A LONGITUDINAL STUDY OF PEER REVIEW IN HIGH SCHOOL

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This dissertation analyzes longitudinal changes in high school students' academic writing and peer feedback comments across four years. I analyzed the academic writing of 21 students and the peer feedback of 74 students at two time-points to document changes from 9th to 12th grade. My analysis of student writing focused on changes in the following features of academic writing: responding to a prompt, using evidence, stating ideas, organizing writing, and using academic grammar and language. My analysis of peer feedback comments focused on changes in features of effective feedback such as specificity, explanation, suggestion and a focus on content, not just form. The results of this study indicate that in a high school where peer review was used frequently and little writing instruction took place, students improved as academic writers over time, particularly in the areas of responding to the writing prompt and providing explanations of evidence. Teacher-created writing prompts and rubrics influenced these changes and students' understanding of academic writing. Students also improved in their ability to provide effective feedback and to provide detailed assessments and suggestions about content and ideas, important characteristics of helpful feedback identified by previous research. Teacher-provided prompts influenced the content and quality of students' feedback comments. Prompts that asked students to comment on quantity, such as the amount of evidence used, resulted in lower quality

comments than prompts that asked students to comment on quality. Additionally, the analysis of feedback comments documented students' development of metacognitive awareness around academic writing, specifically showing that students moved from thinking about writing as meeting minimum quantity requirements towards understanding the importance of quality over quantity in writing. Additionally, there was a correlation between the type of feedback comments students provided in 12th grade and the quality of the reviewer's writing, suggesting that stronger writers more frequently provided effective feedback comments to their peers.

Implications of the study include the need for teachers to provide more writing instruction that helps students fully explain ideas and evidence. Additionally, students need many opportunities to provide and discuss feedback to become proficient at providing helpful feedback to their peers.

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PREFACE

Writing a dissertation always seemed like an isolating activity – one where I would lock myself in a room for hours with my laptop (and attempt not to watch Netflix) while I analyzed and wrote about my data. What I found is that dissertation writing takes a supportive community and I would like to take this opportunity to thank mine.

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1.0 CHAPTER I: INTRODUCTION

1.1 PROBLEM STATEMENT

Recent movements and standards have increased expectations for students to write across the curriculum (Bazerman et al., 2005). The goal of increasing expectations around student writing is to have students be more prepared for the writing professors and management will expect them to do in college and the workplace (National Commission on Writing, 2003). In previous years, both national reports and assessments have documented poor performance in writing for high school and college students (Graham & Perin, 2007a; National Commission on Writing, 2003). However, college students report not seeing the connection between the writing their high school teachers asked them to do and the writing expected of them when they entered college (Enders, 2001). The latest National Assessment of Educational Progress (NAEP) results revealed that only 24% of students in grades 8 and 12 performed at a proficient or advanced level in writing (NCES, 2012). This suggests that although many students are able to produce basic writing, writing that shows that students have a general grasp of how to write in response to a task, a majority of students are not proficient at producing writing that includes a well-developed main idea supported by evidence. This also supports the assertions of college professors and workplace professionals who state that high school graduates are not prepared for the types of

writing they are expected to do in when they enter college and the workforce (National Commission on Writing).

A significant reason for students' weak writing performance is that students in middle school and high school receive few opportunities to work on substantial writing (writing of a page or more) across content areas (Applebee & Langer, 2013) using cognitively demanding tasks that ask students to write as a means to extend their understanding of content. Providing students with frequent opportunities to produce writing that asks them to do things such as analyze texts and make claims will move students away from writing that is considered low-level or basic, toward writing in which students begin to transform their knowledge (Graham & Perin, 2007b). Even though research has found a correlation between the number of papers that teachers ask students to write in high school and their preparedness for college writing (Enders, 2001), Kiuhara, Graham, and Hawken (2009) found that only 47% of teachers reported assigning students writing activities that asked them to compose a paragraph or more, such as writing a five-paragraph essay, once or twice a year. Research has also found that many teachers lack the skills or desire necessary to teach literacy skills students need outside of a secondary curriculum (Chandler-Olcott & Lewis, 2010) or that writing instruction is singularly focused on testable genres (Scherff & Piazza, 2005).

The lack of extended writing opportunities prevents students from developing an understanding of the types of writing they will be expected to do in college and in the workplace. One reason teachers do not assign extended writing more frequently is a lack of time to read and provide feedback on student writing assignments, specifically those that ask students to produce a page or more of writing (Applebee & Langer; Kiuhara, Graham, & Hawken).

Assignments that include peer review tasks offer educators a solution to the problem of not having enough time to read and provide feedback on extended writing tasks. With peer review, teachers ask students to read and provide feedback comments on peers' writing, significantly reducing the amount of time teachers have to spend reading and providing feedback to their students. Teachers who frequently utilize peer review are able to assign more extended writing to their students without increasing the amount of time they spend reviewing student work.

Peer review rose to popularity as part of a process approach to writing instruction in the 1980s through the use of writing groups (Ching, 2007; Gere, 1987). Writing groups got their start in the early 20th century as clubs or organizations both in and outside of the academy in which writers voluntarily shared and discussed their writing and provided feedback to other members (Gere). Instructors began to incorporate writing groups and peer response into K-12 English language arts (ELA) and college composition classrooms due to the influence of authors such as Murray (1968), Elbow (1973), Calkins (1986), and Atwell (1987). In classrooms with writing groups, teachers viewed them as opportunities for collaborative learning experiences in which students learned about writing as they shared feedback with each other (Ching, 2007).

When used in ELA, science, and social studies classes, research has shown peer review to have positive effects on students' writing. Research that has examined the effect of peer review on revisions made by students in various content courses has found that when students receive comments from several peers, the quality of student writing is higher after revision than if students only received feedback from a teacher or instructor (Brakel, 1990; Cho & MacArthur, 2010). Researchers found that students were not just editing their work, a skill that students are frequently taught to perform as part of revision, but making significant content changes based on

the suggestions of multiple peers (Cho & MacArthur; Early & Saidy, 2014). The revisions that students made resulted in writing that was more clear and coherent than the initial drafts.

1.2 REVIEW OF THE LITERATURE

The literature that frames my investigation of the changes in student writing and peer review comments across times comes from the research on writing in secondary schools and peer review. I begin by reviewing the literature on writing instruction in secondary education. I focus specifically on the state of writing instruction in secondary classrooms and briefly on the research on the use of five-paragraph essays. Finally, I focus on the research about peer review, looking specifically at: (1) the effectiveness of peer review in improving students' writing; (2) the development of students' ability to provide effective feedback to their peers; and (3) the benefits to the reviewer from providing feedback to his or her peers. I used the literature to build on the findings around changes in student writing when students write five-paragraph essays and receive frequent feedback across time. I also used the literature to build on findings about the changes in the types of feedback comments students provide across time.

1.3 STUDY DESIGN

1.3.1 Purpose of study

The purpose of my study was to document the changes in student writing and student feedback comments in a school where peer review was the focus of a whole school initiative. I collected student writing and feedback comments from a subset of students at Metropolitan Charter School to document the changes in work from students who participated in the writing assignments and peer review tasks across time.

1.3.2 Research Questions

In this longitudinal study, I used student writing, feedback comments, and interview data to investigate the changes in high school students' writing and peer review comments across four years at a high school where peer review was used frequently across time. The following questions framed this study:

In a school in which students engage in regular peer review:

- 1. How does high school students' writing change from 9th-12th grade?
- 2. How does high school students' peer feedback comments on writing change from 9th-12th grade?
- 3. Does writing quality correlate with the type of feedback given?

1.3.3 Research Methods: Sample

The data I collected for this study was drawn from the available writing and peer feedback comments secondary students at Metropolitan Charter School completed during their four years in high school. I used both qualitative and quantitative methods to analyze data. Quantitative methods were used to determine the significance of change in both student writing and the type of comments that students provided during peer review activities in 9th and 12th grade. Two raters evaluated student writing using a six-dimension analytic rubric. Raters used the rubric to score the following dimensions of students' writing: responding to the prompt, ideas, evidence, organization, grammar, and language. Two coders coded feedback comments to determine if the comments provided no critique, high critique, low critique, explanation, were vague, or were wrong. Additionally, I thematically coded feedback comments to describe the content of comments provided in 9th and 12th grade and to the changes in how students were able to respond to writing from their peers. I used student interviews to triangulate findings and describe how students understood good academic writing and good peer feedback comments.

1.4 SIGNIFICANCE

This study contributes to the literature on feedback and writing in multiple ways. First, it demonstrates how student writing changes across time when students are frequently participating in peer review. Second, it demonstrates how students' ability to provide feedback to their peers changes across time. Third, this study examines the correlation between student writing scores and the types of feedback comments that students give in both 9th and 12th grade. Past studies

that have examined changes in student writing across multiple ages or grade levels often use different sets of students to represent the various ages or grades (Hillocks, 2006) and to my knowledge, no study has documented students' participation in peer review beyond an academic school year or beyond the use of peer review in a single subject area. This study followed a subset of students throughout their four years in high school, documenting how individual students changed as writers and providers of feedback across four years.

1.5 ORGANIZATION OF DISSERTATION

This dissertation is divided into six chapters. As previously mentioned, chapter two reviews the literature on writing instruction and peer review. Chapter three provides an overview of the participants and SWoRD, the online peer review tool used by students throughout this study to provide peer feedback. It also provides details about the methods used to analyze my data. Chapter four presents my findings on the changes in students' writing from 9th to 12th grade. Chapter five discusses my findings on the changes in students' feedback comments from 9th to 12th grade as well as the correlation between the types of feedback comments provided and reviewers' writing scores. Finally, in chapter six I discuss the limitations of my study as well as the implications of my findings for both research and instruction.

2.0 CHAPTER II: REVIEW OF RELEVANT RESEARCH

2.1 INTRODUCTION

Research cites peer review as a best practice in writing instruction (MacArthur, 2007) and is frequently suggested as an instructional activity to help elementary through college students improve their writing. However, the body of research on secondary students' use of peer review is relatively small, with most studies on peer review at the secondary level reporting on single instances of students participating in a peer review activity or on students from special populations, such as English-language learners, utilizing peer review to build an understanding of the English language and academic writing. The overarching goal of this study is to report the changes that occur to student writing and feedback comments after participating in peer review across four years. To this end, I begin by reporting on what we already know about writing and peer review in secondary classrooms. I first provide a brief overview of the state of writing in secondary classrooms and research on the use of five-paragraph essays in secondary education. I then move to an overview of the research on peer review, reporting specifically on the (1) effectiveness of peer review; (2) structure of peer review tasks; (3) use of online peer review; (4) ability to provide effective feedback; and (5) benefits of providing feedback to peers.

2.2 WRITING IN SECONDARY CLASSROOMS

Teachers provide students in high school opportunities to write in many content area classes; however, students report the amount of writing they are asked to do across the disciplines as minimal. The lack of opportunities to write prevents students from developing genre specific writing skills for each discipline. For example, the National Research Council's A Framework for K-12 Science Education (2011) states that writing in science should ask students to build arguments from evidence, obtain and evaluate information, and clearly communicate their findings. Although these skills are similar to skills students might use when constructing an argument in an English language arts class, the content that students need to use and transform to formulate and support their ideas is very different. Results of student survey items on NAEP (2007) show that 77% of 12th grade students report writing at least a paragraph or more once a week in English, 42% for social studies, 21% for science, and 8% for math (cf. Applebee & Langer, 2009). Teachers across disciplines also report that they assign multiple writing assignments to their students across the school year. Kiuhara, Graham, and Hawken (2011) found that content area teachers report asking students to write for a variety of purposes; however, they infrequently ask students to compose longer pieces that involve engaging with content through analysis and interpretation, skills deemed as essential for college and workplace success (Applebee & Langer, 2013).

The lack of opportunities for students to write prevents students from developing a writing identity and minimizes writing to learn opportunities. Students who are not given multiple opportunities to share their thinking in writing, to examine their own writing and the writing of their peers, and to write and rewrite prevents students from socially constructing their own definitions of what it means to be an academic writer. One aspect of providing students

multiple opportunities to write is helping students to understand that they have valuable ideas to contribute to academic discussions. Shaughnessy (1977) states that students, "[u]sually have not been taught to notice their responses to things nor to value these responses as possible content for academic statements. As a result, they are in the habit of discarding what they need most to be able to write – their felt thoughts – and trying instead to approximate the meaning they think is expected of them" (p. 80). Rather than working to articulate, organize, and revise their own thoughts on content, students who are not taught to value their thinking work to produce responses that reflect what students think their teachers want to hear. Writing to reproduce facts or to craft a response that students feel their teachers want to hear is in opposition to the type of writing that college students cite as preparing them for the demands of their college classes.

In a survey of 315 freshmen composition students across eight years, Enders (2001) found that students indicated that clear and cognitively demanding assignments that allowed students to develop their own ideas best prepared them for the expectations of college composition classes. However, 25% of the students surveyed indicated that nothing in their high school instruction prepared them for college. This finding indicates that students may not be seeing the connection between the work they do in secondary schools and the work they are asked to do in college. It may also support the findings of Applebee & Langer (2009) and Kiuhara, Graham, and Hawken(2011), which suggest that because secondary students are not receiving frequent opportunities to complete extended writing and to write for different purposes, they are not prepared for the writing that will be expected of them once they graduate from high school.

2.2.1 Writing Genres

Inherent to writing development is the development of students' agency and the "extent to which students perceive disciplinary writing tasks as opportunities to transform knowledge" (Jeffery & Wilcox, 2014, p. 1097). One way to ask students to do this is through studying genres. Genre, when used in reference to writing, refers to the idea that writing is structured and language is utilized in ways that are recognizable and acceptable within particular communities (Hyland, 2007). When individuals explicitly and systematically study and practice writing in particular genres, such as argument, narrative essay, lab reports, etc., they internalize the accepted patterns and structures of the genre and draw on that knowledge as they compose written texts.

Research on instructing students about specific genres has found that genre instruction does have a positive impact of student writing. When working with creative writing students in grade 8-12 over the course of one semester, Whitney, Ridgeman, and Masquelier (2011) found that after receiving instruction on genres, students thinking about writing in academic settings became more analytical. Students did not think about writing as only meeting the requirements of a prompt; they began to think about writing as a tool for communication. However, researchers found that one semester was not enough time to adjust the knowledge about writing students may have received earlier in their education.

2.2.2 The Five Paragraph Essay

One genre that is frequently taught in schools and especially in schools where high-stakes testing is a focus, is the five-paragraph essay (McCarthey, 2008). The roots of the five-paragraph essay can be traced back to Petrus Ramus in the sixteenth-century and his efforts to use writing as a

means for arranging knowledge as opposed to generating knowledge (Crowley, 1990). In modern instruction, Pudlowski (1959) described the five-paragraph essay as a writing template that fits perfectly into instruction and assessment (Tremmel, 2011). Students who are asked to use the five-paragraph essay to organize their writing, are taught that an essay requires:

(1) an introductory paragraph moving from a generality to an explicit thesis statement and announcement of three points in support of that thesis, (2) three middle paragraphs, each of which begins with a topic sentence restating one of the major ideas supporting the thesis and then develops the topic sentence (with a minimum of three sentences in most models), and (3) a concluding paragraph restating the thesis and points (Nunnally, 1991, p.67).

Teachers utilize the five-paragraph essay as a scaffold for writing for several reasons. First, teacher education programs may not prepare teachers to teaching writing as part of their teacher education experience. The lack of preparation to teach writing leads teachers to using what they know, either from practicum experiences or from their own k-12 education (Johnson, Smagorinsky, Thompson, & Fry, 2003). Another reason may be institutional pressures. The five-paragraph essay fits in with expectations of standardized tests. Teachers and administrators expect students who know how to write using the five-paragraph essay structure to produce higher test scores than their peers who do not follow that format (Hillocks, 2002; Wiley, 2000). However, Albertson (2007) found that to not be the case. In her study of students writing in response to essay questions on the Delaware state examination, she found that 10th grade students who did not utilize the five-paragraph essay format performed better than their peers who relied heavily on the standardized structure. This suggests that the belief that teaching the five-paragraph essay will help students to succeed on state examinations may not be accurate and that

other instructional practices may better prepare students for writing expectations beyond k-12 education.

2.2.3 Best Practices in Writing Instruction

When teachers ask students to compose longer pieces of writing, they are implementing practices that research shows helps students improve the quality of their writing. Researchers have conducted several large-scale studies to determine instructional best practices for writing and the frequency of their implementation in classrooms (see Graham & Perin, 2007; Hillocks, 1984; and Kiuhara, Graham, and Hawken, 2011). Hillocks examined instructional modes in 60 experimental studies conducted from 1963 to 1982 and found that environmental instructional practices, defined by Hillocks as practices that "minimize lecture and teacher-led discussion, structuring activities so that...students work on particular tasks in small groups before proceeding to similar tasks independently" (p. 144), are the most effective form of instruction for improving student writing. One aspect of an environmental approach to instruction is asking students to work together to provide each other feedback on writing. He found that in the studies of classrooms that employed environmental instructional practices, students made larger writing gains than in classrooms where students were not frequently asked to collaborate around writing. Similarly, Graham and Perin completed a meta-analysis of 123 studies on adolescent writing and identified 8 best practices for writing instruction: (1) planning strategies; (2) summarizing; (3) process approach; (4) goal setting; (5) word processing; (6) sentence combining; (7) inquiry activities; and (8) idea generation and organization activities. Included in these "best practices" is a process approach to writing, which includes peer review.

Despite knowing that evidence based instructional practices, such as a process approach

and peer review, help students improve the quality of their writing, few content area teachers outside of ELA utilize these practices in their classrooms. In their survey of 361 content area high school teachers, Kiuhara, Graham, and Hawken (2011) found that English language arts teachers reported using more evidence-based practices, such as modeling and establishing writing goals, several times a year to teach writing than their content area counterparts. This indicates that content area teachers may have little knowledge around teaching students to write or may be overly relying on ELA teachers to teach students about writing.

2.3 PEER REVIEW

Researchers have studied peer review since the 1980s when teachers in elementary through college began implementing peer review as part of a process approach to writing. Research on peer review has examined (1) the effectiveness of peer review; (2) the structure of peer review tasks; (3) online peer review; (4) how students learn to provide effective feedback; (5) and the benefits of providing feedback. Limited longitudinal research is available which examines peer review use over the course of several assignments or years at the secondary level.

2.3.1 Effectiveness of Peer Review

Research has shown peer review to be an effective part of writing instruction in secondary classrooms and at the college level (Cho & Schunn, 2007; DiPardo & Freedman, 1988; MacArthur, 2007; Topping, 2009). Students who use peer feedback comments to revise their writing often make revisions that are of the same quality as revisions made based on feedback

received from a teacher. In their study of 85 Belgian secondary students, Gielen et al. (2010) found that when comparing revisions made by students who received feedback from a teacher to revisions made by students who received feedback from their peers, the types of revisions and overall quality of final drafts were equal, leading researchers to conclude that peer feedback can be just as effective as teacher feedback. The clarity of peers' language, as opposed to the academic language used by many teachers and instructors, is one factor that effects implementation of feedback comments during revision. At the college level, Cho and MacArthur (2010) studied undergraduate psychology students and found that the content and language of feedback comments from multiple peers was less complex and easier to understand than the content of feedback from an instructor. Because the language of the feedback comments provided by peers was more understandable, students who received peer feedback made more revisions to their writing based on peer comments than students who received feedback from the instructor. Students who received peer feedback made higher quality revisions than students who only received feedback from the instructor. This suggests that utilizing peer review tasks may further students' development as writers better than asking students to rely on teacher comments alone for revision.

Additionally, peer review benefits writers because it creates audience awareness. Scholars and educators often point out the potential of peer review to help students to take ownership of their work and to develop greater audience awareness as they are engaged in timely conversations with others who are reading and providing feedback that students can use to revise and improve their writing (Atwell, 1987; Calkins, 1986; Gere, 1987). Students who write for varied audiences develop a sense of authorship, develop knowledge of the effects of the writing on readers, develop an internal monitor, and develop the ability to evaluate one's own writing

(Anson, 1999). Several studies noted that students reported understanding audience needs as a benefit of participating in peer review (Boiling & Beatty, 2010; Early & Saidy, 2014; Tsui &Ng, 2000). Brakel (1990) found that 6th grade students who participated in peer review made revisions that improved the rhetorical quality of their writing, noting that the feedback helped students to better understand and address audience needs. Similarly, Patchan, Schunn, and Clark (2011) found that undergraduate physics students wrote higher quality first drafts when they were writing for their peers than if they were writing for a teaching assistant (TA) because students felt that they had to provide more explanation to their peers. Previous studies on the quality of drafts written for instructors versus drafts written for peers have found similar results. Students who write for their peers have writing that is more organized, includes rich content, and includes clear and focused language (Cohen & Riel, 1989; Gallini & Helman, 1995; Ward, 2009). They also found that students made more prose revisions when feedback came from peers leading to significantly higher quality final drafts.

Despite what we know about the effectiveness of peer review tasks, student perception of peer review may impact the willingness of students to implement the feedback they receive and to continue to provide effective feedback to their peers. "Mindful reception" is an important aspect of participating in a feedback task and receiving feedback. Saloman & Globerson (1987) define mindful behavior as:

...withhold or inhibit the evocation of a first salient response, to examine and elaborate situational cues and underlying meanings that are relevant to the task to be accomplished, to generate or define alternative strategies, to gather information necessary for the choices to be made, to examine

outcomes, to draw new connections and construct new structures and abstractions made by reflective type processes (p. 625).

Students who are mindful withhold judgement until they have evaluated peers' comments and constructed understanding around the value of peer feedback for revision. However, lack of trust in the information available to help students to make decisions on revisions may inhibit students' mindfulness or mindful reception of the feedback they receive.

Trust is an issue for students when teachers ask them to use peer feedback as a mechanism for improving their writing. Several studies have reported that post-secondary students are uncomfortable with peer review tasks and worry about the fairness and accuracy with which their classmates review their work (Cheng and Warren,1997; Kaufman and Schunn, 2010; Liu & Carless, 2006; Loretto, DeMartino, & Godley, 2016; Rushton et al., 1993; Smith et al., 2002). Students report that they do not feel that their classmates are qualified to provide feedback or that feedback provided does not have the potential to help them improve their writing. Christianakis (2010) found this to be true with students in 5th grade. She found that students were less likely to take advice from low status students either because they were not well liked or because of the belief that students were "not good enough" at writing to help another student improve his or her work. This suggests that additional work needs to be done in classrooms to value student thinking around academic tasks and to create a culture of trust in their classrooms.

Several studies support students' concerns over the validity of their peers' feedback comments (Gielen, Tops, Dochy, Onghena, & Smeets, 2010; Hovardas, Tsivitanidou, & Zacharia, 2014; Tseng &Tsai; Tsivitanidou, Zacharia, & Hovardas, 2011). These studies report mixed results on students' ability to provide valid feedback to their peers and the usefulness of

peer feedback comments when compared to feedback provided by an expert or teacher. In their study of 7th grade students providing feedback to their peers in a science classroom, Hovardas, Tsivitanidou, & Zacharia (2014) note students provided more positive affective feedback, comments such as "I really liked your writing," than experts and the critical feedback that students provided was either simple or simple with some justification. They conclude that students who have not received instruction and support in peer review may only have a basic understanding of the provided feedback leading to low validity.

Additionally, Gielen et al. (2010) found that students overwhelmingly viewed peer review tasks as "busy work" and stated that they would not like to participate in peer review again. This was particularly true when researchers asked students to write replies to the feedback that they received. They found that students were more likely to implement feedback if the comment received addressed a question that students specifically asked of their reviewer, as opposed to feedback that was generated by a reviewer responding to a teacher created prompt. Tsivitanidou et al. (2011) found that 7th grade students often avoided "mindful reception" of feedback comments by using praise as justification for ignoring critical feedback of problems that existed in their writing.

It is important to note that in many of the studies where students questioned the validity of peer review, students were participating in peer review for the first time, with little instruction, and with little time to build a trusted writing community within the classroom. Students may be more willing to trust the feedback provided by a teacher; however, the key, according to Simmons (2003), is for peer review not to be a one-time activity. With repeated opportunities to provide feedback, students' willingness to trust the advice of their peers and make revisions based on peer feedback will increase as well as students' ability to provide effective feedback.

2.3.2 Peer Review Task Structure

Peer review in secondary classrooms typically happens face-to-face with students working in dyads or in writing groups (Freedman, 1992; Goldberg, Roswell, & Michaels, 1995; Peterson, 2003). Within these groups students are often asked to use tools such as a rubric, response sheet, or prescribed set of questions created by the teacher to respond to their peers' writing (Early & Saidy, 2014; Freedman, 1992; Gere & Abbott, 1985; Peterson, 2003; Sperling & Woodlief, 1997). Peer review is most beneficial when it guides students to focus on the writer's ideas rather than sentence-level edits; when it increases students' awareness of audiences other than the teacher; and when it helps writers develop metacognitive awareness and regulation of their own writing processes (Freedman, 1992; Midgette, Haria & MacArthur, 2008; Nelson & Schunn, 2009; Simmons, 2003). Conversely, research has shown peer review to be least beneficial when reviewers focus on editing their peers' writing at the sentence level and when issues of face-saving and trust lead reviewers to avoid critique and writers to dismiss their peers' feedback (Freedman, 1992; VanDeWeghe, 2004).

