process writing, and goal setting is a component of Strategy Instruction.
Classroom Instruction

In order to assist students who are not achieving proficiency in writing, researchers have studied specific classroom-level instructional approaches such as process writing and self-regulated writing instruction. These two approaches have been afforded the most attention in the research. The use of any writing instructional program or methodology is guided by current standards and assessment.

Process Writing Process writing allows students to participate in a cycle of writing and revision using feedback from both peers and teachers. This approach has become the standard for instruction in many states (Patthey-Chavez, Matsumura, & Valdes, 2004). Although there is no universally agreed-on definition for the process approach to writing, there are a number of common underlying principles (Graham & Perin, 2007; Graham & Sandmel, 2011). During process writing, students engage in a cycle that includes planning in the form of generating and organizing ideas, putting that plan into action through writing, and reviewing their written work through the processes of revision and editing. This typically occurs over an extended time period with teachers providing individualized instruction through conferences and mini-lessons. Ideally the writing is intended for real purposes and audiences. Throughout the process students collaborate in a supportive writing environment (Graham and Sandmel, 2011).

In a meta-analysis review of process writing evaluating 29 experimental and quasi-experimental studies conducted with students in Grades 1–12, Graham and Sandmel (2011) found that students in general education classes showed statistically significant, but relatively modest improvement in the overall quality of writing.
Struggling writers however, showed no improvement in quality. Overall, no groups showed increased motivation with the approach. Graham and Perin (2007c) in their Writing Next report determined process writing had a lower effect on struggling writers, though it was significant. However, the research they analyzed included studies that specifically focused on low-achieving writers, making it difficult to draw any conclusions about its overall efficacy. One aspect of the research they repeatedly noticed was that professional development was a major factor in the success of the process writing approach. Their data revealed a moderate effect (0.46) with proper training, but only a negligible effect without training, except for students in grades four to six, where the effect size was small (0.27).

Process writing allows for student freedom in a workshop model. The focus of this type of instruction is not the end goal. Revision is the key factor as students work through writing pieces that are always improvable. A crucial component of process writing is the level and type of feedback that students receive. Advantages to feedback are many. Schunk states, that feedback, "can create a growth mindset, raise self-efficacy, and motivate students to improve skills further" (Schunk, 2012, p. 396). In fact, student feedback given immediately is more beneficial to their peers than teacher feedback weeks later (Sendziuk, 2010). Several studies (Mayer, 2002) in response learning, skill learning, and concept learning show the positive success of appropriate feedback. "Teaching for meaningful learning occurs when learners use feedback to make sense out of a learning episode…"(Mayer, 2002, p.50). Teacher training is crucial in the process writing approach to address some of the challenges that arise with providing feedback. It
can be difficult for teachers to provide timely and constructive feedback. Several researchers studying writing assessment have discussed the limiting variable of time when it comes to teacher's ability to provide writing feedback (Seifried, Lenhard, Baier, & Spinath 2012, Grimes & Warschauer 2010, Landauer, Lochbaum, & Dooley, 2009). Quality feedback is precisely what leads to learning (Andrade, Buff, Terry, Erano & Paolino, 2009, Pellegrino & Quellmalz 2011). For process writing to be successful teachers need the time and skillset to provide quality feedback.

Self-Regulated Strategy Development Unlike process writing, SRSD uses more explicit instruction. The SRSD model makes use of six instructional stages (Graham and Harris, 2005). First, the teacher develops background knowledge to aid in the understanding of the writing strategy being taught. Second, the writing strategy and its purpose are shared with the students. Third, models of the strategy are shared with the students. Fourth, the students memorize the steps in the writing strategy. Fifth, the teacher provides support as the students use the strategy. Finally, the students use the strategy independently.

This instructional strategy has more of an impact on adolescents than process writing (Graham and Perin, 2007c). SRSD has been studied in a variety of contexts to teach writing skills to both learning-disabled and typically developing students in various settings (e.g., Danoff, Harris, & Graham, 1993; De La Paz, 1997, 1999, 2005; Graham, 2006; Harris, Graham, & Mason, 2006). Strategy instruction involves explicitly teaching the steps necessary for planning, revising, and editing text (Graham, 2006). De La Paz developed a systematic SRSD called Plan and Write utilized by Reynolds and Perin
(2009) in 7th-grade classrooms and discovered SRSD to be statistically effective. According to Graham and Perin's meta-analysis (2007c), the average weighted effect size for the studies with low-achieving writers (1.02) was larger than the average weighted effect size for students across the full range of ability in regular classrooms (0.70).

Many of the studies focus on students with disabilities, such as Troia and Graham’s (2002) study to teach Self Regulated Strategy Development (SRSD) to fourth and fifth graders with learning disabilities. In comparison to peers who received process writing instruction, children who were taught the three planning strategies—goal setting, brainstorming, and organizing—spent more time planning stories in advance of writing and produced stories that were qualitatively better. One month after the end of instruction, students who had been taught the strategies not only maintained their advantage in story quality but also produced longer stories than those produced by their peers who were taught process writing. However, the highly explicit, teacher-directed strategy instructional routine used in this study did not promote transfer to an uninstructed genre, persuasive essay writing. One study used the SRSD with 7th and 8th graders of all ability levels to improve persuasive writing in a social studies class. The researcher found that students who were taught and became proficient in the strategy based on criterion performed better on the writing sample than students who were not exposed to the treatment (De La Paz, 2005). Graham and Perin’s multiple meta-analysis of writing research (2007, a, b, c) shows research does exist with specific writing interventions in regards to struggling students, however, not as much is known about how teachers blend the existing best practices into a model of instruction that supports
proficiency in all students.

Writing Assessment

Throughout the history of writing education, assessment has been a prominent issue. Since the first half of the twentieth century, standardized testing has been used to assess student performance. Large-scale testing has become the vehicle of choice for school accountability (Earl & Torrance, 2000), yet some researchers argue that little evidence indicating standardized assessments improve learning (Earl & Torrance, 2000). Even with a lack of evidence, the educational importance of standardized testing continues to grow with schools focusing more and more of their time, money, and effort on increasing the scores of their students. Brimi (2012) conducted an exploratory study on the effect of state assessments on high school English teachers’ writing instruction. The study determined the tests did ultimately affect teachers’ pedagogy, though many had not been fully trained in writing instruction. Brimi (2012) concluded, “Further study needs to address teacher perceptions of the writing tasks prescribed by CCSS. This study needs to analyze teacher motivations and methods as well as student perceptions of both the CCSS writing tasks and those assigned by their teachers" (p. 74). The need for research in writing in the time of Common Core is clear.

Standardized tests are designed to provide standardized data. Criterion-referenced tests (CRT) attempt to demonstrate students’ acquired knowledge and skills related to a specific curriculum. Students’ performance is interpreted by comparing it with standards or specific content (Popham, 2011). Norm-referenced tests (NRT) are designed to measure a student's score against the scores of a group who have already taken the same
exam, called the "norming group." Thus, a student's performance is interpreted in relation to a state, regional, or national population of other students (Popham, 2011). The NAEP is an example of a norm-referenced test. However, the new SBAC tests are criterion reference tests designed to be computer adaptive and include performance tasks in writing.

Common Core State Standards and Smarter Balanced Assessment Consortium The National Governors Association (NGA) and the Council of Chief State School (CCSSO) sponsored the Common Core State Standards (CCSS) Initiative of 2010. Forty-two states, the District of Columbia, four territories, and the Department of Defense Education Activity (DoDEA) have adopted the Common Core State Standards (Standards in your State, 2016). The criterion is meant to be more rigorous and aligned than typical state assessments. The goal of the Math and ELA standards was for grades K-12 to be aligned nationwide, providing access to consistent, rigorous, knowledge-based skills to prepare students for entering college and the workforce (www.corestandards.org). The Common Core State Standards place a strong emphasis on writing, not only in the English Language Arts but also across all content areas. The standards also encourage collaboration with an intent that students work together to share ideas and engage in discourse for deeper meaning (www.corestandards.org). The collaborative nature inherent in the standards derives from a sociocultural perspective of learning, which is also the foundational basis for Activity Theory.
One note of consideration is that even though the CCSS may guide the curriculum and assessments in the classroom, the teacher is free to determine the content and how standards are mastered. Barrett-Tatum’s (2015) study regarding the CCSS implementation revealed the power of individual teachers and their ability to manipulate the learning environment. She states, “Despite attempts to standardize learning through a common set of curriculum standards, individual instructional practices seen in this study provided notably different learning opportunities for children.” (p.25). Thus, while policy has influenced the standards, teachers retain the power to decide which processes and principles of student learning to embed into their standards-based instruction.

To ensure school accountability, the students of each school are tested, presumably on the standards as written in the Common Core State Standards. Historically, such tests have been questioned, as there is evidence that the measures narrow the teaching of writing to only what is assessed (Hillocks, 2003). There is also concern standardized testing limits students’ voice and presses formulaic writing onto students (Albertson, 2007).

The Smarter Balanced Assessment Consortium (SBAC) is an organization currently supported by 14 states, the U.S. Virgin Islands, and the Bureau of Indian Education (www.smarterbalanced.org). They have created an online assessment system aligned to the Common Core State Standards (CCSS), as well as tools for educators to improve teaching and learning. The Smarter Balanced Assessment was designed to assess mastery of the Common Core State Standards. One portion of the SBAC test specifically addresses writing skills. This writing performance task requires students to compose a
full text of one of three types: narrative, argumentative, or explanatory. The overall standard in writing for ELA states, “Students can demonstrate progress toward college and career readiness in English language arts and literacy” (www.corestandards.org). In the SBAC test, there are specific “claims” akin to benchmarks that students must address in their written response. Claim number two, which students should substantiate through the performance task, states, “Students can produce effective and well-grounded writing for a range of purposes and audiences” (What is Smarter Balanced, 2010). The assessment has been created to test with the same depth and rigor as the Standards are purported to create and is a nationally standardized test.

The SBAC test provides a standardized writing score, which helps educators draw comparisons within and between schools. In the ELA performance task portion of the SBAC test, each student writes to a narrative, informative, or persuasive prompt. A 4-point rubric is used to rate each response, and this score is converted to a scale score. The Smarter Balanced Assessment Consortium does not release the specifics as to how the writing is scored, which is typical of most testing companies; however, we do know the samples are scored by computer. The scale score corresponds to one of four levels of performance—below basic, basic, proficient, or advanced (Graham & Perin, 2007a). It is this assessment that will be reported on the local, state, and National Level, and therefore is the new high stakes testing measure for writing. As outlined by the new Every Student Succeeds Act (ESSA) of 2015, the new assessments are intended to alleviate some of the concerns testing caused under the No Child Left Behind (NCLB) legislation. These assessments purportedly can be used for positive educational use, as outlined by former
U.S. Secretary of Education John B King Jr., "High-quality assessments are a critical tool that can help educators, parents, and policymakers promote educational equity by highlighting achievement gaps, especially for our traditionally underserved students, and that can spur instructional improvements that benefit all our children. At the same time, where too much focus has been placed on testing, educators, parents, and students have rightly highlighted the need for more creativity and innovation” (ESSA, 2017, p.1).

Despite the intention of the Smarter Balanced Assessment serious concerns have been raised regarding the testing instrument. In the past, standardized tests have been condemned due to costs (Strauss, 2010), pressure on students and teachers to cheat (Amrein-Beardsley, 2009), taking time away from valuable instruction (Strauss, 2010), and negative effects on the process of writing itself (Scherff and Piazza, 2005). Current testing critics argue that the change from paper and pencil to technologically based tests also affect the validity of the testing instrument. When reviewing the results of the first NAEP computerized assessment researchers discovered that those students familiar with the technology and with more exposure to technology scored significantly higher on the NAEP writing test (National Center for Educational Statistics, 2014). The new SBAC test purports to solve some of these concerns, but further study is necessary to determine the reliability and validity of these new tests.

**Activity Theory and Writing Instruction**

To complement test data and help assess educational quality, researchers have examined some contexts of writing instruction. Researchers conclude that writing skill is
most effectively acquired in a context that makes writing meaningful (Graham & Perin, 2007a, b, c; Langer & Close, 2001). When determining curriculum and instruction, researchers and policy makers need to consider the wider socio-cultural context in planning and evaluating curriculum development initiatives (Fisher, 2011). Activity theory analyzes outcomes through a dynamic system and is appropriate to explore literacy, as literacy is a cultural-ideological practice (Kostogriz, 2000). Many researchers have used AT to study writing (e.g. Behrend, 2014).

Engeström & Young (2001) established five major principles in regards to the views of the subjects in activity theory analysis. They include:

1. Activity systems are the unit of analysis. These activity systems are goal directed. These systems generate actions and operations (Engeström & Young, 2001).

2. The multi-voicedness of activity is apparent. Activity systems are examined through many different lenses (Engeström & Young, 2001).

3. The multiple perspectives of the participants (students, teachers, administrators) can provide triangulation in a study. They can also be examined on different levels, from the individual to the school culture. It is incumbent upon the researcher to choose the most appropriate lens for analysis among the multitude of possibilities.

4. Activity systems are historically developed (Engeström & Young, 2001). This history includes the history of the humans within the system and the historical use of the tools within the system. Humans, through the use of tools, mediate these
systems. Social interactions are an inherent part of the system, as the participants use tools and actions to adapt collaboratively.

5. Contradictions and tensions within activity systems are the catalysts for change within the system. A contradiction is not a problem, rather a tension within the system leading to a change in the system (Engeström & Young, 2001).

Along with the five major principles, there are specific components to each system. The object, the motive behind the actions within the system, is proficient writing pieces in the three text types specified by the CCSS: narrative, expository, and argumentative. One major approach to writing, the process approach, explicitly treats the object of the activity as a dynamic piece of work, as in an activity system. In this approach, teachers are to “treat the emerging text as a moveable object” (Haneda & Wells, 2000, p.443). The subject is the teacher. The teachers have various mediating artifacts at their disposal. These artifacts might include online writing resources, such as tutorials associated with a textbook, or instructional writing resources such as the reference sheets for certain writing organizational programs. Tools also include language, concepts, and the writing process itself. Students learn about writing within the context of the activity system, a context that changes depending on the teacher and the tools (Russell, 1997). The rules in the activity system might include the specifications of an assignment, the rules of grammar, discussion norms, even general classroom and school rules and schedules. The community of the system would certainly include the students and the teacher, but might also involve an interventionist, counselor, principal, curriculum director, and parents. The community consists of the stakeholders who share a
common object or motive. Within the community, there is a division of labor. Most directly that division might be the teachers teach and the students learn; however in some scenarios the students may become teachers, while the teacher may become a facilitator. The curriculum director may provide or design the instructional resources or computer assisted technology may be used as a tool by the students to help them achieve the intended outcome.

According to Graham and Perin (2007c), “Researchers do not know what combination or how much of each of the recommended activities is needed to maximize writing instruction for adolescents in general or low-achieving writers in particular. Nor do they yet know what combination of elements works for which types of writers” (p. 12). Being able to study and define a system where a combination of factors, tools, participants, roles, and norms, function together for a successful outcome, could provide a model for writing instruction in classrooms across the state with similar demographics.

An example of an activity system description in education exists in Jennifer Barret-Tatum's (2015) study on the implementation of the English Language Arts Common Core State Standards in two primary grade teachers' classrooms. Barrett-Tatum used AT at the individual level as the framework to determine how the teachers implemented policy into practice in their first and second-grade classrooms. Through narrative, Barrett-Tatum describes the internal and external influences of the literacy instruction in each classroom and provides AT models to describe the system. She found that though instruction was grounded within the CCSS each individual teacher interpreted and implemented them differently based on contextual factors.
Engeström's (1987) Activity System provides a flexible, albeit complex lens to explore through a qualitative study the process of teaching writing. Writing instruction is a dynamic and complex process, effective writing instruction requires the coordination of all components of the activity system. The goal is for students to be active participants in the system, and through the interaction with the system, be able to produce the intended outcome: proficient writing. David Russell (1995) discussed how activity systems are examined through this functional lens, and that expansive learning occurs when "writing and learning take place as people, using their tools, mutually change themselves and their tools" (56). In an educational system, we can approach an assignment, class, discipline, or school as the activity system in pursuit of a shared goal.

**Summary**

Although there has been an increase in writing research over the last 30 years, there are still demographics with performance gaps on writing assessments. Activity theory is an appropriate theoretical lens through which to design a qualitative research study to investigate the complex nature of writing instruction due to the need for descriptive accounts of multi-dimensional middle level systems.
CHAPTER THREE

METHOD

This chapter describes the design, context, methods, procedures, and data analysis involved in the study. The first section describes the mixed-methods approach to the research design. The second section outlines the context of the research and the positionality of the researcher. The third section details the quantitative methodology and procedures. The final section describes the instruments and methods that were used to discover the teachers’ perspectives to describe the activity system of writing instruction at the chosen site, as well as the procedures for analysis.

Research Design

Given the importance of writing skill for all areas of student thinking and learning and the lack of research providing systemic models of writing instruction, the purpose of this study was to identify patterns of writing proficiency in Montana’s middle grade students and explore successful writing instruction for students who historically struggle. Thus, the research questions that guided the study were: (1) Do the scores of Montana middle grades students differ on the Smarter Balance Assessment Standardized Writing test by gender and socioeconomic status? (2) What are the school-wide systemic factors that may contribute to writing proficiency for middle grade students who struggle? And (3) How specifically do tools, roles, and rules shape middle grades writing instruction?

The purpose of this sequential explanatory mixed methods study was to identify
patterns of proficiency in the state of Montana and to explore successful writing instruction. The first phase, using descriptive statistics and analysis of group differences, examined the results of one year of Montana’s ELA standardized test scores from grades 6-8 in order to identify specific patterns in student proficiency. The quantitative findings were used to identify middle schools whose students demonstrated overall writing proficiency for groups that traditionally struggle. One school was selected to participate in the second phase of the study, which utilized a case study method to explore the systemic factors contributing to student success using Activity Theory (Engeström, 1987).

A mixed methods design was selected for this study. In this study, “success” was not defined solely by proficient standardized test scores, but also included identifying schools whose test scores were better than might be expected given trends reported in the literature. The successful school selected for the qualitative portion was not the one with the highest test scores in the state; rather, it was a school outperforming other schools with student demographics, such as socioeconomic status, that typically have difficulty achieving high levels of proficiency. Descriptive analysis is important but does not provide enough comprehensive information to identify a model of writing instruction that can successfully move students towards writing proficiency.