Face-to-face peer review often results in student collaboration around solving problems in their peer's writing (Freedman, 1992). However, face-to-face interactions often do not provide students with the type of feedback necessary to make substantial revisions to their writing, especially when students are concerned with the social structure of the classroom (VanDeWeghe, 2004; Freedman, 1992). Affective comments, comments that provide a reviewer's general feelings about a text, are a frequent problem in studies examining face-to-face peer review. Freedman found that 9th grade students frequently offered praise such as "I like that" or "that sounds good," tried to avoid negative comments, or tried to soften negative comments through apologies rather than providing critical and specific comments and suggestions that would help a

writer improve his or her paper. Additionally, studies have found that power structures among students in the classroom can cause weaker writers to lose their voice and allow students who are thought to be more academically adept to control the revision of the weaker student's writing (Chritianakis, 2010).

2.3.3 Online Peer Review

Students have used online tools successfully for peer review tasks. When receiving feedback through an online tool, students typically upload their paper to an online program, and their classmates then review their writing. Online tools or teachers may randomly assign papers to peers for review, or the teacher can pair or group students for peer review. Some programs allow students to upload their work and review other's work anonymously (Calibrated Peer Review, Peerceptive, Stochasmos, SWoRD), although other programs make students' identities fully visible to their peers (Moodle, PeerMark, Scholar). Research has shown that students are able to use online tools, anonymous or not, to provide feedback comments that contain features that have been shown to lead to content revision that improves the quality of their peers' writing (Cho & MacArthur, 2010; Nelson & Schunn, 2009). Additionally, unlike face-to-face peer review, online peer review platforms that allow reviewers to provide feedback anonymously, like the one students used in this study, have the potential to eliminate issues of fairness and "face-saving" comments that typically occur in face-to-face peer review (Topping, 2009).

In studies that examine students' perspectives about peer review, students often voice concerns about the social repercussions that may occur as a result of providing critical feedback to peers and the validity of the feedback that their peers provide. Kaufman and Schunn (2011) found that perceived fairness of the reviews students received influenced undergraduate students

perceptions of peer review tasks. They found that if a student received positive and useful feedback, they had a more positive perception of the peer review task. This is similar to the findings of Gielen et al. (2010), who found that secondary students did not trust the feedback provided by their peers, even though researchers found that the comments provided by peers were just as useful in making revisions as the comments provided by the teacher. One way to increase student trust of peer comments is to hold students responsible for the feedback that they provide by assigning accuracy grades to reviewers (Kaufman & Schunn). Anonymity has the potential to be an additional solution. Results of a survey of 513 high school students demonstrated that students prefer to provide feedback anonymously because they feel that it allows them to provide honest feedback without dealing with social pressures (Loretto, DeMartino, & Godley, 2016).

2.3.4 Learning to Provide Effective Feedback

Despite the benefits of participating in peer review, significant concern often arises around ability of students to provide accurate and valid feedback to their peers (Gielen, Tops, Dochy, Onghena, & Smeets, 2010; Kaufman & Schunn, 2011; Sadler, 1988). Several studies have shown that students are able to provide mostly accurate and valid feedback during their first peer review task after receiving instruction around providing feedback (Early & Saidy, 2014; Gielen et al.; Tsivitanidou, Zacharia, & Hovardas, 2011). Although these findings suggest that teachers may be able to rely on students to provide useful feedback to their peers and to help each other learn about good writing, asking students to provide feedback to their peers once or twice a year, the typical frequency in which peer review is used in many K-12 classrooms, is not enough for students to become proficient at providing high-quality feedback.

In order for feedback to have a sustained positive impact on student writing, students must have multiple opportunities to participate in peer review tasks across several school years (Simmons, 2003). Through frequent participation in peer review tasks, students develop the ability to provide effective feedback comments to their peers, such as providing a localized critique and suggesting a specific change. Several features should be present for a feedback comment to have the potential to generate a substantial revision. For face-to-face or online feedback to be effective, that is for feedback to generate a revision that impacts the content and meaning of a piece of writing, it needs to locate a specific problem within the writing and offer a potential solution for the problem (Nelson & Schunn, 2009). Research on post-secondary students has found that strong feedback includes a balance of praise and critique (Cho, Schunn & Charney, 2006). Nelson and Schunn (2009) found that undergraduate students were more likely to implement feedback from their peers if they understood the problem being identified by the reviewer. They found that four feedback features affected problem understanding: offering a solution, giving the location of the problem, or including a summary. Research at the secondary level has provided similar findings, with one study finding that justification of critique lead to higher implementation of suggestions during revision (Gielen, et al., 2010).

Several studies also suggest that students who are new to peer review tend to provide more affective and editing comments than teachers (Simmons, 2003; Yagelski, 1995). This supports the notion that students show a pattern of development when providing feedback to their peers and that this pattern often mimics the ways in which students were taught about writing and the features of writing that should be given the most attention during revision (Boling and Beatty, 2010; Simmons; Yagelski). Students' first attempts at feedback, especially those that instruction does not mediate, usually offer editing suggestions or global praise,

comments that are not likely to improve the overall quality of their peers writing. However, as students see models of effective feedback comments and have additional opportunities to comment on their peers' writing, they begin to provide a higher number of critiques on content and structure and fewer editing suggestions (Boling & Beatty; Simmons). Simmons (2003) noted it takes much longer than a semester or school year for students to develop the skills necessary to consistently provide high quality feedback.

2.3.5 Benefits of Reviewing Peers' Writing

Students who participate in peer review benefit as both givers and receivers of feedback because as reviewers they need to access and articulate their understandings of the assignment and academic writing to aid their peers in revising their work, which in turn helps reviewers to be more critical of their own writing (Lu & Law, 2012; Lundstrom & Baker, 2009). Through the act of providing feedback comments, students engage in rubric-based assessment of their peers' writing. As reviewers provide comments based on a rubric, they gain a better understanding of the criteria for the assignment and the assignment itself. The meta awareness that occurs as a result of providing comments results in students having a deeper understanding of their own work and a new understanding of what needs to be done to improve their own writing during revision (Lu & Zhang, 2012). Early and Saidy (2014) saw evidence that 10th grade students were aided in the revision process by the act of articulating the strengths and weaknesses they saw in their peer's writing. Similarly, Karegianes, Pascarella, & Pflaum (1980) found that with 10th grade students the act of peer editing benefited the reviewer because students had to revisit the assignment and the rubric, clarify their understanding of the requirements as outlined by both tools, and make comments based on their understanding of the task.

The act of providing feedback without receiving comments on a reviewer's own writing has also been shown to lead to revision that improves writing quality. Lundstrom and Baker (2009) found that L2 college students who were taught to provide feedback comments showed more improvement in writing than students who only learned how to apply the feedback they received to their own writing. They hypothesize that the act of providing comments helped students learn more about the global aspects of writing than learning how to interpret a comment from their peer. Similarly, In their study of the language of writing groups in middle and high school, Gere and Abbott (1985) found that student talk around feedback resulted in students having to clarify why errors that they identified in their peers' writing were problematic. In their discussion of the talk that happened in a high school writing group, Gere and Abbott state:

When Ron, for example, moves from noting the awkwardness of "I will" to explaining the stance the author should take, he is not only informing the author, he is also explaining the issue to himself...the process of explaining to oneself is central to learning to write (p. 378).

Through identifying problems in his classmates' writing, Ron brought what he knew about writing to the surface in order to explain the problem to his peers. This act of bi-directional scaffolding (Stone, 1998), scaffolding that leads to the cognitive development of both participants, may have led to both students having a deeper understanding of good writing.

Studies of peer review demonstrate that there does not need to be a difference in ability for students to aid each other in their Zones of Proximal Development (ZPD; Patchan & Schunn, 2010). Even weaker writers can provide feedback that is useful to stronger writers (Nelson, Melot, Stevens, & Schunn, 2008; Patchan & Schunn, 2010). As sociocultural researchers have found, the verbalization of thinking promotes cognitive growth in problem-solving interactions

between same abled and different abled peers, (Forman & Cazden,1985). However, few studies to date have examined how a sustained culture of peer review in which students are frequently working with both stronger and weaker writers, changes student writing and thinking about writing as they engage in dialogues around writing.

2.3.6 Longitudinal Research on Secondary Students' use of Peer Review

Although peer review has become widely used in k-12 classrooms, few studies of peer review in k-12 settings or college examine the use of peer review beyond a semester or academic school year. Studying the use of peer review beyond a school year is important because it provides information about how students' ability to comment on their peers' writing changes across time, documents the changes that occur in student writing as students continue to participate in peer review, and provides information about what students understand about effective writing. In a search of the literature on peer review in secondary classrooms (grades 6-12), I found three studies examining the use of peer review for at least a school year (Zheng et al., 2014; Simmons, 2003; Gere & Abbott, 1985). Simmons (2003) conducted the longest study over a three-year period; however, Simmons collected data from a new group of students each year of the study. Simmons reported on the features of feedback provided by each cohort of students and the differences in student feedback between students who worked with a teacher who participated in his study across the three years and students who did not. Although Simmons' study is useful in examining the differences in ability to provide feedback between students who worked with a teacher who has had multiple experiences instructing students about peer review and students who worked with a teacher who did not, his study did not provide any insight in to the changes to student feedback comments across multiple assignments or to student writing.

Yearlong studies have also documented how students participated in peer review; however, like Simmons' study, change in peer feedback comments was never studied beyond one school year for each student. Gere and Abbott (1985) compared talk in writing groups of 5th, 8th, and 11th grade students in ELA classes as students provided each other with feedback comments. They found that students were able to provide a great deal of insight to their peers about the writing process. However, the researchers did not report on how student talk about writing changed across the four meetings of each writing group and therefore, did not provide information about how student talk about writing may have changed as a result of participating in peer review. Zheng et al. (2014) used descriptive statistics to document the writing and revision completed by middle school students writing collaboratively in Google Docs for their ELA classes during one school year. Students who participated in the study showed evidence of deeper thinking around the content and structure of their writing after participation in peer review. However, change in the quality of student writing was documented through counts of edits made and word counts, without any qualitative descriptors of how students' writing changed across the school year as a result of participating in peer review.

2.4 NEED FOR PRESENT STUDY

Research has shown that peer review tasks have a positive impact on student writing over time (Peterson, 2003; Tseng & Tsai, 2007). However, there are few longitudinal studies that utilize data from the same group of students across multiple years. Additional research that documents the changes in student writing and the content of student feedback comments over time is needed to examine the impact of frequent engagement in providing and receiving feedback. To address

the need for additional research on changes in student writing and feedback comments in a setting where peer review was used regularly across content areas and across time, this study investigated the writing and feedback comments of students who attended a high school where peer review was a whole school initiative and students were asked to participate in peer review tasks in several of their content area classes.

3.0 CHAPTER III: RESEARCH METHODS

3.1 INTRODUCTION

The purpose of this study is to document the changes in student writing and student feedback comments from 9th to 12th grade in a school where students frequently participated in peer review tasks using the online peer review tool, SWoRD. To document the changes made, I worked with students who participated in peer review tasks across four years at Metropolitan Charter School. I collected students' writing and peer feedback comments from both 9th and 12th grade and used both quantitative and qualitative methods to analyze my data. Additionally, I interviewed six students to better understand what students knew about writing and peer review after participating in peer review tasks across four years.

3.2 SETTING AND PARTICIPANTS

3.2.1 Setting

This mixed-methods study used data generated by a cohort of secondary students who engaged in peer review regularly and across subject areas from 9th through 12th grade. I conducted my research at Metropolitan Charter School (pseudonym), an urban charter school located in a Rust

Belt city. Metropolitan Charter School is a racially diverse school with 61% of students receiving free or reduced lunch (FRL). The student population is 58% black, 38% white, 7% biracial, 3% Asian, and 2% Latino.

Metropolitan Charter is a year-round school and operates using trimesters rather than quarters or semesters that are typically used at public secondary schools. At Metropolitan Charter, students "loop" with the same teachers, meaning they remain with the same core subject area teachers for all four years of their high school experience. Metropolitan prides itself on being a school where teachers frequently incorporate a number of "best practices," such as peer review, into their teaching. Teachers across subject areas at Metropolitan Charter have used an online peer review system called SWoRD (Scaffolded Writing and Rewriting in the Disciplines) as part of an ongoing school-wide cultural change toward peer review with the goal of helping students to become better writers.

SWoRD is a web-based system that implements anonymous reciprocal peer review of writing and mimics the double-blind reviewing process typical of academic publishing.

Instructors have used the system in over 1,000 post-secondary and secondary classes across the United States and internationally for over ten years. In SWoRD, classroom teachers design and upload the assignments and guiding questions or prompts for their students' peer review task.

Teachers also determine how many peers will review each student's writing and set deadlines for student completion of each step of the peer review process. SWoRD then guides students through the peer review process (see Figure 1). After students submit first drafts of writing, SWoRD randomly distributes the papers to three to six peers for review. Students submit two kinds of peer feedback in response to teacher-generated prompts: written comments in response to open-ended prompts and numerical ratings for specific features of the writing, such as thesis

and evidence (see Figure 2). SWoRD aggregates all comments and ratings for students. The system weights quantitative ratings across reviewers to provide scores for each draft. Students then review all comments and ratings before planning revisions and submitting second drafts. Students also rate the helpfulness of their peers' feedback.

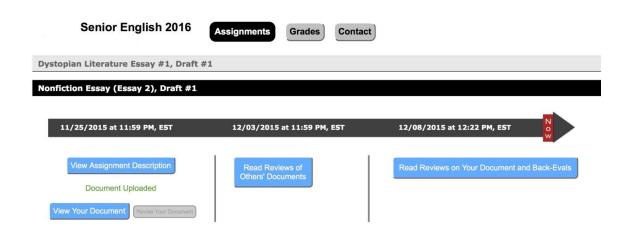


Figure 1. Sample Student Timeline



Figure 2. Students' View of Feedback and Rating Prompts

3.2.2 Participants

I initially collected 9th and 12th grade writing and peer review data from all students in the graduating class of 2016 at Metropolitan Charter. This class was the first class at Metropolitan Charter to utilize peer review and SWoRD across subject areas in 9th through 12th grade. A Cultural Literacy teacher who had used SWoRD in his teacher education program, Mr. Zain, worked with the administration at Metropolitan Charter to implement a school-wide focus on using peer review to improve students' writing. The 2015-2016 senior class of students used SWoRD in several core classes across their four years as students at Metropolitan Charter: math, Cultural Literacy (a combined English Language Arts and social studies class), and science, as well as in several electives, such as Desktop Publishing, Research, Career, and Financial Literacy.

Students at Metropolitan Charter were assigned to one of three teams during their 9th grade year and remained part of that team across their four years at the school. Teams are untracked, meaning that students are not group based on abilities. According to Mr. Zain, teams are created based on three factors: (1) student's previous school, (2) student's race, and (3) student's gender. Metropolitan works to make sure that teams are balanced and that no team has a majority of students from one race, gender, or feeder school.

Students in all teams do not take Cultural Literacy at the same time; they rotate taking Cultural Literacy during two out of the three yearly trimesters based on their team assignment. Despite taking Cultural Literacy at different points during the school year, the class content and the schedule of assignments remains the same for all students regardless of trimester. For example, Mr. Zain asked students to complete an extended writing assignment during the 4th

week of the fall trimester. Similarly, Mr. Zain asked students taking Cultural Literacy in the spring to do that same assignment during the 4th week of the term.

I originally sampled writing from 40 students who had submitted writing in SWoRD in both their 9th grade and 12th grade Culturally Literacy classes. Additionally, I did a detailed quantitative and qualitative analysis of 21 students' writing. Because a part of the focus of this study was how writing changes in a school where students frequently participate in peer review tasks, students who did not participate in providing peer feedback in either 9th or 12th grade were dropped from the detailed analysis (n=13). Motivation to write was also an issue for students. An additional six students were dropped from the detailed analysis due to a score decrease from 9th to 12th grade of more than 5 points (see section 4.2.1 for additional details).

I collected peer feedback from 74 students because this was the total number of students who had feedback for both the 9th and 12th grade tasks in SWoRD. This number is bigger than the number of students whose writing I analyzed because more students participated in providing feedback through SWoRD than those who uploaded their writing to the system. One reason for this is because Mr. Zain asked students who he felt were weaker writers to only give feedback in SWoRD in 9th grade and not submit their writing. When compared to the students whose writing I analyzed, this group of 74 students includes all 21 students whose essays I used for in depth analysis of writing features, and six students whose writing was scored on the analytic rubric, but not used for in-depth writing analysis (see figure 3). Additionally, during the spring of 2016 I interviewed six students selected from the group of 21 students whose writing I analyzed in depth. During the interview, I asked students about their experiences as writers and reviewers. These six students represented a range of initial writing abilities, determined by students' initial writing scores in SWoRD.

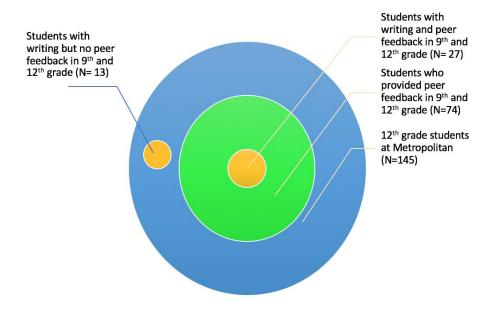


Figure 3. Students at Metropolitan

3.3 DATA COLLECTION

The data for this study came from the writing and feedback students completed for their Cultural Literacy classes in SWoRD. I specifically chose to focus on Cultural Literacy because students most consistently used SWoRD in this class. Peer review and SWoRD use in mathematics were also consistent; however, the writing prompts students were asked to write to across four years never changed in terms of cognitive demand nor the type of writing students were expected to produce and did not provide students sufficient opportunities to demonstrate their "best" writing. SWoRD use in other core and elective classes was sporadic and therefore did not provide reliable data.

3.3.1 Student Writing

Focal students were asked to provide copies of each writing assignment they completed for peer review in SWoRD. An initial look at the data for Metropolitan Charter showed that teachers asked 12th grade students to complete 123 assignments in the SWoRD system (90 in core classes and 33 in elective classes; see Table 1). Assignments ranged from a Cultural Literacy assignment asking students to compare similar themes in the song "Dear Mama" (Shakur, 1994) and the poem "Mother to Son" (Hughes, 1926), to a math assignment asking students to write problem statements in response to an algebraic problem.

Table 1. Assignments in SWoRD

		Core or Elective	Number of SWoRD	
Year	Class Name	Course	Assignments	
9th	Research 9 Interactive Mathematics	Elective	1	
9th	Year 1	Core	12	
9th	Research 9 Tri 3	Elective	1	
9th	Research 9 Tri 2	Elective	4	
9th	Cultural Literacy A	Core	3	
9th	Cultural Literacy B	Core	3	
9th	Cultural Literacy C	Core	3	
10th	Financial Literacy 10B	Elective	3	
10th	Research 9	Elective	4	
10th	Cultural Literacy A	Core	3	
10th	Cultural Literacy B	Core	2	
10th	Cultural Literacy C	Core	3	
10th	Honors A & B	Core	1	
10th	Desktop Publishing 10 Interactive Mathematics	Elective	2	
10th	Year 2	Core	14	
11th	Environmental Science Interactive Mathematics	Core	3	
11th	Year 3	Core	15	
11th	Career 11	Elective	2	
11th	Cultural Literacy A	Core	5	
11th	Cultural Literacy B	Core	5	
11th	Cultural Literacy C	Core	5	
11th	Honors $A + C$	Core	1	
11th	FinLit	Elective	2	
11th	Research 10	Elective	2	
11th	Research 9	Elective	3	
11th	Environmental Science	Core	2	
11th	Honors English A + B	Core	1	
11th	Cultural Literacy A	Core	3	
11th	Cultural Literacy B	Core	2	
11th	Desktop Publishing	Elective	1	
11th	Cultural Literacy C	Core	3	
11th	FinLit	Elective	5	
11th	Research 10	Elective	1	
11th	Creative Writing	Elective	1	
11th	Career 11	Elective	1	
12^{th}	Senior English	Core	1	

 Table 1. Assignments in SWoRD (continued)

12th	Honors Senior English	Core	0
		Total Assignments in	
		core classes	90

I selected and and analyzed writing from two time points, one during students' 9th grade year and one during students' 12th grade year, for each student. Raters analyzed two pieces of writing for each student (n=80). I selected writing from Cultural Literacy assignments based on two criteria: (1) the assignment was considered to have high cognitive demand; and (2) the assignment in 9th grade and the assignment in 12th grade were from similar genres (i.e., literary analysis). Cognitively demanding tasks are tasks that push students beyond telling what they know and ask them to engage in knowledge construction through analysis, argument, or interpretation and to make original claims, which require elaboration or evidence for support (Benko, 2012). Research has shown that writing from cognitively demanding writing tasks improves the quality of student writing (Crosson, Matsumura, Correnti, & Arlotta-Guerrero, 2012; Matsumura, Patthey-Chavez, Valdes, & Garnier, 2002). By selecting writing from tasks that are cognitively demanding, the student work selected for analysis has the potential to be students' best writing at that point in time. I selected writing from similar genres to allow for comparison of the development of specific writing features, such as the use of academic language, across time.

Cognitive demand of tasks was determined through coding each assignment using the Instructional Quality Assessment (IQA) writing task rubric (Junker et al., 2006; see Table 2). Students who respond to tasks that ask them to evaluate, interpret, and analyze are more likely to show gains in writing proficiency (Newmann, Bryk, & Nagaoka, 2001). Junker and colleagues found that the IQA rubrics provided a reliable tool for determining cognitive demand of a task

when non-expert raters received extended opportunities to practice rating tasks. Because cognitive demand and rigor of tasks are not a major focus of this research, I did not conduct further analysis of the rigor and cognitive demand of each task.

 Table 2. Cognitive Demand of ELA Writing Tasks Rubric

Is the task cognitively demanding?	Description
Yes	The task guides students to engage with underlying meanings or nuances of a text. Students interpret or analyze a text AND use extensive and detailed evidence form the text to support their ideas or opinions. AND the task provides students with an opportunity to fully develop their thinking (e.g., challenging questions, extended responses, and analytical and interpretive responses).
No	The task guides students to construct a literal summary of the text based on straightforward (surface-level) information OR engage with surface-level information about the text only. The assignment task guides students to use little or no evidence from the text to support their ideas or opinions.
	The task guides students to recall isolated, straightforward (surface-level) facts about a text OR write on a topic that does not directly reference information from the text. OR, the task guides students in recalling fragmented information about the text.

3.3.2 Feedback

Like any skill, peer feedback requires repeated practice over an extended period of time for students to become better at both accepting their peers' feedback and providing feedback themselves (Simmons, 2003). However, there have been no studies at the secondary level that have examined the changes in the feedback provided by students over an extended period of time. To address this gap in the literature, I analyzed feedback provided by focal students on

their peer's work. I collected feedback from one Cultural Literacy assignment in 9th grade and one assignment in 12th grade.

For each assignment in SWoRD, students were asked to provide feedback to 3-5 peers using teacher created comment prompts and rating rubrics. Cultural Literacy peer review comment prompts remained consistent across the years and asked students to comment on what they understood about the writing, what they liked, and what they thought could be improved.

3.3.3 Student Interviews

I interviewed focal students for approximately 60 minutes about what they knew about writing, how they perceived themselves as writers, what they knew about peer review, and how they perceived themselves as reviewers. I used the interviews to provide triangulation for the findings from the analysis of student writing and student feedback comments. The interview protocol (Appendix A) used is an adaption of Graham, Schwartz, & MacArthur's (1993) protocol. When used with normally achieving fourth and fifth-grade students, the researchers found that students could describe their conceptualizations of writing and themselves as writers, providing insight into how their composing processes shape their writing. At the end of each interview, I provided each student with a copy of an essay that they had written in 9th grade and asked students to provide themselves feedback. This provided some information about how students saw their own understandings of academic writing change.

3.4 DATA ANALYSIS

I used both quantitative and qualitative methods to analyze the data. I used quantitative analysis to determine the significance of the change to both student writing and student feedback comments. I used qualitative analysis to describe the changes made. Qualitative analysis of student writing focused specifically on how well students responded to the prompt, developed ideas, used evidence, organized their writing, used grammar, and used language. Qualitative analysis of peer feedback comments focused on the content of the comments, specifically looking at comments that students made about their peers' introductions, evidence use, and conclusions.

3.4.1 Student Writing

I first measured student writing using word and paragraph counts. I measured papers for their total length, number of paragraphs, and sentence length to compare how much students wrote across their time at Metropolitan Charter. Shaughnessy (1977) states that students who are new to writing or have not been provided sufficient practice as writers lack the ability to put their thoughts on paper. From interviews with Metropolitan Charter teachers and students, it was clear that many Metropolitan Charter students had limited experiences as writers prior to starting 9th grade and therefore may have been prone to writing shorter and less developed pieces. Students also worked across their time at the school to build content knowledge and an understanding of the necessary procedures for writing in response to their teachers' prompts, which has the potential to lead to longer texts with more developed and well-supported ideas (Flower & Hayes, 1981).

3.4.1.1 Analytic rubric

Consistent with past studies that have examined the quality of student writing in English language arts classes, raters scored student writing from their Cultural Literacy class using a sixdimension analytic rubric with a four-point scale (see Appendix B). The use of a four-point scale is consistent with the scale that students at Metropolitan Charter saw during their state English language arts exam. I could have utilized other standardized measures of draft quality (i.e., rubrics for the state assessment or based on the PARCC or Smarter Balanced assessments) for examining the quality of student writing. However, I selected this particular measure of writing quality because it reflects many of the writing goals in the assignments set out by the Cultural Literacy teacher at Metropolitan Charter (Patchan, 2011) and raters could use the rubric across the two scored assignments. The rubric scored the following dimensions: (1) addresses the prompt; (2) organization; (3) ideas; (4) evidence; (5) grammar; and (6) language use. Organization, ideas, evidence, and grammar and language use are codes for writing quality that have been most frequently used in intervention studies when determining if an instructional intervention improves the quality of student writing (Graham and Perin, 2007b). I acknowledge that the present study is not an intervention study; however, these features are also in line with the expectations outlined for secondary students in both national and local education standards and are appropriate for examining change in the writing of students in this study.

Two raters who are experts in writing in English language arts used the analytic rubric to score student work. I created guiding questions to help raters understand the dimensions in the rubric. Rating descriptors were provided at each of the score points to help raters determine the difference among the four points. I trained raters on a subset of papers (n=10) to norm raters' understanding of the rubric dimensions. Raters were asked to score an additional subset of 10

papers. They reached 75% exact agreement and had 100% adjacent agreement (within one point). As with other studies, I considered having moderate exact agreement and high adjacent agreement acceptable (Brown, Glasswell, & Harland, 2004; Graham et al., 2011; Philippakos & MacArthur, 2016) and raters split the remaining papers and scored independently.

3.4.1.2 Coh-Metrix

I completed additional coding of students' papers using Coh-Metrix. Researchers developed Coh-Metrix at the Institute for Intelligent Systems at the University of Memphis for the purpose of efficiently identifying a wide range of linguistic features within a text (see Graesser et al., 2004). Coh-Metrix processes texts for cohesion, language, and readability as well as more traditional textual measures such as sentence length, number of paragraphs, and number of words (McNamara et. al., 2014). Of particular interest to me in this study is students use of connectives. Connectives are cohesive devices that help guide the reader through a text, and logical connectives make explicit for the reader the logical connections between sentences. As writers become more adept, they typically create cohesion through other cohesive devices (Crossley, Weston, Sullivan, & McNamara, 2011) and the use of connectives should decrease. I uploaded students' papers from 9th and 12th grade to Coh-Metrix for analysis. I then compared the incidences of logical positive connectives in student writing from 9th and 12th grade and utilized a t-test to determine if the changes in connective use were significant.

3.4.2 Student Feedback

I coded feedback comments both qualitatively and quantitatively. Research that examined peer review tasks at both the secondary and college levels have shown that students are leery of both

their ability to provide feedback as well as their peers' ability to provide useful feedback for revision (Godley, DeMartino, & Loretto, 2014; Kaufman & Schunn, 2010; Zheng et al., 2014). Several studies used peer feedback codes that classified comments as affective ("I like your introduction") or cognitive ("use more evidence to support your point"), and then further coded as identification of problem, suggestion for revision, and explanation of why revision is needed (Cho, Schunn, & Charney, 2006; Lu & Law, 2012; Nelson and Schunn, 2009; Tseng & Tsai, 2007). Although these codes are useful in capturing the types of feedback that students provide and highlight important aspects of feedback that lead to meaningful revision, they do not fully capture if the comments identify problems that truly exist in the writing.

3.4.2.1 Quantitative coding

In an effort to both document the types of feedback that students provided and capture the helpfulness of the feedback comments, two trained coders coded feedback comments provided by focal students on the two assignments from 9th and 12th grade. Raters coded comments for the features of each comment, including the comment's potential to improve the paper's content if implemented (Table 3). Raters coded feedback comments as no critique, high critique, low critique, explanation, vague, and wrong (Baikadi, 2015).

Table 3. Qualitative Feedback Codes

Code	Definition	Example
No Critique	Describes the paper or a portion of the paper positively, including encouraging remarks.	"I really like the intro paragraph because it really made me want to read your whole essay and it had a nice flow."
High Critique	Suggests a specific change to the writer's paper that has the potential to increase the writer's score by at least 1 score point.	"It does not include What the problem was asking you to do. i.e.: it does not mention anything about how the problem asked to find patterns for the spiralaterals."
Low Critique	The comment does not have the potential to increase the writer's score. These comments typically indicate that the paper has a spelling or grammar error.	"You missed a comma in your 3 rd paragraph."
Explanation	Provides an explanation of why a revision is needed.	"I really couldn't find a best sentence because they all weren't really on the subject of the essay, even though they did relate."
Vague	Suggests a nonspecific change that would apply to any paper.	"Make sure to use spellcheck."
Wrong	The comment provides a critique of the paper for a problem that does not exist in the writing.	

3.4.2.2 Thematic coding

I thematically coded (Saldana, 2009) all feedback comments provided by the subset of students. I first read the feedback comments as sets in relationship to the feedback prompts to get a sense of the content (i.e., introductions, evidence, conclusions) students commented on. I then grouped feedback comments based on the content of the comment. I then further coded comments based on the content of the comment. This round of coding documented the broader qualities of the feedback comments at 9th and 12th grade.

3.4.3 Student Interview Data

I initially read through student interviews to get a sense of the ideas that students expressed. I then read the interviews were then read a second time and coded each interview specifically for students' ideas about academic writing, peer feedback, and motivation to write. I used students' interview data as triangulation for the findings that arose from the analysis of student writing and feedback comments.

3.5 QUANTITATIVE ANALYSIS

The first question of this study asks: *How does high school students' writing change from 9-12th grade?* I used paired t-tests to help explore this question and check for difference between students overall analytic rubric scores in 9th and 12th grade I also checked for change between dimension scores for both time points.

The second question of this study asks: *How do high school students' peer feedback* comments change from 9-12th grade? Again, I used paired t-tests to help explore this question and to check for difference between the percentage of each comment type made by an individual student in 9th and 12th grade. I also used paired t-tests to determine the significance of the difference between the frequency with which students provided effective feedback, a comment that included a high critique and an explanation, in 9th and 12th grade.

The third question asks: *Does change in writing quality correlate with change in feedback quality given?* To further explore this question, I used bivariate correlation analysis to examine the correlation between writing scores and the type of feedback students provided in 9th and 12th grade. I calculated correlation between writing score and each feedback type using the percentage of each type of comment a student made in 9th and 12th grade.

4.0 CHAPTER IV: STUDENT WRITING: FINDINGS

4.1 INTRODUCTION

Students at Metropolitan Charter School come from several middle and junior high schools and have a variety of experiences with writing prior to entering 9th grade. Because of the variety of writing experiences, students come to Metropolitan with different understandings of what constitutes academic writing. Upon entering Mr. Zain's classroom, students in this study may have found the writing practices that had been promoted through instruction at their previous schools now insufficient or perhaps unacceptable in their new school setting (Sternglass, 1997). This means that as students engaged in writing in Mr. Zain's classroom, they may have been working to develop new knowledge around the type of academic writing promoted in Mr. Zain's classroom. In this chapter, I present my findings on how student writing changed from 9th to 12th grade.

My analysis demonstrated a statistically-significant improvement in the overall quality, focus, and use of evidence in students' academic essays from 9th to 12th grade, despite the fact that they received little writing instruction other than learning to use a five-paragraph essay structure. Additionally, my analysis showed that the areas in which students' writing improved (and didn't improve) seemed to be shaped by their English teacher's peer review prompts and essay assignments. Specifically, students saw the greatest improvement in the following

dimensions: responding to the prompt, ideas, grammar, and language. The writing prompt in 12th grade asked students to analyze a novel and students moved from essays that summarized or reported what the text was about in 9th grade, to essays that developed and explained claims through an analysis of textual evidence in 12th grade.

I have organized this chapter on student writing in the following way: I first begin with an overview of the writing prompts to which the students responded in 9th and 12th grade. I then discuss the overall changes in student scores on the analytic rubric from 9th to 12th grade. Finally, I discuss student scores for each of the six rubric dimensions including the statistical significance of change as well as a qualitative description of the student writing at different score points. The qualitative descriptions of student writing utilize a representative example of one student's writing for each rubric dimension to analyze in depth and illustrate the patterns I saw across papers in each score range. I will present all student writing in an unaltered state.

4.1.1 9th Grade Writing Task

Students in Mr. Zain's 9th-grade class all received the same writing assignments despite having Mr. Zain during different trimesters. The trimester in which students took Cultural Literacy depended upon their team placement. For example, during their 9th-grade year students on Team B and Team C had Mr. Zain's class during the first trimester, students on Team A and Team C had Mr. Zain during the second trimester, and students on Team A and Team B had Mr. Zain the third trimester. Students in 9th grade generated the writing used for analysis after they completed reading the memoir *The Other Wes Moore* (Moore, 2011). Mr. Zain asked students to respond to one of the following four writing prompts:

- The overriding question of this book is what critical factors/events in the lives of these
 two men, who were similar in many ways, created such a vast difference in how their
 lives turned out? Discuss three events that caused the Wes Moores' lives to be so
 different in the end.
- 2. How well does Moore describe the culture of the streets, where young boys grow up believing that violence transforms them into men? Talk about the street culture—its violence, drug dealing, disregard for education. What creates that ethos and why do so many young men find it attractive?
- 3. How important are the families in shaping the lives of the Wes Moores?
- 4. Oprah Winfrey has said that "when you hear this story, it's going to turn the way you think about free will and fate upside down." So, which is it...freedom or determinism? If determinism, what kind of determinism—God, cosmic fate, environment, biology, psychology? Or if freedom, to what degree are we free to choose and create our own destiny?

Additionally, Mr. Zain provided students with explicit instructions for what he expected this writing to look like, specifying that the essay had to have at least five paragraphs and three pieces of direct evidence from the text. See Appendix C for Mr. Zain's assignment.

I selected the writing from these prompts for analysis because the prompts offered students the opportunity to use details and evidence from across the text to support their ideas and opinions. However, note that several of these prompts (prompts 2, 3, & 4) are less rigorous than the prompts provided to students in 12th grade because they offer students opportunities to support their thinking with personal evidence.

4.1.2 12th Grade Writing Task

Unlike 9th grade, students in Mr. Zain gave his 12th grade classes different assignments depending upon the trimester their team had Cultural Literacy. Mr. Zain asked students who took Cultural Literacy during trimester two to select and independently read a novel for analysis. Twenty participating students wrote essays in response to the prompt, "What is a major theme in your novel?" Mr. Zain asked students to write at least two pages and to use three pieces of evidence from the novel. The remaining twenty participating students wrote essays about dystopian novels. Mr. Zain asked students to respond to one of the following prompts:

- 1. Based on the reading of your novel so far, how well does the setting of the book represent the characteristics of a dystopian world?
- 2. Based on your reading of your novel so far, how well does the main character represent the characteristics of a protagonist in a dystopian novel?

Students received similar instructions for completing the writing assignment as students in trimester two. The 12th-grade assignments can be found in Appendix D.

I selected the writing from these prompts for analysis because they offer students the opportunity to analyze texts to develop a response. The prompts require students to pull evidence from several places in their texts to support their opinions and ideas. Additionally, these prompts were the only assignments in SWoRD from 12th grade that asked students to write an extended essay.

4.2 CHANGE IN WRITING SCORES

4.2.1 Overall Change in Writing Scores.

In comparing students' writing from 9th to 12th grade, students improved in their abilities to compose a focused and evidence-based response to a teacher-created prompt despite the fact that a number of students saw their scores decrease in certain rubric dimensions. There was a statistically significant increase (p=0.003) in students' overall writing scores from 9th grade (M=14.5; SD=4.1) to 12th grade (M=17.1; SD=4.4). When comparing the rubric scores from 9th to 12th grade, 27% of the 40 student participants (n=11) increased their scores in at least 5 of the six dimensions on the rubric. When looking at each individual dimension of the rubric, 70% (n=28) of students increased their score in Responding to the Prompt; 45% (n=18) increased in Ideas; 50% (n=20) increased in Evidence; 33% (n=13) increased in Organization; 50% (n=20) increased in Grammar; and 55% (n=22) increased in Language. However, some students also showed a decrease in score from 9th to 12th grade. 25% (n=10) of students decreased their score in Responding to the Prompt; 18% (n=7) decreased in Ideas; 15% (n=6) decreased in Evidence; 18% (n=7) decreased in Organization; 13% (n=5) decreased in Grammar; and 6 decreased in Language (see Tables 1-6 for a breakdown of student scores).

Table 4. Distribution of Dimension Scores for Responding to the Prompt

Score Point	9th Grade	12th Grade	Change
1	3	4	1
2	18	8	-10
3	16	14	-2
4	3	14	11

Note. *N*=40.

Table 5. Distribution of Dimension Scores for Ideas

Score Point	9th Grade	12th Grade	Change
1	8	4	-4
2	13	9	-4
3	18	20	2
4	1	7	6

Note. *N*=40.

Table 6. Distribution of Dimension Scores for Evidence

Score Point	9th Grade	12th Grade	Change
1	12	5	-7
2	14	15	1
3	14	17	3
4	0	3	3

Note. *N*=40.

 Table 7. Distribution of Dimension Scores for Organization

Score Point	9th Grade	12th Grade	Change
1	2	2	0
2	10	10	0
3	25	18	-7
4	3	10	7

Note. *N*=40.

Table 8. Distribution of Dimension Scores for Grammar

Score Point	9th Grade	12th Grade	Change
1	9	1	-8
2	5	6	1
3	24	25	1
4	2	8	6

Note. *N*=40.

Table 9. Distribution of Dimension Score for Language

Score Point	9th Grade	12th Grade	Change
1	8	0	-8
2	10	11	1
3	19	16	-3
4	3	13	10

Note. *N*=40.

One possible reason for the decrease in students' scores was the amount of effort that students opted to put into their writing across their four years at Metropolitan Charter School. During the interviews, several students indicated that they felt their classmates had not been putting effort into their writing and even admitted that they had not dedicated much time to their own writing assignments. In response to a question about why she thought students had trouble writing, Beth replied, "Maybe 'cause they don't want to do it...I think some people are just lazy and not do the work that they're supposed to just to get the grade and then they wonder why they got that grade." Janet shared similar ideas:

[I]t's laziness, because I know some of the most talented writers that don't write, because they're just lazy, but when they do write, it's so interesting. I also think kids struggle, because they don't take the time out to, like I said, connect with the topic and find an interest in it. It's lack of interest mainly.

It also is possible that some students may have been experiencing what has come to be known as "senior slump," an effect that happens during senior year of high school when students who have received college admittance decide that they have earned the right to relax during the second half of senior year. Thus, seniors may regress in their preparation to engage in and successfully complete college-level work (Kirst, 2000).

Janet highlighted another possibility for the decrease in some students' scores. Students may not have been invested in the writing assignments given to them by Mr. Zain and therefore were not interested in writing to the assigned prompts. In response to the question "Why do you think some students have trouble writing?" Janet stated the following:

[I]f it's a prompt that you don't really connect with, try your hardest to find a connection, because there's always some way, somewhere, that small connection you can make with almost everything...Once you're interested, it's so much easier for you to focus and do it, because you're like, "Oh well, I know what I'm doing now.

Janet's comments highlight the importance of interest and relevance of academic work to student achievement. Research has shown that interest has a positive influence on academic writing (Hidi & Boscolo, 2006). However, Hidi and McLaren (1991) have found that interest in a topic and motivation to write do not always result in improved writing performance; students' knowledge of the topic plays a major role in writing quality. Students produce higher quality writing when they write about a topic that they are interested in and that they have researched and developed a knowledge base around (Mason & Boscolo, 2000; Langer, 1984). It may be possible that some students in Mr. Zain's class did not have enough content knowledge to produce responses to the prompts, either because students did not complete the novels Mr. Zain asked them to write about or because they simply did not have enough understanding of literary features such as theme or the characteristics of a dystopia.

Choice can also be a motivating factor in getting students invested and interested in writing (Graves, 2003; Atwell, 1998), and students did have some choice in Mr. Zain's classes. In 9th grade, Mr. Zain gave students multiple prompts from which to choose for their essay on

The Other Wes Moore. Along with the choice of prompt, students had the opportunity to select the novels they would write about in 12th grade. However, this type of choice is not what Graves and Atwell were referring to. For students to be truly motivated to write, teachers should allow them to choose the topic, audience, and genre for their writing. Despite the choices Mr. Zain gave students, he may not have done enough to motivate his students to take the assignments seriously.

To account for students who may have experienced decreased motivation to write across their four years at Metropolitan, I conducted a second analysis of a subset of student writing, excluding students who experienced a decrease in score of 5 points or more on the writing rubric from 9th to 12th grade (n=6). Additionally, because a part of the focus of this study was how writing changes in a school where students frequently participate in peer review tasks, students who did not participate in providing peer feedback in either 9th or 12th grade were dropped from the analysis as well (n=13). The creation of a subset of students allowed me to focus on changes in the writing of students who received the full benefit of participating in the assigned feedback tasks. The adjusted data set included writing rubric scores for 21 students. Table 10 shows the descriptive statistics for the subset of students' writing in 9th and 12th grade.

The change in the number of paragraphs in the subset of students' papers from 9^{th} (M=5.05; SD=0.22) to 12^{th} grade (M=5.10; SD=0.54) was not statistically significant (p=0.72). Similarly, the change in the number of words in student writing from 9^{th} (M=561.67; SD=218.02) to 12^{th} grade (M=640.54; SD=254.82) was not statistically significant (p=0.21). However, the change in overall rubric score from 9^{th} (M=14.24; SD=4.40) to 12^{th} grade (M=17.71; SD=3.49) was statistically significant (p=0.001).

Table 10. Descriptive Statistics for Student Writing in Grades 9 & 12

	Numbe	er of Para	agraphs	Nun	ber of W	ords	Overa	ll Rubrio	Score
	9 th	12 th		9th	12 th		9 th	12 th	
Student	Grade	Grade	Change	Grade	Grade	Change	Grade	Grade	Change
Matthew	5	5	0	513	594	81	17	18	1
Rachel	5	6	1	1222	729	-493	21	24	3
Amy	5	5	0	521	367	-154	11	13	2
Beth	5	4	-1	275	376	101	11	17	6
Cate	5	5	0	994	791	-203	16	22	6
Cara	5	4	-1	465	314	-151	18	16	-2
Jack	5	5	0	395	597	202	18	18	0
Kim	5	5	0	465	314	-151	19	19	0
Sophie	6	5	-1	541	483	-58	15	17	2
Sam	5	5	0	335	1127	792	14	18	4
Bree	5	5	0	584	570	-14	15	17	2
Kala	5	5	0	647	1085	438	20	24	4
Kai	5	6	1	518	279	-239	18	20	2
Ken	5	5	0	405	447	42	16	22	6
Emily	5	5	0	390	641	251	18	19	1
Danni	5	6	1	621	1035	414	8	11	3
Vinny	5	5	0	645	684	39	10	13	3
Drake	5	5	0	487	780	293	7	17	10
Tanya	5	5	0	397	589	192	8	16	8
Curtis	5	5	0	736	940	204	9	18	9
Rick	5	6	1	639	709	70	10	13	3
Mean	5.05	5.10	0.05	561.67	640.52	78.86	14.24	17.71	3.48
SD Note N=21	0.22	0.54	0.59	218.02	254.82	279.93	4.40	3.49	3.08

Note. *N*=21.

4.2.1.1 Changes in response to the prompt

There was a significant increase (p=0.002) in the scores the 21 students received in the Responding to the Prompt dimension of the rubric from 9th grade (M=2.43, SD=.81) to 12th grade (M=3.10, SD=.83). The difference in means between 9th and 12th grade shows a 27.60% increase in students' scores (see Table 11 for a breakdown of dimension scores).

Table 11. Distribution of Dimension Scores for Responding to the Prompt

Score Point	9th Grade	12th Grade	Change
1	2	1	-1
2	10	3	-7
3	7	10	3
4	2	7	5

Note. *N*=21.

The Responding to the Prompt dimension of the writing rubric asked: "How well does the writing respond to the prompt" and provided a holistic score point that made it necessary for the rater to consider students' use of ideas, evidence, and explanation when evaluating how well the writing responded to the prompt. Students in 12th grade provided more developed responses to the given prompts than writing in 9th grade. Fifty-seven percent (n=12) of the 9th grade students scored low (1) or below average (2) and 43% (n=9) scored average (3) or above average (4) on the Responding to the Prompt dimension of the rubric. Students that scored in this range did not make it clear to the reader how the entirety of the paper connected to the prompt, or they provided a response that did not respond to the prompt.

Students that scored in the low and below average range did not make connections between the prompt, the ideas, and evidence. For example, one student, Curtis, responding to the prompt, "How important are the families in shaping the lives of the Wes Moores?" began his essay with the thesis statement, "Family's life helps shape both Wes Moore, by helping them figure out what they are going to accomplish in life." Curtis provides a thesis that is a general statement about how the two families shaped the two Wes Moores's lives and then utilizes summary for the remainder of his paper. Only 40% of the writing in each paragraph of Curtis's essay worked to respond to the prompt. Curtis used examples from the memoir in his paragraphs

but provided no explanation of how those examples connect back to the thesis or the prompt. In one paragraph the student wrote:

Each mom show different discipline the Author Wes would smack Wes every time he hit is sister, and sent him to military camp. The other Wes Moore mom didn't show any discipline to Wes. She would always believe Wes and never put him on punishment. When she found his drugs she didn't get mad she just flushed his drugs done the toilet. When Wes yelled at her for flushing his drugs down the toilet she didn't smack him.

The student begins the paragraph with an idea that is loosely related to the prompt, that each mother in the story disciplined differently. The student uses different examples of how the mothers disciplined each Wes but does not tie that idea or the examples back to the prompt by explaining how these events shaped either Wes's life. This paper began with a thesis statement, included topic sentences for each paragraph, and examples from the novel to support the topic sentences, but there was never any explanation of how the ideas in each paragraph support the thesis statement or connect back to the prompt.

By contrast, 19% (n=4) of students scored low (1) or below average (2) and 81% (n=17) of 12th grade students scored average (3) or above average (4) on the Responding to the Prompt dimension of the rubric. Eighty-nine percent more students scored average or above average in 12th grade compared to 9th grade. Of the 21 students in the subset, 14 students improved their score at least one point from their 9th grade score. Students in 12th grade typically provided explanations of how their evidence and ideas connected back to the prompt more so than students in 9th grade. Students in the average to above average range typically provided clear theses that were a direct response to the prompt. Students also used a clear pattern of writing.

Body paragraphs began with an idea statement or claim followed by a quotation from the text.

The author then explained how the paragraph supported the thesis and responded to the prompt.

Returning to the case of Curtis, approximately 70% of the writing in each of Curtis's paragraphs in his 12th grade essay work to respond to the prompt. In response to the prompt, "What is a major theme in your novel?" Curtis wrote the following thesis statement, "In the novel The Green Mile, the themes that are seen in this book are racism and tragedy." In each of the body paragraphs, the student analyzed a quotation from the novel, connecting the evidence from the book back to racism or tragedy. For example, in one paragraph Curtis wrote the following:

Like I said, it's hard to even put into words what the story says about mankind. It's full of good and evil. John Coffey had the ability to cure the illness of others around him, such as Paul's urinary infection, Mrs. Detterick's brain tumor, and he saved the life of his pet mouse Mr. Jingles. Paul, one of the prison guards, explained John Coffey's abilities by saying, "Mr. Jingles should have died, but he didn't. Coffey did something to him with his bare hands. Healed him somehow. I know how that sounds, but I saw it with my own eyes. (282). On that day, he had reached the twin girls much too late to be able to heal them. Which is why one of the major themes was tragedy, because was Coffey got to the two corpses he cried holding them wishing that he got there in time to heal them. Once the cops' arrival they notice that Coffey was holding two dead girls in his arms, which left the wrong impression. John explained the situation by saying, "I couldn't help it, Boss. I tried to take it back... but it was too late."

Curtis states that Coffey's healing abilities and his inability to use them when two girls die support his idea that one of the themes in the story is tragedy. In 9th grade, Curtis fails to explain the connections among the ideas, evidence, and the prompt; he summarizes examples from the memoir but did not explain how he saw those examples supporting the idea that family shaped the lives of the Wes Moores. He left the examples to speak for themselves. In 12th grade, Curtis works in each paragraph to make the connection between his writing and the prompt somewhat clear. He restates that the theme of the novel is tragedy and then explains why the quotation that he selected shows that the story of John Coffey is tragic. Curtis does not leave his claims and quotations to stand on their own.

4.2.1.2 Change in ideas

The Ideas dimension of the rubric asked how well students developed the ideas in the paper. Students needed to state their ideas clearly and support each idea with evidence and reasoning explicitly connect to the thesis statement to receive a four in this dimension. Elbow (1991) describes the development of ideas as central to academic writing, defining academic writing as "the giving of reasons and evidence rather than just opinions, feelings, experiences; being clear about claims and assertions rather than just implying or insinuating; getting thinking to stand on its own two feet rather than leaning on the authority of who advances or the fit with who hears it" (p. 140). The Ideas dimension of the analytic rubric was meant to capture how well students explained their ideas and explained the evidence they selected from the text, but not evaluate the evidence itself. Stating reasons, using clear claims and assertions, and creating a document that can "stand on its own two feet" proved difficult for many 9th grade students.

The difference in scores between 9^{th} grade (M=2.24, SD=.77) and 12th grade (M=2.86, SD=.73) on the Ideas dimension of the rubric was statistically significant (p=0.03). The

difference in means between 9th and 12th grade shows a 22% increase in students' scores (see Table 12 for a breakdown of dimension scores). Fifty-seven percent (n=12) of 9th grade students scored low (1) or below average (2) and 43% (n=9) scored average (3) or above average (4) on the Ideas dimension of the rubric.

Table 12. Distribution of Dimension Scores for Ideas

Score Point	9th Grade	12th Grade	Change
1	4	1	-3
2	8	4	-4
3	9	13	4
4	0	3	3

Note. *N*=21.

Students that scored in the low to below average range did not express clear ideas, or did not develop the ideas in the paper with evidence or explanation. Students who wrote papers with underdeveloped ideas may have stated an idea at the beginning of a paragraph, but failed to develop the idea by explaining how the evidence used supported the stated idea. This meant that, at times, a large amount of the writing in the body paragraphs were quotations from the memoir as opposed to students' own writing. Beth wrote the following paragraph as part of her essay on *The Other Wes Moore*:

First, crime affects young men. "In crime in balitmore and its suburbs had spiraled out of controlparticulary in the city proper. City was averaging over three hundred murders.police consistently trying to solve murders" (148). This statement shows how dangerous drugs and other violence can affect you life.