Mixed methods allow the researcher to build knowledge on pragmatic grounds (Creswell, 2009). It allows the investigator, in search of answers to research questions, to determine appropriate approaches to the study (Creswell, 2009). Using this practical mixed methods approach calls for quantitative and qualitative data to complement each other. Both numerical data and human insights, collected sequentially, can help better
understand the research problem. Mixed methods provide a deeper understanding, and a rich description of actual classroom practices (Gay, Mills, & Airasian, 2012). The quantitative data analyses were able to identify middle schools with proficient SBAC writing scores but these findings were not able to shed any light on the teacher practices and the system that led to these successful outcomes. Thus, the qualitative portion of the study assisted in determining how an individual school is supporting writing instruction to help demographic groups achieve proficient outcomes on standardized writing assessments.

Research Context

The study population was middle grades students in the state of Montana. Montana is a mostly rural state with a population of 1,042,520 according to estimates from the 2016 census (U. S. Census Bureau, 2016). A majority of the population is white, 89%, and the next largest population is American Indian and Alaskan Native at 6.6%. The mean household income in Montana is $49,509, which is lower than the nationwide income of $55,775 in 2015 (U.S. Census Bureau, 2016). The largest school district is Billings Elementary with 11,348 students, as Billings is the largest city in the state with a population of 110,323 according to the 2016 census. This makes Billings the only city in Montana with a population over 100,000 (U.S. Census Bureau, 2016). Montana is unique in that no state has a higher population of rural schools. Montana has the highest percentage of rural schools (74.0%) and the highest percentage of rural school districts (95.3%) (Showalter, Klein, Johnson, and Hartman, 2017).
Positionality of the Researcher

Although I am the researcher in this study, I must also acknowledge my role as a professional peer. According to Creswell (1998), the researcher is an “instrument of data collection who gathers words or pictures, analyzes them inductively, focuses on the meaning of participants, and describes a process that is expressive and persuasive in language” (p. 14). As an instrument of investigation, I recognized my existing biases because I am also a middle school teacher. I typically use 6+1 traits of writing to organize assessment rubrics. I believe in scaffolding students’ writing clearly, and allowing them topic choice. My overall philosophy leans toward constructivist methodology. In teaching, as we develop philosophies, we also develop biases towards methods and tools we have found to be successful. Recognizing my bias and being open to diverse tools and methods was an important part of this research.

My role was also one where I was an active learner with intent to tell the story of the participants, rather than evaluate their ideas or instruction. Ideally, the objectivity remains in place but having spent 15 years in the middle school classroom, with 12 of those as a writing teacher, I have certain predisposed notions of the tenets of good writing instruction. Again, this is based on experiential knowledge and exposure to the tools used in my district. In conducting a mixed methods research study, my intent was to examine the macro-level data and use the information to look at the micro-level of teacher practice. I wanted to be able to provide practical information to teachers to guide their instruction. In this sense, I was looking for an answer, which is not the purpose of qualitative research. Quantitative research tends to be more pragmatic in a search for
definitive answers. My bias towards quantitative studies and pragmatism could steer me to search for an “answer” rather than provide an objective view of the activity system of the site with sound qualitative methodology. Thus, I constantly used reflection and attempted to be conscious of my own reflexivity throughout the research process, as well as adhered to descriptive observation and objective questioning strategies.

Quantitative Methodology and Procedures

Population and Sample

According to the Montana Office of Public Instruction (Montana OPI, 2017), approximately 97% of middle school students took the SBAC test in the spring of 2016. For students in Grade 6, 10,601 out of 10,885 students enrolled (97.4%) took the ELA portion of the SBAC test. In 7th grade, 10,364 of 10,645 students enrolled took the test (97.4%). Finally, in 8th grade 10, 331 of 10, 650 enrolled students were reported as taking the SBAC ELA assessment (97.0%). These numbers do not include private schools, students who qualify as Special Education only, part-time students, or first year English Language Learners.

SBAC instrument

Montana was the last of 46 states to adopt the CCSS in November of 2011. The first year of SBAC testing took place in the 2014-2015 school year. That year the state had multiple technology issues resulting in about 70 percent of students being tested. In the study year of 2015-2016 that number rose to 98% (Montana OPI, 2017). The summative assessment window takes place in the spring, from the end of March through
the end of May, with the previous year’s scores being available online in October of the same year. The Montana Comprehensive Tests assessment site (Measured Progress, 2017) describes the ELA Writing task as follows: “The ELA PT consists of two parts. It is recommended that each part be administered on separate days corresponding with the segment. In part 1, students will read sources and answer three research questions. During part 2 (the full write), students will provide a written response using those sources” (n.p.). This portion of the test is not computer adaptive. A sample of the Grade Level Table for Claim #2 with the Assessment Targets is shown in Figure 2.
Figure 2. Grade 6-8 Summative Assessment Targets SBAC Writing (SBAC, 2015)
Methods and Procedures

The primary data source used to measure academic performance in writing was the Smarter Balanced Assessment Consortium writing test taken in the State of Montana in the Spring of 2016. The academic outcomes of interest were the middle school English Language Arts claim 2, performance task in writing. The SBAC Test scaled score in writing was used (possible scores ranging from 2457 to 2667) (See Table 1).

<table>
<thead>
<tr>
<th>Grade</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>&gt; 2617</td>
<td>2531-2617</td>
<td>2457-2530</td>
<td>&lt; 2457</td>
</tr>
<tr>
<td>7</td>
<td>&gt;2648</td>
<td>2552-2648</td>
<td>2479-2551</td>
<td>&lt;2479</td>
</tr>
<tr>
<td>8</td>
<td>&gt;2667</td>
<td>2567-2667</td>
<td>2487-2566</td>
<td>&lt;2487</td>
</tr>
</tbody>
</table>

The Montana Office of Public Instruction received the data from the Consortium and shared the appropriate information with the researcher. Two data sets were received. The first was school level data by grade in grades 3-8. The data set included school and grade level identification, the number of students tested, the number and percent of students at each level (Advanced-4, Proficient-3, Nearing-2, Novice-1), the average scaled score, and the average scaled writing score. In order to access more specific information in regards to gender and socioeconomic status the researcher requested individual student data and was granted access. The second dataset included anonymous student information that was comprised of school attended, grade level, Free and Reduced Price Lunch (FRPL) status, gender, performance level, average scaled score and averaged scaled writing score. In order to remain consistent, the second dataset was used for all analysis, either in individual or aggregated form by school and grade. The individual data
was used to draw comparisons between gender and SES groups.

For the selection of a case study school, where the research area of interest was making inferences on a school level while accounting for grade, rather than making inferences on a student level, the individual data was aggregated to the school/grade level. That is, for each unique school/grade combination, test scores were summarized (mean test score), SES was summarized by percent low SES based on FRPL, gender was summarized by percent male, and proficiency was summarized by percent proficient. FRPL was used as a proxy for low SES as it was the measure available in the testing data, and is used by local, state, and the U.S Department of Education in research, and for accountability purposes (National Forum on Education Statistics, 2015).

Internal and External Validity

There are two threats to internal validity in this study. The first is the variation in the structure of the middle school transition. The state of Montana does not require one consistent structure and philosophy for the building structure of grades 6-8. Education, being under local control, affords districts the autonomy to select the best structures to meet the needs of their student and their communities. For example, students in self-contained sixth-grade classrooms within a building housing grades K-6 remain with one teacher for most of their school day. Sixth-grade students in a middle school modeled school housing grades 6-8 may have a team of teachers and move classrooms throughout the day, including an advisory period. Students in a junior high model will not have an advisory or team of teachers and will move to various classrooms throughout their day. Structurally some students remain in one building their K-8 years, while others may
begin a new school in either the 6th or 7th grade. These factors were not considered in this particular study.

The other threat to internal validity in this study is the instrument itself. The SBAC test is new and fraught with concerns as previously stated. The 2015-2016 school year was the first year the state required ALL schools to administer the test. The unfamiliarity of the test could cause testing irregularities. Also, only one year of testing data was available. Threats to external validity are low, as the researcher was able to include 97% of the population in the quantitative portion of the study sample.

Data Analyses

The State of Montana administered the SBAC ELA test for the school year 2015-2016 in grades 3 - 8 & 10 (N=61,371 Montana students; N= 629 Montana schools). The scaled score for the writing subset of the ELA test was utilized to specifically examine writing. In this study, only scores for the middle grades were analyzed, specifically grade level 6, 7, and 8 for students participating in the test (N=29,878 Montana students; N=507 Montana Schools). In order to adhere to the privacy policy used by the State Office of Public Instruction, the sample was restricted to schools with enrollments of more than ten students per grade (N = 29,091 students; N= 338 Montana Schools). For each unique school/grade combination, reported test scores were summarized (mean test score), SES was summarized by percent low SES based on FRPL, gender was summarized by percent male, and proficiency levels were summarized by percent proficient. As a result of this aggregation, the sample size was reduced, with the new sample having N = 573 cases for 328 schools.
Using individual level test scores a two-way ANOVA was conducted to examine the effects of gender and SES on Writing Scaled Scores. To draw comparisons between schools the data were aggregated to the school and grade level. In order to identify a case study school, the data were further aggregated by the NCES definition of high FRPL and sorted in descending order. The selected school was among the highest performing schools AND had writing scores above the statewide mean in all grade levels. In order to more precisely draw comparisons between the case study school and other schools with High FRPL status, a one-sample t-Test was conducted at each grade level using the case study school Mean Writing Scaled Score and Proficiency Levels.

**Qualitative Methodology and Procedures**

**Participant Selection**

The purpose of the qualitative portion of the study was to look beyond the numerical data patterns and examine the instruction of teachers in a high performing school. Therefore, findings from the quantitative analysis were used for purposeful identification of low SES schools with proficiency levels that were higher than expected based on the state patterns. The case study school was chosen through this purposeful selection process, and staff at the school were invited to participate in the qualitative portion of the study.

The selected school is located in the Northwestern part of Montana and was given the pseudonym Riverdale. Although the town is situated within a larger micropolitan statistical area with a population of 93,068, the current population of the unincorporated
community is 7,616 (U. S. Census Bureau, 2016). Riverdale serves grades 5-8 and has a 100% free and reduced price lunch population. In addition, the median income of the populous falls below the Montana average of $49,509. The community median income is $36,814 (U.S. Census Bureau, 2016).

The school had a limited number of teachers of reading and writing, and each of those teachers agreed to participate in the interview and observation process. Qualitative data methods including interviews, on-site observations, and document analysis helped uncover strategies and other factors leading to academic success in writing in the selected school.

In order to obtain an in depth description of teaching instruction, the selected participants were all of those involved in the direct teaching of ELA standards, as well as the principal on site (Table 2). One administrator and six teachers participated in the qualitative portion of the study. One teacher, who was responsible for teaching 6th grade ELA during the 2015-2016 school year, was interviewed, even though she had assumed a new position at the time of the interviews, as it was her instruction reflected in the 2016 test score data. The 2015-2016 7th grade ELA teacher was also selected as a participant, even though her teaching assignment had changed, as she was directly teaching the students whose scores were analyzed in the quantitative section. The current 6th grade ELA teacher was interviewed even though she did not have a role with the students from the previous year. Both Special Ed co-teachers were interviewed, whose positions remained the same in the 2015-2016 and 2016-2017 school year. Finally, the 8th grade
ELA teacher from the 2015-16 school year, who in the 2016-2017 school year taught both 7th and 8th grade ELA, was included in the participant selection.

Table 2. Case Study Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Position 2015-2017</td>
<td>5th 6th ELA</td>
<td>7thELA 7th S.S</td>
<td>6th SPED Co-teacher</td>
<td>7th and 8th ELA</td>
<td>Admin</td>
<td>7th-8th SPED Co-teacher</td>
<td>6th ELA 3rd</td>
</tr>
<tr>
<td>Years Taught</td>
<td>3</td>
<td>20</td>
<td>2</td>
<td>15</td>
<td>14</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Certification</td>
<td>ELEM</td>
<td>ELEM</td>
<td>ELEM SPED</td>
<td>ELEM READ</td>
<td>ADMIN ELEM</td>
<td>5-12 S.S. K-12 H. E SPED</td>
<td>ELEM</td>
</tr>
</tbody>
</table>

Data Collection Procedures

The qualitative portion of the study focused on an in-depth exploration of the results obtained in the quantitative analysis. An advisor assessed the research plan and a small-scale trial was conducted to identify anticipated problems or issues (Gay, Mills, and Airasian, 2012). The pilot study of the interview protocol was designed and implemented in order to identify logistical and accuracy issues. Merriam (2009) pointed out that the "best way to tell whether the order of your questions works or not, is to try it out in a pilot interview" (p. 104). In this step, the researcher conducted interviews simulating rapport, process, consent, space, recording, and timing to "try out" the research instrument (Baker, 1994). Three middle school teachers, one in 6th, 7th and 8th grade, all who instruct writing, and have administered the ELA SBAC test, were pilot respondents. The interviews were conducted using the original table of specifications to
ascertain the appropriateness of the interview protocol. Table 3 provides an overview of the alignment between the research questions and original interview questions designed for the study. The pilot study was also designed to shed light on whether the time frame allowed for interviews would be exceeded with the proposed questions and if the interview questions would provide the necessary information to adequately describe the activity system of the study school.

Table 3. Pilot Study Interview Questions Aligned with Research Questions

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Interview questions</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the school-wide systemic factors that may contribute to writing proficiency for middle grades students who struggle?</td>
<td>What resources are available to you to help teach writing?</td>
<td>Describe the activity system, and provide topics of further elaboration for following interview questions.</td>
</tr>
<tr>
<td></td>
<td>Who are the colleagues you work with to collaborate on writing instruction?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What school wide procedure do you follow if a student struggles in writing?</td>
<td></td>
</tr>
<tr>
<td>How specifically do tools, roles, and rules shape middle grades writing instruction?</td>
<td>Tell me about how you specifically approach writing instruction in your classroom?</td>
<td>To learn about the processes the teacher uses during writing instruction.</td>
</tr>
<tr>
<td></td>
<td>Describe a success story you have had helping a student achieve writing proficiency.</td>
<td></td>
</tr>
</tbody>
</table>
Results from the pilot study revealed that the interviews ranged in time from 15 to 27 minutes. In reflection with the interviewees, and upon later examination of the interview notes, new questions emerged and were added to the original set. These included: What is the structure of your writing instruction? and How much time in the day you spend on writing and what does it look like? The question, “Who are the colleagues you work with to collaborate on writing instruction?” was re-phrased for clarity to “How do you collaborate for writing instruction?” The final addition was to end the interview with, “What helps you most to be a good writing teacher?” These questions were further refined before the actual interviews and again on site, based on the respondents’ time. The final interview protocol is in Table 4.
<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Interview questions</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the school-wide systemic factors that may contribute to writing proficiency for middle grades students who struggle?</td>
<td>What do you believe are some contextual and or social factors that might be important in students' learning and motivation?</td>
<td>Describe the activity system, and provide topics of further elaboration for following interview questions.</td>
</tr>
<tr>
<td>What do you believe are some contextual and or social factors that might be important in students' learning and motivation?</td>
<td>How much time in the day you spend on writing and what does it look like?</td>
<td></td>
</tr>
<tr>
<td>How much time in the day you spend on writing and what does it look like?</td>
<td>What is the structure of your writing instruction?</td>
<td></td>
</tr>
<tr>
<td>What is the structure of your writing instruction?</td>
<td>Tell me about how you specifically approach writing instruction in your classroom?</td>
<td></td>
</tr>
<tr>
<td>Tell me about how you specifically approach writing instruction in your classroom?</td>
<td>What resources are available to you to help teach writing?</td>
<td>To learn about the available tools the teacher uses during writing instruction.</td>
</tr>
<tr>
<td>What resources are available to you to help teach writing?</td>
<td>What do you think it means to be a good writing teacher?</td>
<td>To learn about the role of the teacher in the students writing instruction.</td>
</tr>
<tr>
<td>What do you think it means to be a good writing teacher?</td>
<td>How do you collaborate for writing instruction?</td>
<td></td>
</tr>
<tr>
<td>How do you collaborate for writing instruction?</td>
<td>What school wide procedure(s) do you follow if a student struggles in writing?</td>
<td>To learn about the rules governing the writing instruction in the school.</td>
</tr>
<tr>
<td>What school wide procedure(s) do you follow if a student struggles in writing?</td>
<td>What are your views on the role of standards in your instruction?</td>
<td></td>
</tr>
</tbody>
</table>
Interviews

Initial contact was made with the administrator of the selected school site to gain access to staff. Several staff members were invited to participate, and the schedule was set by the administrator to ensure all staff was available on the same days. Interviews allowed a deeper look into how teachers structure their writing programs. Open-ended interviews were conducted "so that the participant could best voice their experiences unconstrained by any perspectives of the research or past research findings" (Creswell, 2002, p. 204). By focusing on the participants' words to describe their experience, the researcher gained invaluable insider information. First, interviews were conducted with the principal and staff involved in writing instruction. Staff members were interviewed face to face on-site in a semi-structured format. The interviews lasted approximately 20 minutes and were audio-recorded. An informed consent was shared and collected for each participant at the time of the interviews (Appendix A). Interviews were scheduled throughout one school day and were either conducted in the teacher classroom, or the administrative office. Individual interview transcripts were shared via e-mail to participants who were asked to check for accuracy and inform the researcher of any information they wished to add, adjust, or omit. In addition, follow-up interviews were conducted with the participants. At the follow-up participants were provided with a draft Activity System Model of their school and asked to provide input, in order to clarify and add detail.
Observations

On-site observations were conducted in each grade level classroom of the current year using the Teaching Dimensions Observation Protocol (TDOP) (Osthoff, E., Clune, W., Ferrare, J., Kretchmar, K., & White, P., 2009). The TDOP protocol encompasses many areas of Activity Systems analysis (Hora, Oleson, & Ferrare, 2012). It was designed specifically to describe educational practice while paying attention to the context of school settings (Hora, 2015). Because grade-level assignments had changed from the previous year, one teacher was observed that did not teach the students in the test year, and two teachers who did instruct the test year students, were not observed. Observations were conducted in the current 6th grade ELA co-taught classroom, the 7th grade ELA co–taught classroom, and in the 8th grade ELA classroom. The purpose of the observations was to help describe the activity system of writing instruction on site. The researcher, in the classroom setting, conducted the observations to provide detailed insights about faculty behaviors. This perspective is based on the view that reducing classroom teaching to a single descriptor or variable is an inadequate way to describe such a complex practice. Instead, rich, descriptive accounts of classroom instruction are needed that go beyond self-reported data as obtained in interviews. At the same time, the researcher took field notes that included both descriptive notes and reflective notes. The field notes described and reflected upon the physical setting, the activities that were occurring, the verbal interactions between individuals, the non-verbal communication, and any other observable behaviors.
Documents and Photos

Eighteen documents were collected from classroom teachers and online access to school websites (Appendix B). The documents from teachers included graphic organizers, classroom instructional materials, and student work. Online resources included the School Improvement Plan, Standards-Based Grading information, and the Mission statement and values of the school. Through the course of interviews, participants provided samples as they introduced concepts, such as the LAPS and CEAL graphic organizers. Both current ELA teachers for grades 6-8 provided all materials used for the observed lessons, as well as samples of student work. In addition fifty-two usable photographs (Appendix C) were taken during site visits. The photos included both the school and classroom environments such as bulletin boards, white boards, and hallway decorations. These artifacts provided additional information to corroborate teacher interviews and supplement observation data. All documents and photos were numbered, analyzed using a summary form adapted from Miles and Hubermann (1994).