Beth states the idea, "crime affects young men," but fails to explain what crime affecting young men means. She then attempts to support that statement with a few sentences from the

memoir that provide commentary on the state of crime in Baltimore. Beth then makes an absolute statement about drugs and violence, failing to talk about the impact crime in Baltimore has on young men and on the young men in the novel. The paragraph does not explain how the evidence relates to the idea that crime affects young men, letting the evidence stand on its own as support for her idea. Papers like Beth's with underdeveloped ideas were often short in length. Of the 12 papers that scored low or below average on the Ideas dimension of the rubric, nine papers were under 500 words and paragraphs were typically three to four sentences long with at least one sentence being a direct quote from the novel.

Conversely, 24% of 12th grade students scored low (1) or below average (2) and 76% (n=16) scored average (3) or above average (4) on the Ideas dimension of the rubric. Of these 16 students that scored average or above average, 10 improved their score by at least one point over their 9th grade Ideas score. Students with papers that scored average or above average developed their ideas through explanations of how he or she understood the evidence supporting the main idea of each paragraph. In her essay in response to the prompt "Based on the reading of your novel so far, how well does the setting of the book represent the characteristics of a dystopian world?" Beth wrote the following paragraph:

One characteristic of a dystopian world is that there is the Illusion of a perfect society. "You were running," the man said. "That's fine." "No, I was falling. There's a big difference." It was important that he be understood. "I fell from a window. Fell". Logan twisted away, began to run (Nolan & Johnson, pg 18). This is important because that was like a nightmare from the drug that the people gave to him, he didn't want to be falling from a window but to have some sort of

"happiness" from his experience. It appeared that everyone was happy. In reality, everyone is trying to find happiness through drugs and sex.

Beth's idea in the paragraph is that the novel demonstrated the characteristic of having the illusion of a perfect society. She supports this idea through the use of a direct quotation from the novel *Logan's Run* (Nolan & Johnson, 1967) that shows that citizens of the society were receiving drugs to make them happy. Beth then goes on to further develop the idea that there is the illusion of a perfect society in the novel by explaining that when the character received the drug, he had a bad experience which may have disrupted the illusion of happiness and highlighted the actual dangers in society. Unlike Beth's 9th grade paper, which utilizes single sentence statements that mostly restate rather than explain her ideas, Beth's 12th grade paper utilizes 2-3 sentences of explanation of how her evidence supports or connects to each idea. Her ideas for each paragraph in this essay also are more specific than the ideas Beth states in 9th grade. For the dystopian essay, Beth specifically states the characteristic she will write about at the beginning of each paragraph. After providing textual evidence, she then unpacks that evidence and provides reasoning about why the provided examples show that, for example, happiness in *Logan's Run* was just an illusion.

4.2.1.3 Changes in evidence

The Evidence dimension of the rubric asked how well students used relevant and sufficient evidence to support their ideas. The difference in scores between students in 9^{th} grade (M=2.10, SD=.83) and 12th grade (M=2.57 SD=.75) on the Evidence dimension of the rubric was statistically significant (p=0.01). The difference in means between 9^{th} and 12^{th} grade shows an 18.3% increase in students' scores (see Table 9 for a breakdown of dimension scores). For students to provide sufficient evidence in support of their responses to the 9^{th} and 12th grade

prompts, students needed to cite evidence from across the text that was the focus of the assignment.

Table 13. Distribution of Dimension Scores for Evidence

Score Point	9th Grade	12th Grade	Change
1	6	1	-5
2	7	9	2
3	8	9	1
4	0	2	2

Note. *N*=21.

When looking at how 9th grade students scored on the Evidence dimension of the analytic rubric, 62% (n=13) of 9th-grade students scored low (1) or below average (2) and 38% scored average (3) or above average (4). Students who scored low or below average either used little to no evidence in their writing or the provided evidence did not sufficiently support the students' ideas. For example, when writing about *The Other Wes Moore*, Drake made an attempt to support the idea that the character of Tony had a negative impact on Wes's life with the following paragraph:

"Besides watching tony, Wes's first real interaction with drugs had taken place a few months earlier, just before the move out to Baltimore County." This is on page. 59 and this impact on the Other Wes live negative because tony is affect his life and he is selling drugs. It's making Wes doing the same thing and making bad choices.

The quotation that Drake selected from the novel suggests that an interaction in Baltimore County first exposed Wes to drugs, an interaction that took place outside of his

interactions with Tony. Although the quotation may have seemed relevant to the student because it mentioned both Tony and drugs, it does little to support his point that Tony.

Students' use of relevant evidence improved in 12th grade. Forty-eight percent of 12th-grade students scored low (1) or below average (2) and 52% (n=11) scored average (3) or above average (4) on the rubric. Forty-two percent (n=9) of 12th-grade students improved their score by at least one score point in the Evidence dimension from 9th grade to 12th grade. Students in 12th grade were more likely to include evidence that supported their ideas rather than supporting main ideas with marginally related evidence. For example, one 9th grade student wrote the following, "The author Wes "I knew my mother was considering sending me away" pg. 87. His mom stopped him from having a bad future by sending him away to military school, and it helped him as a man." The evidence selected by the student directly states the idea that Wes's mom was considering sending him away, which is a piece of the main idea of the paragraph but does nothing to support the idea that the action of sending Wes away prevented him from having a bad future. The use of evidence that was marginally related decreased in 12th grade.

Returning to Drake, when writing about the characteristics of characters in a dystopian society, he wrote the following paragraph:

The next characteristic of protagonist in dystopian novel is they question the system. Why is the society like this? There are more questions from them that they questioned about the systems. Here's one evidence from the book on page 44, "Lev continues to study him. Why are you being unwound?" Basically he asked Connor why and this was at the beginning where they let Levi go. As he let him go, Rissa are with them too and she questioned on page 59, "What if they don't want to take us to be unwound. What if they want us dead?" As they was

going into a town, Rissa questioned on page 59, "What if they paid off the police to get you back by killing the kidnappers...and to do it quietly, so no one ever knew it happened?" All of these characteristics are questioning the system.

Unlike his 9th grade writing that utilized quotations that were loosely related to his ideas, Drake selected quotations that show characters questioning the society and system that they are a part of. The evidence is relevant to the main idea of the paragraph and supports the idea that the characters in *Unwind* (Shusterman, 2007) actively questioned the system. However, I noted that although the quality of Drake's evidence improved, Drake does not provide much explanation for the evidence that he used.

4.2.1.4 Changes in organization

The Organization dimension of the rubric asked how well students organized their writing and if the organization was logical. I asked scorers to think both about global organization of each essay and the local organization of paragraphs when considering a score for each essay. I could see a clear pattern of standardized global organization when looking at student writing from 9th and 12th grade. When looking at the global organization of the essays, students typically followed a five-paragraph format including an introduction, three evidence paragraphs, and a conclusion as specified by the task sheet students received prior to responding to the prompt. However, students' ability to locally organize paragraphs changed from 9th to 12th grade. The difference in scores between 9th grade (M=2.71, SD=.72) and 12th grade (M=3.00, SD=.63) on the Organization dimension of the rubric was statistically significant (*p*=0.01). The difference in means between 9th and 12th grade shows a 10% increase in students' scores (see Table 14 for a breakdown of dimension scores). Thirty-three percent (n=7) of the 9th-grade students scored low (1) or below average (2) and 67% (n=14) scored average (3) or above average (4) on the

Organization dimension of the rubric. The high percentage of students scoring average or above average was surprising given that Mr. Zain indicated during his interview that many of his students had not received writing instruction prior to coming to Metropolitan; students echoed this idea during their interviews.

Table 14. Distribution of Dimension Scores for Organization

Score Point	9th Grade	12th Grade	Change
1	1	0	-1
2	6	4	2
3	12	13	1
4	2	4	2

Note. *N*=21.

Typically, papers that scored in the below average or low range lacked explicit markers of global organization, such as transitional sentences between paragraphs, or had poor local organization by failing to introduce ideas at the beginning of paragraphs and opting to begin each paragraph with a quotation from the book. Although starting a paragraph with a quotation can often be an effective stylistic choice, the use of quotations at the beginning of paragraphs in this set of writing often obscured the purpose of the quotation in the paragraph. For example, in his 9th grade essay on *The Other Wes Moore*, Rick attempts to develop a response around the thesis statement, "In the book, the Author Wes and The Other Wes give a descipition of the rough street life. They try to tell the reader how Violence, Drugs are being a big attraction toyoung men." Each of the paragraphs in his essay begins by stating, "In the book on pages..." He then gives the quotation and provides a sentence or two of summary of the events around the quotation. For example, in one paragraph he writes:

In the book on page 69-70 Tony asks Wes "how did he and where did he get the money"? But tony doesn't remember that he told Wes that he can make a lot of money by selling drugs. So, that's what Wes did, He started selling drugs and made more money than his brother Tony. Then 2 weeks later Tony found out that he has been doing it.

Rick lacks a main idea and an argument about how the evidence shows that violence and drugs were an attraction to Wes. He does not explicitly connect this quotation, and additional exposition to the thesis statement and the organization of the paragraph makes it difficult to follow how Rick's idea that violence and drugs are attractive to young men connects to the evidence used. Langer (1984) found that difficulty with organization relates to the ability to construct coherent essays in different writing genres (i.e., thesis/support; compare/contrast). In her study of 10th-grade students, she found links between low scores on writing that had information that was relevant to the overall ideas in the paper to students' lack of knowledge about specific writing genres. As students in Langer's study became more knowledgeable about the types of writing expected by the teacher and the prompt, organization of essays improved and writing scores increased. It is possible that students who had difficulty with organization in this current study had not had explicit instruction on the global organization of an essay or the organization of a paragraph and were new to the expectations of a five-paragraph essay.

Students organization scores improved in 12th grade. Nineteen percent (n=4) of 12th-grade students scored low (1) or below average (2) and 81% (n=17 scored average (3) or above average (4) on the rubric. Four 12th grade students improved their score by at least one score point in the organization dimension from 9th grade to 12th grade. Given the high percentage of students who scored average or above average in 9th grade, I expected that the number of students who

improved in 12th grade would be small. Typically, global and local organization of writing in 12th grade was clear. Globally, students worked to help readers follow the development of their ideas across paragraphs by including an introductory paragraph that introduced a thesis, including a statement of the three ideas they will support in their writing, using transitional sentences, introducing each stated idea at the beginning of a paragraph, and concluding with a restatement of the thesis.

Local organization within paragraphs followed a clear pattern across 12th grade papers as well. Introductory paragraphs typically began with a "hook," followed by a sentence or two of exposition and concluded with a thesis statement. Body paragraphs, such as the below paragraph from Rick's paper on characteristics of a dystopian society in *The Handmaid's Tale* (Atwood, 1985), followed a typical pattern of organization as well:

Second characteristic brought upon in the novel dealt with women being under surveillance. One quote stated was "We turn and walk together past the large houses towards the central part of town, we aren't allowed to go there except in twos" (Atwood,19) Doubled, I walk the street. Though we are no longer in the Commander's compound" (Atwood23). This quote supports the thesis because it shows how women or any other citizens has to be surveillance by the commanders' workers; the Guardians.

Rick begins his paragraph by stating the point he will support – that characters in a dystopian society live under surveillance. He then supports that point with quotations from the book and provides an explanation of how the quotations support his point.

Rick's writing in 12th grade follows a standardized pattern of organization typically found in five paragraph essays, an assessment driven genre that permeates writing instruction in

schools where there is a heavy focus on helping students pass yearly standardized examinations (Hillocks, 2002). As a less experienced writer in 9th grade, Rick's writing showed that he might have had a more basic understanding of the five-paragraph essay. His introduction started with a "hook" and ended with a thesis statement; however, his three body paragraphs were a summary of the memoir (Rick did not have a concluding paragraph). Like other 12th grade students at Metropolitan, Rick's knowledge about the five-paragraph essay increased as he practiced writing and reading other essays of that genre.

4.2.1.5 Grammar and language

The raters scored the Grammar and Language dimensions on the analytic rubric separately; the Grammar dimension of the rubric centered on how frequently students made grammatical errors and if the grammatical errors had an impact on the readability of the writing. The Language dimension of the analytic rubric focused on how well students used language appropriate to grade level and task in their writing. I defined appropriate language for scorers as formal language or language that a teacher would expect to see in an academic essay. I will report quantitative results for the two dimension separately; however, because grammar and language are intertwined, the qualitative examples of grammar and language at 9th and 12th grade will be discussed together.

The difference in scores between 9th grade (M=2.38, SD=.54) and 12th grade (M=3.10, SD=.92) on the Grammar dimension of the rubric is statistically significant (*p*=0.001). The difference in means between 9th and 12th grade shows a 30% increase in student scores (see Table 15 for a breakdown of dimension scores). Similarly, the difference in scores between 9th grade (M=2.38, SD=.92) and 12th grade (M=3.10, SD=.70) on the Language dimension of the

rubric is also statistically significant (p=.001) with a similar mean increase of 30% (see Table 16 for a breakdown of dimension scores).

Table 15. Distribution of Dimension Scores for Grammar

Score Point	9th Grade	12th Grade	Change
1	5	0	-5
2	4	2	-2
3	11	15	4
4	1	4	3

Note. *N*=21.

Table 16. Distribution of Dimension Score for Language

Score Point	9th Grade	12th Grade	Change
1	5	0	-5
2	5	3	-2
3	9	12	3
4	2	6	4

Note. *N*=21.

Forty-three percent (n=9) of 9th grade students scored low (1) or below average (2) and 57% (n=12) scored average (3) or above average (4) on the Grammar dimension of the rubric. Additionally, 48% (n=10) of 9th grade students scored low (1) or below average (2) and 52% (n=11) scored average (3) or above average (4) on the Language dimension. Students who scored low or below average had frequent errors of punctuation, verb tense, and colloquial language. Students appeared to be using grammatical features that might appear in their spoken language as opposed to utilizing more formal grammatical features typically expected in academic writing. For example, in her essay about *The Other Wes Moore*, Amy wrote the following as part of a paragraph explaining that family played an important role in the main characters' lives:

Also believe that that way their family was affected them. In the story it says on page 72 "Don't ask a question unless you are ready to hear the answer" The other Wes mom said that when she wanted to know where all the money came from she found. I think that this shows that Wes's mom wasn't a tryst mom like she really didn't care. Because I know any parent that would want to find if their kind was doing something bad even if it was so bad that you was scared to hear the answer they would do everything in their power to find out what they was doing, and not just ask because they are not ready to hear the answer. I believe that's it's your parents job to show you right and wrong when you're a kid and if they don't then you are going to think everything okay because your parent never cared. Or showed you what was right and what was wrong.

In looking at Amy's first sentence, she changes the subject of the sentence from "parent" to "you," making it hard to distinguish whom she is talking about and making it difficult to identify clearly her idea. Subject-verb agreement errors also marked Amy's writing. She used the singular version of the verb "was" as opposed to the appropriate plural "were" in the sentence, "Because I know any parent that would want to find if their kind was doing something bad even if it was so bad that you was scared to hear the answer they would do everything in their power to find out what they was doing..." Her writing is also missing copulas ("everything okay" as opposed to "everything is okay") in several places across her paper. The absence of copulas is a grammatical pattern found in African American Vernacular English and other dialects and may reflect Amy's spoken language. Amy's 9th grade writing also demonstrated frequent errors in sentence boundaries. Approximately 50% of the sentences across her essay were fragments or run-ons.

When looking at the language Amy used when writing this paragraph, the word "tryst" stands out as a term that one would not expect to find in an academic essay and a word that that may be unfamiliar to the reader. Additionally, Amy wrote this essay in first person. Mr. Zain had previously explained to students that first person had no place in academic writing and that the reader should not "see" the writer of an essay. Amy is very apparent in this essay and often inserted her personal opinions into her explanations of the memoir.

In 12th grade, students' ability to utilize more formal grammatical features of English and formal language improved. Ten percent (n=2) of students in 12th grade scored low (1) or below average (2) and 90% (n=19) scored average (3) or above average (4) on the Grammar dimension of the rubric. Similarly, 14% (n=3) of 12th grade student scored low (1) or below average (2) and 86% (n=18) scored average (3) or above average (4) on the Language dimension. The following excerpt shows how Amy's ability to utilize formal language and grammatical features changed in 12th grade:

In the story he talks about [how] they got kicked out of their house so now, there at EUA, which takes them to a hotel until they find them a home to stay. In the story it was "I want to ask her are they founding as a place but I just glare by without saying a word. I don't have anything to say to her no more". I believe that this shows he's trying to find him a place to live because he doesn't want to be there. His dads in prison, so he believes that he was to the man in the house.

Amy's 12th grade writing included fewer fragments and run-on sentences. However,
Amy continued to show difficulty utilizing punctuation. Her use of commas in the first sentence
suggests that she developed an awareness of some grammatical rules (i.e., using a comma with

coordinating conjunctions), but had not become proficient enough with the rules to utilize her knowledge of those rules consistently.

Additionally, although Amy's 12th grade writing does not include colloquial terms, it continues to include the use of first person pronouns, although not as frequently as in 9th grade. In 12th grade, Amy states her analysis of the text in first person rather than rather than using first person to state her opinions.

I completed additional analysis of grammatical features in student writing using Coh-Metrix. Coh-Metrix provided measures for 160 language and grammatical features of each student's writing. For the purposes of this study, I focused on the index for positive logical connectives (i.e., also, moreover). Connectives are cohesive devices that help guide the reader through a text, and logical connectives make explicit for the reader the logical connections between sentences. As student writers become more adept, they create cohesion through other cohesive devices (Crossley, Weston, Sullivan, & McNamara, 2011) and typically the use of connectives decreases. The use of positive logical connectives in the subset of students' writing decreased from 9th (M=40.80; SD=8.52) to 12th grade (M=34.18; SD=7.52). The decrease in the use of connectives was statistically significant (p=0.01). This is similar to the findings of Crossley et al., who found that when comparing the writing of 9th grade students to 11th-grade students, 9th grade students used significantly more positive logical connectives in their writing. Student writers utilize positive logical connectives to create local coherence in their writing. The decrease in positive logical connectives does not indicate that students' writing is less coherent than writing in 9th grade; it may indicate that the writing has become more sophisticated by allowing the reader opportunities to make inferences (Crossley & McNamara, 2010).

4.2.2 Metacognitive Awareness of Writing

Interview students were specifically asked to describe "good academic writing" to provide a sense of what they understood about how their essays for Mr. Zain should look like. The ideas of five of the six students were consistent, each of those students stated a variation of Rachel's comments:

I would say good writing has to be written right. It has to be written correctly. You have to use a proper grammar. You have to use proper sentence structure. You have to have all those basics down. And then you have to also be able to know what your point is that you're trying to get across. And you have to know how to effectively articulate that in the written word...[you] need a thesis statement and the first... Like know what you're trying to say before you start writing and know what you're going in writing about. Then have those three points or so in the thesis statement and then format the rest of the essay that way.

Rachel states that good writing is "correct," free of grammatical and spelling errors. She also notes that it needs to have three points, an idea that was frequently seen in Mr. Zain's assignments and rubrics.

The sixth student, Janet, consistently talked about writing differently than her peers. She stated the following in her response to the question about "good academic writing":

Writing is basically just telling stories. Whether it's a true story, or a false story, an informative story. You just have to make that story as interesting as possible, and there's ways that... I've read nonfiction reading that's been way more entertaining to me than fiction reading, just because of how the story switched up

even though it's all fact. It's completely true. The way it's mixed up makes it more interesting. It makes you wanna continue to read and learn about it.

Previously, Janet had talked about writing as something that needs to hold the reader's attention and continued that idea by talking about writing as telling stories. Her discussion of writing was concerned with effectively communicating an idea to her audience as opposed to getting the different pieces of the essay "correct." The idea that writing was about communicating to an audience was something not expressed by the other students.

4.2.2.1 Revisiting 9th grade writing

During the interview, I provided students with a copy of the writing they had completed in 9th grade. Students were asked to read the essay and talk through what they thought and to provide some feedback to themselves. The results of students' think alouds about their writing are similar to the findings above. Four of the six students specifically discussed the lack of analysis and explanation happening in their 9th grade writing. While reading his essay, Victor determines that he never fully supported his main ideas. He states:

I would need a lot more in each of these paragraphs...My conclusion starts with, "What author Wes said was true," so I'm not really... I'm not really talking about this last sentence in my introduction paragraph, "People make their own choices to shape their lives, but others do have the capability to change their fates." I'm not really saying that. I say it in a slightly different way which is key points and decisions that they both made at different times...but I'm not restating my main argument. I'm just talking about an aspect of it. And here, it feels like I'm just writing a very small synopsis of the book.

Victor notes that he does not have enough information in his body paragraphs. He goes on to recognize that his conclusion is only discussing a piece of what he saw as his main argument as opposed to capturing his ideas from across the essay.

Like Victor, Rachel immediately recognizes that her essay is too short. She comments: Well, two body paragraphs isn't enough. I only had two. I would write... It says both of these pieces of art mention the struggles that they have had with violence and the strain that it initiated on their family lives. I would have a second one in between that. Somewhere I don't remember the book to really think of one, but I would definitely have a third one for the thesis, just so it's stronger because there are only two really long body paragraphs. So there's only... This is only four paragraph essay. It should be at least five.

Rachel recognizes that she should have a third point to support her thesis and states that the essay itself should have had at least five paragraphs, an idea stated by all six of the students interviewed when I asked them to describe good academic writing.

4.2.3 Conclusion

I expected that students in this study would become better writers across time. The focus of Mr. Zain's writing instruction was to help students develop as academic writers. Given that Mr. Zain focused on standardized writing, I expected that students in Mr. Zain's classes would develop knowledge around a specific genre of writing, a version of the five-paragraph essay, and would become more proficient at writing essays that fit in the five-paragraph essay frame. Mr. Zain was consistent in his statements about what an academic piece of writing looked like, stating in his rubrics and writing prompts that writing should have an introduction, three pieces of evidence,

and a conclusion. Across their four years at Metropolitan, students got better at producing essays that fit this standardized format.

Students' lack of extended writing experience prior to entering Mr. Zain's class may have caused writing errors in 9th grade (Shaughnessy, 1977). Students at Metropolitan came from several feeder schools and had a variety of experiences with writing prior to high school. When asked about her experience with writing in middle school, Beth indicated that the writing she was asked to do was always brief, "We had to write in these books. I forget what they're called, but they're like five to ten sentences on certain topics. And we would do that every week or so. And that was about it." Beth's experience was not unique. Applebee & Langer (2009) and Kiuhara, Graham, and Hawken (2009) have found that the amount of writing that teachers ask students to complete has declined since the 1980s. Without multiple extended opportunities to write, students do not receive sufficient practice at utilizing writing to develop their ideas. Mr. Zain asked students to write at least two extended essays, essays of more than one page, at least twice a trimester, which may have been more than teachers previously asked students to write in middle school. Although two longer writing assignments per trimester is still a small amount of writing, it appears to have been enough to help students improve as writers. Students also had the added benefit of seeing multiple models of writing through their work with peer review, which may have contributed to the change in their writing scores.

Research has shown that providing students with multiple models of writing helps students improve the quality of their own writing (Graham & Perin, 2007). Charney and Carlson (1995) hypothesize that active analysis of model texts, such as the work that students as they participated in peer review, may help students better understand the structures and patterns of particular genres of writing, even when the models under analysis are not perfect. Mr. Zain's

students had engaged with multiple models of writing, both good and not so good, through their peer review work, and I had expected that students would become better at explaining their ideas and evidence in writing because they could to see the ways that their peers had worked to explain their ideas and had experienced the effect of trying to read a paper when a peer had not sufficiently used explanation. Students improved at utilizing explanation in their essays. In a study conducted by Nystrand and Graff (2001), they found that 8th-grade students used information from an outside source to report on what they read rather than as evidence to support a thesis. Mr. Zain's 9th-grade students' writing was similar; they often summarized *The Other Wes Moore* as opposed to using evidence in body paragraphs for support and explanation of ideas. This ineffectual use of evidence may be a result of 9th-grade students drawing on their available knowledge of writing, knowledge they developed in elementary and middle school, where teachers may have asked students to report information as opposed to analyzing evidence. It may also be a result of students potentially not having enough of an understanding of the text they are writing about to utilize evidence to construct well supported and clearly connected ideas.

I noted that in both 9th and 12th grade, approximately 60% of the students only utilized evidence from the first 50% of the texts they analyzed. This may indicate that students did not complete the reading they were asked to do or that students may have had a working understanding of only the first half of the texts. Students who did not have a complete understanding of the texts they wrote about may have found it difficult to develop and explain their own ideas about the text. Students without a solid understanding of content, the texts students were asked to write about, may produce a written text that appears to meet the academic requirements of the assignment, but upon further evaluation shows students lack of knowledge

about content and writing (Smagorinsky, Daigle, O'Donnell-Allen, & Bynum, 2010). Although it was expected that students' ability to produce an academic essay would increase by 12th grade, students' reluctance or inability to engage with entire texts may have had a direct impact on their writing scores.

5.0 CHAPTER V: STUDENT FEEDBACK COMMENTS: FINDINGS

5.1 INTRODUCTION

Students provided feedback on multiple assignments in multiple content areas while attending Metropolitan Charter school. During interviews and surveys, students indicated that prior to coming to Metropolitan they had a variety of experiences providing feedback to their peers, but none of the students had been asked to use an online tool, such as SWoRD, to complete the feedback task.