Trustworthiness and Credibility

In the qualitative portion of the study, believability is crucial “based on coherence, insight and instrumental utility” (Creswell, 2009, p. 229). In addition, trustworthiness must be apparent. In this study seven procedures were used to ensure accuracy in the study and develop trustworthiness and credibility (Table 5).
Table 5. Procedures Employed to Establish Accuracy, Trustworthiness and Credibility

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triangulation</td>
<td>Triangulation ensures a complete picture is provided (Gay, Mills, and Airaisan, 2012). Triangulation was achieved through the collection of multiple forms of data enabling the researcher to cross check information. The findings were triangulated, combining interviews, document analysis, and authentic observation.</td>
</tr>
<tr>
<td>Member Checking</td>
<td>Participants were invited to engage in member checking, in which their credentials, responses, and the researcher's interpretations were shared to ensure the results were an accurate interpretation of their ideas. Member checking ensures an accurate picture of the activity system in place at the school (Creswell, 2009). It is the participants who can truly say whether their system has been represented properly.</td>
</tr>
<tr>
<td>Inter-coder agreement</td>
<td>This is a process of crosschecking, where a single researcher finds a peer who can code the text and levels of consistency can be determined (Creswell, 2009).</td>
</tr>
<tr>
<td>Rich, Thick Description</td>
<td>All interviews were transcribed verbatim to ensure accuracy. Rich, thick description from observations at the school and the classroom helped provide context that allows for transferability to other teaching activity systems. This robust description, improved the transferability, the external validity, of this study (Creswell, 2009). Effort was made to present the methodology in concise language so the steps could be replicated.</td>
</tr>
<tr>
<td>Auditing</td>
<td>The researcher sought input from peers and the advisor throughout the process.</td>
</tr>
<tr>
<td>Providing disconfirming information</td>
<td>Negative or discrepant information that runs counter to the themes is presented. Because real life is composed of different perspectives that do not always coalesce, discussing contrary information adds to the credibility of the account (Creswell, 2009).</td>
</tr>
<tr>
<td>Recognition of bias</td>
<td>Reactivity was a possible threat, as the researcher made positive assumptions regarding the interviewed teachers. Assuming everything the teachers do is the right answer based on the test score would be a faulty assumption. In addition, respondents could want to provide what they think are desirable responses, rather than accurately and truthfully share their opinions in an attempt to keep that positive light. To minimize this bias, an interview protocol was developed to create conditions of unconditional positive regard (see Appendix D). This included phrasing questions to demonstrate that it would acceptable to answer in any way, and clarifying the understanding that the participants’ opinion was valued. Interviewees were given the opportunity to elaborate on their thoughts with a semi-structured interview process that prevented the researcher steering the questions towards bias.</td>
</tr>
</tbody>
</table>
Ethical Considerations

The Montana State University Institutional Review Board approved the study for all ethical considerations. All information was kept confidential, and in order to protect personal information data was securely stored, identifying components of participants have been removed and pseudonyms used. Participants were informed that their responses were voluntary and that they would remain anonymous.

Preparation of Data for Analyses

To conduct an AT analysis, Yamagata-Lynch (2010) first suggests that a constant comparative analysis is used to identify what is happening within the data and create preliminary representative codes and categories. Once codes are developed, the researcher uses the framework of AT to describe the system (Yamagata-Lynch, 2010). The two-step process of the analysis is described below beginning with constant comparison, and then moving on to the AT analysis.

Interviews The interviews were recorded and then transcribed verbatim. Recommended procedures for inductive data analysis were followed to ensure thorough analysis and that the participants’ perspectives were accurately represented in the results (Lincoln & Guba, 1985). First, the researcher conducted multiple readings of each participant’s complete interview. During each reading, the researcher identified key points, common aspects, and unique or divergent statements in margin notes (Creswell, 1998). The margin notes were used to identify common and distinct features to form a preliminary set of codes. The preliminary codes were initially developed for participants’
complete responses (CR). However, this coding scheme did not provide fine-grained analysis and thus each participant’s CR to an interview question was segmented into meaningful units (MU) that could be coded accurately. For example, one CR answering the question, “What role do standards play in your instruction?” contained the following ideas:

They play a huge role. I mean, I always have like a cluster of standards that we are focusing on at the grade level for that unit. And we talk about that when we kind of kick off a unit. Like, what is our like big target concepts that we’re working towards? And the kids are always presented with a rubric that specifically has those standards as your end product that you’re moving towards. We also use standards based grading. And so, I grade in five areas, so they get a score for reading informational texts, reading literature, speaking and listening, language, and writing—the writing is the fifth one. So, it’s very differentiated based on what skill set we’re looking for. And even though sometimes a larger project might have a writing component and a speaking and listening component, they are being scored separately. So, they’ll get separate rubrics on like, what is the product that we’re looking for. Sometimes there’s multiple elements that go together for that. But I also think that that gives kids a more, maybe, realistic view of what they can and can’t do. Instead of just being like, you’re a C student, what does that mean? It’s like, you stand out in this area. And when we’re doing informational texts, you are great at like finding that information. But then if we do something more creative, you struggle a little bit. And how can we support that? But it doesn’t mean you’re a bad writer or a bad reader (Q2 P4).

Margin notes for this segment revealed five separate concepts related to standards: target concepts, rubrics, standards based grading, differentiation, and student self-efficacy.

Thus, to divide the CR into MU’s, the following procedure was used:

1. The CR was broken into a MU where a change in topic was evident, typically denoted by a key word as defined by the researcher’s background knowledge in writing and instruction. In the preceding example the MU’s were created as follows: “1) They play a huge role. I mean, I always have like a cluster of
standards that we are focusing on at the grade level for that unit. And we talk about that when we kind of kick off a unit. Like, what is our like big target concepts that we’re working towards? 2) And the kids are always presented with a rubric that specifically has those standards as your end product that you’re moving towards. 3) We also use standards based grading. And so, I grade in five areas, so they get a score for reading informational texts, reading literature, speaking and listening, language, and writing—the writing is the fifth one. 4) So, it’s very differentiated based on what skill set we’re looking for. 5) And even though sometimes a larger project might have a writing component and a speaking and listening component, they are being scored separately. 6) So, they’ll get separate rubrics on like, what is the product that we’re looking for. Sometimes there’s multiple elements that go together for that. 7) But I also think that that gives kids a more, maybe, realistic view of what they can and can’t do. Instead of just being like, you’re a C student, what does that mean? It’s like, you stand out in this area. And when we’re doing informational texts, you are great at like finding that information. But then if we do something more creative, you struggle a little bit. And how can we support that? But it doesn’t mean you’re a bad writer or a bad reader” (Q2 P4).

2. Each MU needed to be a meaningful idea that could stand alone without the context of the CR.

3. A spreadsheet was created and as each unique code was created, it was recorded onto the spreadsheet, along with the participant, observation, artifact, or photo
where the code was present. This provided the researcher a way to see the prevalence of common themes and ideations in the whole of the data.

4. Working definitions for each MU were created to manage the data in a systematic fashion.

To verify the accuracy of preliminary codes, a sample of the responses were selected, and a colleague evaluated each CR into MU’s and assigned a code using the working definitions. The coding attempts of the researcher and the peer were compared, and the similarities and differences in assigned codes were noted as suggested by the constant comparison approach (Strauss & Corbin, 1990). Any CR which was segmented or coded differently was discussed until an agreement was reached, or an additional code was created to appropriately represent its meaning (Cockrell, Placier, Cockrell, & Middleton, 1999). The rate of agreement was 71%, though where disagreement had occurred, each rater had used related codes. As the disagreements were discussed, it was discovered that one rater coded an item as assessments, while the other coded that as standards, as standards are what is assessed. This occurred with all disagreements and it was found that codes needed to be clearly defined such as standards and assessment, instructional materials and pedagogy, and relationships and student factors. This led the researcher to either clarify the provided definitions or combine two categories into one, resulting in a final table of codes with definitions (Table 6).
<table>
<thead>
<tr>
<th>Preliminary code</th>
<th>Final code with definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-teach</td>
<td><strong>Teacher</strong>- individual responsible for delivering writing instruction to students</td>
</tr>
<tr>
<td></td>
<td>Cross curricular</td>
</tr>
<tr>
<td></td>
<td>Sped push-in</td>
</tr>
<tr>
<td></td>
<td>Administration</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td><strong>Administration</strong> - helps teachers align lesson plans with content found on standardized tests and make sure that class curricula align with district mandates</td>
</tr>
<tr>
<td>Standards</td>
<td><strong>Schedule</strong> – coordinating students, teachers, rooms, time slots</td>
</tr>
<tr>
<td></td>
<td><strong>Standards and Assessment</strong> - what students should know and be able to do at each level, used as a reference point for planning teaching and learning programs, and for assessing student progress</td>
</tr>
<tr>
<td></td>
<td><strong>Community connections</strong> – any outside source helping the school—typically financially</td>
</tr>
<tr>
<td></td>
<td><strong>Student Factors</strong> – variables affecting student achievement such as diversity, SES, race, culture, ability, and relationship to school/teacher</td>
</tr>
<tr>
<td></td>
<td><strong>Colleagues</strong> – adult peers working towards the same outcome</td>
</tr>
<tr>
<td></td>
<td><strong>Instructional Methodology and Materials</strong> – pedagogy, methods, and materials used in educational lessons, any resource a teacher uses to help students learning, including the relationship between teacher/student, as well as incentives to motivate students</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Low staff turnover</td>
<td></td>
</tr>
<tr>
<td>College support</td>
<td></td>
</tr>
<tr>
<td>Sentence starter</td>
<td></td>
</tr>
<tr>
<td>Graphic organizers</td>
<td></td>
</tr>
<tr>
<td>Lucy Calkins</td>
<td></td>
</tr>
<tr>
<td>Textbook</td>
<td></td>
</tr>
<tr>
<td>Step-up to Writing</td>
<td></td>
</tr>
<tr>
<td>Curriculum</td>
<td></td>
</tr>
<tr>
<td>Four square</td>
<td></td>
</tr>
<tr>
<td>LAPS/CEALS</td>
<td></td>
</tr>
<tr>
<td>Outside teaching resources</td>
<td></td>
</tr>
<tr>
<td>PBL</td>
<td></td>
</tr>
<tr>
<td>Reading/writing connection</td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>Differentiation</td>
<td></td>
</tr>
<tr>
<td>Topic</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>Extrinsic rewards</td>
<td></td>
</tr>
<tr>
<td>Future Possibilities</td>
<td></td>
</tr>
</tbody>
</table>
Observations  Observational data were collected to complement and augment the participant interviews and to provide further details that did not emerge in the interview process. The observation protocol used was the Teaching Dimensions Observation Protocol (TDOP), developed by Hora, Oleson and Ferrare (2013) at the Wisconsin Center for Education Research as part of a STEM study to provide descriptive descriptions of classroom activity practices. The TDOP approach operates on the premise that educational activity is best viewed as "distributed in the interactive web of actors, artifacts, and the situation (Spillane, Halverson & Diamond, 2001, p.23). This observation protocol aligns directly with the components of the contextual nature of AT. The TDOP captures the teaching methods utilized, the cognitive demands placed on the students, the level of student engagement, the instructional technologies being used by the teacher, the pedagogical strategies being used by the teacher, and the student teacher interactions. The observer utilized specific codes to document the six areas (See Appendix E). These codes were recorded at two-minute intervals throughout the observational session. Before conducting the study observations, the researcher conducted practice observations using both the online version and the written version of the TDOP protocol.

During the on–site observations, as a non–participant observer the researcher did not take part in any activities. Through the observations, the researcher observed teacher instructional strategies and other tools being used in the classroom setting. In addition, the researcher kept field notes aligning with the tenets of AT. These included descriptive information regarding the layout of the classroom, the language used by the teacher
including direct quotations, the materials being utilized in the classroom, and the
teacher’s response to adverse situations such as a student not participating in activity. The
researcher also recorded observations regarding the role of the teacher and the student in
the classroom, as well as the use of consistent rules in writing. In addition, the researcher
recorded reflections throughout the observations to help with understanding. After
recording all data into the web-based protocol a data matrix was created for each
observation session to prepare the data for analysis. This matrix numerically represented
the presence or absence of each code at each recorded two-minute interval using a 0 or 1.
The raw data set was used to calculate the simple proportions and percentages for which
each code was observed. This information was also viewed visually as a chart reflecting
the percentage of intervals in which each code was recorded during the observation.

Documents and Photos Documents collected in the study of the classroom
instruction included student papers, graphic organizers, instructor lesson plans, and
supplementary materials. These documents provided further evidence of the practices in
place at Riverdale School. All documents were numbered and examined based on their
contribution to the codes created during initial interview analysis using a document
summary form (see Appendix F) (Miles & Hubermann, 1994). The summary form for
each document included a description of the document, the event or contact with which
the document was associated, the significance of the document, and a brief summary of
the contents. The document summary forms were used to identify vocabulary and content
that matched the code definitions that emerged from the interview data. Forms were then
coded based on their contribution to a more complete understand of each category of the Activity System description.

In addition, photos were taken as visual documentation during each site visit. Photos provided context for the study and were taken both in and outside of the classrooms. All photographs were numbered and examined based on their contribution to the codes created during initial interview analysis using a photo summary form (see Appendix G) (Miles & Hubermann, 1994). The summary form for each photo included a date, location taken, significance, reflection, and coding. The forms were used to identify vocabulary and content that matched the code definitions that emerged from the interview data. Forms were then coded based on their contribution to a more complete understand of each category of the Activity System description.

**Activity Theory Analysis**

In order to identify the participants’ perspectives regarding the system, the categorical codes were organized into the pre-existing categories of Activity Theory. The essential elements of an activity system include the subject, the object, mediating artifacts or tools, rules, community, and a division of labor or roles (Engeström, 1987). These elements were selected as an a priori organizational tool for original codes that emerged from the data. The researcher independently organized the coded data into a priori AT categories that accurately represented the complexity of the data to best answer the research questions. Guided by the modified Activity System created by Yamagata-Lynch and Smaldino (2007) (Figure 3), the researcher aligned the original codes to the pre-existing categories of Activity Theory using the following procedures:
1. Using the definitions from above each original code was grouped into an Activity System category.

2. If the category was not apparent, an attempt was made to determine which area the code would fit based on the MU’s assigned to the original code.

The overall analysis led to the assignment of codes from the first phase of qualitative analysis into the corresponding Activity System categories (See Table 7).

Figure 3. Modified Activity System created by Yamagata-Lynch and Smaldino (2007)
Table 7. Final Codes defined with Activity System Categories

<table>
<thead>
<tr>
<th>Final Code With Definition</th>
<th>Activity System Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roles</strong> - the division of activities among actors in the system</td>
<td><strong>Teacher</strong> - individual responsible for delivering writing instruction to students <strong>Administration</strong> - helps teachers align lesson plans with content found on standardized tests and make sure that class curricula align with district mandates</td>
</tr>
<tr>
<td><strong>Rules</strong> - conventions, guidelines and rules regulating activities in the system</td>
<td><strong>Schedule</strong> – coordinating students, teachers, rooms, time slots <strong>Standards and Assessment</strong> - what students should know and be able to do at each level, used as a reference point for planning teaching and learning programs, and for assessing student progress</td>
</tr>
<tr>
<td><strong>Community</strong> - social context; all actors involved in the activity system</td>
<td><strong>Community connections</strong> – any outside source helping the school-typically financially <strong>Student Factors</strong> – variables affecting student achievement such as diversity, SES&lt; race, culture, ability, and relationship to school/teacher <strong>Colleagues</strong> – adult peers working towards the same outcome</td>
</tr>
<tr>
<td><strong>Tools</strong> - the artifacts (or concepts) used by actors in the system</td>
<td><strong>Instructional Methodology and Materials</strong> – pedagogy, methods, and materials used in educational lessons, any resource a teacher uses to help students learning, including the relationship between teacher/student, as well as incentives to motivate students</td>
</tr>
</tbody>
</table>

**Summary**

Sequential explanatory mixed methods design was used to identify and better understand a system of writing instruction. The quantitative data from the SBAC test
provided a macro-level description of writing proficiency in the state of Montana as well as aided in the determination of a purposeful sample. A case study qualitative analysis, using activity theory as a lens, provided rich data to examine a system where writing instruction has been successful.
CHAPTER FOUR

RESULTS

The purpose of this sequential mixed methods study was to identify patterns of writing proficiency in Montana’s middle grade students and explore successful writing instruction for students who historically struggle. In order to complement the findings of broad numeric trends with an in-depth view of effective instruction in a single school, three research questions guided the study:

1) Do the scores of Montana middle grades students differ on the Smarter Balance Assessment Standardized Writing test by gender and socioeconomic status?
2) What are the school-wide systemic factors that may contribute to writing proficiency for middle grades students who struggle?
3) How specifically do tools, roles, and rules shape middle grades writing instruction?

This chapter answers the research questions by reporting the results of the investigation in three sections. The first section reports the results of the quantitative analyses providing a descriptive picture of Montana middle school student performance on the SBAC English Language writing assessment. Further quantitative analyses explored the relationship between specific student demographics and writing scores. The second section outlines the results of the qualitative analyses of the instructional system at a middle school with a high percentage of low socioeconomic status and proficient writing results using the lens of Activity Theory (Engeström, 1987). The final section outlines
how tools, roles, and rules work to shape effective writing instruction for students in poverty.

Middle School Writing, Gender, and Socioeconomic Status in Montana

The quantitative analyses were designed to identify the relationship between SBAC standardized writing test scores and the specific demographics of gender and socioeconomic status for middle grades students in Montana. Data analyses provided a picture of the trends in Montana. Analyses also helped determine whether Montana middle grades students aligned with the current literature regarding standardized writing assessments and the achievement gaps based on SES and gender. The sample for the study was of all 6th through 8th grade students in Montana schools with more than ten students tested who completed the SBAC writing test (N = 29,091). As the research area of interest was making inferences on a school level while accounting for grade, rather than making inferences on a student level, the individual data was aggregated to the school/grade level. That is, for each unique school/grade combination, test scores were summarized (mean test score), SES was summarized by percent low SES based on FRPL, and gender was summarized by percent male. As a result of this aggregation, the sample size was reduced, with the new sample having N = 573 cases for 328 schools.

The scaled score for the writing subset of the ELA test was utilized to specifically examine writing in the middle grades in the State of Montana. The mean scaled score by grade level was calculated using schools with an enrollment greater than ten (Table 8).
Table 8. Means and Standard Deviations of Writing Scaled Score at the School Level >10

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th grade</td>
<td>197</td>
<td>2530</td>
<td>48.778</td>
</tr>
<tr>
<td>7th grade</td>
<td>188</td>
<td>2548</td>
<td>50.196</td>
</tr>
<tr>
<td>8th grade</td>
<td>188</td>
<td>2561</td>
<td>50.571</td>
</tr>
</tbody>
</table>

For each grade level the mean falls just under the proficiency cut score. The cut scores for proficiency fall at 2531 for 6th grade, 2552 for 7th grade, and 2567 for 8th grade. This would indicate that on average the students in the state of Montana fall just below proficiency. However, the median score for each grade level would fall into the level 3 cut scores (6th=2533, 7th= 2557, 8th= 2568), at just above proficiency.

An independent samples t-test was conducted to determine differences in gender by grade level (Table 9). Males perform significantly lower than females on the SBAC writing assessment.

Table 9. Results of t-test and Descriptive Statistics Writing Scaled Score by Gender

<table>
<thead>
<tr>
<th>Group</th>
<th>Male</th>
<th>Female</th>
<th>95% CI for Mean Difference</th>
<th>t</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>38.3, 45.9</td>
</tr>
<tr>
<td>6th grade</td>
<td>2516</td>
<td>97.3</td>
<td>2558</td>
<td>92.8</td>
<td></td>
</tr>
<tr>
<td>7th grade</td>
<td>2536</td>
<td>101.1</td>
<td>2581</td>
<td>96.1</td>
<td>41.2, 49.2</td>
</tr>
<tr>
<td>8th grade</td>
<td>2542</td>
<td>105.5</td>
<td>2595</td>
<td>101.5</td>
<td>48.3, 56.6</td>
</tr>
</tbody>
</table>

* p < .01.

Using individual scores (Figures 4, 5, and 6) the mean scores were graphed against percent SES, with a scatterplot. The linear trend lines in the graphs reveal a
potential negative relationship between percent SES and mean scores.

Figure 4. SES and Mean SBAC Writing Scores on a School Level Grade 6
Figure 5. SES and Mean SBAC Writing Scores on a School Level Grade 7

Figure 6. SES and Mean SBAC Writing Scores on a School Level Grade 8
In order to draw more distinct comparisons, a two-way ANOVA was conducted to examine the effects of gender and SES writing achievement. At all three grade levels, outliers existed in the data. Due to the large number of cases it was assessed that the outliers did not significantly affect the results and they were left in the dataset. Residual Plots showed scores that were normally distributed, but the assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances ($p < .001$). Because the group sample sizes were approximately equal and large, there was normality, and the ratio of the largest group variance to the smallest group variance was less than 3, the two-way ANOVA was conducted because it is somewhat robust to heterogeneity of variance in these circumstances (Jaccard, 1998).

At the 6th grade level, the interaction effect between gender and SES on Writing Scaled Score was not statistically significant, $F(1, 9601) = .033, p = .857$, partial $\eta^2 = .000$. Therefore, an analysis of the main effect for SES was performed, which indicated that the main effect was statistically significant, $F(1, 9601) = 781.198, p = .000$, partial $\eta^2 = .075$. All pairwise comparisons were run where reported 95% confidence intervals and $p$-values are Bonferroni-adjusted. The unweighted marginal means of Writing Scaled scores for High SES and Low SES males and females were, 2560.23 ($SE = 1.26$) and 2507.80 ($SE = 1.39$) respectively. The mean Writing Scaled Score for high SES was 52.43 points higher than the mean for low SES (95% CI [48.75, 56.11]), a statistically significant difference, $p < .001$.

In the 7th grade the interaction effect between gender and SES on Writing Scaled Score was not statistically significant, $F(1, 9548) = .012, p = .912$, partial $\eta^2 = .000$. 
Therefore, an analysis of the main effect for SES was performed, which indicated that the main effect was statistically significant, $F(1, 9548) = 761.083, p = .000$, partial $\eta^2 = .074$. All pairwise comparisons were run where reported 95% confidence intervals and $p$-values are Bonferroni-adjusted. The unweighted marginal means of Writing Scaled scores for High SES and Low SES males and females were, $2581.87 (SE = 1.29)$ and $2527.67 (SE = 1.49)$ respectively. The mean Writing Scaled Score for high SES was $54.20, 95\% \text{ CI} [50.35, 58.05]$, points higher than low SES, a statistically significant difference, $p < .001$.

The 8th grade showed similar results with the interaction effect between gender and SES on Writing Scaled Score was not statistically significant, $F(1, 9583) = .1.064, p = .302$, partial $\eta^2 = .000$. Therefore, an analysis of the main effect for SES was performed, which indicated that the main effect was statistically significant, $F(1, 9583) = 665.356, p = .000$, partial $\eta^2 = .065$. All pairwise comparisons were run where reported 95% confidence intervals and $p$-values are Bonferroni-adjusted. The unweighted marginal means of Writing Scaled scores for High SES and Low SES males and females were, $2590.54(SE = 1.34)$ and $2536.97(SE = 1.56)$ respectively. The mean Writing Scaled Score of high SES was $53.57, 95\% \text{ CI} [49.495, 57.636]$ points higher than low SES, a statistically significant difference, $p < .001$.

Students of low SES perform on average 52 points lower than those of higher SES in the 6th grade, 54 points lower in the 7th grade, and 53 points lower in the 8th grade. These findings are aligned with the current literature. This suggests SES would lead to approximately one standard deviation difference in test scores, which, though the effect
sizes are small (partial $\eta^2 = .012$ at all three grade levels) according to Cohen (1988), could be considered practically meaningful.

Based on the scatterplot it appeared the most change in scores occurred as SES reached the high level of over 75%. Therefore, schools with a high proportion of low SES students were used as a data subset to determine a case study candidate.

**Case Study Selection**

The intent of this research was to explore successful writing instruction for students who historically struggle. In order to determine a school where struggling students demonstrate proficiency in writing, the sample set was limited to schools considered high poverty (>75% FRPL). Within that subset, total proficiency percentages were aggregated for each individual school. Descriptive analysis from the schools with the highest FRPL revealed schools with above average Scaled Writing Scores. In comparison to other high FRPL schools the writing scores for the school selected for the case study (Riverdale) were above average in all three grade levels (Table 10).

Specifically, at the 6th-grade level they had the 3rd highest scores in the state with 60% proficiency. At the 7th-grade level, they were the highest in the state, of this group, with 61% proficiency. Finally, at the 8th-grade level, they were the second highest with 52% proficiency. It is also important to note that the selected school had writing scores above the overall statewide mean in all three grade levels.
Table 10. Means and Standard Deviations of Writing Scaled Score at Riverdale

<table>
<thead>
<tr>
<th>Age group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th grade</td>
<td>68</td>
<td>2558</td>
<td>92</td>
</tr>
<tr>
<td>7th grade</td>
<td>64</td>
<td>2593</td>
<td>79</td>
</tr>
<tr>
<td>8th grade</td>
<td>82</td>
<td>2569</td>
<td>102</td>
</tr>
</tbody>
</table>

Riverdale School has an Economically Disadvantaged Participation of 100%.

According to the Montana Office of Public Instruction (OPI, 2017), this number is the participation rate of students that met the state criteria for economic disadvantaged. OPI defines those students as ones "eligible to participate in the Free/Reduced Lunch Program under the National School Lunch Act." According to the National Center for Educational Statistics, "The percentage of students eligible for free or reduced-price lunch (FRPL) under the National School Lunch Program provides a proxy measure for the concentration of low-income students within a school. In this indicator, public schools are divided into categories by FRPL eligibility." High-poverty schools are public schools where more than 75.0 percent of the students are eligible for FRPL (NCES, 2012). Riverdale is listed as having 100% FRPL due to being a recipient of a Community Eligibility Provision (CEP) grant. This federally funded program subsidizes free meals to ALL students whether they have completed a household application or not. According to the U. S. Department of Education, “The Community Eligibility Provision (CEP) is a non-pricing meal service option for schools and school districts in low-income areas. CEP allows the nation’s highest poverty schools and districts to serve breakfast and lunch at no cost to all enrolled students without collecting household applications. Instead,
schools that adopt CEP are reimbursed using a formula based on the percentage of students categorically eligible for free meals based on their participation in other specific means-tested programs, such as the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF)” (USDA, 2017). In discussion with the Principal, she said their percent FRPL is actually about 80%, which classifies as high poverty.

While, on average, schools of low-socioeconomic status perform below the mean on statewide assessments, as is predicted by the literature, Riverdale outperformed schools with similar demographics, scoring better than what would be predicted based on the literature and statewide data. A one-sample t-test was conducted to determine whether the percent of proficient students in all schools with a high percentage of FRPL, was significantly different than the percent of proficient students at Riverdale. Scores were normally distributed, as assessed by Q-plots and there were no outliers in the data, as assessed by inspection of a boxplot. Mean writing proficiency of the subset ($M = 28.47$, $SD = 22.84$) was lower than Riverdale’s percentage proficient of 57, a statistically significant mean difference of 28.53, 95% CI [32.00 to 24.07], $t(102) = -12.68$, $p < .001$.

**Systemic Factors that Contribute to Writing Proficiency in a Low SES School**

This study was designed to explore the activity system of successful writing instruction in a high poverty school serving middle grades students using the lens of Activity Theory (Engeström, 1987). To accomplish this goal, this study was guided by the six elements in an activity system, three of which were predetermined by the
parameters of the study. In this study, the activity system revolves around the teacher in her classroom. The subject is the teacher. The objects are students’ writing pieces. The outcome, the intent behind the actions within the system, is proficient writers who are career and college ready as demonstrated by writing pieces in all three text-types (narrative, argumentative, and expository) and assessed by the SBAC test.

The data in this study were analyzed and categorized to best describe the activity system of writing within the school. The use of constant comparison analysis to examine the writing instruction of Riverdale School resulted in the emergence of two key findings regarding the functioning of the system which dealt with: 1) the tensions that defined the contextual factors (e.g., the standards, mandates, and student variables) of the system and 2) the community category of the activity system and the role of partnerships, teacher/student relationships, and staff relationships.

Systemic Contextual Factors

Activity systems are open systems. There are sources of change that lead to new developments within the system. Activity Theory calls these tensions and contradictions. These tensions are not necessarily problems, but sources of innovation. Old elements may collide with a new element that enters the system. As the context changes, teachers adapt in myriad ways to achieve the intended outcome. A change in rules might lead to the use of different tools, as would a shift in the division of labor, such as shifting from a teacher-centered activity to a student-centered activity. The analyses of the data collected through interviews, observations, and documents revealed three main areas that led teachers to
adapt their activity system (Figure 7): the shift to new standards, administrative mandates, and student variables affecting performance.

Figure 7. Riverdale Systemic Tensions

**New Standards** With new standards that incorporate a heavy focus on writing, teachers have to learn new instructional methods. Despite the need for increased writing instruction, many teachers do not feel prepared to teach writing (Gilbert & Graham, 2010). Two Riverdale teachers specifically agreed, with one stating, "Right now I don't feel like I'm a good writing teacher at all, but I'm learning." One of the ELA teachers has a reading endorsement attached to her license according to her teaching certification, but not one teacher has an endorsement in writing. In fact, document analysis from the Montana Office of Public Instruction revealed that a writing endorsement does not exist (D18). Current research corroborates the lack of preparedness teachers might feel in that
most pre-service programs require little if any coursework in writing instruction (Freedman, Hull, Higgs & Booten, 2016).

Administrative Mandates Top-down changes that alter practice cause the teachers to adjust their system in response. Standards-based grading is one mandated practice in the school that teachers did not have a choice as to whether or not to participate. Riverdale School had a full implementation year in 2016-2017 to Standards-based grading. An altered grading practice is a shift in practice leading to changes in the dynamic system. The principal described it in this way:

This year it was like Rip the Band-Aid off. We don't want both grades. But three years ago, it was "We do not want standards-based grading—period." It's just that process of being patient and knowing you're going to stress them out, but it's okay because a little bit of—you know, just like we want our kids to persevere, we want our teachers to persevere. So you have to challenge them.

The School Improvement Plan (D14) specifically addresses this practice in Goal 1 of improving student achievement and learning. The first component is to implement standards-based reporting practices. One of the participants articulated that she was “100% on board” with this practice even though she had recently returned to teaching and it was a definite contextual shift for her that led to adaptations in her teaching. Observational data revealed an adherence to the standards as each teacher posted the corroborating standards during every observed lesson.

Another school-wide practice, though it was teacher driven, that is mandated is co-teaching. One participant was instrumental in helping the practice become universal at Riverdale and received specific training. Others, like the new 6th grade ELA teacher, are
new to co-teaching, stating, "I've never done that before. And so it- it's a lot of- a lot of change for me this year." Another tension created by co-teaching is scheduling. The current 6th grade ELA teacher admitted that there is not enough planning time in the day, “The other ELA teachers aren't really available as we have different prep times and such tight schedules.” The 7th and 8th grade ELA teacher’s schedule (P16) at the time of the initial visit (Table 11) illustrated the short time teachers have for preparation and planning.

<table>
<thead>
<tr>
<th>Period</th>
<th>Time</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8:30-9:25</td>
<td>7th ELA</td>
</tr>
<tr>
<td>2</td>
<td>9:28-10:18</td>
<td>8th ELA/Co</td>
</tr>
<tr>
<td>3</td>
<td>10:21-11:11</td>
<td>7th ELA</td>
</tr>
<tr>
<td>4</td>
<td>11:13-12:05</td>
<td>8th ELA</td>
</tr>
<tr>
<td>LUNCH</td>
<td>12:05-12:45</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>12:53-1:43</td>
<td>8th ELA</td>
</tr>
<tr>
<td>6</td>
<td>1:46-2:36</td>
<td>Teacher prep</td>
</tr>
<tr>
<td>7</td>
<td>2:39-3:30</td>
<td>7th ELA/Co</td>
</tr>
</tbody>
</table>

The administration supports planning time but the schedule does not always allow for collaboration. She stated, “I've got to make sure that my schedule allows for common planning if that's possible.” The principal shared and document analysis (D14) corroborated that morning meetings were instituted through the school improvement plan
as one way to help in team planning. In addition, as stated in the School Improvement Plan (D14), part of the professional learning includes time management skills for teachers. However, the administration still admits, “We need more planning time, because I have one person—my seventh- and eighth-grade teacher co-teaches with five people. And she doesn't have five periods of planning time. And so we're still working on that.” Despite efforts, finding collaborative planning time when teachers have one available prep period per day is a challenge. These are role considerations that cause tension in the system.

**Student Variables Affecting Performance** In addition to teacher-centered tensions, student environmental factors also cause adaptations within the activity system. Every participant highlighted student factors that contribute to Riverdale’s challenges. The 6th grade ELA teacher from the 2015-2016 school year stated, “We're very aware that a lot of our students and families come from a negative school background, and so I think we try to break that right away.” A main variable affecting student achievement was SES, as demonstrated by the district’s FRPL status. In addition, according to the U. S. Census data (2016), the percent of adults with a Bachelor’s degree or higher in the town was 13.4%, much lower than the Montana percentage of 29.5%. Parent education is another factor used to determine SES (NCES, 2012). The principal shared the struggle of having parents support education, “We’ve had parents sit there and say, ‘I don't why you keep telling my kid he needs to go to college because, you know, I didn't go to college and I'm just fine.’” The 7th and 8th grade ELA teacher shared that transiency also affects their student population, “We do have quite a bit of student rollover from one school to another. We have a pretty transient population. Sometimes you’ll see a student twice in
the same year and interrupted in between.” These are tensions that are continuously at play in this dynamic system, causing teachers to adjust the tools they use and the role they play. The principal articulated, “This is a tough district. We have tough kids”. She also stated, “really, our biggest battle is attendance of everything.” Evidence of attempts to solve the problem was observed by prominently displayed attendance rates by grade level. The study year 7th grade ELA teacher particularly discussed student skill level, which illustrates the need for teachers to be able to adapt,

I told {the principal}, sometimes you're only as good as what you're working with. And kids are cyclical. You know, like some- some grade levels, some groups are gonna be like, ‘Wow, you know, this group is amazing.’ And then other ones, there's a lot of struggling students. It does affect how you teach. It affects your scores. It affects everything.

The students have issues with poverty, family backgrounds, transiency, attendance, and skill development that can negatively affect school performance.