My data analysis generated three major findings on how students' feedback changed from 9th to 12th grade. First, students improved in their ability to provide effective feedback to their peers across time. I defined an effective feedback comment as a critique that identifies a problem that, if revised, will result in the essay's score increasing by a point or more, and provides an explanation that may help the writer correct the problem. I expected that the percentage of feedback comments coded as effective would increase from 9th to 12th grade, and the percentage of comments each student provided coded as no critique, low critique, vague, or wrong would decrease. Students in this study moved from providing mostly praise or low critiques to providing high critiques with an explanation. I will examine this finding in section 5.3.

Additionally, statistical analysis of writing scores from 9th to 12th grade and the types of comments that students made in 9th and 12th grade showed that there was a correlation between

students' writing scores and the quality of feedback comments that students gave in 12th grade. I will examine this finding in section 5. 4.

My final finding involves the content of the comments that students made to their peers. I found that students moved from making brief comments about what was good or what needed improvement in the writing to providing comments with more specificity. In 9th grade, students made accurate comments about aspects of their peers' writing that needed to be improved, such as unclear introductions or not using enough evidence, but gave the writer few details about needed changes. Comments such as, "Explain some of your evidence better," conveyed an accurate message about a needed improvement but did not identify which specific explanations needed revision or what "better" meant. Twelfth-grade students, however, tended to provide more details in their comments on the specific places in the paper that needed to be revised as well the changes that could improve the paper. I will examine this finding in section 5. 5.

5.2 FEEDBACK PROMPTS

The following sections provide an overview of the feedback prompts that Mr. Zain asked students to use as they provided feedback to their peers in SWoRD. The prompts shaped the feedback that students gave, and since students tended to provide comments that responded directly to those prompts, it is useful to know Mr. Zain's expectations for student comments.

5.2.1 9th Grade Feedback Prompts

Students generated the peer feedback comments that I analyzed for 9th grade in response to student writing completed for *The Other Wes Moore* (see Appendix C for the writing prompts). Prior to giving feedback for this task, students provided feedback on one additional assignment for Mr. Zain. Before asking students to provide feedback on the first assignment, Mr. Zain modeled providing useful feedback for students. Mr. Zain showed them the differences between comments that could be considered helpful for revision of content and comments that would not give a writer much information about what needed to be revised (see Appendix E for the lesson).

Students wrote peer feedback in response to analytical essays written about *The Other Wes Moore*. Student reviewers utilized the following teacher-created feedback prompts:

- 1. Does the writer have a thesis in the first paragraph? Please write the writer's thesis in the box below. If the writer has no clear thesis, please offer the writer a suggestion.
- 2. What is the writer's best sentence in the essay? Copy it here and explain why you think it is the best sentence.
- 3. What did you like best about this essay?
- 4. What suggestions would you give the writer to make this essay stronger?
- 5. Give the essay a letter grade. A=Excellent; B=Good; C=Needs improvement; List TWO REASONS you would give this letter grade to the essay.

The feedback prompts provided to students seemed to shape and at times limit the feedback that students gave to their peers. In prompt one, students were only asked to provide a comment if the thesis was not clear. Similarly, reviewers were only asked to provide a comment about why they thought the sentence they selected was the best in prompt two. When analyzing the feedback that students provided in prompt three, reviewers often repeated the positive comments

they made in response to prompt two. I saw a similar trend with prompts four and five. Students often repeated the critiques they provided in prompt four in their response to prompt five.

5.2.2 12th Grade Feedback Prompts

The feedback comments analyzed for 12th grade came from the feedback given on two different writing prompts. As mentioned in chapter four, Mr. Zain asked students from different teams to read and respond to different novels (see Appendix D for the writing prompts). The feedback prompts students used in 12th grade were different for each of the 12th grade writing assignments. At the time Mr. Zain asked students to provide feedback to their peers on these two writing tasks, students had been giving and receiving feedback at least twice a trimester for Mr. Zain. Thus, students had many opportunities to learn about and practice providing effective feedback.

Students generated feedback comments for the writing prompts on dystopian literature using the following teacher created prompts:

- 1. What did you like best about the writer's introduction?
- 2. How well do you think the writer uses evidence in this essay? Is it a strong use of evidence to support thesis or does it seems like a random collection of direct quotes with no purpose? Please explain.
- 3. How well does the writer answer the prompt? Do they stick to one topic? Explain.
- 4. Now that you are done reading the essay, please list one thing you liked about the writer's essay and one thing that could be improved.

The feedback prompts students used in the classes where they wrote about a theme in a novel that they were reading were slightly different:

1. What is the best part of the intro? What could be improved?

- 2. How well does the writer use evidence from the text to support his/her thesis? Is it clear? Is it well written?
- 3. How well does the writer end the paper? What would you suggest to the writer about his/her conclusion?

Both sets of feedback prompts asked the reviewer to identify what he or she liked about the introduction; however, the prompt students used with the theme essays also asked students to identify what could be improved. Additionally, the feedback prompts for the theme essays asked reviewers to specifically address the conclusion of the paper, whereas the dystopian novel essay feedback prompts asked the reviewer to give the writer some feedback on the paper as a whole by listing something done well and something that could be improved. Mr. Zain also included the word "explain" at the end of two of the feedback prompts for the dystopian essays. Mr. Zain indicated that he did this to remind students to provide more than an affective response to their peers' writing.

5.3 TYPES OF FEEDBACK PROVIDED

5.3.1 Students Opinions of Good Feedback

Twelfth-grade students' descriptions of helpful feedback aligned with research on effective feedback. During the interviews, I asked students to explain good feedback. Five of the six students stated that a good feedback comment should be specific and locate the problems in a piece of writing. For example, Rachel stated:

It would be something specific. I was very good at peer reviewing I'd say because I would always give them something very specific to fix. I would literally copy a sentence out, quote it, then I would put underneath... Even examples on how they could rewrite it sometimes. So, I would say good peer review would be to do that because it's extremely specific. You need to tell them what they need to fix.

Otherwise they won't see it.

Rachel saw good feedback as identifying the exact problem and providing the specific sentence where the problem existed. She also saw good feedback as offering a suggestion of how to fix the problem. Providing a suggestion for revision was also an idea shared by Victor:

But more specifically in terms of feedback, the more specific it is, the better...But if they say, "Here's one or two examples, maybe there's more, or here's the only place that you messed up," that's even better. And then there's the cases where they offer an example, so they say, "Here's a way that I would say it," or, "Here's another way that you could phrase this that would sound less awkward or better."

Victor saw value in his peers offering suggestions of how to revise specific places in his essays. Students' ideas about good feedback are similar to research findings on the quality of peer feedback comments. Previous studies have found that comments that specifically locate a problem in a piece of writing and help the writer understand the nature of the problem by offering a suggestion for revision have a higher probability of being acted on than comments that provide little information (Nelson & Schunn, 2009). However, despite what students said about good feedback comments, the types of comments that students made during peer review in 9th and 12th grade did not always provide a specific location for a problem or explain the specific problems identified.

5.3.2 Results of Comment Coding

Students made a total of 3,038 feedback comments in 9th and 12th grade by a total of 163 students. Because a focus of this study was to analyze the change in student feedback comments from 9th to 12th grade, it is important that analyzed feedback comments come from students who participated in providing feedback in both 9th and 12th grade. Therefore, I eliminated students who did not provide feedback in 9th or 12th grade from the analysis. Thus, I created a subset of 74 students who provided feedback in both 9th and 12th grade. When compared to the students with writing whom raters scored using the analytic rubric, this group of 74 students includes all 21 students whose essays I used for in-depth analysis of writing features, and six students whose writing was scored on the analytic rubric, but not used for in-depth writing analysis. The number of opportunities this subset of students had to provide peer feedback in all their classes from 9th to 12th grade ranged from a low of 47 peer feedback assignments to a high of 72 peer feedback assignments (M=60.85; SD=7.58). Typically, Mr. Zain asked students to provide feedback on the writing of at least three peers per assignment. However, I found many students did not provide feedback on every paper they were assigned for review. This was especially true in 9th grade; students in 9th grade frequently provided feedback to only one peer and not to the other peers assigned to them for review in SWoRD. This subset of students generated 648 comments in response to the 9th-grade feedback prompts and 1,062 comments in response to the 12th-grade prompts.

I coded each feedback comment provided in 9th and 12th grade as being one or more of the following: high critique, explanation, low critique, vague, no critique, or wrong (see feedback coding description in Table 3, chapter 3). Figure 4 shows the distribution of types of feedback comments in both 9th and 12th grade.

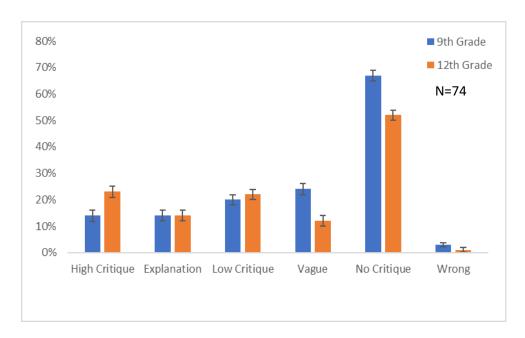


Figure 4. Percentage of Comment Types Made in 9th and 12th Grade

I measured improvement in feedback quality by comparing the percentage of individual student comments coded as high critique, explanation, low critique, vague, and wrong in 9th grade to the percentage of each type of comment an individual student made in 12th grade. I measured improvement in feedback quality by a positive change in the percentage of comments coded as high critique and explanation from12th grade to 9th grade and a decrease in the percentage of comments coded as no critique, low critique, vague, and wrong. Overall, students' feedback comment quality improved from 9th to 12th grade, both in terms of an increase in high critique comments and a decrease in three of the other categories. T-tests were used to determine if there was a significant change in the types of feedback comments that students provided from 9th to 12th grade.

There was a statistically significant decrease (p<.001) in the percentage of comments coded as no critique from 9th grade (M=0.67; SD=0.18) to 12th grade (M=0.52; SD=0.23). The decrease in the percentage of comments coded as no critique may indicate that students provided

less praise to their classmates in 12th grade. However, the decrease may also be related to the prompts that students were asked to use when providing feedback. One prompt at 9th grade asked students to copy and paste the thesis statement from their classmate's writing and only to provide a comment if the thesis statement was unclear. Some students provided a comment along with the copied sentence; however, many students only copied and pasted the sentence they understood to be the thesis without providing a critique. Coders coded copied and pasted sentences without critique as no critique.

There was a statistically significant decrease (*p*<.001) in the percentage of comments coded as vague from 9th grade (M=0.24; SD=0.17) to 12th grade (M=0.12; SD=0.11). The decrease in comments coded as vague indicates that students' comments in 12th grade were more specific, identifying a problem that was specific to the essay under review and locating that problem as opposed to providing a general comment that could be applied to any essay (i.e., use spellcheck). The decrease in comments coded as vague may be a result of the way that Mr. Zain wrote several of his comment prompts in 12th grade. The comment prompts Mr. Zain asked students to use for the dystopian essay included the word "explain," which may have lead students to not only explain their thinking but to be specific about problems when writing comments to their peers.

There also was a statistically significant decrease (p=0.03) in the percentage of comments coded as wrong from 9th grade (M=0.03; SD=0.07) to 12th grade (M=0.01; SD=0.02). The percentage of comments coded as wrong was small in 9th grade, and students wrote these comments in response to the comment prompt that asked them to copy and paste their peers' thesis statements. Comments coded as wrong typically had the wrong sentence from the introduction or incorrectly stated that there was no thesis statement. The small amount of

comments coded as wrong in 12th grade ranged from comments such as, "They didnt put no direct quotes at all so no evidence to support" when the student's essay used textual evidence, to comments that incorrectly stated that the focus of the essay was not clear, "it didnt tell me which prompt they were writing about it was just talking about dystopia."

The change in the percentage of comments coded as low critique was not statistically significant (*p*=0.37) from 9th grade (M=0.20; SD=0.16) to 12th grade (M=0.22; SD=0.15). The percentage of comments coded as low critique increased in 12th grade. I did not expect that the percentage of low critiques would increase over time; however, the increase may have been a result of students no longer being asked to copy and paste sentences from their peers' essays as opposed to providing comments that focused on content, grammar, language, and organization. Therefore, there were more opportunities for students to provide comments that could be considered low critique in 12th grade.

There was a statistically significant increase (p<.001) in the percentage of comments coded as high critique from 9th (M=0.14; SD=0.17) to 12th grade (M=0.23; SD=0.19). Students in 12th grade provided more comments on their peers' papers about specific content issues (ideas and reasoning), that if revised would improve the overall quality of the writing, than they did in 9th grade. The increase of comments coded as high critique indicates that over time, students improved in their ability to identify content issues in their peers' writing. In contrast, there was no statistically significant change (p=0.37) in the percentage of low critique comments made from 9th (M=0.20; SD=0.16) to 12th grade (M=0.22; SD=0.15). The lack of a significant change in comments coded as low critique indicates that although students improved at providing comments on content issues, comments coded as high critique, they continued to provide a large amount of editing comments, comments coded as low critique. Although editing comments are

useful in polishing a paper, these are not comments that would help a writer improve content during a first revision.

Additionally, there was no statistically significant change (p=0.86) in the percentage of comments that provided an explanation from 9th grade (M=0.14; SD=0.18) to 12th grade (M=0.14; SD=0.19). The lack of a significant change in comments coded as explanation indicates that students did not improve their ability to provide an explanation in their comments. However, there was a statistically significant increase (p=0.001) in the percentage of comments coded as high critique *and* explanation from 9th grade (M=0.02; SD=0.07) to 12th grade (M=0.08; SD=0.14). Students moved from providing broad critiques about the content of their peers' essays (i.e., "Your thesis statement is wrong.") to providing critiques that utilized explanations to show the writer the specific problem and suggest how that problem may be corrected (i.e., "Your thesis statement only says the theme is 'mother and son relationships'; but your conclusion is more towards how not all mother-son relationships are happy. I think the second one relates more towards the paper as a whole, and you should use that one.").

Research has shown that receiving high critique comments with explanation lead to students making revisions that improve the overall quality of their writing (Cho & MacArthur, 2010; Patchan, Schunn, & Clark, 2011). Feedback is more likely to be implemented if the writer understands the problem being identified by the reviewer. A comment about a content issue with an explanation of the problem has the potential to give the writer insight into why the reviewer took issue with a specific portion of an essay. Without an explanation, students may ignore the comment because they may not see it as being correct or because they do not have enough information to address the problem (Nelson & Schunn, 2009). In their study of middle school science students, Hovardas, et al. (2014) found that students who received peer feedback

comments that explained critiques were more likely to revise their writing and utilize the comment provided than students who received feedback without explanations. Tseng & Tsai (2007) found similar results in their work with high school students utilizing peer feedback for revision. Both studies found a significant increase in writing scores when students utilized effective feedback comments for revision.

5.4 CORRELATION BETWEEN WRITING SCORE AND TYPE OF FEEDBACK PROVIDED

In this section, I will explore the relationship between students' writing scores and the types of feedback that they provided to their peers. I used Pearson's r to assess the relationship between students' writing scores in 9th and 12th grade and the types of comments students made in those respective grades. For this analysis I used the same subset of 21 students who had both writing and peer feedback in SWoRD as was used in chapter four. I used this subset because it allows me to look at relationships of writing score and feedback type for students who participated in the writing and feedback assignments in both 9th and 12th grade as opposed to students who may not have had full participation.

5.4.1 Results

There was a statistically significant negative correlation between 9^{th} grade students' writing scores and providing a feedback comment with no critique (r=-.46; p=.04). This finding suggests that weaker writers tended to write comments that did not critique their peers' writing. There

were no additional significant correlations between 9th grade students' writing scores and the type of feedback they provided. Table 17 shows the correlation between each comment type and 9th-grade writing scores.

Table 17. Correlation between 9th Grade Writing Score and Comment Type

	M*	SD	r	p
No Critique	0.67	0.17	-0.46	0.04
High Critique	0.16	0.18	0.18	0.44
Low Critique	0.18	0.16	0.34	0.14
Explanation	0.19	0.18	0.36	0.12
Vague	0.23	0.15	-0.19	0.41
Wrong	0.01	0.03	0.31	0.18
High Critique with Explanation	0.04	0.10	-0.18	0.44

^{*}The percentage of each comment type was used when calculating M an SD. Note. N=21.

Similarly, there was a statistically significant negative correlation between 12^{th} grade students' writing scores and providing feedback comments with no critique (r=-0.44; p=0.04). Additionally, there was a moderately significant correlation between 12^{th} grade students' writing scores and providing high critiques (r=0.42; p=0.06), providing a comment with an explanation (r=0.42; p=0.06), and providing a high critique with explanation (r=0.39; p=0.08). This suggests that stronger writers tended to provide comments on the content of their peers' essays, as well as explanations that described why the reviewer commented on specific content. This also suggests that stronger writers tended to provide feedback comments that included both a high critique and

an explanation, the type of feedback that is considered effective for helping a writer make content revisions. Table 18 shows the correlation between each comment type and 12th-grade writing scores.

Table 18. Correlation between 12th Grade Writing Score and Comment Type

	M*	SD	r	p
No Critique	0.58	0.24	-0.44	0.04
High Critique	0.20	0.18	0.42	0.06
Low Critique	0.19	0.13	0.27	0.24
Explanation	0.11	0.19	0.42	0.06
Vague	0.10	0.09	-0.26	0.25
Wrong	0.00	0.01	-0.03	0.89
High Critique with Explanation	0.07	0.13	0.39	0.08

^{*}The percentage of each comment type was used when calculating M an SD. Note. *N*=21.

As with other studies that have looked at the relationship between writing quality and ability to provide feedback (see Lei, 2012; Patchan & Schunn, 2016), this study shows that student writing ability may be indicative of the quality of peer review feedback that a student can provide to their peers. One issue often raised in studies on peer review is students' concerns that their classmates will not be able to provide effective feedback or students who are poor writers will not be able to provide effective feedback (Hovardas, Tsivitanidou & Zacharia, 2013; Kauffman & Schunn, 2011; Liu & Carless, 2006). The general lack of correlation between feedback types and writing score in 9th grade suggests that during initial feedback tasks stronger

writers did not necessarily provide strong feedback and weaker writers did not necessarily provide less helpful feedback. However, the few significant or marginally significant correlations between providing effective feedback in 12th grade and student writing ability in this study may indicate that students with strong writing abilities developed as reviewers as opposed to students who were weaker writers, who did not develop the ability to provide effective feedback.

5.5 CHANGES IN FEEDBACK COMMENTS RELATED TO INTRODUCTION, EVIDENCE, AND CONCLUSIONS

The writing prompts and rubrics for both 9th and 12th grade specifically stated that the writing needed to have an introductory paragraph with a hook and clear thesis; it needed to use three pieces of direct evidence from the text being analyzed, and it needed a conclusion that directly restated the thesis. These elements became the focus of most of the feedback comments that students provided and were frequently mentioned in both 9th and 12th grade; therefore, I organized the analysis of the content of feedback comments below around each of these elements. In the sections that follow, I will discuss qualitative changes to the feedback comments from the subset of 74 students on their peers' introductions, use of evidence, and conclusions.

5.5.1 Changes in Comments about Introductions

In both 9th and 12th grade, Mr. Zain asked students to specifically comment on the introductory paragraphs of the essays under review. In 9th grade, students received the prompt, "Does the

writer have a thesis in the first paragraph? Please write the writer's thesis in the box below. If the writer has no clear thesis, please offer the writer a suggestion." In 12th grade, students wrote feedback comments in response to one of two prompts: students working with the theme essays responded to, "What is the best part of the intro? What could be improved?" Students working with the dystopian essays responded to, "What did you like best about the writer's introduction?"

5.5.1.1 Feedback about introductions in 9th grade

Students made a total of 116 comments in response to the prompt that asked students to look at their peers' introductions. Of those 116 comments, 42% (N=48) provided a critique. Table 19 provides an overview of the content of the comments that students made about introductory paragraphs in 9th grade. When student reviewers went beyond copying and pasting a sentence from their peer's essay and provided a critique about their peer's thesis statement, reviewers' comments reflected one of the following ideas: (1) they inaccurately stated that the essay had no thesis statement, or (2) provided a vague critique asking for more details. For example, in her feedback on a peer's introduction, Alyssa commented, "Try including more on what the book is about." Although this statement indicates that the reviewer would like more information in the introductory paragraph, it provides little explanation of where or how the reviewer thought the writer could add this information. To act on the comment, the writer would need to interpret how or where the reviewer saw this information missing in the introduction. Additionally, students praised their peers' thesis statements through affective responses, and several students provided one word comments that reflected the topic of the paper.

Table 19. Types of 9th Grade Comments About Introductions

Type of Comment	N	%	Example
Identified Thesis	63	41	Their lives took different paths all because of family and choices.
Indicated in some way that the thesis was "good," but did not identify the thesis	15	10	I like that beginning part. I'm impressed by this thesis statement.
Indicated that they could not identify the thesis	15	10	You don't have a thesis, it just explains the book and how both of their lives ended up.
Identified a sentence from the introduction that was not the thesis	13	8	All over the world people make wrong decisions.
Indicated that there was a problem with the introduction, but did not identify the thesis	5	3	Try including more on what the book is about.
Provided a word that appeared to be the topic of the essay	5	3	I think the thesis statement is the streets/poverty and violence.

5.5.1.2 Feedback about introductions in 12th grade

In 12th grade, students provided more specific information about how to revise the introductions of the essays they reviewed. Mr. Zain provided the following two feedback prompts to guide feedback on students' introductory paragraphs: "What did you like best about the writer's introduction?" and "What is the best part of the intro? What could be improved?" Unlike the prompt in 9th grade, these prompts required students to evaluate and comment on their peers' introductory paragraphs. Only students who provided feedback on the dystopian essays were asked to provide a suggestion for improvement to the introduction; however, despite not being asked to critique peers' introductions, students who provided feedback on the theme essay also

noted problems in the introductory paragraphs. It is worth noting that even though 12th-grade students provided more detail in their comments about the introductions, students in 12th grade often utilized praise when writing about introductions. Fifty-two percent (N=162) of the comments that students made in response to the prompts on introductions stated that the reviewer liked something about the introduction but did not provide a critique.

Students made a total of 281 comments in response to the prompts about introductions in 12th grade. Of those 281 comments, 42% (N=119) provided a critique. Table 20 provides an overview of the content of the comments that students made about introductory paragraphs in 12th grade. Students critiqued several different elements in their peers' introductions. They suggested revisions to thesis statements to make those statements clearer; they asked for more information to make explicit which prompt students responded to or to help the reviewer understand the novel; and they suggested "attention getters" when reviewers felt one was missing. Students also provided detailed praise that gave the writer specific information about what worked well in the introduction. Whether comments provided a critique or not, the content of the comments made during 12th grade provided the writer with specific details about strengths in the introduction and areas for improvement.

Table 20. Types of 12th Grade Comments About Introductions

Type of Comment	N	%	Example
Didn't Like Intro	7	2	Honestly it wasn't very well thought out and it just seemed like ideas thrown together.
Writer provided good detail about the novel	15	5	One thing i liked about the intro was the way you explained what that type of world is like. If i was reading this and didnt know what it was you would have told me and made this clear.
Stated reviewer "liked" intro and provided retelling of what was liked	147	52	Very well wirtten intro! The first sentence caught my attention even though it's just a definition it gave me a background of what a dystopian society is, good idea. Also, a very well written thesis that is put together well.
Indicated that the thesis needed to be revised	36	13	Your thesis is not clear because I am not sure which characteristics you are going to be talking about. I like that you used a quote at the beginning of the introduction.
Indicated there needed to be an attention getter	32	11	One suggestion is to have more of an attention getter. The attention for me was not there. I would throw a fact or spomething more intresting to help hook me in. If you do that would be a much better intro!
Indicated there was an editing error	20	7	It's hard to distiguished what the different points are. I would separate into paraghraphs and work on mechanics a bit. A lot of sentinces are short and a little to simple.
Indicate the intro did not provide enough detail	18	6	The introduction is a good start. You should add more detail about the characteristics of a dystopian world. You basically just listed synonyms. You have a thesis statement, but it should be at the end of the paragraph and not the beginning.
Indicated that the intro did not make it clear which prompt was answered	6	2	You have a good thesis but it is not clear which prompt you are answering. By your thesis it sounds like you are talking about the charateristics of a society, so you should take out the part about Winston being the protagonist

Alyssa's 12th grade comments reflect the level of detail that 12th grade students made in their feedback to their peers. When examining Alyssa's feedback comments about introductions, she moved from making non-detailed critiques in 9th grade to locating the problems she saw in

her peers' introductions and discussing their strengths. The amount of explanation in her comments about the introduction increased. For example, in one comment she states:

It's a bit unclear the way you start it off, I think it would be confusing to someone who never read the book to see "Big brother is always watching you." It's not very attention grabbing, however, the paragraph as a whole is a good introduction piece with examples from the story about the aspects of 1984 being a Dystopian novel. I would maybe think about how the first sentence could be revised.

Alyssa is specific about the weakness she perceived and its location in the introduction. She suggests to her peer that they revise the first sentence to be clearer for someone who might be unfamiliar with the novel 1984 (Orwell, 1950). She also explains to her peer about what worked well in that paragraph, stating that the examples from the novel benefitted the writing.

5.5.2 Changes in Comments about Evidence

The writing prompts from both 9th and 12th grade provided students with specific guidelines about the amount of evidence that they should use to support their ideas. Mr. Zain told students in both 9th and 12th grade that they needed to use three pieces of direct evidence from the novels. Students in both 9th and 12th grade tended to comment about the amount of evidence their peers used when providing feedback on evidence, often commenting that their peer had three pieces of evidence and had satisfied that requirement. However, when students critiqued their peers' use of evidence, 9th grade reviewers tended to critique only the quantity of the evidence used, and 12th grade reviewers may have started a comment with an indication of the quantity of evidence used, but then focused a large portion of the comment on the quality of analysis in each essay.