**Community Partnerships and Relationships**

In the context of AT, Engeström (1987) defined the community as the social group with which the subject identifies while participating in the activity. The community of the classroom system would certainly include the students and the teacher but is also influenced by the larger community including counselors, administration, and parents (Figure 8). The community consists of the stakeholders who share a common object or motive.
According to the Riverdale School Improvement Plan (D14), one of the core values is Community, and the belief underlying that value is the "involvement of Parents, Students, Businesses, Community and Family." A strong community was the most consistently discussed topic during participant interviews. The 6th grade Special Education teacher stated,

We just, across the board in all subjects we have amazing, hardworking teachers that are just- I mean I've heard it from numerous people since I'm in my second year of teaching. I've just heard numerous people say that this school is so different from any other school they've been at because the community that we have here between the teachers and the students - and even between the teachers. That it's really powerful. I think that drives motivation-the rapport and relationships.

Partnerships The principal, who has more direct access to community support, discussed the financial support made possible through programs such as GEARUP, a federally funded grant that helps low-performing, economically disadvantaged schools. Ironically, the support from this grant ended when their test scores rose. However, the administration has done their best to keep programs going, some with the help of other partnerships. These partnerships are the community that extends beyond the school walls.
According to the principal in an interview, one community donor provided support in the form of Christmas presents to 20 families during the holiday season. She added that another civic group held an egg drop and carnival, filling the school lawn with 1,200 people and the parking lot with cars. On a day of observation, the researcher experienced this same need to open the parking lot, due to an after-school track meet. One can understand how the whole school and community become involved in these events, as was witnessed by the main office buzzing in preparation for the activity.

**Student/teacher Relationships** The one interview question that was consistently answered the same by each participant was the Question one, “What do you believe are some contextual and or social factors that might be important in to students’ learning and motivation?” The resounding answer was relationships. Every single staff member spoke of positive student relationships. One way to build those relationships was simply showing their care for students. The past year’s 6th grade teacher stated, “We’re very community centered, and we try to show them that we care about them”. The other was being intentional with the students. The word “rapport was used repeatedly by the teachers. The 6th grade special education teacher, with two years of Riverdale experience, stated, “I think that's really powerful. I don't know. I think that drives motivation - the rapport and the relationships.” The principal provided a specific example, “A good testament to that rapport building is when we have professional development there are kids here. When [the] high schools are out, our kids come back.” The students take the time to visit their old school.
The beliefs of the school as outlined in the school's Strategic Plan include fostering the whole child (D16). Goal 3 in the School Improvement Plan (D14) was to improve climate and culture. To do so, the teachers have MBI and PBIS training as well as morning meetings to discuss students. The evidence of this goal includes the use of student recognition. On each school visitation evidence of this recognition was present in the hallways. A front bulletin board celebrated student achievement. The School Improvement Plan goals were prominently displayed on this board (P33) including “To Improve Student achievement and Learning, To Improve Systemic Analysis and Allocation of Resources, and To Improve Climate and Culture”. The transparency of the goals included students in the overall school community as an important piece. In addition, graphs showing a progression of student skills at all three grade levels based on their STAR testing were displayed (P34). In the additional target areas of the School Improvement Plan (D14), there were three research-based strategies designed to increase the school connection. Those include creating opportunities for community involvement, and identifying students with chronic absenteeism. It was observed that the community was a part of the school when the parking lot filled for an afterschool track meet. Evidence of attention to absenteeism on all levels was observed with a prominently displayed bulletin board in the front of the school sharing school wide attendance data (P43).

**Staff Relationships** The teachers were chosen as the focus as they help the students learn through tailored instruction and determine daily learning outcomes. In Riverdale School, the teachers repeatedly alluded to a community of support and student
focus that has led to a low staff turnover and positive workplace, despite its challenges.

The new sixth grade teacher described this community,

I believe that every teacher in this school would have my back and when we have to step away, there's always someone, "What do you need? What do you need?" And I think that you can't say that about every school. I think a lot of schools have dissension in the ranks kind of a thing—and we just—We just don't. We have a very familial, group and we care about each other. And so we'll do whatever it takes to help each other.

Several interviews revealed a strong tie amongst the staff and a desire to remain at Riverdale. At the time of this writing, there was not a single teaching position available at the school. The 7-8 Special Education teacher said, "If you're gonna compare us demographically to other [schools], we don't have a high turnover of staff." Though the assistant principal was not one of the interview participants, he also mentioned the lack of turnover in a casual conversation.

The school décor supports this community feel. On the initial observation day, the trophy case in the front foyer sported multiple inspirational quotes such as, "The best teachers teach from the heart, not a book," (P37) and "Teachers who love teaching teach children to love learning" (P38). It is within the context of the community that the teachers can function in their role as successful instructors.

Tools, Roles, and Rules that Contribute to Writing Proficiency

This study was designed to not only explore the activity system of successful writing instruction, but to particularly highlight the tools, roles, and roles, that enable successful instruction. Tools consist of all mediating artifacts teachers use in their classroom system. These can include textbooks and other curricular materials, as well as
the teachers’ background knowledge. The roles in the system define the division of labor of the community. Writing instruction was further defined by the conditions under which the action was executed. These rules of the activity system are the norms of the community, the classroom, the school, and the instruction.

The data in this study were analyzed, categorized and constant comparison analysis was used to examine these three elements of writing instruction. Key findings regarding the functioning of the system dealt with: 1) tools, specifically instructional materials, pedagogy, and technology, 2) roles, which showed that teaching writing was a collaborative venture shared by the administrator, content area teachers, and co-teachers, and 3) rules, in this case new standards, standards based grading, and the format of the assessment provided guidelines for instruction.

Tools

The teachers and students have various mediating artifacts at their disposal. Those resources include instructional materials, pedagogical approaches, and incorporation of technology. Any resource teachers use to achieve the objectives are tools, including the relationship between teacher/student, as well as incentives to motivate students. Tools are characterized by their ability to be used to mediate activity between a subject and object and include traditionally recognizable tools (e.g., pencil, paper, computer) as well as semiotic tools such as language and processes (Russell, 1997). Qualitative analysis revealed multiple tools of the activity system including instructional materials, sound pedagogy, and use of technology (See Figure 9)
Instructional Materials: Teachers consistently employ a variety of instructional materials based on their backgrounds and the needs of their students. The four key materials identified in the analysis were: various writing programs, writing supports in the form of graphic organizers, the new district textbook, and outside resources mined by individual teachers.

In discussing particular instructional materials or programs, the six teachers referenced Lucy Calkins (Teachers College and Writing Project, 2014), Step-Up to Writing (What is Step Up to Writing, 2017), 6+1 Traits (6 + 1 Traits, 2012), and Four Square (Gould & Gould, 1999). None was used as the sole resource in the classroom, as the 8th grade ELA teacher stated,

I designed the majority of the curriculum using different tools to kind of build into that. Lucy Calkins being a part of that, sort of that writer’s workshop model when we do get to more extended writing projects, and using Step Up to Writing as some core tools for organization and for that sort of graphic organizer and making sense of the writing process.

Lucy Calkins is one of the creators of the workshop method of writing, which most specifically aligns with the process writing described in the literature review. Step-up to Writing is a program used to aid in the organization of student writing using a color-
coding system. These colors were observed posted in the 7th and 8th grade ELA room. Green references the topic, yellow the sub-topics, and red the details. The 7th and 8th grade Special Education teacher articulated writing training she had received in the district, “I have done Step Up to Writing training, which I’ve actually done twice, I believe. I did Lucy Calkin’s training. I’ve had Four Square training—or I did Four Square writing, which is another way.” Four Square is another tool used particularly for organizing thoughts and helping with the format of a written paragraph or essay. The 6 + 1 traits was also observed as a classroom display in the 7th and 8th grade classroom. The bulletin board was titled “Trait Detectives” (P18) and included definitions for each trait, as well as questions for the students to ask themselves to determine their use of that trait. The 6 + 1 traits are: Ideas, Organization, Word Choice, Sentence Fluency, Conventions, Voice, and Presentation. For example the Voice poster provided the definition of voice as “The unique perspective of the writer comes through, it is as though the writer is speaking to the reader” and included the following guiding questions:

1. Did I write with my audience and purpose in mind?
2. Does the reader feel a strong interaction with my writing
3. Did I reflect my understanding and commitment to my topic?
4. Is my writing honest personal and engaging?
5. Does it sound like me?

Teachers received training in all of these writing instruction programs and techniques.

Graphic organizers were a support identified in every participant interview as an instructional tool. Specifically referenced was the district adopted LAPS (Look, Analyze,
Prove it, So what?) and CEALS (Claim, Evidence, Analysis, Link) graphic organizers (D1,8). LAPS is an acronym for close reading texts. CEAL is an acronym for writing summaries that can be extended into essay development. Two classrooms were using LAPS and CEALs in their observed lesson, and each classroom prominently portrayed the acronyms on the walls (P4, 5, 41,42). Participants repeatedly mentioned Graphic Organizers as one of the most helpful writing instructional tools. The 7th grade ELA teacher talked about using various graphic organizers, “I think what really helped me is presenting several different types of graphic organizers and letting kids experiment with them and find one that just fit their way of thinking.” The new 6th grade teacher agreed, “What are the components in that kind of essay? Because until they understand what it is their purpose is, they’re just going to ramble”. The 7-8th special education teacher also referenced the use of graphic organizers, “We find a lot more students use the graphic organizers that aren’t in special ed. They just like how you've set it up.” Organizational tools were a prominent part of the writing instruction.

The school also received a new textbook to use in ELA this year, which has been particularly useful for the new 6th-grade teacher, "It's very structured and laid out."

Though she felt is a useful tool, it was something she thought she would expand upon in ensuing years.

I think what we really all have the freedom to do is use what we think is best. I've tried to stay close to the textbook this year because that's what I think we were expected to do. Next year I can see doing some things that feel better to me and that I think will be easier for kids. But not a lot of that because I feel like what we've been doing has been good.
At the initial observation, students were using a supplementary online tutorial provided by the textbook company. After the class had whole group instruction, the teacher was able to work with one small group, while the co-teacher worked with another small group and the rest of the students independently worked through the tutorial. The teacher was grateful for the tools, stating, “Crucial to my current writing instruction are the tutorials and professional development resources that come with my curriculum. I am learning as I teach; these resources are vital.” The classwork centered on a packet that illustrated the progression of writing taught in the 6th grade ELA class for an argumentative essay (D13). The source materials in the packet included two articles, one model student essay, and vocabulary for argumentative texts. In addition, there was a task practice that included four source materials, a practice in determining source credibility, a planning organizer and revision and peer review. Finally, there was an independent practice section with three sources, and outline and a final evaluation. As the new 6th grade teacher stated, the packet was outlined and very thorough. A final writing sample from one student titled "Pit Bulls Aren't All Bad"(D14) showed alignment with the information in the packet.

In another observation, the same teacher was using another tutorial on how to write a summary. Using Houghton Mifflin "Level up Tutorials" the class looked at five details regarding Dry Tortugas Park and whether they are key details. Then the task shifted to reading three different summaries and evaluating whether they were strong or weak. Engagement was waning, and she began using questioning to garner attention, asking, "Do we have a title? Do we have an author? Do we have the main idea? The
interactive nature of the tutorial changed the engagement to very high as she asked students to declare whether a detail should be included. When the teacher clicked on the response feedback is provided, and students who were correct responded "yesss!"

Even though the curriculum is available, there is autonomy in the classroom, something that the CCSS has made clear. As the 8th grade ELA teacher said,

We did adopt a new curriculum last year, and really, our school has more of the philosophy of, it's a tool at the 7th and 8th-grade level. I think they really appreciate that we're using more of a unit approach. A little more of the project based learning kind of approach with kids, with a lot of the career and college readiness focus built in. So it was never, pick a curriculum and use it with fidelity every day. It was more like, 'How can this accentuate and support what you're doing in the classroom.'

Interview data revealed that none of the teachers relied solely on the district textbook for their whole curriculum. The 6th grade special education teacher discussed the curriculum from the study year,

[Study year 6th grade ELA teacher} is an amazing reading and writing teacher and she was in the sixth grade for what, six, seven years or something? I mean she had basically curriculum developed that she did- because we weren't using the textbooks.

In classroom observations, the new 6th grade ELA teacher who was relying heavily on the textbook supplemented by sharing an online article she had found on the "Race to the Sky" which was a more relatable topic to students in Montana than the Dry Tortuga article used prior in the lesson.

The textbook was not the only source of curricular materials. Observations in the 7th and 8th-grade classrooms revealed the use of outside materials, specifically performance tasks drawn from the Educational Partnership at the University of Santa Cruz (D9) and articles pulled from the New York Times and USA today (D4,5).
Drawing from outside resources was common amongst the teachers. Teachers explained how they searched outside resources for ideas, plans, and rubrics. The past year’s 6th grade teacher stated, "I’m a huge teacher pay teacher person. I love to go on Pinterest, all those things—for anything that I find interesting."

**Pedagogy** Three key aspects of pedagogy used by the teachers included differentiation, attention to the reading-writing connection, and addressing the motivational needs of middle school students in multiple ways. Differentiation means providing students with the instruction and resources they need to learn in the way best for them and allowing them to display their learning in the way best for them (Tomlinson, 1999). One of the key ways teachers differentiated their instruction was the amount of scaffolded support they provided to each student. This was stated clearly in interviews, observed in lessons, and exemplified in documentation. In all co-taught classes, there were examples of providing support to different students. In one 6th grade ELA lesson some students worked independently, some worked with the classroom teacher, and some worked with the Special Education teacher. This allowed for varying levels of support within the classroom. Four of the participants stated that for their struggling writers graphic organizers were helpful. The 8th grade ELA teacher stated, “Structure. Having some sort of a planner for them, something that is a common, how to apply an organizational element to my writing and try to build it from the ground up. I use some Step-Up to Writing pieces. Just something that maybe even has some graphic elements where they will sketch the main ideas and then put it to words.” Document analysis revealed different types of organizers such as an IMAP (D10), a memoir planning sheet
(D19), and a framed paragraph (D8). The participants stated that these would be available for ALL students who needed them or found them helpful, but that students who did not want to use them and could proficiently organize their writing, would not be required to use them.

Although the current study was designed to focus on writing instruction, it is important to note that the participating teachers are ELA teachers and do not teach writing in isolation. They teach reading, writing, speaking, and listening as components of literacy as outlined by the CCSS. Most performance tasks included a speaking component. Teachers referenced the tie to reading in their interviews. For example, the 7th grade ELA teacher said, “good reading goes with good writing.” The idea of combine literacy was also supported by the past 6th grade ELA teacher, “Well, of course, reading and writing play hand in hand.” The new 6th grade ELA teacher referenced the use of mentor texts, “the other thing that just kind of came to me again specific to writing is using mentor texts.” Observational data corroborated the use of mentor texts to support writing activities. The 8th grade ELA classroom had just finished reading a novel, Who Will Tell my Brother by Marlene Carvell that tied into their Power of Persuasion unit as well as the Mascot Debate Argumentative Writing. In addition, they were given multiple articles to summarize using the LAPS organizer (D1) to help them support their writing ideas. She discussed the importance of the connection,

I would not want them separated because I feel like to be a good writer, you need the reading to go with the writing. You know, they build on each other and it’s nice to have them shared, like when you read, it makes you more passionate about writing something, or vice versa.
Two participants specifically addressed their love of reading and the importance of “getting a book into their hands”. Last year’s 7th grade teacher used novels, not only to combine reading and writing, but to also incorporate choice to increase motivation,

I was very novel driven when I taught. Everything-all of my writing and reading and everything was novel based. You try and pick out a novel that's gonna appeal to the most or if you went into small groups, give them choices—because even if they have a choice between two, they are a lot more buy in—than if you just say, "Here it is.

Using mentor texts, novels and sources, are an essential component of the ELA classroom, not only due to the reading/writing connection, but also because the teachers have a 50-minute class period to teach all ELA standards as the 8th grade ELA teacher stated, “ELA is pretty overwhelming, how many standards there are”.

The most significant outcome of pedagogy was fostering student motivation. The teachers and staff at Riverdale use several methods to help motivate their students not only to learn but also to write well. Solid personal connections are a strong motivator for middle school students, and in fact, the quality of the student-teacher relationship has been shown to affect academic motivation, engagement, learning, and social-emotional well-being (Eccles & Roeser, 2012). It was the first step to learning, and the teachers at Riverdale found it to be valuable, as one stated, "I think they wanted to kind of please me in a certain way, because of the relationships we built with them." This relationship was observed during lessons as teachers asked students about their day, or had small side conversations regarding student work and connections to student work. Teachers also shared personal stories in class, relating their lives to the lesson material, such as when the 7th grade co-taught class was discussing college and careers.
The second motivator was extrinsic rewards. Throughout the year, and particularly during the long days of testing, Riverdale used a reward system. A progression of student skills based on Star test scores is prominently displayed by grade level at the school entrance (P30, 31, 32). The office windows have a list of students available to win the "STAR bike" based on proficiency achievement (P27). During SBAC testing, students who are present every day receive ice cream. The principal stated, "We do everything we can to get them here – so to speak. I think, really, our biggest battle is attendance." Providing incentives is common practice at the school. One teacher commented that though she had not been a proponent of extrinsic motivation, "there's certain kids that buy into that reward system. And for those that don't, you know, I think they're intrinsically motivated. So they want to do well anyway." During one school visit in the Spring, the front office held a pile of gifts including board games, sports equipment, art activities, and more that were used as giveaways during the 2017 SBAC tests (P40).

The third way teachers’ motivated students was through topic choice and authenticity. Allowing students choice in what they will write about provides motivation. In addition, making the writing have a real-world connection, and authentic purpose can also be a strong motivator (Mensah & Attah, 2015). The eighth grade ELA teacher stated, "You can kind of design your own [curriculum] and make it more real-world connected, I think it's more powerful for the kids. And I feel like the buy-in is stronger, and then usually the product is better." Observational data revealed that she follows her belief with practice, as the students were researching a place to live and attend college. The students
were able to choose the location and then had to answer questions regarding cost of living, researching on their chrome books. One of the eighth-grade assignments was an argumentative piece regarding school improvement. The top ten students presented their argument to the school board, and the school board chose one project to complete. A work packet for a college essay writing activity gave students the opportunity to choose jobs based on information provided. She discussed these projects as a way to help students enjoy writing,

A good writing teacher is someone who gets kids excited about the possibilities and the different applications that writing can be. Then they let them have ownership. There’s nothing worse than, we’re writing this and here is your topic. I feel like if you can get kids excited about, look at this product that’s being used in the real world. It’s in our local newspaper. It’s in a book that we’re enjoying reading or it’s being presented to the school board in an authentic format. There are things that are an authentic experience. I think that gets kids excited about writing.