5.5.2.1 Feedback about evidence in 9th grade

The feedback comments about evidence generated in 9th grade focused on quantity as opposed to quality, appropriateness, or how the writer utilized evidence. In 9th grade, Mr. Zain did not specifically ask students to comment on use of evidence, but in the feedback prompts that asked students to comment on what went well and what needed to be improved, students often commented on evidence. Of the 648 comments generated by students in 9th grade, 7% (N=45) commented on the evidence used in their peers' essays. See Table 21 for a description of the comments students in 9th grade made about evidence. Thirty-five percent (N=16) of the comments about students' use of evidence were positive and stated that students utilized the required amount of evidence. The comments that critiqued peers' use of evidence focused on quantity or commented on evidence as part of a larger comment on organization. For example, Matt wrote the following comment, "my suggestion is in the body paragraph make topic sentence just don't jump into the quote you need to transition to each paragraph." In his comment, Matt recognized that the paragraphs were lacking topic sentences that introduced an idea and situated the quotation. However, Matt provided no details about the quality or use of the evidence, which was a problem in his peer's paper.

Table 21. 9th Grade Comments about Evidence

Type of Comment	N	%	Example
Indicated that the writer had to include more ideas and quotations in his or her writing	29	64	It was a well written essay but only had 2 pieces of textual evidence and it wasn't completely clear to what side you were supporting.
Writer explained his or her ideas well	11	24	One thing I liked about your essay was that you explained your examples very good. You explained them in a way the reader could understand.
Writer used evidence well.	5	11	It used a lot of textual evidence that was all relevant to the essay.

5.5.2.2 Comments about evidence in 12th grade

Research shows that secondary students often lack skills in connecting ideas and evidence in writing and may leave evidence to speak for itself (Sandoval & Millwood, 2005). Therefore, it is important for reviewers to provide high-quality feedback, including comments on the quality of evidence and explanation, on their peers' use of evidence in their writing. Feedback comments about evidence in 12th grade focused on the quality of the evidence and writers' attempts to connect the evidence back to the main ideas of their essays.

Twelfth-grade students generated 268 comments about their peers' use of evidence. See Table 22 for a description of the comments students in 12th grade made about evidence. Students made more positive comments about evidence use than in 9th grade. Fifty-eight percent (N=155) of the comments about students' use of evidence were positive. However, unlike in 9th grade, students did not frequently make positive comments about the quantity of evidence used, but rather the quality of the evidence and how well the writer was able to explain how the evidence related back to the prompt. For example, one student stated, "I think you did a great job of

selecting quotes that explain what the dystopian world of logans run is like and how it relates to logan being a good example of a protagonist in a dystopian novel." In this comment, the student reviewer explains that he/she sees the evidence supporting the writer's thesis. The reviewer also indicates that the evidence appropriately supports the writer's description of the world of *Logan's Run* (Nolan, 1976) as a dystopia. The increase in comments about the quality of evidence used may indicate a shift in the way that students thought about the assignment requirements as they reviewed their peers' essays. Rather than seeing successful writing as merely meeting the quantifiable requirements of the prompt or rubric, students recognized that successful writing has evidence that supports claims and is explicit about the relationship between evidence and claims. This understanding about the quality of evidence also came through in the critiques that students made in regards to their peers' evidence use.

Twelfth-grade students made 103 critiques about their peers' use of evidence. Of these critiques, 88% (N=91) of the comments referenced the writer's need to provide more explanation of how the evidence supported the claims made in the essay. This change can be seen in Matt's comments. In his feedback on an essay written about the novel *Logan's Run* (Nolan, 1976), Matt stated, "I think you use evidence really well in the in essay you state that support and why but I like if you put a little main explanation on why you choose the quote and how support you viewpoint. And what evidence means because I didn't read logan run so hard trying understand what you trying to say at some points." Here Matt explained that, as a reader, the evidence seemed to support the writer's ideas, but as someone who had not read the novel, Matt needed more explanation to help him see the connection between the quotations and the writer's ideas. Although Matt's comment did not provide a specific place in his peer's paper where Matt saw the need for more explanation, his comment is more detailed than his comment from 9th grade.

Table 22. 12th Grade Comments about Evidence

Type of Comment	N	%	Example
Indicated that the writer used evidence well	155	58	I think you did a great job of selecting quotes that explain what the dystopian world of logans run is like and how it relates to logan being a good example of a protagonist in a dystopian novel
Indicated that the writer had to explain the evidence more	88	33	I think you great using evidence and they all support you main arugments but I think you need to work on explaning the evidence where the come from and why put them on. Can understand something or wording you use because I didn't read you book so think explaining some of wording help me a lot.
Indicated that the writer did not use enough evidence	12	4	Only has 2 pieces of evidence when you need 3 for a paper.
Indicated that there is a grammar/language issue with the evidence	13	4	Evidence supports the idea, however there are some grammar issues. For example, "Throughout the book he played both side trying to juggle it all" Should be sides, no side.

5.5.3 Changes in Comments about Conclusions

Mr. Zain identified including a strong concluding paragraph as an important characteristic of academic writing in both 9th and 12th grade. In 9th grade, the rubric identified an advanced essay as having a "conclusion [that] restates the thesis, recaps the evidences and provides a clear ending to essay." In 12th grade, Mr. Zain highlighted conclusions in both the prompt and in the rubric. Both the prompt for the dystopia essay and the theme essay stated that a requirement of the essay was a "Riveting conclusion that restates the thesis and wraps up the argument." The rubric stated that advanced papers have a conclusion that "clearly restates the thesis, summarizes

the paper, and wraps up the paper." Students in 9th grade did not comment on the conclusion; however, students in 12th grade were specifically asked to comment on the conclusion and provided critiques that let their peers know that they did not effectively wrap up the ideas in their essays or that the writer began introducing new ideas in the concluding paragraph.

5.5.3.1 Feedback about conclusions in 9th grade

Students were not asked to comment on conclusions in 9th grade; however, 16 comments were generated that addressed what students liked and disliked about their peers' concluding paragraphs. The comments ranged from general critiques stating that conclusions were short and needed more information, to selecting a sentence from the conclusion as the best sentence in the essay. For example, Kim recognized that the conclusion of her peer's essay was short and stated, "I think that you could have added just a little bit more on the conclusion." However, Kim was not specific about what she thought was missing from the conclusion. The concluding paragraph of her peer's essay included a restatement of the thesis and a summary of the main points that the student was making; it meets Mr. Zain's requirements for a strong conclusion. Kim needed to provide more information about why she thought the paragraph needed "more" in order to support the writer in making a revision.

5.5.3.2 Feedback about conclusions in 12th grade

Mr. Zain specifically asked students in 12th grade to comment on the conclusions in their peers' essays. Students generated a total of 230 comments about conclusions across both the dystopia and the theme essays. A large portion of the comments (N=108) stated in some way that the conclusion was good. The remaining 122 comments provided critiques. Critiques ranged from reminding students of the requirement that they restate their thesis statement in the conclusion to

critiques that indicated that the writer should not be introducing new ideas in the concluding paragraph. See Table 23 for a description of the comments on the conclusion.

Kim mentioned both the requirement to restate the thesis statement and to not introduce new information in the concluding paragraph in her 12th-grade comments. In response to one essay, Kim wrote the following:

I think that the conclustion should have started with a quote the same way the intro should have. I also think that you have too much explanation in the conclusion that would have sounded better in the body paragraphs. I think that the last sentence should have been in the beginning of the conclusion. I like that you recap what goes on in the book.

In her comment, Kim both let the writer know what he or she did well and what the writer could improve. Rather than telling the writer that he or she could add a "little bit more" to the conclusion, as many students did in 9th grade, she asked the writer to make the conclusion parallel with the introduction by starting with a similar quotation. She then indicated that the writer did too much work in the conclusion explaining ideas, explanations that Kim saw as being more appropriate for the body paragraphs as opposed to the conclusion. She also recommended some restructuring of the conclusion by moving the last sentence to the beginning of the paragraph.

Table 23. 12th Grade Comments about Conclusions

Type of Comment	N	%	Example
Conclusion is good	108	47	The writer ends the paper well and their conclusion reviews the whole paper and restates the thesis in a new way.
Conclusion is too short	47	20	In the conclusion I suggest talking more about how Tyrell overcame these problems. I would also take out the part where you say there is too many to talk about. You gave three good examples and I think that is enough to pursuade the reader that poverty is the main theme of the novel. I think if you conclude with how Tyrell overcames the struggles it would end the essay a lot better.
Conclusion introduces new ideas	13	7	The conclusions uses a bunch of evidence from the information above, but it also included information that was previously not stated. Try to add the information earlier or do not add it to the conclusion next time.
Conclusion didn't "wrap up" the essay	20	9	I think your conclusion is well written. However, I think you should make a sentence that wraps up the whole paper. Something like "Bad motherhood is a theme that is present in Tyrell" Just to sort of sum it all up and so the paper isn't left hanging. This way it will restate the thesis statement, too.
Conclusion is missing	23	10	There is no conclusion paragraph to assess. However, you can easily add one! I suggest just adding something that wraps up all three pieces of evidence. You can also restate your thesis, "For all of these reasons, the main themes of Tyrell are poverty and loss of evidence" Something like that would be great with a few other sentences wrapping it up.

Table 23. 12th Grade Comments about Conclusions (continued)

Conclusion needs to restate thesis	19	8	The first sentence of your conclusion should be your thesis statement, but worded differently.
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5.5.4 Metacognitive Awareness of Writing

My analysis of students' 12th grade feedback comments suggested that students had developed metacognitive awareness around academic writing. Through their comments, students presented what they knew about the type of writing expected for the assignments in 12th grade, as opposed to comments in 9th grade which evaluated writing as "good" or "bad" but did not provide much insight into what students thought "good" or "bad" writing meant.

The ability of students to articulate the elements of an academic essay may have led to the implementation of those elements in students' own writing (Swanson, 1990). For example, comments in 12th grade frequently described what writers should include in an introductory or concluding paragraph, ideas that did not come out in students' 9th-grade feedback comments. Twelfth-grade students made comments such as, "I liked how they started their intro with a quote. I also liked how they explained the differences between a dystopian and a utopian society. I feel like their thesis summed up what they will be talking about also," and "The writer's introduction is informative ... but it could be improved by taking the detail that doesn't support the characteristics of a dystopian society that were mentioned out and adding detail that actually does reflect those. Also add a thesis" or "Your conclusion doesn't really restate your thesis at all, it just gives more of your opinion. Also you begin your paragraph with 'So' which makes it sound like your talking..." Through these comments, students demonstrated that they understood

that the writing should include an introduction that had details related to the topic of the essay and provide the reader with details of what will follow in the paper, as well as a conclusion that restates the thesis statement and does not introduce the writer's opinion. As discussed in chapter four, students' 12th-grade essays reflected these elements.

Similar comments in 9th grade provided few details about what students knew about the composition of academic writing. As previously mentioned, students in 9th grade relied on quantifying writing elements in their feedback comments as opposed to discussing the quality of the writing, providing feedback on spelling and grammar mistakes, or making affective comments. Comments that quantified evidence or identified spelling and grammar errors showed that students recognized problems with their peers' writing, but perhaps had not yet developed enough knowledge around expectations on the quality of evidence and the use of explanation in academic writing to provide detailed comments about these elements to their peers.

5.6 CONCLUSION

Overall, there was a positive change in students' ability to provide effective feedback from 9th to 12th grade. Twelfth-grade students' feedback comments were more detailed and specific than the comments that they made in 9th grade. The 12th-grade comments provided writers with detailed information about where reviewers saw problems and what the problems were. The problems students identified frequently related to the essays' introductions, use of evidence, and conclusions, which is not surprising given the emphasis that Mr. Zain put on these elements in his writing prompts and rubrics.

Students' tendency to focus their comments on the quantity of evidence used in 9th grade may have been a direct result of initial instruction provided by Mr. Zain on how to provide good feedback about evidence. During the observation of students' initial experiences providing feedback using SWoRD, Mr. Zain stated:

The second thing you need to consider is how well does the writer use evidence in his or her essay. The assignment specifically called for four pieces of direct evidence – two from the song or the poem and two from the book, so when you look at this one, all you need to do for this one is to count up how many direct quotes from both of those they have. If they have four they're good. Alright?

In several of the feedback prompts in 9th grade, students were directed to count evidence or simply locate elements of an essay as opposed to evaluating the quality and explanation of the evidence. Two of the prompts in 9th grade asked students to copy and paste a sentence from their peers' papers. Only one prompt asked students to provide suggestions to help make the paper stronger. Mr. Zain's prompts were similar to prompts that Freedman (1992) deemed "reader response prompts," that is, prompts that evoke feedback that lets the writer get a sense of what the audience understood about the writing and why. Freedman found these types of prompts to be effective when students were giving feedback face to face because student writers could question the reactions that the reviewer was having to the writing in real time. The "why" was often missing from the comments that students in the current study provided in 9th grade, meaning that writers were not receiving the level of details in the received comments that

Mr. Zain's assignment rubric reinforced specifying quantity over quality in 9th-grade feedback comments. The rubric specified that in an advanced piece of writing "[t]he writers

support the argument using 3 significant pieces of textual evidence." The wording of the rubric changed in 12th grade, which may be why the focus of students' comments about evidence changed. Both the rubric for the dystopia assignment and the theme assignment stated that an advanced paper had evidence that "connect clearly to the thesis." The change in wording coincides with students' comments that they needed to see a more explicit connection between the evidence used and the ideas writers were supporting with the evidence.

Previous research has found that students rely on assignment rubrics to help them provide feedback comments. McCarthey, Kline, Kennett, and Magnifico (2013) found that middle school students tended to utilize the assignment rubric criteria to point out errors in their peers' essays. Although utilizing the rubric to comment about specific aspects of the writing may not have led to effective feedback comments in 9th grade, it is possible that reviewing the rubric to provide feedback may have had a positive impact on the revisions that reviewers made to their papers. The act of revisiting the rubric may have helped students develop more in-depth knowledge of the requirements for a successful paper (Karegianes, Pascarell, & Pflaum, 1980).

It also is possible that repeatedly evaluating the writing prompts and rubrics to provide feedback on peers' writing helped students to develop a deeper understanding of what makes a strong piece of writing and therefore changed the focus of their feedback comments. Several studies have found that the act of reviewing peers' writing and engaging in rubric-based assessment help them gain a better understanding of the criteria for the assignment and the assignment itself. This act also helps students develop knowledge around what it means to be a successful writer (Early & Saidy, 2014; Lu & Law, 2012; Lu & Zhang, 2012). With a better understanding of the various elements of an essay, students could then focus their comments on the quality of content as opposed to simply counting the instances of an element within an essay.

Finally, students' trust in one another may have been a consideration in the type and the quality of feedback that they provided to their peers. In her interview, Beth indicated that despite SWoRD using pseudonyms, students frequently found out each other's identities which, at times, made commenting honestly difficult. Classroom social structures pose problems for students who participate in face to face peer review activities (Freedman, 1998; VanDeWeghe, 2004) because students are fully aware of who is providing the feedback and whose writing is under review. Because 9th-grade students were aware of each other's identities at times, it is possible that the peer review activity in SWoRD became more like face-to-face peer review, in that students worried about social consequences for providing critiques of another student's writing. Between 9th and 12th grade, students changed pseudonyms several times to try and maintain their anonymity, which may have reduced fears about providing critical feedback. Students in Mr. Zain's classes had also been working together as cohorts for four years and had developed as communities, which may have mediated some of the trust issues that students faced during their 9th-grade year.

6.0 CHAPTER VI: CONCLUSION

6.1 INTRODUCTION

The purpose of my study was to study longitudinal changes in student writing and student feedback comments in a school where peer review was the focus of a whole school initiative to improve student writing. Research has suggested that secondary students have a general grasp of how to write a focused response to a task; however, students are not proficient at producing a focused essay that works to fully develop a thesis supported by evidence (Graham & Perin, 2007a; National Commission on Writing, 2003). One way to provide students multiple opportunities to practice writing, support students in developing knowledge around academic writing tasks, and give students multiple opportunities to see models of writing is through peer review tasks. This study documented the changes in the writing of students who had these opportunities across four years. I analyzed a subset of student writing and student feedback comments to document the changes in writing and comments from 9th to 12th grade. Students' writing and feedback comments improved across time. In this chapter, I will discuss each research question and the related findings from chapters four and five. I will then discuss the limitations of my study and the implications of my findings for both research and instruction.

6.2 RESEARCH QUESTION 1

6.2.1 How does high school students' writing change from 9th-12th grade?

Past studies that have examined changes in student writing across multiple ages or grade levels used different sets of students to represent the various ages, grades, or stages of development (Hillocks, 2006). This study is significant because unlike previous research that drew conclusions about writing between grade levels based on different students, this study documented the changes in the writing of the same focal set of students across four years. The results of this study indicate that high school students improve as writers across time. Tools such as rubrics and writing prompts seem to influence the changes in student writing. For example, Mr. Zain provided 12th grade students with a rubric and writing prompt that asked students to use three pieces of well explained evidence and provide a conclusion that restates the thesis statement, summarizes the essay, and wraps up the arguments. Students' writing in 12th grade had these requested features, which were not always present in students' 9th grade writing. Students in this study saw the greatest improvement on the following dimensions of the analytic rubric: responding to the prompt, ideas, grammar, and language.

6.2.1.1 Improvement in responding to the prompt

First, in this study students' writing changed to better respond to the teacher-created prompts. Students' writing in 12th grade was more focused, meaning that students in 12th grade wrote essays that had a clear thesis that directly responded to the prompt, utilized appropriate evidence to support the thesis, and stated clear ideas that helped to explain how the evidence supported the thesis statement. Students in 9th grade produced writing that summarized *The Other Wes Moore*

(Moore, 2010) or used evidence without explanation as opposed to creating an essay that analyzed evidence from the memoir to develop and support ideas related to the prompt.

Overall, student writing in 12th grade was cohesive. The writing that students produced in 12th grade made explicit connections among the prompt, thesis statement, ideas, and evidence. Students were clear in their introductions about the ideas that they would discuss throughout their essays and how those ideas related to the prompt. The finding that students became better at writing in response to a prompt over time is similar to the finding of Graham, Harrison, and Mason (2005). The researchers found that young writers improved in their ability to respond to a prompt after they received instruction on planning and composing genre-specific texts. Similarly, De la Paz & Graham (2002) found that middle school students in their study improved as writers after receiving instruction on writing strategies that included planning and knowledge around expository essays. Students in Mr. Zain's class both received instruction on writing analytic essays and received planning support; all six of the students interviewed said that Mr. Zain required students to complete planning documents and pre-writing before formally writing essays. The pre-planning may have helped students to organize their thinking about the prompts as well as organize the structure of their essays prior to formally sitting down to write. Developing the habit of pre-planning may have been one reason that students showed improvement in responding to a writing prompt.

Students also had frequent opportunities to view multiple models of analytic writing during their peer review work, which may have helped students to understand how to best respond to Mr. Zain's prompts. Students may have used their peers' writing to help them understand the problems in their own writing and the different ways to address those problems. When I asked Mr. Zain about what he saw as the benefits of peer review for his students, he

stated, "I think just that repetitive reading essays over and over again is helpful...Like for students who came in without any idea in how to structure an essay I think this repetitive practice of looking at other peoples' work is awesome." Research on peer feedback has also found that students appreciate being able to read their peers' writing because it helps them to figure out structure, grammar, and language (Early & Saidy, 2014; Loretto, DeMartino, & Godley, 2016). The connections between changes in student writing, pre-planning, and reviewing multiple peers' essays suggests that explicit instruction around writing strategies, such as planning and prewriting, and following a model may be useful in improving students' overall writing performance.

6.2.1.2 Improvement in ideas

Students' ability to clearly state and develop their ideas improved from 9th to 12th grade. In 9th grade, students relied on phrases within single pieces of evidence as the source for some of their ideas. This meant that ideas did not always relate to the thesis or the prompt. Students in 9th grade also had difficulty developing their ideas through explanation and evidence. If students stated a clear idea in their essay, it was often not well developed. Students often did not explain the evidence used to support each idea, and left the reader to make connections between the evidence and idea, which created a lack of cohesion in the essay. The lack of explanation also meant that some students' writing was largely quotations from the text rather than students' words. Students also used summary as opposed to stating and explaining ideas. Although summary writing is useful for demonstrating comprehension, the summaries provided little support for students' ideas and did not show that students could utilize explanation as they analyzed evidence from the text.

Students' ability to develop ideas changed in 12th grade and students' writing utilized explanation of evidence to do so. Students' body paragraphs were longer because they were utilizing two to three sentences of explanation for the provided evidence. Students' ideas and reasoning were also more specific, providing clear phrasing of how ideas related back to the thesis statement and analyzing the evidence used in relationship to the paragraph's main idea. Students echoed the importance of clearly developing ideas in writing in their interviews. When asked about good academic writing, interviewed students indicated that good writing includes clearly stated ideas. Rachel stated, "you have to know what your point is...And you have to know how to effectively articulate that in the written word." Students were not only able to write better than they had in 9th grade, but articulated during their interviews that clear and developed ideas are important to good academic writing. This finding adds to the research on writing in secondary schools because it demonstrates a connection between students' declarative knowledge and the writing they produced. Previous research has shown that helping students internalize the features of analytic or argumentative essays leads to an improvement in students' ability to develop their ideas in writing (Chambliss & Murphy, 2010; Kuhn & Udell, 2003). Students in this study internalized the features of the essays Mr. Zain expected them to produce and their writing reflected that knowledge. Interviewed students also demonstrated the ability to assess their own writing ability through their responses to a question about how they would rate their writing ability and the work they did at the end of each of their interviews to review their 9th grade writing. This demonstrates the development of an important metacognitive skill (Graham, Schwartz, & McArthur, 1993).

6.2.1.3 Improvement in language and grammar

Students' use of academic language and grammar improved from 9th to 12th grade. Students in 9th grade often used informal language and informal grammar when composing their essays.

Language and grammar patterns found in students' 9th grade essays reflected students' speech patterns; at times students wrote using patterns found in dialects including AAVE or utilized slang to help convey their ideas. When I asked the students I interviewed to comment on their 9th grade writing during the interview, students recognized that their use of language was not appropriate for the writing task. When looking at her 9th grade essay, Rachel noted that contractions such as "can't" and "doesn't" should not be present in her essay. Beth noted that her 9th grade writing was full of verb tense issues, specifically noting one sentence that said "they say" instead of "they said," and another sentence that was missing the proposition "about," "Parents are very upset how their child grows up so fast." Twelfth grade students understood that essays should use academic language and were aware of what that meant for linguistic features within their essays.

Grammar and language use had improved by the time students were in 12th grade. Students were no longer "writing like they talk." Students' essays were more syntactically complex, and students were no longer over-utilizing simple sentences or producing writing that had run-on sentences. Students also significantly decreased their use of positive logical connectives such as also, too, then, and another. The decrease in positive logical connectives indicates that students' writing became more sophisticated over time. The finding that students' language and grammar use improved across time is similar to Crossley, McNamara, Weston, & Sullivan's (2011) finding that essays written by students in 9th grade and 11th grade had significant differences in the use of positive logical connectives. Older students used more

syntactically complex structures in their writing and created essays that were better suited for knowledgeable readers who benefit from texts with low cohesion. Knowledgeable readers benefiting from texts with low cohesion is known as the reverse cohesion effect (O'Reilly & McNamara, 2007), which states that knowledgeable readers better comprehend low cohesion texts that allow them to use their knowledge to make connections among the text's ideas (Crossley, McNamara, Weston, & Sullivan, 2011; McNamara, Kintsch, Songer, & Kintsch, 1996). Twelfth grade students in my study were knowledgeable about analytic essays; they understood the features that should be present in an analytic essay, including how each paragraph should be structured and seemed to worry less about making the connections between sentences, ideas, and paragraphs explicit. Mr. Zain had also let students select the novels they would be writing about in 12th grade, so it is possible that students were writing about a text they were interested in and had develop a strong knowledge base around, leading students to write for a knowledgeable audience and not feel that they had to be overly explicit about the connections among their ideas.

6.2.1.4 Overall change

There was a statistically significant difference between students' overall writing scores in 9^{th} and 12^{th} grade (p=0.003). However, the change in the length of student essays (i.e., number of words and paragraphs) was not statistically significant (p=0.72; p=0.21 respectively). The overall changes in student writing may be the result of students' continued uptake and utilization of a standardized way of writing, the five-paragraph essay. Many teachers utilize the five-paragraph essay as a scaffold to other types of writing (Campbell, 2014; Brannon et al., 2008). Mr. Zain confirmed the use of this genre as a scaffold. During an interview in June of 2013, Mr. Zain

stated that he utilized the five-paragraph essay as a scaffold for his students whether they were developing or advanced writing.

In 9th grade, students wrote disjointed paragraphs that started with quotations and provided summaries of source texts in 9th grade, but had well-developed essays with a clear pattern of organization in 12th grade. This finding is at odds with findings from Albertson's (2007) study of 8th and 10th grade students writing in response to prompts on the Delaware district writing assessment. Albertson found that students in 10th grade were more likely to utilize an organizational pattern that was not a five-paragraph essay than 8th grade students. She suggested that as students progressed through the grades, they learned about and utilized the organizational features of various types of writing. However, Albertson does not describe the type of writing instruction that students received. It is possible that students in Albertson's study, unlike students in this study, received instruction and practice in writing in different organizational structures and genres than only the five-paragraph essay.