Real world motivation instills that ideas can become a reality.

The final motivational practice was instilling a belief in success into the students. In one hallway during a school visit the researcher encountered a display titled “Education doesn’t end after high school, Riverdale graduates explain why they continue their education” (P46). Over 40 students were highlighted from previous years with a small poster (P47, 48). Each poster had a picture of the student, their full name, college attended, major, year they graduation Riverdale, and a direct quote such as, “My decision to attend college was based on wanting to further my education” (P49). Another said, “I want to make a child’s future brighter” (P50). Not only does this show a sense of pride and community, but also the belief in students’ ability to success in post secondary education. In addition, this same hallway had multiple college pennants hanging from the
ceiling (P51). These examples of success were crucial for the community. The principal lamented about the stigmatism attached to the students at the school due to environmental factors that come out in the media.

Unfortunately, our school district has a reputation. They call our kids ghetto[word deleted to protect privacy], which makes me—really disgusted. That's what they call them when they go to high school. Because if you read the newspapers, we have a lot of—you know, domestic abuse. We have a lot of drugs in our community.

When these students transfer to the feeder high school, they have that stigma attached.

In order to support a growth mindset, one teacher had sixteen habits of mind taken from the book *Learning and Leading with Habits of Mind* (Costa & Kallick, 2009) prominently displayed on a bulletin board (P20). Promoting a belief in success, that they can rise beyond the expectations others have of them, is an important strategy utilized by the team, as the principal stated,

And they get the stigmatism. And so we talk a lot about how do you break that stigmatism? What do you have to do? You have to show ‘em what you know. You have to step up and be the person you know you can be.

Opening the students’ eyes to the possibilities ahead of them is also done through a statewide initiative of the Montana Office of Public Instruction called Graduation Matters. This is a program that seeks to increase the state's high school *graduation* rate through artful local partnerships between schools, community organizations, and businesses. Through the program, the eighth-graders participate in a high school and participate in a college campus tour. The principal described the program:

We partner with [the feeder high school] very, very clearly. We bring in high school teachers to teach half a day so our kids get to experience what high school is like. Our kids go to college, so we take them to [local college] to tour the campus and they get to be a participant in some classes
and understand what college is about. We take them to [local] Community College. Those are things we established when we were a GEAR UP school.

Even though the school lost the GEAR UP funds they committed to continuing the program because as the principal stated, “they need to have that exposure, and they need to be able to see that college is possible for them. In addition, the district offers four college scholarships of $3,600 each year to students who are graduates of the junior high school. The context created by the community supports high expectations for a group that is look down upon. High expectations supported by a positive student-teacher relationship lead to higher student achievement (Eccles & Roeser, 2012).

Technology A final tool is the use of technology. Teachers have access to computers and projectors, as is typical in most schools of the 21st century. One specific technological access was the one to one Chrome book program in Riverdale. All students in the school were issued a barcoded Chrome book. During interviews, a participant articulated the process for use.

We just piloted this year where the kids have their own Chrome book. All day. And before it was like, we had carts in classes but it was all shared and jumbled. And you know, there was a lot of stress involved. I think you thought, how is this gonna work? But it really has been pretty darn smooth. There’s the occasional kid that’s not where they’re supposed to be on their Chrome book sometimes and we’ve had to deal with that. But as far as getting kids engaged and having their Chrome book ready and functioning and producing work, it’s been good.

According to the teacher, the students' Chrome books were housed in their last period class:

We keep them in the seventh period class. So, at the end of the day, they plug them in and off they go. But then in the morning, when they are
coming into the building, they trickle in and grab them from that seventh period class. Which has worked. It really has.

It was observed that each classroom housed a charging cart. If students needed to access a charging station, it was readily available.

Navigating the use of technology produced mixed instructional results. Staff found it to be a motivational tool and necessary skill as stated by the 8th grade ELA teacher,

The technology, I think, has been a big part. It’s exciting to be able to bring those tools into the classroom. And this day and age, it’s just kind of a necessity to keep kids, you know, engaged and meeting those college and career readiness skills.

During this teacher's class, the students utilized the Chrome books intermittently throughout the period to follow a learning module as the teachers provided additional instruction. Students also used the computers to word process writing practice for their narrative pieces. Some students worked independently and some with the instructors. The Chrome books allowed the teachers to differentiate their instruction. Chrome book use was observed in all classes, though not to the same extent. For example, in the 7th grade class, all of the students used their Chrome books to research information about a location. However, in the 8th grade classroom, the students had a choice to either read on the Chrome book or read the paper articles provided. During this time only one student was on their computer. This showed a balance of use.

Chrome books were not only used as teaching tools but also were given credit as a motivational tool. The 6th grade special education teacher stated:

One more thing I thought of that sets us apart is that we have a lot of technology use at our school. Last year, we weren't totally one to one, but
we had Chrome books. You could access Chrome books pretty much anytime. And now we are one to one. And it's just the way the kids in this generation, it's just the way that they're going. They're going to be doing more typing than handwriting. Some of the kids even would prefer to type than handwrite because some kids that struggle with handwriting, the fine motor skills. Typing is easier for them and- and some of the kids that we give accommodations for, whether it's in an IEP or a 504, they can speak into the Chrome book—and that'll write for them. Just getting these kids to write anyway that we can, I think, is just creating more writing.

In contrast, the past year’s seventh grade teacher articulated that handwriting could also be a motivation,

I have a seventh grade intervention and the last two novels that we've done I've had them do a Google Doc as their study guide and reflections and answering questions and what not. And so on this one I already had something prepared and I was like, ‘I'm not gonna throw this away.’ So I handed it out and they were like, ‘Do we need our Chrome books?’ I go, ‘Not this one.’ And they're like, ‘Oh yeah.’ It was now a novelty to handwrite them, and so they were all like excited and, ‘We get to use our pencils.’ - I'm like—‘Yes you do.’

Another participant thought a balance between chrome book use and handwriting was important stating,

I think there's just a balance for me. I'm not all in on anything, but I think we have to keep things balanced. They do have to write. And we can’t take it completely from them. so it's a balance, and I think we do that pretty well.

Other prominent technology was the use of a smart board. Observational analysis showed the use of lecturing with visuals in all observed classrooms at least 50% of the class period. After the initial visit, the new 6th grade teacher had received a new projector that was slightly different than a smart board. It was essentially a touch screen computer. During an observation, she had difficulty with the new technology.
Roles

The division of labor, or roles, defines how tasks and responsibilities are shared among system participants as they engage in an activity (Engeström, 1999b). Within the classroom community, each member has roles. Traditionally the roles in the classroom have been: teachers teach and students learn. In considering the division of labor for the intended outcome of proficient writing, findings from this study indicate important aspects of the roles of the administrators, the classroom teachers, and the co-teachers within the context of our discussion, and other multiple factors, which contribute to the students’ learning (Figure 10).

Figure 10. Riverdale Roles

Administrators. In the context of this setting the administrator had a clear role in creating a school climate of intentional writing instruction, which she described herself,

It's just that process of being patient and knowing you're going to stress them out, but it's okay because just like we want our kids to persevere, we want our teachers to persevere. So you have to challenge them. But at the same time, you also have to know it's gonna take time, and not to expect perfection. And when a teacher's trying - for example, a new teacher's trying CEALs and
LAPS and it fails, okay, that's good. It's not a bad thing, what are you going to do to fix it next time? Failing forward is something that teachers really have to learn. It's okay to fail as long as you're failing forward.

The role of the principal is one of an expectation for teachers to step up to the plate with the mandates of the administration, while knowing that failure is acceptable and supported. She also stated,

I'm not the expert in eighth grade, I didn’t teach eighth grade, and not to pretend I am. But to say, ‘What I see you doing, through walk-throughs and visits and things like that and here are some suggestions, this looks like an area of concern for me. How can I support you? Let’s get you to some seminars. Let’s get you to some classes. Let’s get you hooked up with this person or that person.’

With the help of administrative guidance, teachers understand the expectations and make connections, which develop a positive school community.

**Content Area Teachers** The role of the teachers is a shared position, in that content area teachers share some of the load of the writing instruction. As the past year’s 6th grade teacher stated,

I was very lucky to be where I was; I actually was a social studies teacher as well. So I was able to say to each one of the people who taught a session of social studies, ‘okay I need them to write a research paper and here's all the things'. So I was feeding them information on the different standards that I needed them to cover and how far to go. I could give them the graphic organizers. I could do all that for them. And so we covered a ton of writing in our social studies classes.

During an observation in the 6th-grade classroom, narrative writing was taught through an online program as well as classroom modeling and support. One participant explained that in science, where she also co-teaches, the students were writing a narrative. The class periods in Riverdale last 50 minutes, and ELA is covered in that time daily. Being able to
address some of the writing standards in other content area classes with all teachers playing the role of writing instructor with collegial support is an inherent part of the Riverdale system.

Co-Teachers The most consistent role mentioned in the discussions with the staff was the presence of co-teaching in the building. A special education teacher is present in each content area class, as support for students with IEP's as well as other classroom students. It has improved practice, as the 7th-8th grade special education teacher explained, “Co-teaching has improved my specialty. I understand their curriculum. I can tell you the content standards for math and reading and science and know what those kids need”. The co-teaching model was implemented with full administrative support five years ago. The special education teacher stated that the administration supported the shift, “So our administrators really did say, okay, let’s try something.” Co-teaching can have its benefits and challenges as the 8th grade ELA teacher explained.

We co-teach twice a day together, so one ELA class for 8th grade and one for 7th grade. We’re just good at kind of feeding off of each other. We know each other so well now. We have these tables so we can pull small groups. We do a lot of assigned peers where you will have a high and a low. Sometimes we’ll split the room and I’ll take a group and she’ll take a group, sort of that parallel approach. A lot of times, it’s like one teach and one is supporting or assisting. We try to use a variety of models, and a lot of graphic organizers, a lot of supportive structure and modeling for the kids, small groups, that kind of stuff. I feel like it goes really well. I know there haven’t been as many, I would say, successful pairings as we have been fortunate to have. And part of that is scheduling, where you don’t have a common prep. Then it’s like, how do you do that, for especially a first year? Or someone who hasn’t co-taught before or really isn’t receptive to it. So I know there’s been hiccups along the way, for other groups. But I have been really lucky. I mean, my experience has been really great with it, but I can see there can be some issues, too.
What once took careful and considerable planning, is now done with ease. She acknowledges that not all partnerships have been so smooth. In fact, all participants lamented the time aspect, and one stated that even though they were expected to implement the practice with fidelity, that appropriate planning time was simply not provided. Despite these issues a classroom teacher argued vehemently to the positives of co-teaching,

We have these expectations that every student will take the test at the end of the year and yet we’re pulling students out and they never get exposed to the grade level curriculum and I think whether they’re in there just the language and the discussions that happen it is amazing to see a student that there’s no way had they been anywhere else but in that classroom would have understood this topic ad they actually start jumping in because their language skills are so much stronger than their writing or reading skills and they understand it. They might not be able to actually produce it on paper but they get it and so for them to be involved in those grade level discussions and hear the vocabulary and be exposed to that is just, it’s just so beneficial.

Multiple teachers did refer to the benefit of co-teaching as being able to offer support to students. One special education teacher stated,

It's a challenge, but that's, where we've come a long ways is that we're able to collaborate with co-teaching. And so we're able to co-plan and we're able to co-instruct and we're able to take different groups, different levels of kids and, even though we want to do more of pushing the higher kids, we do tend to focus more on trying to catch the lower kids up. But just having the ability to have the co-teach model place. There's a lot of schools around that I've heard they're trying co-teaching but they don't have co-planning time. They don't have the same preps to plan, so it's really difficult to be able to co-teach if you can't co-plan. I imagine with co-teaching going on in fifth grade, sixth grade, seventh grade, and eighth grade in the ELA classroom, that- I imagine that it’s doing a lot for us.

Data from observations revealed that the prominent roles co-teaching took were parallel teaching, in which two teachers instruct different groups of students at the same time,
team-teaching, where both teachers actively take part in a lesson, or one-teach and one assist, where one teacher has the lead role and the other roams the room assisting students.

**Rules**

Rules are the conventions, guidelines, and norms regulating activities in the system (Engeström 1999). Examples of the rules in a writing classroom might include the specifications of an assignment, the rules of grammar, discussion norms, even general classroom and school rules and schedules. Findings from this study identified the guiding function of three key rules including: the new state standards, standards-based grading practices, and the format of the Smarter Balanced Assessment Test (Figure 11).

![Figure 11. Riverdale Rules](rules.png)

**New Standards** In the current study the prominent rule focus was the Common Core State Standards (CCSS) and grading practices based on those standards. Outside of student factors affecting performance, the standards have precipitated the most change within the system, leading to significant alterations in instruction. The new 6th grade
teacher was out of teaching and recently came back to the profession and saw them as a framework to guide her instruction, “I was in teaching. Then I was out of teaching. And now I'm back in teaching. And it gives me something to look at. It gives me a framework to look at”. The 7th grade ELA teacher has been teaching for 20 years and found the standards to be incredibly rigorous, and she is not sure kids are ready for what the standards bring, “I think the standards now to me have just taken this big leap and kids have not caught up with them.”. The 6th grade special education teacher, a new teacher, saw the standards as the driving force behind all instruction:

I don't really have all the background knowledge of the way it was before common core was driving everything, but I just feel like it's- it does drive instruction right now. It is nice that all these curriculums are coming out and they're being written very similarly to the standards and to the state test. And so, I don't know, I just feel like it's kind of what's driving instruction right now. And it structures it definitely.

Montana’s adoption of the standards resulted in tension within the system and changed the way teachers taught. Though their adoption was complete in 2010, the implementation of the policy into sound practice varies considerably from school to school, and district to district.

In Riverdale, each classroom had standards prominently displayed based on the unit objective (P6, 10, 13, 44). These standards provided a framework for the teachers and described what students should know and be able to do at each level. From those standards, the teacher found or created rubrics to assess the students accordingly. As the 8th grade ELA teacher stated, “The kids are always presented with a rubric that specifically has those standards as your end product, that you’re moving towards.”

Document analysis of a specific persuasion rubric (D7) showed four columns matching
the proficiency levels inherent to standards based grading practice. Each column provided guidelines for one aspect of the writing. For example, for a student to be considered proficient in organization they had to adhere to the following guidelines, “The introduction includes the goal thesis and provides an overview of the issue. Information is presented in logical order but does not always maintain the interest of the audience. A conclusion states a personal opinion”. Each column stated the expectations of the level of mastery. Rubrics provide students with clear targets for assessment. The 8th grade ELA teacher discussed how this benefits both teachers and students,

I do feel like that helps, because there’s no way you can’t be focused on your standards when you have to score on them, right? So it keeps it at the forefront, where before, it didn’t have to be, and I think there were teachers that it wasn’t.

Standards Based Grading In Riverdale school assessment is standards-based. In the 2015-2016 study year, the school was using standards-based grading but traditional reporting. In the 2016-2017 year, the school went to straight standards-based reporting, though in the study year all of their assessment was standards based. To help the community understand the scoring, the school created a document entitled “Standards-Based Assessment: Understanding Standards Based Learning Scores”(D15) that outlined the meaning of the scores and the reasoning behind the transition. Significant points include the concept of mastery. Students grades are reported based on their current level of mastery, and this work is based on the standards, not the other students in class. Standards-based grading has been beneficial for the school, based on teacher reports. The 8th grade ELA teacher said,
It gives kids a more realistic view of what they can and can't do. Instead of just being like, you're a C student, what does that mean? It's like you stand out in this area. And when we're doing informational texts, you are great at finding that information. Where before it all just got lumped together in a blob and it was like, you're this.

The idea of student self-efficacy ties back to the middle school mind, and to the motivational factors of seeing the possibilities of success.

Performance Tasks The students are assessed on these standards through the SBAC test. The format and structure of that test plays a major role in instruction. The sixth-grade ELA teacher of the study year discussed how familiarizing students with the structure of the test was beneficial.

We did go on and grab a lot more performance tasks—in the last couple years—more of that structured performance task of, read these articles, and now I want you to write your opinion about this after reading these two articles. Trying to make it more like what they're going to see on Smarter Balanced, instead of just an open-ended prompt. And that was a struggle, trying to get the stamina, for them, was huge. And trying to build them up. You take three or four weeks to do a writing piece—so trying to build up the stamina. So we did a lot of practice performance tests throughout the year.

All of the 2015-2016 ELA teachers used performance tasks in their classrooms as practice for the test. Observational data revealed performance tasks completed or in progress at all three grade levels. In the sixth-grade, they had recently completed an argumentative unit. In the seventh-grade, they were beginning a college and career unit. In the eighth-grade, they were in the midst of an argumentative unit on mascots. In each scenario, the language used by the teachers to instruct the students were the terms "Performance Task," which is the same language used by the SBAC assessment.

Teachers pull these from outside sources as evidenced by document analysis (D3, 4, 5, 6,
9). Document analysis also revealed the similarity in format to the SBAC test; students must read sources, identify evidence and respond in writing using textual data. The past 6th grade teacher shared how she would have prepared her students in her previous sixth-grade classroom using an informational performance task pulled from the Michigan Department of Education (D11). The example includes a task description, two sources, and student directions for the performance task. These practice assessments align with the format of the SBAC test.

Summary

Descriptive analysis provided a summary with which to draw comparisons across schools, as well as across demographics. This data aligned with the literature that schools in high poverty and males received significantly lower average scores than the rest of the population. One school selected for further analysis defied these outcomes. Activity Theory (Engeström, 1987) was used as a framework to analyze the multiple factors impacting teaching and learning, with a particular emphasis on the tensions and contradictions, which lead to changes in instruction (Figure 12).
Figure 12. Riverdale Activity System

Data analyses revealed inherent tensions experienced at the school including adjusting to new standards and assessment, putting into practice administrative mandates such as co-teaching and standards-based grading, with fidelity, and understanding student variables that affect academic performance. The teachers’ perspectives and ways of managing the aforementioned tensions shape the classroom system. Four systemic factors contributed to students’ proficiency: the community of stakeholders, the tools of engaging writing instruction, the roles of all teachers and administrators, and the rules of standards-based classrooms.
CHAPTER FIVE

DISCUSSION

Along with the ever-present achievement gaps, digital literacy and new standards have pushed writing instruction into focus. Researchers acknowledge, "opportunities to engage expressively, creatively, and practically in writing are unequally distributed" (Freedman, Hull, Higgs and Booten, 2016). Understanding how successful schools navigate writing instruction within the context of the Common Core State Standards (CCSS) and coinciding assessments can help move research forward and strengthen teacher practice.