It is possible that students' development as writers may have been influenced by the writing prompt and rubric that Mr. Zain asked them to utilize as they wrote their essays. In 9th grade, students appeared to focus on making sure their writing had the elements required by Mr. Zain's writing prompt and rubric as opposed to focusing on the quality of evidence or ideas; the quantifying of elements also came out in students' feedback comments. The 9th grade writing prompt and rubric focused on quantity over quality. Specifically, the teacher created prompt and rubric stated that advanced writing had three body paragraphs, three pieces of evidence, and used at least five sentences to explain ideas. There was little to no indication of the quality of these elements and students wrote their essays working to meet the minimum quantity requirements set forth by Mr. Zain. The shift in the quality of students' essays in 12th grade coincided with a shift

in how Mr. Zain's writing prompt and rubric qualified the elements of writing. Rather than talking about the quantity of each element that students needed to include in their essays, Mr. Zain gave students a writing prompt and rubric that talked about the expected *quality* of the essay. He no longer set out the expectation that students utilize five paragraphs, three ideas, and a minimum of five sentences for analysis. The rubric states that advanced writing makes a strong claim, has well-explained evidence, and maintains a clear focus, although it continues to reference a minimum of three pieces of evidence. Generally, students worked to meet those quality expectations; however, students continued to limit their writing to five paragraphs and limit the development of their ideas as evidenced by the regular introduction of new ideas in students' concluding paragraphs.

6.3 RESEARCH QUESTIONS 2 & 3

6.3.1 How does high school students' peer feedback comments on writing change from 9th-12th grade? Does writing quality correlate with the type of feedback given?

Previous studies that have looked at peer feedback activities have looked at peer feedback tasks that happened infrequently or in isolation. This study contributes to this line of research by analyzing the changes to students' peer feedback comments when students frequently participated in peer feedback tasks across four years. The results of this study indicate that as students progressed through their high school careers at Metropolitan, they improved in their ability to provide effective feedback to their peers. Students also improved their ability to provide detailed comments that gave their peers specific information about writing errors.

Finally, this study also found that there was a positive correlation between providing effective feedback and students' writing score in 12th grade.

6.3.1.1 Effective feedback

Students in 12th grade made significantly more high quality, or "high critique", comments and significantly fewer comments coded as vague or wrong than in 9th grade. Students improved their ability to critique the content of their peers' papers over time, and their comments became more clear and accurate as they continued to provide feedback to their peers. There was also a statistically significant increase in the percentage of effective feedback comments made by students in this study. I defined effective feedback as a critique that identified a problem that, if revised, would result in the student's writing score increasing by a point or more. An effective comment also provided an explanation that could help the writer correct the problem. Students in 9th grade tended to provide more surface-level editing comments that informed their peer that they had made a spelling or grammar error in their writing or no critique at all. Although comments on spelling or grammar errors are useful for polishing an essay, they do little to help writers improve content. My study found that students who receive frequent opportunities to provide feedback comments to their peers move away from making surface-level comments and towards making comments that would improve the content of an essay. This study adds to the literature on the development of ability to provide effective feedback by building on the findings of Boiling and Beatty (2010). The researchers found that 10th grade students moved from providing surface-level feedback to content feedback as the teacher provided them with additional opportunities to comment on their peers' essays and showed additional models of effective feedback across an academic year. My study demonstrates that positive change in students' feedback comments can be sustained across more than an academic year.

6.3.1.2 Detailed feedback

Ninth grade students tended to provide feedback about the quantity of writing elements as opposed to quality. For example, students told their peers that their essays used two pieces of evidence as opposed to the required three. This comment does provide some useful information for revising content; however, these types of comments had little to no explanation about where a revision would be helpful. To implement the comment, the writer would have to determine where the revision would best benefit the writing. Research on students' use of peer feedback for revision has found that the frequency with which students implement feedback comments without explanations is low (Hovardas, Tsivitanidou, & Zacharia, 2014). This is partially due to lack of understanding of the problem indicated in the comment (Nelson & Schunn, 2009).

In contrast, when students were in 12th grade, they made comments that both critiqued the content of their peers' writing and provided explanations for those critiques. Rather than quantifying the elements of writing their peers used, students commented on the quality of those elements, letting their peers know if, for example, they had not provided a sufficient explanation of how the evidence supported stated ideas and providing suggestions of how they might revise. Students indicated that they appreciated detailed feedback with explanations during their interviews. Students stated that comments that provided a clear description of the location of a problem and an explanation of how to fix the problem made the problem in the writing visible, indicating that without specificity writers may not see the problem as being present. This is significant because it suggests that high school students' views about what makes good feedback on writing are similar to studies of the types of feedback that are most effective in helping college writers improve (Nelson & Schunn, 2009).

6.3.1.3 Correlation

I found that providing effective feedback had a positive correlation with the reviewer's writing score in 12th grade. In other words, there was a significant difference in the frequency with which strong and weak writers in 12th grade made helpful or unhelpful feedback comments. However, there was not a positive correlation between providing effective feedback and writing score in 9th grade indicating that weak and strong writers in 9th grade provided similar quality feedback. This indicates that despite their various instructional backgrounds in writing and peer feedback, students at Metropolitan demonstrated similar abilities in commenting on their peers writing during their first year of high school. Between 9th and 12th grade, stronger writers better developed their abilities to provide effective feedback than their weaker writing peers, indicating that there may be a connection between students' writing ability and what students perceive as an effective feedback comment that will help improve the overall quality of writing. This finding is similar to those of studies that have examined the types of feedback given in relation to writing ability, which have found that student writing performance is a significant predictor of feedback helpfulness (Lei, 2012; Patchan & Schunn, 2016). Additionally, studies have shown that both university and high school students are often concerned with the ability of their classmates to provide good feedback, especially if the reviewer is a low ability writer (Loretto, DeMartino, Godley, 2016; Kauffman & Schunn, 2011). This study demonstrates that students' concerns about weaker writers providing unhelpful feedback may be valid over time; however, during initial feedback tasks, students may receive equal quality feedback from both stronger and weaker writing peers.

6.4 LIMITATIONS

This study had several limitations including a small number of interviews conducted only in 12th grade, few classroom observations, not obtaining students' second drafts, and a focus on only one genre, analytic writing.

First, I interviewed students in May of 2016, the end of their senior year at Metropolitan, about writing and peer review. However, I did not have the opportunity to speak to students at any other point and was unable to draw any comparisons between how students talked about writing at the end of their senior year and how they talked about writing in 9th grade. These data would have provided useful information for further analyzing the reasons behind changes in student writing and feedback comments from 9th to 12th grade.

I was only able to complete one observation of Mr. Zain's classroom, and that was during students' initial peer feedback task during their 9th grade year. Despite asking Mr. Zain to inform me about the days he would be providing explicit writing instruction to his students, Mr. Zain neglected to provide the information and I was unable to observe any additional instruction around writing in Mr. Zain's class. Observations of Mr. Zain's writing instruction would have provided additional insights into the focus of Mr. Zain's instruction (i.e., did he exclusively focus on five-paragraph essay writing and literary analysis?) and into students' understandings of academic writing.

I was unable to collect the revisions that students made to their writing after receiving peer feedback from their peers. Mr. Zain did not ask his students to upload their revisions to SWoRD. When asked about revisions, both Mr. Zain and the interviewed students stated that students completed second drafts of the essays that were initially submitted in SWoRD and used the peer feedback comments they received to help with revision, but those drafts went directly to

Mr. Zain. When asked for copies of the revised essays, students were unable to find their revisions or were unresponsive to email requests. Mr. Zain was also unable to locate the revised student work. Analyzing students' revisions would have allowed me to analyze the impact of the peer feedback comments that students both gave and received.

Finally, the setting in which my study took place is not typical. Students remained with the same classroom peers and teachers across their time at Metropolitan and Metropolitan implemented a whole school initiative around peer review, meaning that students utilized SWoRD and peer feedback in many of their classes and many more times than students in typical secondary school settings. However, there were instructional aspects of Metropolitan that are found in typical high school settings. As with many typical high schools, I found that there was little writing instruction happening at Metropolitan and the instruction that did happen focused on the five-paragraph essay. Just as they would in a typical secondary school, these factors influenced students' writing development meaning that my findings around peer feedback and writing may be generalizable to other school contexts.

6.5 IMPLICATIONS

6.5.1 Implications for Writing Research

My study documented the changes in student writing when students wrote using one specific organizational pattern, the five-paragraph essay. Students' use of the five-paragraph essay across time limited my ability to analyze changes in the development of ideas because the five-paragraph format limited students to three main points in each essay they wrote. Although the

percentage of sentences that helped to develop ideas in students' paragraphs increased, students continued to limit themselves to three body paragraphs in their essays. In the analysis of students' concluding paragraphs, it was clear that many students had more to say to support their thesis statements. Peer feedback comments also noted this, and students commented to their peers not to introduce new ideas in the conclusion. It is possible that if students had not felt limited to three body paragraphs, student essays may have become significantly longer across time. Research needs to examine the development of student writing in contexts in which the formula for writing is not so constrained. This may provide information about how students' writing develops when writing is not constrained to a template. Additionally, researchers need to conduct longitudinal studies that examine the changes in student writing across multiple years when teachers expose students to and instruct them on multiple genres of writing and given the freedom to decide how they will construct their essays based on audience and purpose. This research will provide information about how student writing changes as they learn to use and practice writing in each genre. It may also provide information about how students utilize the features of a variety of genres to develop and support their ideas in writing.

Additionally, future research should work to capture student thinking about writing across time. During their senior year, five of the six students I interviewed described a five-paragraph essay in their statements about good writing. Students commented that good writing was error free, had a strong thesis, used three body paragraphs, and had a conclusion.

Additionally, one student commented that knowing this format would help him be successful in college. However, students' use of five-paragraph essays often frustrate college professors because they see that format as preventing the development of extended and meaningful thinking (Dennihy, 2015; Tremmel, 2011). Understanding what students know and think about content

and instructional practices have important implications for instruction in the classroom. During informal conversations with Mr. Zain across the four years his students participated in this study, he stressed the importance of preparing his students for the writing expected in work and college. It is possible that Mr. Zain was unaware that his students thought about good academic writing as being a five-paragraph, error-free essay and were unaware that this type of writing is not enough for success in college and work.

Previous research has shown that there may be a disconnect between what teachers think their students are getting out of classroom instruction and what students understand from the lessons they receive. In a survey of 1,801 secondary students from Florida about their perceptions of the writing instruction taking place at their schools, Scherff and Piazza (2005) found that goal of teachers' instruction was to improve student writing and the choices that students make in their writing about audience and purpose by having students read different professional writing from different genres. However, students had a different understanding of their exposure to these models and felt that writing had a narrow audience and purpose as opposed to the broad audiences and purposes illustrated through the models. Godley and Escher (2012) found a similar disconnect between students' perception of language use and teachers'. They found that African American students viewed the use of African American Vernacular appropriate in English classrooms at least some of the time while their teacher viewed AAVE as not appropriate. Additional longitudinal research is needed that examines how the types of writing promoted in classrooms impacts students' abilities to develop as writers. This research may highlight the benefits or deficits of instruction that promotes different forms of writing to students. It is possible that this research may find that teaching students to write without the

constraints of a rigid structure may allow students to better fully support their ideas than students who work with a template or standardized pattern of organization.

6.5.2 Implications for Research on Peer Review of Writing

This study documented the changes in peer feedback comments when students participated in providing peer feedback on writing across multiple years and on multiple assignments. I found that students improved at providing effective feedback when they had multiple opportunities to comment on their peers' writing. Past studies that have looked at peer review have looked at students' feedback on writing during one task or across several tasks, but have not examined the development of students' feedback comments across multiple years. Additional research examining the development of students' feedback comments across multiple assignments and multiple years is needed, especially when the feedback tasks focus on writing other than literary analysis, the writing that students completed in this study. This research may provide additional support for regular use of peer feedback tasks in classrooms, especially if findings indicate that students' feedback is as valid as teacher feedback. Increasing the use of peer feedback task may provide teachers additional opportunities to assign extended writing and not increase their own workload.

Additionally, future research on peer feedback should also examine the impact that different peer feedback prompts have on the type of feedback provided to students. Mr. Zain's feedback prompts were consistent across time. The prompts asked students to focus on introductions, evidence, and conclusions; however, the prompts changed from asking students to identify sentences in 9th grade to asking for critiques of content in 12th grade. I noted that students' comments changed from focusing on the quantity of elements in their peers' writing in

9th grade to focusing on the quality of those elements in 12th grade. This change aligned with the change in wording in some of Mr. Zain's prompts. Additional research may provide insight into the types of prompts that may help students provide more effective feedback and to better explain the problems that they see in their peers' writing.

Additional longitudinal research also needs to compare the changes in the writing of students who frequently use peer review to the changes in the writing of students who do not. Students in this study were all exposed to peer review across their time at Metropolitan and across their content area classes. They frequently received feedback on their writing. It is unclear if the changes in the writing of the students in this study are a result of peer feedback, including the amount of feedback received, or a result of typical development that results from receiving instruction during four years of schooling. Future research should compare the writing of students who do and do not receive peer feedback and document the changes in writing across time. This would provide information about the usefulness of peer feedback, specifically, in improving academic writing.

6.5.3 Implications for Writing Instruction

Students in 9th grade had difficulty working from appropriate evidence from across a text to develop and support ideas. Students supported their ideas with evidence taken out of context to fit with students' preconceived ideas. This affected the quality of student writing. This finding indicates that instruction should focus on helping students select evidence appropriate to the task and developing ideas based on the selected evidence.

Research on students' use of evidence in argumentation has found that students struggle to develop ideas grounded in evidence from across a text and to state the reasons why the

evidence supports the idea (Kuhn & Udell, 2003) just as 9th grade students in this study struggled. One way to help students improve their ability to work from evidence to construct ideas and to support their ideas with evidence and reasoning is to have students examine and discuss multiple models of analysis and explanation. Students in this study participated in examining models through peer review tasks and critiquing their peers' use of evidence and ideas. However, the examination of the use of evidence, explanation and ideas might also be done as a whole group to help norm students to identifying specific elements of writing and analyzing those elements.

Additionally, students in this study produced standardized writing and said during their interviews that the five-paragraph essay was central to the writing instruction they received at Metropolitan Charter. Teachers should not teach writing as a formula that should be followed closely because formulas may inhibit students from fully supporting and explaining their ideas. Like other studies that examined the types of writing students were asked to do (Sherff & Piazza, 2005; Applebee, 1981, 1993), students in this study were frequently asked to engage in literary analysis and structure their writing in specific ways. From the beginning of 9th grade, Mr. Zain asked students to fit their writing into the five-paragraph template. This prevented students from expanding their thinking beyond the three points required by the writing prompt, rubric, and writing template. Instruction should focus on moving students beyond the five-paragraph essay and helping students to fully develop their ideas. Students in 12th grade often had more to say than three body paragraphs allowed, which resulted in concluding paragraphs full of new ideas. Removing the confines of the five-paragraph essay from instruction will help students fully developed their ideas in writing and may improve the overall quality of student writing.

6.5.4 Implications for Instruction on Peer Feedback

Students in this study took part in an introductory lesson on how to provide feedback to their peers in which Mr. Zain shared sample effective feedback comments and led a group activity in which students gave feedback on a sample piece of writing. The findings of this study demonstrate that one lesson on effective peer feedback comments is not enough to help students provide effective feedback to their peers. Instruction around how to give effective feedback will help students provide their peers with the types of comments that are more likely to improve the quality of a peer's writing during revision. The findings of this study also indicate that students need frequent opportunities to practice providing feedback to their peers to improve their abilities to provide effective feedback. Previous studies that have looked at students' ability to provide effective feedback have found that without instruction and guidance, students will provide affective comments or editing comments (Simmons, 2003). Instruction around effective feedback comments will help students understand what is meant by "effective feedback" and begin to norm students on the types of comments writers consider useful for revision. Instruction should include providing students with examples of effective peer feedback comments and discussing with students what makes the comments effective. Instruction should then provide students the opportunity to provide feedback on a shared piece of writing and to discuss their feedback comments with their peers.

Finally, the tools that students use to provide feedback comments (i.e., the comment prompts, rubric, and writing prompt) should be carefully created to allow reviewers to provide well explained critiques of their peers' writing and not limit reviewers to copying and pasting sentences or providing only praise. Mr. Zain's feedback prompts in 9th grade limited the amount of critique that students could provide to their peers. Two comment prompts asked students to

copy and paste sentences from their peers' essays and reviewers provided minimal explanations around the copied sentences about problems or why the copied sentence was effective. These prompts diminished students' opportunities to give and receive effective feedback. The comment prompts that Mr. Zain provided in 12th grade offered students the opportunity to comment on their peers' writing in detail and to *explain* their critiques or praise, a feature of feedback that has been shown to lead to higher implementation of revision suggestions and improve the quality of an essay.

Additionally, analysis of the feedback comments provided by students in this study indicated that students in 9th grade provided critiques that focused on quantity of writing elements as opposed to quality. When I compared student comments to Mr. Zain's rubric and writing prompt, there was a connection between the comments and what Mr. Zain marked as features of high quality writing. Mr. Zain emphasized quantity over quality in the rubric and writing prompt. This changed in 12th grade. The tools Mr. Zain provided to students placed more emphasis on quality as did student feedback comments. Teachers should carefully examine the tools that students use for the presence of features that may prioritize form over content by emphasizing quantity over quality. Previous research has shown that students rely on the writing prompt and assignment rubric when making feedback comments (McCarthey, Kline, Kennett, & Magnifico, 2013), revising student facing tools may help students provide feedback comments that critique the quality of the writing as opposed to counting various elements in essays.

APPENDIX A

INTERVIEW PROTOCOL

- 1. How much writing did you do before you came to City Charter?
- 2. What types of feedback did you receive?
- 3. Did you get opportunities to revise?

Assessment of what students know about good writing

- 1. What is good writing in ELA?
- 2. What is good writing in math?
- 3. What would you tell other students about good writing?
- 4. Why do you think some kids have trouble writing?
- 5. How would you rate yourself as a writer in ELA? In math? In your other classes?

Assessment of what students know about planning to write

- 8. When you are given an assignment in ELA, what kinds of things do you do to help you plan and write a paper?
- 9. When you are given an assignment in math, what kinds of things do you do to help you plan and write a paper?
- 10. What kinds of things would you do if you were having trouble writing a paper?
- 11. If you had to write a paper for somebody in 9th grade or someone without a lot of knowledge on a particular subject, what kinds of things would you do as you wrote your paper?

Assessment of what students know about peer review

- 12. What are the benefits of peer review in ELA?
- 13. What are the benefits of peer review in math?
- 14. What don't you like about peer review?
- 15. How would you rate yourself as a peer reviewer in ELA? In math?

APPENDIX B

Table 24: Analytic Rubric

Feature	Guiding Question	Above Average (4)	Average (3)	Below Average (2)	Low (1)
Responding to the prompt	How well does the writing respond to the prompt?	Writing fully responds to the prompt.	Writing responds to the prompt; however, the response may not be fully developed.	Writing attempts to respond to the prompt; however it is underdeveloped or inaccurate.	Writing does not respond to the prompt.
Ideas	Does the essay contain well- developed ideas?	The ideas in the essay are clearly stated and fully developed. The ideas work to support the thesis and respond to the prompt.	The ideas in the essay may be clearly stated; however, they may not always support the thesis or be appropriate to the prompt.	The ideas in the essay may or may not be clearly stated and do not consistently support the thesis or be appropriate to the prompt.	The essay does not contain clear ideas or the ideas are stated, but are not developed.
Evidence	Does the essay use evidence to support ideas?	The essay uses sufficient and appropriate evidence to support the stated ideas.	The essay uses evidence, however, the evidence may be insufficient or not relevant to the stated ideas.	The essay does not always use evidence and the evidence provided may be insufficient or not relevant to the stated ideas.	The essay uses no evidence or the evidence is not relevant to the ideas stated.
Organization	Is the essay organized?	The essay is organized and progresses in a logical manner.	The essay is organized; however, the progression may not always be clear.	The essay is mostly organized; however the organization may not be logical.	The essay is not organized.
Grammar	Does the essay have grammatical errors?	The essay has few if any errors in grammar. The errors do not detract from the ideas or make the essay difficult to read.	The essay has several grammatical errors. The errors do not detract from the ideas or make the essay difficult to read.	The essay has several grammatical errors that may effect the meaning of ideas or make the essay difficult to read.	The essay has many grammatical errors that make the essay difficult to read.
Language	Does the essay use appropriate language?	The essay consistently uses language that is appropriate for the task and for the grade in which the essay was written including appropriate use of academic vocabulary.	The essay uses language appropriate for the grade level in which it was written; however, language use may not always be consistent or appropriate to the task. Use of academic vocabulary may not frequent or appropriate.	The essay does not use appropriate language for the grade level in which it was written or for the task. Academic vocabulary may be simple	The essay is incoherent.

APPENDIX C

THE OTHER WES MOORE WRITING ASSIGNMENT

Final Wes Moore Essay – 25 points

- 1. At least five paragraphs an introduction, three body paragraphs, and a conclusion
- 2. <u>Three pieces of direct evidence</u> from <u>The Other Wes Moore</u> (these should come from your graphic organizer)
- 3. 12 point font
- 4. Times New Roman Font

Prompt Choices:

The overriding question of this book is what critical factors/events in the lives of these two men, who were similar in many ways, created such a vast difference in how their lives turned out? Discuss three events that caused the Wes Moores' lives to be so different in the end.

How well does Moore describe the culture of the streets, where young boys grow up believing that violence transforms them into men? Talk about the street culture—its violence, drug dealing, disregard for education. What creates that ethos and why do so many young men find it attractive?

How important are the families in shaping the lives of the Wes Moores?

So you think you are smart...(ask Z if you want to answer this)

Oprah Winfrey has said that "when you hear this story, it's going to turn the way you think about free will and fate upside down." So, which is it...freedom or determinism? If determinism, what kind of determinism—God, cosmic fate, environment, biology, psychology? Or if freedom, to what degree are we free to choose and create our own destiny?

Grammar Goals for this Essay

1. No Run-on Sentences

✓ A run-on sentence is a monstrous sentence that has multiple subjects and verbs. At this point in all of your writing careers, a sentence over 15 to 17 words is most likely a run-on.

2. No First Person Voice

✓ In academic writing, you do not use the first person voice ("I" or "We"). Please avoid using first person in this essay.

SWoRD Deadlines

Upload paper – Your paper must be uploaded by the end of day on Tuesday, November 27th.

Complete Reviews – You must review 4 of your peers' essays by the end of day on Friday, November 30th.

Back Evaluation – You must rate the feedback you received on your paper by end of day Monday, December 1st.

 Table 25: Grade 9 Scoring Rubric

	4 - Advanced	3 – Proficient	2 – Basic	1 – Below Basic
Introduction	The introduction has a	The introduction	The introduction only	There is no clear
	hook to draw in the	introduces the	provides a thesis	introduction and/or
	reader, introduces the	topic and provides	statement.	thesis.
	topic and has a strong	a strong thesis		
	thesis statement.	statement.		
Use of Evidence	The writer supports the	The writer supports	The writer supports	There is no textual
	argument using 3	the argument using	only part of the	evidence used to
	significant pieces of	3 pieces of textual	argument, citing	support the argument.
	textual evidence.	evidence.	fewer than 3 pieces of textual evidence.	
Explanation of	The writer thoughtfully (in	The writer	The writer briefly (in 1-	The writer does not
Evidence (Analysis)	more than 4 sentences)	thoughtfully (in more	2 sentences) explains	explain the connections
	explains the connections	than 2 sentences)	the connections	between the two texts.
	between the 2 texts.	explains the	between the two texts.	
		connections between		
		the 2 texts.		
Organization	The writer uses the			No attempt is made to use
	graphic organizer to			the graphic organizer to
	structure the argument			structure the argument.
	into complete paragraphs			
	with topic sentences,			
	supporting evidence,			
	analysis, and transitions			
	between ideas.			
Conclusion	The conclusion restates	The conclusion	The conclusion only	No attempt is made to
	the thesis, recaps the	restates the thesis	restates the thesis.	write a conclusion.
	evidences and provides	and provides a		
	a clear ending to the	clear ending to the		
	essay.	essay.		
Requirements	All 4 requirements are	Only 3	Only 2 requirements	Only 1 requirement is
	met.	requirements are	are met.	met.
		met.		
Grammar	The writer has no run-	The writer has 1 or	The writer uses first	The writer uses first
-No run on	on sentences and does	2 run-on sentences	person in the essay.	person ("I") throughout
sentences	not use first person ("I")	in the essay, but		the essay and/or has
-No First person	in the essay.	they do not use		more than 2 run-on
Voice, "I"		first person ("I").		sentences.

APPENDIX D

12TH GRADE WRTING ASSIGNMENTS

D.1 THEME ESSAY

Writing Assignment #2 - Trimester 2 - Themes in Literature (100 Project Points)

In this assignment, you will be writing a 2 page essay answering the following prompts:

Prompt 1 – What is a major theme in your novel?

Standards:

CC.1.4.11–12.J Create organization that logically sequences claim(s), counterclaims, reasons, and evidence; use words, phrases, and clauses as well as varied syntax to link the major sections of the text to create cohesion and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented.

CC.1.4.11–12.S Draw evidence from literary or informational texts to support analysis CC.1.4.11–12.T Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

CC.1.4.11–12.U Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information.

CC.1.4.11–12.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling.

Assignment Requirements:

- 1. Double Spaced
- 2. 12 point font
- 3. Dynamic intro with a clear thesis
- 4. At least 3 pieces of well explained evidence from the text (proper MLA citations)
- 5. Riveting conclusion that restates the thesis and wraps up the argument
- 6. NO FIRST PERSON (I) or SECOND PERSON (you)!!!