Since No Child Left Behind (NCLB), education has become data-driven (Mertler, 2014). The accountability requirements using standardized testing has been inherent in NCLB, Race to The top (RTTT), the CCSS and Every Student Succeeds Act (ESSA) (Mertler, 2014). There are consistent arguments for data driven instruction and accountability and consistent arguments against the reductive nature of standardized testing (Hillocks, 2003). There is also concern standardized testing limits students’ voice and presses formulaic writing onto students (Albertson, 2007). It is imperative that we take a mixed approach to continued study of the context within which successful schools achieve results and examine if they do indeed enrich their students’ lives and education by doing so.

In addition, education is becoming increasingly digital (Freedman et al., 2015). Providing meaningful access to technology is a crucial component of the new digital age
of writing (Freedman et al., 2015). Online and hybrid courses are commonplace. This research illuminates the importance of the human factor of education, and that relationships are a strong motivator for educational success, particularly with students from low SES backgrounds.

The purpose of this sequential mixed methods study was to identify patterns of writing proficiency in Montana’s middle grade students and explore successful writing instruction for students who historically struggle. This study aimed to answer the following questions: (1) Do the scores of Montana middle grades students differ on the Smarter Balance Assessment Standardized Writing test by gender and socioeconomic status? (2) What are the school-wide systemic factors that may contribute to writing proficiency for middle grade students who struggle? And (3) How specifically do tools, roles, and rules shape middle grades writing instruction?

As stated, patterns in testing data can provide a macro level view of student performance, but to truly understand how instruction is delivered and what might lead to strong proficiency outcomes we must examine the micro level of the system in which instruction occurs. The case study of the system of instruction at Riverdale school helped illuminate possible practices that might help teachers succeed in teaching writing to similar demographic populations.

The use of Activity Theory (AT) is an appropriate lens for exploring contextual and dynamic factors within the classroom system. The historical development is an important contextual factor of AT. The focus of the study emerged due to an interest in the current system that has developed in the wake of a change in standards at the state
and national level and the accompanying mandated testing. Though the students are the center of any teaching endeavor and research, it is the teachers who have the main role in this study. This brief glimpse of teacher perceptions and ELA classrooms set alongside other data provides some illustration of the complexity of teaching writing in the middle grades classroom. AT theory explains teaching as a goal-directed activity, and in this case, the goal is to help students be proficient writers. AT theory can help us understand and explain the difficulties that arise with externally imposed factors and highlight the approaches that are effective in dealing with those challenges. The premise that the classroom is a dynamic system is inherent in educational reform and policy. Teachers constantly change their teaching based on their subjects, skills and abilities, the peers they work with, the new technology or curriculum that becomes available, and the different assessments and expectations that come from the top down.

Middle School Writing, Gender and Socioeconomic Status

The first research question was designed to determine if the scores of Montana middle grades students differ on the Smarter Balance Assessment Standardized Writing test. This question was answered by comparing SBAC standardized writing scores for grades 6, 7 and 8 by socioeconomic status (i.e. high vs. low) and gender. The patterns in Montana were consistent with national trends in both SES and gender. This data also led to the purposeful selection of a school that achieved outcomes that broke the patterns.
Gender

Research and National test scores indicate an achievement gap in writing between males and females (NAEP, 2012; Scheiber et al., 2015; Malecki and Jewel, 2003). The student data from the state of Montana aligned with this trend, with males performing significantly lower in all three grade levels. The literature offers various theories for the discrepancy between male and female writing scores. One researcher argued that this gap is due to boys not enjoying the type of literacy tasks permitted in school (Newkirk, 2002). Another study discovered that pre-adolescent boys, median age ten years and 11 months, preferred gameplay as a form of communication, while girls preferred writing and speaking (Calvert, 2009). Another study suggested that girls enjoy reading and writing more than boys do, in part because boys view these activities as passive (Gleason & Ely, 2002). In fact, throughout middle school, girls report stronger self-efficacy in their writing abilities than boys, which may also explain some of the achievement outcomes (Pajares, 2003).

Interestingly, the qualitative findings were slim on the aspect of gender. This was not a contextual focus for the school. Not one participant broached gender as an issue during interviews, however during follow-up conversations none were surprised when shown the relevant gender achievement gap data. Additionally, the ratio of male to female in each co-taught class was disproportionate, a consistency across grade levels. This could indicate more males participating in the Special Education Program. On one day of observation, the 6th grade co-taught class had a boy to girl ratio of 14 to 6, the 7th grade was also 14 to 6, and the 8th grade class was 15 to 6. In contrast, an observation of
a single teacher class had a 10 to 13 ratio. Also, though Riverdale was successful in raising the level of their students overall in regards to SES, their school has an achievement gap between males and females as is the trend both nationwide, and in the state of Montana.

**Socioeconomic Status**

As noted in the literature (e.g., Gamoran 2014, Pell Institute 2011), students of low-socioeconomic status have historically performed lower on writing assessments. This is an achievement gap that persists today. The middle-grade students in the State of Montana were overall not an exception. Being at a disadvantage in the area of writing puts students at a disadvantage for higher education and the workplace. A lack of education can become an issue of providing agency to a generalizable group of people who may be disenfranchised. Researchers argue that the unequal distribution of literacy excludes people from access to knowledge, as well as having a voice in a society with an ever-widening rich/poor gap (Warshauer et al., 2015). Furthermore, "to close opportunity gaps, educators will have to solve these larger social problems." (Warshauer et al. 2015, p. 1390). Recognizing the trend exists in rural Montana is an important step in finding solutions to the problem. Further, the identification of systems that do not fit the trend produces valuable models. As teachers cannot control a student’s SES, systems must be modeled within their context, taking into account outside variables out of teacher control. A focus on what classroom teachers CAN do to help their students achieve in spite of their circumstances has tremendous value.
Recommendations for Professional Practice Based on Systemic Factors that Contribute to Writing Proficiency

The crux of this research was to explore possible reasons why Riverdale has outperformed schools with similar SES demographics in writing proficiency. In answering the research questions: What are the school-wide systemic factors that may contribute to writing proficiency for middle grades students who struggle?, and, How specifically do tools, roles, and rules shape middle grades writing instruction?, the Riverdale staff helped provide a successful model of instruction. The teachers’ and administrators’ awareness of the needs of the school community, along with their commitment to enact policy, helped create a contextually responsive system that provided an exemplar of successful writing instruction for practical implementation in schools and classrooms.

Systemic Context

Understanding any system, whether on the individual, classroom, school, or district level requires contextual knowledge. This is an idea that pervades all aspects of education. As education becomes increasingly standardized,, and online classrooms more prevalent, we need to be hyper aware of the effects of context. At Riverdale, the surrounding community and the children attending the school live with primarily low socioeconomic status. This is evidenced by the median income being substantially lower than the state, as well as the number of students receiving FRPL. This is a contextual factor that ideally will be addressed on a societal level, but in the meantime teachers must
address at the classroom level. Riverdale exemplifies a system that has recognized and responded to the challenges of students of low SES.

In addition, standards have changed and teachers are expected to help students achieve to more rigorous levels of proficiency. The shift to the CCSS with its emphasis on increased writing has caused teachers to adjust their practices in the ELA classroom. There is limited research on the role of standards in standards-based reform, but what does exist indicates that teachers change their instruction based on standards (Hayes & Olinghouse, 2015). Reading has had a more prominent role in the past, and most teacher certification programs prepare candidates to teach reading. The role of writing is more prevalent in the new standards, leading teachers to focus on writing instruction (Graham, Harris, & Santangelo, 2015). Being contextually responsive means identifying and understanding the needs of the students while being accountable for policy expectations. Combining strong relationships and strong practice helped the school create a contextually responsive dynamic system. Their classroom strategies included best practice writing instruction and a standards–based focus combined with a strong community that may be the bridge to achievement for their population. The findings from this study generated several recommendations for K-12 administrators and teachers in their effort to support middle school writing proficiency.

**Recommendations for Administrative Practice**

Administrators are key in developing a positive school community. Shields and Sayani (2005) described an effective principal as one who creates a school environment of belonging, where teachers and students are respected and valued, and have confidence
that the school is a safe space within which to teach and learn. This facilitation at Riverdale included positive practices in the areas of building community, choosing tools, defining roles, and adopting rules.

**Building Community** It is the role of the administrator to set, understand, and support school and district mandates. When that can be done with a system that supports teachers with training, while also encouraging them to take risks without fear of failure, a positive educational community is created. In a nationwide teacher survey completed by Troia & Graham (2016), most respondents felt they had adequate administrative support, but lacked professional development. Creating positive relationships means providing guidance and support for teachers. Riverdale administrators provided teacher support. The principal stated this philosophy clearly,

> Just like we want our kids to persevere, we want our teachers to persevere. So you have to challenge them. But at the same point you also have to know it's going to take time and not to expect perfection. When a teacher's trying, for example, a new teacher's trying CEALs and LAPS and it fails, okay, that's good. It's not a bad thing. 'What are you going do to fix it next time?' Failing forward is something that teachers really have to learn. It's okay to fail as long as you're failing forward. And I think that understanding of, 'It's okay to make mistakes. It's okay for it to be messy'—is super important in everything you do. If we don't allow it to be messy, then no one takes risks and we don't grow.

**Choosing Tools** Tools used by teachers can come in many forms, such as educational concepts, curriculum, methodology, and tangible mediating artifacts. Knowledge and access to a variety of tools is necessary. This was achieved at Riverdale through the support of strong professional development. In addition, using tools to foster student motivation was prevalent at Riverdale
Professional development and reflecting with colleagues helps teachers to regard themselves as lifelong learners and improve their practice (Darling-Hammond, Hyler, & Gardner, 2017). Research indicates teachers have not received enough pre-service training in writing instruction (Hayes & Olinghouse, 2017). One aspect of the research in the area of process writing in particular, which is essentially the Lucy Calkins method referenced by the staff, was that professional development was a major factor in the success of the process writing approach (Graham and Perin, 2007c). Findings from that study revealed a moderate effect (0.46) with proper training, but only a negligible effect without training. Riverdale school belongs to a co-op that provides professional development, as explained by the 7-8th grade special education teacher,

I went to the Co-op—there was a Step Up to Writing training. And then when we adopted Lucy Calkins and Step Up to Writing kind of as the district’s curriculum, for writing, we also could go to those trainings, which were put on by the Northwest Co-op, too.

According to the co-op website it is a partnership of over 40 schools that exist in 24 separate school districts. This enables smaller schools/districts to bring in better professional development. Outside of these opportunities, the administration supported national trainings as well. When the 7-8 Special Education teacher wanted to help facilitate co-teaching in the building she and her partner were sent to a nationwide co-teaching conference. Administration advocated for professional development in a growth environment, which is a recommendation for other schools.

Interestingly, the teachers at Riverdale did not see themselves as expert teachers or writers; most mentioned having room to grow. They also stated their growth sometimes came with the help of colleagues. Administration at Riverdale provided time
for collaboration, for example in the case of the new 6th grade teacher with the veteran 8th grade ELA teacher. The 6th grade teacher described the interaction,

I did collaborate. I mean I spent a day with the gal who—we had a big shift at the beginning of the year because of our numbers this year, so I spent a day with the gal who's doing seventh and eighth ELA this year. I spent a day with her and really got to pick her brain and that helped me a lot. And then just picking her brain throughout the year too, ‘What do you think about this? What do you think about that?’

Providing time for a mentor teacher to work with new staff helped facilitate a learning environment. This is a practice suggested for professional development by the Learning Policy Institute (Darling-Hammond et al., 2017). This is the philosophy of Riverdale’s principal:

My role is to get teachers the resources they need and to get them out to see what others are doing. It's easy to teach in isolation, and so I think teachers have to get out whether it's seeing people in our building or outside our building. And the big thing is I'm not the writing expert in eighth grade. I didn't teach eighth grade. And not to pretend that I am but let them know, ‘This is what I see you doing through walk-throughs, and these are some suggestions or this looks like an area of concern for me. How can I support you? Let's get you to some seminars. Let's get you to some classes. Let's get you hooked up with this person or that person.’ And trying to mentor them so that they've got somebody who has been in the trenches because it's been a long time since I've been in the trenches. It's been 15 years since I've been in the trenches. I'm by no means the writing expert. I was a great teacher when I taught, but times have changed in 15 years. To be honest, I can't be the expert. I have to be the resource of ‘How do I get them connected to those resources that I know are out there?’

An administrative understanding of teachers as lifelong learners who are continually developing based on changes in policy, pedagogy, and technology provides a framework for collaboration and learning.
Another tool is fostering student motivation. Riverdale administration helped to foster student motivation in two main ways. The first was instilling a belief in success and recognizing achievement. The second was providing extrinsic rewards.

At Riverdale, school wide, there was positive reinforcement for student success whether in the form of field trips, individual praise between staff and students, or bulletin boards celebrating improvement. When grant money no longer provided funds for 8th graders to travel to the high school and college, money was found in other areas. The plaques and boards outside of the main office have their genesis with the school administration and it is the first image the students see when they walk in the doors on a daily basis. Observations revealed the principal greeting every student she saw by name and indirectly inquiring about an aspect of their life where they found success. The school environment stems from the main office.

Extrinsic rewards were rampant. These rewards were achievable by all students, as they were not in the form of performance-based competition. Students received incentives for personal growth and attendance. During high stakes testing periods students would receive tickets for drawings for larger prizes if they were observed to be working hard. Many argue that extrinsic rewards are not effective, but the principal of Riverdale would attest to them, as one of the battles was student attendance. Extrinsic rewards were also used to entice the parents. The principal explained,

One of the things we’ve done is at conferences; you could put your name in for drawings if you show up. And "We draw for prizes and things." I mean anything to get them there. I mean it's crazy, but—it works. It does. It does if parents know. I really feel like, you know, when you bring that community piece in it helps.
Modeling and supporting activities where students could see and experience success, celebrating student achievement, and providing incentives, were all techniques administrators used to help students achieve at Riverdale.

**Defining Roles** The support of co-teaching as a school wide practice was a distinguishable element of Riverdale’s activity system. As Marzano, Pickering, & Pollock (2001, p.3) quote researcher William Sanders, “The most important factor affecting student learning is the teacher.” The role of the teacher is paramount in this system. Having administrative support and guidance helps teachers accomplish what they need to do (Isherwood et al., 2011; Guzman, 1997). Being able to put two certified teachers into a classroom can increase the efficiency of the staff. In fact, the preferred model of inclusive education across the United States is the co-teaching model (Zigmond, 2009). The factor every teacher lamented was a lack of time for planning. Creatively scheduling, and paying attention to planning time is a crucial element of successful co-teaching that an administrator can support.

**Adopting Rules** One of the norms at Riverdale was standards-based grading. Motivational research supports a standards-based grading approach. Mastery goal structure has a positive influence on students’ intrinsic motivation and task engagement, while performance structure has a negative relationship (Meece, 2003). Taking a whole school approach and supporting standards based assessment and reporting brings a focus to instruction, as was pointed out by one participant,
Standards based grading has forced us to pick what are those cornerstone standards, because I mean in ELA, it’s pretty overwhelming how many standards there are, And so you really have to pick and choose what’s our real target what’s carrying the most weight. I really like Standards Based Grading. It’s targeting the communication that you want to go to the student and to the parent. This is the skill, this is where the rubber meets the road, either they’ve got it or they don’t. It’s a lot less subjective. It lends itself to more meaningful feedback because you’re talking about the skill.

The targeted communication and feedback helps teachers focus on instruction and improves individual student achievement. Being willing to take a risk and institute change was inherent in this shift at Riverdale. The principal stated,

When we went to standards-based grading this year, I sat with the board when we went full without anything else, and I said, "We're going to fail forward, and it's okay. You're going to get calls, we're going to get angry parents—and it's okay, but the reality is we're moving forward, and here's why we need to do it.

In one study conducted by the Education Trust (Santelises & Debrowski, 2015), whose focus is on equity in education for minority and low-income students, researchers discovered through assignment analysis at the middle school level that the rigor and intent of the CCSS were not being met in writing. Making sure ELA standards are being utilized in all classrooms with aligned assignments and assessments can help students be successful writers. Administrators who support and utilize this methodology can possibly improve writing outcomes.

**Recommendations for Teacher Practice**

It is the educators who come in contact with the students on a daily basis and who must implement policy and sound instruction within the context of the classroom.

Teacher practices at Riverdale can also guide other schools with similar demographics.
Practices that might help student writing achievement are: building community, implementing researched based tools for practice and fostering student motivation, and implementing the rules of standards based teaching.

Building Community The teachers at Riverdale were intentional in building professional relationships with each other, and their students. The crosscutting theme throughout the Riverdale system was the relationships and rapport between all of the community members. Teachers navigated the tensions that arrived in this system causing changes in tools, rules, and roles with an underlying system of care and support. The consistent statement made by every interview participant was regarding the positive community built at the school. Certainly, a sound background knowledge of literacy and pedagogy was a crucial component, but the common thread in each interview was the engagement and motivation of both students and teachers based on the premise that, as one teacher stated, "We have a very familial group and we care about each other. And so we'll do whatever it takes to help each other." Research can provide best practices in education but the key component has been, and always will be the human element: the teacher. It is not that a positive student/teacher relationship can take the place of solid writing instruction or supersede sound teaching; it is that these factors that have to do with the human element of education rise to the top when you visit Riverdale School.

Human beings are social creatures. The study of education through a socio-cultural lens helps illustrate that learning does not exist in isolation, particularly at the adolescent level. Each participant in the study recognized and fostered relationships as a means of learning. Again, and again, when asked what set their school apart, the
resounding answer was “relationships”. It was not instructional strategies, though they knew best practices; it was not one expensive program, though they utilized a new textbook. It was the relationship and support in and amongst the staff, and the relationships and support that extended to the students and the community. Students of low SES can face a variety of challenges, and adolescents thrive under social conditions in most cases. It is possible that the underlying reason for Riverdale’s success was the strong community.