SWoRD dates:

- Upload essay March 4, 2016
- Complete reviews (4 reviews) March 11, 2016
- Complete Back evaluations March 15, 2016

Table 26: Grade 12 Theme Essay Scoring Rubric

	Advanced (5)	Proficient (4)	Basic (3.5)	Below Basic (3)
Introduction	The introduction is clear and supports a strong central claim or thesis	The introduction is mostly clear and supports an identifiable central claim or thesis	The introduction and central claim or thesis are somewhat unclear	There is no clear introduction, central claim, or thesis
Use of evidence	All three pieces of evidence connect clearly to the thesis of the essay	Two pieces of evidence are clearly connected to the thesis	Only one piece of evidence is clearly connected to the thesis	The evidence seems like a random collection of information because it is not tied back to the thesis
Focus	Sharp, distinct controlling point made about a single topic	Apparent point made about a single topic with sufficient awareness of task	No apparent point (no thesis) but evidence of a specific topic	Minimal evidence of a topic, a set of paragraphs with no real point
Conclusion	The conclusion clearly restates the thesis, summarizes the paper, and wraps up the paper	The conclusion restates the thesis and wraps up the paper	There is a conclusion paragraph, however it brings up new issues and/or does not restate the thesis	The conclusion is one sentence, is just the intro copied and pasted, or does not exist
Grammar & Spelling	There are no mistakes in grammar and mechanics	There are 1 to 4 mistakes in grammar and mechanics	There are 5 to 10 mistakes in grammar and mechanics	11 or more mistakes in grammar and mechanics

D.2 DYSTOPIAN ESSAY

Writing Assignment #1 – Trimester 1 – Dystopian Literature (100 Project Points)

In this assignment, you will be writing a 2 page essay answering one of the following prompts:

Prompt 1 – Based on the reading of your novel so far, how well does the setting of the book represent the characteristics of a dystopian world?

Prompt 2 – Based on your reading of your novel so far, how well does the main character represent the characteristics of a protagonist in a dystopian novel?

Standards:

CC.1.4.11–12.J Create organization that logically sequences claim(s), counterclaims, reasons, and evidence; use words, phrases, and clauses as well as varied syntax to link the major sections of the text to create cohesion and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented.

CC.1.4.11–12.S Draw evidence from literary or informational texts to support analysis CC.1.4.11–12.T Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

CC.1.4.11–12.U Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information.

CC.1.4.11–12.R Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling.

**See your notes from Week 2 Lecture for the characteristics of a dystopian world and dystopian protagonist. If you missed the lecture, the PowerPoint is in the portal.

Assignment Requirements:

- 1. Double Spaced
- 2. 12 point font
- 3. Dynamic intro with a clear thesis
- 4. At least 3 pieces of well explained evidence from the text (proper MLA citations)
- 5. Riveting conclusion that restates the thesis and wraps up the argument
- 6. Work cited page (proper MLA format)
- 7. NO FIRST PERSON (I) or SECOND PERSON (you)!!!

SWoRD dates:

• Upload essay – Saturday, October 3, 2015 by Midnight

- Complete reviews (4 reviews) Wednesday, October 7, 2015 by Midnight
- Complete Back evaluations Friday, October 9, 2015 by Midnight
- Conference with Mr. Z Schedule a time with Z during week 5 to look at your essay and your peer editing skills
- Final draft Uploaded to SWoRD by 10/16/2015

Table 27: Grade 12 Dystopian Essay Scoring Rubric

	Advanced (5)	Proficient (4)	Basic (3.5)	Below Basic (3)
Introduction	The introduction is clear and supports a strong central claim or thesis	The introduction is mostly clear and supports an identifiable central claim or thesis	The introduction and central claim or thesis are somewhat unclear	There is no clear introduction, central claim, or thesis
Use of evidence	All three pieces of evidence connect clearly to the thesis of the essay	Two pieces of evidence are clearly connected to the thesis	Only one piece of evidence is clearly connected to the thesis	The evidence seems like a random collection of information because it is not tied back to the thesis
Focus	Sharp, distinct controlling point made about a single topic	Apparent point made about a single topic with sufficient awareness of task	No apparent point (no thesis) but evidence of a specific topic	Minimal evidence of a topic, a set of paragraphs with no real point
Conclusion	The conclusion clearly restates the thesis, summarizes the paper, and wraps up the paper	The conclusion restates the thesis and wraps up the paper	There is a conclusion paragraph, however it brings up new issues and/or does not restate the thesis	The conclusion is one sentence, is just the intro copied and pasted, or does not exist
Grammar & Spelling	There are no mistakes in grammar and mechanics	There are 1 to 4 mistakes in grammar and mechanics	There are 5 to 10 mistakes in grammar and mechanics	11 or more mistakes in grammar and mechanics

APPENDIX E

FEEDBACK LESSON

- Whole group, access prior knowledge: Explain to students that they are going to be
 discussing the feedback that they give and get from their peers when they share writing. Ask
 students to think about some of the feedback they have received and they have given.
 Hand out the three examples of feedback and ask students if they have received feedback
 like this before.
- Pair work: Using the feedback on the sample essay, ask pairs to identify the feedback that they think would be helpful to receive and the feedback they think would be not so helpful and discuss the reasons why.
- **Whole group:** Ask pairs to share their discussions. Create a list of examples of good feedback. Ask students to keep a list in their notes.
- Whole group, teacher model: Explain to the class that you will be modeling the types of feedback that would be useful to receive as a writer. Begin by showing the class a copy of the rubric that will be used to score the essay (this could be a print out of a SWoRD rubric). Review each of the requirements with the students, discussing what they mean and the things you will look for. Using a projector, display a copy of a sample essay; each student should have a copy as well. Read the essay aloud all the way to the end. Explain that the first thing you are going to do is to go back and identify the thesis statement. Think aloud about where the thesis statement is located and underline the statement. Model providing feedback on the strength and clarity of the statement.

Continue going through the essay paragraph-by-paragraph and providing feedback on the strengths and weaknesses of the essay.

Pair work: Handout a second sample essay to the class and a copy of the rubric. Ask pairs
to read through the essay, identify and comment on the thesis statement, and then go
paragraph by paragraph through the essay commenting on the strengths and weaknesses
of the text. Remind students to refer to the list of good feedback to aid in formulating their
responses.

- **Whole group:** Ask each pair to share their feedback. Students should be encouraged to engage in discussions about whether their classmates' feedback is effective and why.
- Individual work: Explain to students that they are now going to get the opportunity to comment on their classmates' work. Assign the students a short writing assignment to be submitted through SWoRD. Students will be expected to provide effective feedback using the provided rubric. Remind students to use their notes to aid in thinking about the types of feedback they should be providing.

Share the rubric for this assignment with the class. Read the rubric as a group and ask students for questions.

BIBLIOGRAPHY

- Anson, CM. (1999). Reflective reading: Developing thoughtful ways to respond to students' writing. In C.R. Cooper & L. Odell (Eds.), Evaluating writing: The role of teachers' knowledge about text, learning, and culture (pp. 302-325). Urbana, IL: National Council of Teachers of English.
- Applebee, A., & Langer, J. (2006). The state of writing instruction in America's schools: What existing data tell us. *Center on English Learning & Achievement (NJ3)*.
- Applebee, A. & Langer, J. (2013). Writing instruction that works. New York, NY: Teachers College Press.
- Atwell, N. (1987). *In the middle: Writing, reading, and learning with adolescents*. Upper Montclair, N.J: Boynton/Cook.
- Albertson, B. R. (2007). Organization and development features of grade 8 and grade 10 writers: A descriptive study of Delaware Student Testing Program (DSTP) essays. *Research in the Teaching of English*, 435-464.
- Alvarez, V., & Adelman, H. S. (1986). Overstatements of self-evaluations by students with psychoeducational problems. *Journal of Learning Disabilities*, *19*(9), 567-571.
- Bandura, A. (1986). Social foundations of thought and action: a social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bazerman, C., Little, J., Chavkin, T., Fouquette, D., Bethel, L., & Garufis, J. (2005). Writing across the curriculum. Reference guides to rhetoric and composition. *West Lafayette, IN: Parlor Press and WAC Clearinghouse*.
- Beach, R. (1989). Showing students how to assess: Demonstrating techniques for response in the writing conference. *Writing and response: Theory, practice, and research, 127*, 148.
- Benko, S. (2012). Teaching to the Task: Preservice Teachers' Instruction for Cognitively Demanding Writing Assignments (Doctoral dissertation, University of Pittsburgh).
- Boling, E. C., & Beatty, J. (2010). Cognitive apprenticeship in computer-mediated feedback: Creating a classroom environment to increase feedback and learning. *Journal of Educational Computing Research*, 43(1), 47-65.

- Boston, M., & Wolf, M. K. (2006). Assessing academic rigor in mathematics instruction: The development of the instructional quality assessment toolkit. CSE Technical Report 672. *National Center for Research on Evaluation, Standards, and Student Testing (CRESST)*.
- Brannon, L., Courtney, J. P., Urbanski, C. P., Woodward, S. V., Reynolds, J. M., Iannone, A. E., & Kendrick, M. (2008). EJ Extra: The five-paragraph essay and the deficit model of education. *The English Journal*, *98*(2), 16-21.
- Brown, G.L., Glasswell, K., & Harland, D. (2004). Accuracy in the scoring of writing: Studies of reliability and validity using a New Zealand writing assessment system. *Assessing Writing*, 9(2), 105–121. doi:10.1016/j.asw.2004.07.001
- Bryk, A. S., Nagaoka, J. K., & Newmann, F. M. (2000). Chicago classroom demands for authentic intellectual work. Chicago, IL: Consortium on Chicago School Research.
- Calkins, L. (1986). The art of teaching writing (1st ed.). Portsmouth, N.H: Heinemann.
- Campbell, K. H. (2014). Beyond the five-paragraph essay. *Educational Leadership*, 71(7), 60-65.
- Charney, D. H., & Carlson, R. A. (1995). Learning to write in a genre: What student writers take from model texts. *Research in the Teaching of English*, 88-125.
- Ching, K. L. (2007). Peer response in the composition classroom: An alternative genealogy. *Rhetoric review*, 26(3), 303-319.
- Christianakis, M. (2010). "I don't need your help!" Peer status, race, and gender during peer writing interactions. *Journal of Literacy Research*, 42(4), 418-458.
- Cho, K., & MacArthur, C. (2010). Student revision with peer and expert reviewing. *Learning and Instruction*, 20(4), 328–338. doi:10.1016/j.learninstruc.2009.08.006
- Cho, K., Schunn, C. D., & Charney, D. (2006). Commenting on writing typology and perceived helpfulness of comments from novice peer reviewers and subject matter experts. *Written Communication*, 23(3), 260-294.
- Crismore, A., Markkanen, R., & Steffensen, M. S. (1993). Metadiscourse in persuasive writing a study of texts written by American and Finnish university students. *Written communication*, 10(1), 39-71.
- Crossley, S. A., & McNamara, D. S. (2010). Cohesion, coherence, and expert evaluations of writing proficiency. In R. Catrambone & S. Ohlsson (Eds.), *Proceedings of the 32nd annual conference of the Cognitive Science Society* (pp. 984-989). Austin, TX: Cognitive Science Society.
- Crossley, S. A., Weston, J. L., Sullivan, S. T. M., & McNamara, D. S. (2011). The development of writing proficiency as a function of grade level: A linguistic analysis. *Written Communication*, 28(3), 282-311.

- Crosson, A., Matsumura, L.C., Correnti, R., & Arlotta-Guerrero, A. (2012). Writing tasks and students' use of academic language. *Elementary School Journal*. 112(3), 469-496.
- Crowley, Sharon. *The Methodical Memory: Invention in Current-Traditional Rhetoric*. Carbondale: Southern Illinois UP, 1990. Print.
- Davies, P. (2000). Computerized peer assessment. *Innovations in Education and Teaching International*, 37(4), 346–355.
- Dennihy, M. (2015). "Forget what you learned in high school!": Bridging the space between high school and college. *Teaching English in the Two Year College*, 43(2), 156.
- de Guerro, M., & Villamil, O. S. (2000). Activating the ZPD: Mutual scaffolding in L2 peer revision. *The Modern Language Journal*, 84(1), 51-68. doi:10.1111/0026-7902.00052
- DiPardo, A., & Freedman, S. W. (1988). Peer response groups in the writing classroom: Theoretic foundations and new directions. *Review of Educational Research*, 58(2), 119-149. doi:10.3102/00346543058002119
- Elbow, P. (1973). Writing without teachers. London: Oxford University Press
- Elbow, P. (1991). Reflections on academic discourse: How it relates to freshmen and colleagues. *College English*, *53*(2), 135-155.
- Early, J. S., & Saidy, C. (2014). Uncovering substance: Teaching revision in high school classrooms. *Journal of Adolescent & Adult Literacy*, 58(3), 209.
- Faigley, L., Roger D.. Cherry, & David A.. Jolliffe. (1985). *Assessing writers' knowledge and processes of composing*. Norwood, N.J. Ablex Pub. Corp.
- Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College composition and communication*, 365-387.
- Forman, E.A, & Cazden, C.B. (1985) Exploring Vygotskian perspectives in education: the cognitive value of peer interaction. In J. V. Wertsch (Ed.) *Culture, communication, and cognition: Vygotskian perspectives* (323-347). Cambridge: Cambridge University Press.
- Freedman, S. W. (1992). Outside-in and inside-out: Peer response groups in two ninth-grade classes. *Research in the Teaching of English*, 71-107.
- Gere, A. R. (1987). *Writing groups: History, theory, and implications*. Carbondale: Published for the Conference on College Composition and Communication [by] Southern Illinois University Press.
- Gere, A. R., & Abbott, R. D. (1985). Talking about writing: The language of writing groups. *Research in the Teaching of English*, 362-385.

- Gielen, S., Tops, L., Dochy, F., Onghena, P., & Smeets, S. (2010). A comparative study of peer and teacher feedback and of various peer feedback forms in a secondary school writing curriculum. *British Educational Research Journal*, 36(1), 143-162.
- Godley, A., DeMartino, S., Loretto, A. (2014). Peer review of writing in high school:
 Relationships between peer feedback, reviewing peers' essays, and revision practices.

 Paper presented at the Annual Meeting of the American Educational Research

 Association
- Goldberg, G. L., Roswell, B. S., & Michaels, H. (1995). Can assessment mirror instruction? A look at peer response and revision in a large-scale writing test. Educational Assessment, 3(4), 287-314.
- Graesser, A. C., McNamara, D. S., Louwerse, M. M., & Cai, Z. (2004). Coh-Metrix: Analysis of text on cohesion and language. *Behavior research methods, instruments, & computers*, 36(2), 193-202.
- Graham, S., Harris, K., & Hebert, M. (2011). *Informing writing: The benefits of formative assessment*. Washington, DC: Alliance for Excellent Education.
- Graham, S., Harris, K. R., & Mason, L. (2005). Improving the writing performance, knowledge, and self-efficacy of struggling young writers: The effects of self-regulated strategy development. *Contemporary Educational Psychology*, 30(2), 207-241.
- Graham, S., & Perin, D. (2007a). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, 99(3), 445.
- Graham, S., & Perin, D. (2007b). Writing Next: Effective Strategies to Improve Writing of Adolescents in Middle and High Schools. A Report to Carnegie Corporation of New York. *Alliance for Excellent Education*.
- Graham, S., Schwartz, S. S., & MacArthur, C. A. (1993). Knowledge of writing and the composing process, attitude toward writing, and self-efficacy for students with and without learning disabilities. *Journal of learning disabilities*, 26(4), 237-249.
- Haney, W., Russell, M., Gulek, C., & Fierros, E. (1998). Drawing on education: Using student drawings to promote middle school improvement. *Schools in the Middle*, 7(3), 38-43.
- Hidi, S., & Boscolo, P. (2006). Motivation and writing. *Handbook of writing research*, 144-157.
- Hidi, S. E., & McLaren, J. A. (1991). Motivational factors and writing: The role of topic interestingness. *European journal of psychology of education*, 6(2), 187-197.
- Hillocks, G. (1984). What works in teaching composition: A meta-analysis of experimental treatment studies. *American Journal of Education*, 93(1), 133-170. doi:10.1086/443789
- Hillocks, G. (2002). *The testing trap: How state writing assessments control learning*. New York: Teachers College Press.

- Hillocks, G. (2006). Middle and high school composition. In P. Smagorinsky (ed.), *Research on composition: Multiple perspectives on two decades of change* (48-77). New York, NY: Teachers College Press.
- Hyland, K. (2007). Genre pedagogy: Language, literacy and L2 writing instruction. *Journal of Second Language Writing*, 16(3), 148-164.
- John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational psychologist*, 31(3-4), 191-206.
- Jones, E. (2008). Predicting performance in first-semester college basic writers: Revisiting the role of self-beliefs. *Contemporary Educational Psychology*, *33*(2), 209-238.
- Junker, B. Weisberg, Y. Matsumura, L. C., Crosson, A., Wolf, M., Levison, A., & Resnick, L. (2006). Overview of the instructional quality assessment (CSE Tech. Rep. No. 671). Los Angeles: University of California, Center for Research on Evaluation, Standards, and Student Testing.
- Karegianes, M. J., Pascarella, E. T., & Pflaum, S. W. (1980). The effects of peer editing on the writing proficiency of low-achieving tenth grade students. The Journal of Educational Research, 73(4), 203-207.
- Kaufman, J. H., & Schunn, C. D. (2011). Students' perceptions about peer assessment for writing: their origin and impact on revision work. *Instructional Science*, 39(3), 387-406.
- Kiuhara, S. A., Graham, S., & Hawken, L. S. (2009). Teaching writing to high school students: A national survey. *Journal of Educational Psychology*, 101(1), 136.
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of personality and social psychology*, 77(6), 1121.
- Kuhn, D., & Udell, W. (2003). The development of argument skills. *Child development*, 74(5), 1245-1260.
- Langer, J. A. (1984). The effects of available information on responses to school writing tasks. *Research in the Teaching of English*, 27-44.
- Lee, C.D. (1995). Signifying as a scaffold for literary interpretation. *The Journal of Black Psychology*, 21(4), 357-381.
- Lei, C. (2012). Relations among Peer Feedback, Writing Performance and Writing Improvement: Evidence from a Writing Class in China. *Reflecting Education*, 28(1), 10.
- Leontiev, A. (1981). Problems of the development of mind. Moscow: Progress Publishers.
- Longo, B. (1994). The role of metadiscourse in persuasion. *Technical communication*, 41(2), 348-352.

- Loretto, A., DeMartino, S., Godley, A. (2016). Secondary students' perceptions of peer review of writing. *Research in the Teaching of English.*, 51(2), 134-161.
- Lu, J., & Law, N. (2012). Online peer assessment: Effects of cognitive and affective feedback. *Instructional Science*, 40(2), 257-275.
- Lundstrom, K., & Baker, W. (2009). To give is better than to receive: The benefits of peer review to the reviewer's own writing. *Journal of Second Language Writing*, 18(1), 30-43.
- MacArthur, C.A. (2007). Best practices in teaching evaluation and revision. In S. Graham, C. MacArthur, & J. Fitzgerald (Eds.), Best practice in writing instruction (pp. 215-237). New York: Guilford.
- Mason, L., & Boscolo, P. (2000). Writing and conceptual change. What changes?. *Instructional Science*, 28(3), 199-226.
- McNamara, D. S., Kintsch, E., Songer, N. B., & Kintsch, W. (1996). Are good texts always better? Interactions of text coherence, background knowledge, and levels of understanding in learning from text. *Cognition and instruction*, *14*(1), 1-43.
- Matsumura, L. C., Patthey-Chavez, G. G., Valdés, R., & Garnier, H. (2002). Teacher feedback, writing assignment quality, and third-grade students' revision in lower-and higherachieving urban schools. *The Elementary School Journal*, 3-25.
- McCarthey, S.J. (2008). The impact of No Child Left Behind on teachers' writing instruction. *Written Communication*, 25(4), 462-505.
- Midgette, E., Haria, P., & MacArthur, C. (2008). The effects of content and audience awareness goals for revision on the persuasive essays of fifth-and eighth-grade students. *Reading and Writing*, 21(1-2), 131-151.
- Miles, M.B., Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Murray, D. (1968). A writer teaches writing. Boston, MA: Houghton Mifflin.
- National Center for Education Statistics (2012). *The nation's report card: Writing 2011* (NCES 2012–470). Institute of Education Sciences, U.S. Department of Education, Washington, D.C. Available from http://nationsreportcard.gov/writing 2011/
- National Commission on Writing in American Schools and Colleges. (2003). *The neglected r: The need for a writing revolution.* New York, NY: College Board.
- Nelson, M. M., Melot, B., Stevens, C., & Schunn, C. D. (2008). The effects of skill diversity in peer feedback: It's what. You don't know. In 30th Annual Meeting of the Cognitive Science Society.

- Nelson, M. M., & Schunn, C. D. (2009). The nature of feedback: How different types of peer feedback affect writing performance. Instructional Science, 37(4), 375-401.
- Newmann, F., Bryk, A., & Nagaoka, J. (2001). Authentic intellectual work and standardized tests: Conflict or coexistence? Chicago: Consortium on Chicago School Research.
- Nunnally, T. E. (1991). Breaking the five-paragraph-theme barrier. *The English Journal*, 80(1), 67-71.
- Nystrand, M., & Graff, N. (2001). Report in argument's clothing: An ecological perspective on writing instruction in a seventh-grade classroom. *The Elementary School Journal*, 101(4), 479-493.
- O'Reilly, T., & McNamara, D. S. (2007). Reversing the reverse cohesion effect: Good texts can be better for strategic, high-knowledge readers. *Discourse processes*, 43(2), 121-152.
- Pajares, F. (2003). Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature. *Reading &Writing Quarterly*, 19(2), 139-158.
- Pajares, F., Johnson, M. J., & Usher, E. L. (2007). Sources of writing self-efficacy beliefs of elementary, middle, and high school students. *Research in the Teaching of English*, 104-120.
- Patchan, M. M. (2011). Peer review of writing: Learning from revision using peer feedback and reviewing peers' texts (Unpublished doctoral dissertation). University of Pittsburgh: Pittsburgh, PA.
- Patchan, M. M., & Schunn, C. D. (2016). Understanding the Effects of Receiving Peer Feedback for Text Revision: Relations between Author and Reviewer Ability. *Journal of Writing Research*, 8(2).
- Peterson, S. (2003). Peer response and students' revisions of their narrative writing. L1-Educational Studies in language and Literature, 3(3), 239-272.
- Philippakos, Z. A., & MacArthur, C. A. (2016). The effects of giving feedback on the persuasive writing of fourth-and fifth-grade students. *Reading Research Quarterly*, 51(4), 419-433.
- Pudlowski, Victor. (1959). Compositions—Write 'em right. English Journal, 48(9), 535–37.
- Sandoval, W. A., & Millwood, K. A. (2005). The quality of students' use of evidence in written scientific explanations. *Cognition and instruction*, 23(1), 23-55.
- Saldaña, J. (2009). The coding manual for qualitative researchers. Thousand Oaks, CA: Sage Publications.
- Salomon, G., & Globerson, T. (1987). Skill may not be enough: The role of mindfulness in learning and transfer. *International Journal of Educational Research*, 11(6), 623-637.

- Shaughnessy, M. P. (1977). *Errors and expectations: A guide for the teacher of basic writing*. New York: Oxford University Press.
- Simmons, J. (2003). Responders are taught, not born. *Journal of Adolescent & Adult Literacy*, 684-693.
- Sperling, M., & Woodlief, L. (1997). Two classrooms, two writing communities: Urban and suburban tenth-graders learning to write. Research in the Teaching of English, 205-239.
- Stone, C. A. (1998). The metaphor of scaffolding its utility for the field of learning disabilities. *Journal of learning disabilities*, *31*(4), 344-364.
- Stone, C. A., & May, A. L. (2002). The accuracy of academic self-evaluations in adolescents with learning disabilities. *Journal of learning disabilities*, *35*(4), 370-383.
- Swanson, H. L. (1990). Influence of metacognitive knowledge and aptitude on problem solving. *Journal of educational psychology*, 82(2), 306.
- Topping, K. J. (2009). Peer assessment. Theory into Practice, 48(1), 20-27.
- Tremmel, M. (2011). What to make of the five-paragraph theme: History of the genre and implications. *Teaching English in the Two Year College*, 39(1), 29.
- Tseng, S., & Tsai, C. (2007). On-line peer assessment and the role of the peer feedback: A study of high school computer course. *Computers & Education*, 49(4), 1161-1174. doi:10.1016/j.compedu.2006.01.007
- Tsivitanidou, O. E., Zacharia, Z. C., & Hovardas, T. (2011). Investigating secondary school students' unmediated peer assessment skills. *Learning and Instruction*, 21(4), 506-519.
- VanDeWeghe, R. (2004). Awesome, Dude! Responding helpfully to peer writing. *English Journal*, 94(1), 95-99.
- Vygotsky, L. S. (1978). Mind in society (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). *Cambridge, MA: Harvard University Press*.
- Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of child psychology and psychiatry*, 17(2), 89-100.
- Zheng, B., Lawrence, J., Warschauer, M., & Lin, C. H. (2014). Middle school students' writing and feedback in a cloud-based classroom environment. *Technology, Knowledge and Learning*, 1-29.

LITERATURE CITED

Atwood, M. (1985). The handmaid's tale. Toronto, ON: McClelland & Stewart.

Hughes, L. (1926). Mother to son. The Weary Blues. New York, NY: National Urban League.

Moore, W. (2011). The other Wes Moore: One name, two fates. New York: Spiegel & Grau.

Nolan, W., & Johnson, G. (1967). Logan's run. New York, NY: Dial Press.

Shakur, T. (1994). Dear mama. On *Me against the world* [CD]. Santa Monica, CA: Interscope Records.

Shusterman, N. (2007). Unwind. New York, NY: Simon & Schuster.