**Implementing Tools** As noted, tools employed by teachers come in multiple forms. The Riverdale ELA staff utilized informed practices in their instruction. In addition, they used motivational strategies to help their students achieve proficient writing.

Riverdale teachers displayed knowledge of sound instructional strategies. Cognitive strategies for writing instruction were present in observed lessons and discussed in participant conversations. Multiple meta-analyses have suggested particular strategies and interventions that can positively affect students writing performance (e.g. Graham and Perin, 2007a, b, c, Graham, Harris, and Santangelo, 2015). Some of these strategies were directly observed or referenced in the Riverdale case study. One of those was Strategy Instruction, which specifically calls for teachers to teach strategies for planning, revising and editing, and to teach strategies and procedures for summarizing. One entire observed lesson in 6th grade was devoted to this type of instruction, particularly in reference to summarizing. Goal Setting was also suggested and used by the teachers. In an 8th grade observation in the co-taught class one teacher circulated the
room helping students who were independently working, while the other sat down with each student independently. During the one-on-one conferences she shared the students’ STAR scores, discussed their portfolio, and set reading and writing goals for the next quarter. Prewriting also had a large effect size and the teachers specific use of graphic organizers support their adherence to this positive strategy. Word processing as the primary tool for writing and revising was a part of the Riverdale philosophy as well, with each student having access to an individual Chrome book. The use of scaffolding in the form of graphic organizers is a well-researched and supported best practice in writing instruction (Graham and Perin, 2007). This adaptation is one of the practices that can help struggling writers (Graham et al, 2003). Utilizing a mix of best practices and working to understand that there is no one program that will fit the needs of all students is imperative and should be emulated in other schools working to improve proficiency.

Teachers at Riverdale utilized a variety of tools to achieve their goals in the classroom. Being able to navigate the use of appropriate tools and strategies available to teachers is a tall and time-consuming task. In reference to one program utilized by Riverdale teachers, Lucy Calkins, one researcher found that, "the scripted curriculum constrained writing but that the experienced teacher found ways to create spaces for the official curriculum, teaching practices, and children's writing to coexist" (Yoon, 2013 p. 148). This study was not in the middle school, but it illustrates how an experienced teacher can blend resources to fit the needs of students. These instructional strategies extend into strong motivation for student success.
Motivational techniques are a tool that crosses between community and mediating artifacts. Relating curriculum to students and engaging them is an important tool that can only be used with the background knowledge of the students in the community (Mensah & Atta, 2015). The findings from this study are aligned with previous research (e.g., Hayes & Olinghouse 2017) and suggest that teachers should focus on building a classroom that creates a community of writers through the use of student choice and writing for authentic audiences. Motivators used in practice and supported by the literature included engaging lessons, positive teacher disposition, personal connections with the learning experience, and varying instruction (Mensah & Atta, 2015). Learning about students’ interests and planning engaging lessons not only is associated with greater engagement, but also higher levels of mastery (Eccles & Roeser, 2011). Designing academic tasks to be motivating is therefore crucial for teachers. One way Riverdale teaches accomplished this task was through choice and relevancy. The Education Trust study, using assignment analysis, discovered that only 10 percent of assignments contained some choice or relevancy to students (Santelises & Debrowski, 2015). In Riverdale specific examples of choice and relevancy were found in the 6th, 7th, and 8th grade ELA classrooms. Similarly, the past year’s 6th grade teacher provided both motivation, choice, and relevancy in her example of a Rock and Roll study in writing. When she started the unit by dressing up and singing “We’re not Gonna Take it!” by Twisted Sister, the kids were hooked.

**Implementing Rules** The practice of standards based instruction was a focus at Riverdale. Standards-based teaching has a goal of mastery. Mastery goals are effective,
particularly for middle school students (Meece, 2006, p.490). They lead to fewer avoidance strategies (Meece, 2006, p.495) which mean less teacher time spent on classroom management, and more time invested in instruction. It is a type of growth model as described by the 8th grade teacher:

It's more authentic for the kids to be able to self-assess and to see what they need to do to be successful. And there's always that mindset of; you can redo it. Nothing is finite. It's like, we want that to be a growth model and we want you to show improvement. And if you want to come back and relearn and redo, it's like, it's writing. It sort of never ends.

The evidence from this study suggests that if teachers know and understand the rules, i.e. the standards, and provide opportunities for student mastery, they will help students achieve. Utilizing appropriate rubrics and mentor texts or assignments helps students see the goals of a standards based system. The 8th grade teacher continued,

It’s easy to make it rubric focused, where the kids know ahead of time here’s the expectation, have a mentor sample of what you want them to be able to do. I feel like kids are more motivated by it, because it's a continuum. It’s not like you have an “A”, or you have a B, and it’s stamped like a brand on you, instead it’s like you’re here, come see me let’s work to get here. It’s this open door.

A mastery approach provides maximum learning. Utilizing standards to pinpoint skills can help both teachers and students achieve positive writing outcomes.

Teaching to the test has received a negative connotation, but the strategy at Riverdale seemed to be about taking the format of the performance tasks with the tenets of good writing instruction, and creating a context where students faced authentic and engaging writing tasks. Each observed lesson consisted of students searching through text and using those pieces of text in writing. Depending on the student, these exercises were supported through co-teaching, or structured scaffolding in writing. This is the format of
the Performance Tasks on the SBAC test. While using the format, teachers provided scaffolded instruction in the form of graphic organizers, and access to individual help. In addition, the performance tasks the teachers either chose or created provided choice, authenticity, and were consistently on engaging topics.

**Recommendations for Future Research**

It is an exciting time for writing research and the current study brought forth multiple areas where further research is needed. First, this study could be extended in a few ways. Next, teacher education in both writing instruction and instructing specific student demographics is an area in need of study. Finally, research in digital literacy is needed.

Representing the students in the classroom could extend this research. It could be assumed the students at Riverdale feel positive and successful, yet we cannot know for sure if that is the case. Longitudinal studies using the same assessments would help determine if the school continues to perform well and whether teacher practice is, in fact, the cause. In that same vein, conducting a multi-case study of schools with success in fostering student proficiency could help identify common factors.

As the context of education shifts, professional development and training needs to follow suit. Researchers could examine the best teacher preparedness, and education and development, in writing instruction. Based on the research, further study is needed on the tie between professional development and student achievement (Warshauer et al., 2015). If teacher practice is connected to success in a low-income school, further research could
identify what professional development teachers need in low-income areas that might be different than communities with a prevalence of high economic status.

Further AT studies could help define how teachers navigate the tensions of digital literacies and define writing, or communication, with new modalities. As Warshauer et al. (2015, p1414) stated, "…widespread digital access is a cornucopia of new writing practices and changing cultures which challenge the notion of school as the primary site where people engage in making texts." The advent of online learning will change the activity system and could impact the relationship between teacher and student, and therefore the motivation of adolescents at a crucial age.

Indeed, each thematic area of this study deserves attention. It is what makes the study of teaching practice complex; the multiple variables that affect education, just like writing instruction, is a multi-faceted and complex component of the educational world. Therefore it is important for all of us in our research to keep in mind the human element behind the numbers and the pedagogy.

**Summary**

In a dynamic system, none of the elements exist in isolation. The positive relationships and school community enhance the tools being used within the writing instruction, "…if writing assignments are boring or confusing, or the classroom is viewed as a punitive or unfriendly place, students are less likely to engage fully in learning how to write" (Graham, Harris, & Santangelo, 2015, p. 501). The literature lacks sufficient research on the combination of pedagogy and relationships, while using sound strategies
that improve writing. A teacher can learn the SRSD strategy, or follow process writing to the letter, but it does not mean that their students will find success. It seems if we take Riverdale as an example, that isolating and defining methodology as the one way or the right way, is the wrong way. When the teachers at Riverdale look at a student they understand that there is an instructional technique that will work, but the binding force is the understanding of the student as a person within the system. Therefore, the subject and the knowledge the teacher holds about the subject is crucial, but the belief in the individual student and their success is paramount. One participant described this relationship:

I think they know it's important, but they know that we're there for them, and we're gonna cheer them on, and we'll help them no matter what and just holding that high expectation for them that, yeah, this is where you were, or this is where you came from, and—maybe this is what's being said about school at home, but here's where I think you can be and just holding them to that.

Studies show that high expectations lead to high achievement (Eccles & Roeser, 2011). The teachers instilled a belief in their students by showing them success and expecting them to achieve it, therefore working towards a positive self-efficacy. As the principal of Riverdale said, “And so we talk a lot about how do you break that stigmatism? What do you have to do? You have to show ‘em what you know. You have to step up and be the person you know you can be.” In this year, they did.
REFERENCES CITED


Behrend, Monica B., (2014). Engeström 's activity theory as a tool to analyse online resources embedding academic literacies. *Journal of Academic Language and Learning. 8*(1), 109-120.


APPENDICES
APPENDIX A

INFORMED CONSENT
Informed Consent Form

Purpose of the Study

This study intends to explore the systemic factors and mechanisms contributing to the success of middle grade writing instruction at one school using activity systems theory. The data collected in this study will be used to provide a rich description of a model system to help identify practical solutions to improving writing instruction in other, similar systems.

Subject’s Understanding

• I agree to participate in this study that I understand will be submitted in partial fulfillment of the requirements for the degree of Doctor of Education at Montana State University.
• I understand that my participation is voluntary.
• I understand that all data collected will be limited to this use or other research related usage as authorized by Montana State University.
• I understand that my participation will consist of one approximately 20 minute recorded interview, one approximately 1-hour classroom observation, and one follow-up e-mail.
• I am aware that all records will be kept confidential in the secure possession of the researcher, and I will not be identified by name in the final product.
• I acknowledge that the contact information of the researcher and her advisor have been made available to me along with a duplicate copy of this consent form.
• I understand that the data I will provide are not be used to evaluate my performance as a teacher in any way.
• I understand that I may withdraw from the study at any time with no adverse repercussions.

Subject’s Full Name: ________________________________
Subject’s Signature: ________________________________ Date: _____________

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Advisor
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APPENDIX B

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APPENDIX C

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APPENDIX D

INTERVIEW PROTOCOL
Thank you for participating in this semi-formal interview. Your input will be helpful in providing a picture of how Evergreen staff approaches writing instruction. Although I will ask you specific questions, please feel free to add any information you feel provides a contextual picture of your school and your teaching. This information will be used in my dissertation study. I have taught middle school for the last 15 years, and hope that our conversation is enjoyable for us both!

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<tr>
<th>Research Questions</th>
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<td>What are the school-wide systemic factors that may contribute to writing proficiency for middle grades students who struggle?</td>
<td>1. What do you believe are some contextual and or social factors that might be important in to students’ learning and motivation?</td>
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<td></td>
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<td></td>
<td>9. Are there specific evidence based practices in instruction or assessment that you use?</td>
</tr>
<tr>
<td></td>
<td>10. Describe a success story you have had helping a student achieve writing proficiency.</td>
</tr>
<tr>
<td></td>
<td>11. What do you think it means to be a good writing teacher?</td>
</tr>
<tr>
<td></td>
<td>12. Is there any thing else you would like to add?</td>
</tr>
</tbody>
</table>
APPENDIX E

TEACHING DIMENSIONS OBSERVATION PROTOCOL (TDOP)
**Teaching Methods** Teacher-focused instruction (teacher is the primary actor)

**L Lecturing:** The instructor is talking to the students and not using visuals, demonstration equipment, actively writing, or asking more than 2 questions in a row in a Socratic manner.

**LW Lecturing while writing:** The instructor is talking to the students while actively writing on a chalkboard, transparencies, digital tablet, or other material. The instructor must either be writing or referring to what they are writing (or have already written)

**LVIS Lecturing from pre-made visuals:** The instructor is talking to the students while referencing visual aides, such as slides, transparencies, posters, or models

**LDEM Lecturing with demonstration of phenomena:** The instructor actively uses equipment (e.g., lab equipment, computer simulation) to convey course content.

**SOC-L Socratic lecture:** The instructor is talking to the students while asking multiple, successive questions to which the students are responding. Student responses are either guiding or being integrated within the discussion. A minimum of 2 relevant student responses is required to use this code.

**WP Working out problems:** This code refers to the instructor working out computations or problems. These can include balancing a chemical equation, working out a mathematical proof, or designing equations or Punnett squares, etc.

**IND Individualized instruction:** The instructor provides instruction to individuals or groups and not the entire class. Use this code only when students are engaged in SGW or DW and the instructor is directly interacting with one or more students.

**MM Multimedia:** The instructor plays a video or movie (e.g., YouTube or documentary) without speaking while the students watch. If the instructor is talking over a video, movie, or simulation, then co-code with LVIS.

**A Assessment:** The instructor is explicitly gathering student learning data in class (e.g., tests, quizzes, or clickers).

**AT Administrative task:** The instructor is discussing exams, homework, or other non-content related topics.

**Student-focused instruction (students are the primary actor)**

**SGW Small group work/discussion:** Students form into groups of 2+ for the purposes of discussion and/or to complete a task.

**DW Deskwork:** Students complete work alone at their desk/chair.

**SP Student presentation:**

**Student-Teacher Dialogue**

**Teacher-led dialogue**

**IRQ Instructor rhetorical question:** The instructor asks a question without seeking an answer and without giving students an opportunity to answer the question.

**IDQ Instructor display question:** The instructor poses a question seeking information. These questions can: seek a specific fact, a solution to a closed-ended problem, or involve students generating their own ideas rather than finding a specific solution.

**ICQ Instructor comprehension question:** The instructor checks for understanding (e.g., “Does that make sense?”) and pauses for
at least five seconds, thereby indicating an opportunity for students to respond.

**Student-led dialogue**

**SQ Student question:** A student poses a question to the instructor that seeks new information (i.e. not asking to clarify a concept that was previously being discussed) and/or clarification of a concept that is part of the current or past class period.

**SR Student response to teacher question:** A student responds to a question posed by the instructor, whether posed verbally by the instructor or through digital means (e.g., clicker, website).

**PI Peer interactions:** Students speaking to one another (often during SGW, WCD, or SP).

**Instructional Technology**

**CB Chalkboard/whiteboard/Smart Board**

**OP Overhead projector/transparencies**

**PP PowerPoint or other digital slides**

**CL Clicker response systems**

**D Demonstration equipment:** These could include chemistry demonstrations of reactions, physics demonstrations of motion.

**DT Digital tablet:** This refers to any technology where the instructor can actively write on a document or graphic that is being projected onto a screen. This includes document cameras as well as software on a laptop that allows for writing on PDF files.

**M Movie, documentary, video clips, or YouTube video**

**SI Simulation:** Simulations can be digital applets or web-based applications.

**WEB Website:** Includes instructor interaction with course website or other online resource (besides YouTube videos).

**Pedagogical Strategies**

**HUM Humor:** The instructor tells jokes or humorous anecdotes; this code requires laughter from at least a couple of students.

**ANEX Anecdote/example:** The instructor gives examples (either verbally through illustrative stories or graphically through movies or pictures) that clearly and explicitly link course material to (a) popular culture, the news, and other common student experiences, or (b) widely recognized cases or incidents that illustrate the abstract (both types are co-coded with CNL).

**ORG Organization:** The instructor writes or posts an outline of class (i.e., advance organizer) or clearly indicates a transition from one topic to the next verbally or through transitional slides. This transition from one topic to another can indicate a change in topics within a single class or from a previous class to the present class. These transitions must be verbally explicit statements to the class (e.g., “Now we’re moving from meiosis to mitosis”) as opposed to ambiguous statements such as “Now we’ll pick up where we left off on Monday.” This may also include statements concerning how concepts covered in different portions of the class (e.g., lecture, homework and lab) may overlap.

**EMP Emphasis:** The instructor clearly states that something is important for students to learn or remember either for a test, for their future careers, or to just learn the material well

**Optional Dimensions**

**Potential Student Cognitive Engagement**

**CNL Making connections to own lives/specific cases:** Students are given examples (either verbally through illustrative stories or graphically through movies or pictures) that clearly and explicitly link course material to popular culture, the news, and other common student experiences. Students may also be given
specific cases or incidents in order to link an abstract principle or topic (e.g., flooding) with a more readily identifiable instance (e.g., 2013 floods in Boulder, Colorado). For this code to be used, the observer will need to make a judgment that the specific case is something meaningful to students, such as a local historic item or location, or a widely recognized incident. In general, a high bar is required here that is based on specificity and salience to students, such that showing a picture of a sedimentary rock will not be sufficient for this code, but if the picture was of the Grant Canyon and named as such, it would be coded as CNL.

**PS Problem solving:** Students are asked to actively solve a problem (e.g., balance a chemical equation, work out a mathematical equation/algorithm). This is evident through explicit verbal (e.g., “Please solve for X”) or written requests (e.g., worksheets) to solve a problem. This is coded in relation to closed-ended exercises or problems where the instructor has a specific solution or end-point clearly in mind.

**CR Creating:** Students are provided with tasks or dilemmas where the outcome is open-ended rather than fixed (e.g., students are asked to generate their own ideas and/or products rather than finding a specific solution). The task can be delivered verbally or in written form. This is coded in relation to open-ended exercises or problems where the instructor does not have a specific solution or end-point clearly in mind.

**Student Engagement**

**VHI Very High:** More than 75% of the students in the immediate area of the observer are either (a) actively taking notes, or (b) looking at the instructor/course materials

**HI High:** Between 50% and 75% of the students in the immediate area of the observer are either (a) actively taking notes, or (b) looking at the instructor

**MED Medium:** Between 25% and 50% of the students in the immediate area of the observer are either (a) actively taking notes, or (b) looking at the instructor

**LO Low:** Less than 25% of the students in the immediate area of the observer are either (a) actively taking notes, or (b) looking at the instructor
APPENDIX F

DOCUMENT SUMMARY FORM
Document Summary Form
(Adapted from Miles and Hubermann, 1994)

**Document Form**

Site: __________________

Document #: ____________

Date received: ___________

Name or description of document:

Event or contact with which the document is associated:

Significance of document:

Brief Summary of Contents:

If document is central or crucial to a particular contact make a copy and place with write-up.
APPENDIX G

PHOTO SUMMARY FORM
Photo Analysis

(Adapted from Document Summary by
Miles and Hubermann, 1994)

Site: ________________

Photo #: __________

Date taken: __________

Location taken:

Significance:

Codes: