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IMPACT OF FORMATIVE FEEDBACK ON STUDENT MOTIVATION TO WRITE IN EIGHTH GRADE ENGLISH COURSES

By Dayna Nielsen

A Thesis Submitted in Partial Fulfillment of the Requirements for Masters of Science in Teaching and Learning In Educational Studies: K-12 and Secondary Programs

Minnesota State University, Mankato Mankato, MN

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This thesis is submitted as part of the required work in the Department of Educational Studies, K-12 and Secondary Programs, KSP 610 Scholarly Writing, at Minnesota State University Mankato, and has been supervised, examined, and accepted by the professor.

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Abstract

This study examined the impact of feedback on student motivation to write in eighth grade English courses, specifically during a persuasive essay unit. A literature review was conducted to determine the characteristics of effective feedback and when it should be delivered to students. The findings from the literature review were used to develop the experimental context for the study to find out how feedback can impact motivation. A mixed-method approach was used to gather both quantitative and qualitative data through the use of a survey administered after varying types and levels of feedback were provided to participating students. The study took place during the second semester of a traditional school year in four English 8 classrooms at a middle school located in a small, rural mid-western farm community. Participants (n = 52) were selected using convenience sampling, though all students within the courses (n = 92) took part in the same unit, the same instructional methods, and the same feedback methods. Overall, results indicated that students were most motivated when they received detailed feedback that provided them with the next steps to take in the revision process. Intrinsic motivation proved to be more impacted by detailed corrective feedback than did extrinsic motivation, but both intrinsic motivation and extrinsic motivation were strongly supported by students' qualitative responses. Positive feedback was also shown to impact intrinsic and extrinsic motivation, but its impact was smaller than that of corrective feedback.

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Chapter One

Introduction

Assessment and grading are two topics in K-12 education that continue to be the focus of discussion among educators, especially considering the recent adoption of nontraditional grading practices within many schools (Marzano, 2010). However, regardless of the grading policy being used, a strong case can be made that student achievement will demonstrate positive trends if the system is "rooted in a clear-cut system of formative assessments" (Marzano, 2010, p.18).

Formative assessments, also referred to as "assessments *for* learning," are defined as assessments conducted frequently during the teaching and learning process, and are used to identify student needs, plan future instruction, and provide students with feedback to improve their understanding (Marzano, 2010; O'Connor, 2009; Stiggins, Arter, Chappuis, & Chappuis, 2006; Stiggins & Chappuis, 2012; Wormeli, 2006). This type of assessment contrasts with summative assessments, or "assessments *of* learning," which are used to measure a student's knowledge or skills at the end of the learning process.

Within K-12 classrooms, the most common form of formative assessment is feedback (Marzano, 2010). Researchers Hattie and Timperley (2007) define feedback as "information provided by an agent (e.g., teacher, peer, book, parents, experience) regarding aspects of one's performance or understanding" (p. 81), and state that the purpose of feedback is to "reduce discrepancies between current understandings and performance and a goal" (2007, p. 86). Feedback happens second; it is a consequence of

performance after initial instruction has taken place (Hattie & Timperley, 2007). Shute (2008) defines formative feedback as "information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning" (p. 154). To summarize the ideas of these researchers, teachers use feedback during the learning process to communicate with students about where they are in relation to a target, and what they need to do next in order to hit that target successfully. But how does this formative form of assessment actually impact students in the classroom, especially when considering a complex task such as writing?

There have been multiple approaches suggested to improve writing education, focusing on precise instructional practices that concentrate specifically on writing skills (Graham & Perin, 2007; Kellogg & Whiteford, 2009), as well as suggestions to enhance students' writing motivation (Bruning & Horn, 2000). Feedback is said to enhance both skills and motivation in relation to writing (Bruning & Horn, 2009; Kellogg and Whiteford, 2009; Kluger & DeNisi, 1996), though it is not clear which type of feedback, or how often this feedback must be given to the student in order to be most effective. Though teachers spend countless hours providing students with numerous different forms of feedback on their writing (Bruno & Santos, 2010; Parr & Timperley, 2010), there has been little research done to study the effects of those different types of feedback on the students' actions or motivation to change as a result of the feedback used (Graham & Perin, 2007).

On top of determining which forms of feedback are most effective, one of the difficulties in determining the impact that feedback has on motivation is pinning down the meaning of "motivation" itself. According to the Merriam-Webster dictionary (2014),

motivation is defined as "the act or process of giving someone a reason for doing something," or the "condition of being eager to act or work." According to Bandura, social cognitive theory considers self-efficacy beliefs to be a core motivational construct due to the major role they play in one's effort and persistence (1977). When looking at how motivation is defined in the field of educational neuroscience, Zull (2002) claims that the motivation that impacts learning is actually specified as intrinsic motivation. So rather than trying to find out how teachers can motivate students, Zull suggests that teachers need to instead focus on how they can support their learning; students will be motivated if they are learning. Feedback is one of the many ways teachers can support their students' learning, but how it actually impacts student motivation is yet to be fully determined.

Statement of the Problem

According to Bruning and Horn (2000), two decades of cognitive research have shown that "learning to write is an extraordinarily complex linguistic and cognitive task requiring close attention to the conditions for developing motivation and skill" (p. 26). It has been discovered in numerous studies that feedback is a powerful tool in increasing achievement in various contexts (Bruning & Horn, 2000; Carless, 2006; Duijnhouwer, Prins, & Stokking, 2010; Duijnhouwer, Prins, & Stokking, 2012; Hattie & Timperley, 2007; Kellogg and Whiteford, 2009; Kluger & DeNisi, 1996; Shute, 2008) and within many of these studies it is stated that feedback has a definite impact on motivation (Bruning & Horn, 2009; Duijnhouwer et al., 2010; Duijnhouwer et al., 2012; Hattie & Timperley, 2007; Kluger & DeNisi, 1996; Shute, 2008), but there is a lack of research existing within the field of secondary education on identifying the types of feedback that

are most effective in motivating students specifically in the complex task of writing within a classroom setting.

To address the gap in the existing literature, a study was conducted to measure and examine the interaction among all three factors – feedback, motivation, and writing – in a secondary middle school classroom. The purpose of this study was to determine if using various formative feedback processes throughout a focused persuasive writing unit motivates eighth grade students to complete the assignment to the best of their ability. The major research questions that guided this research are as follows:

- 1. What are the different types of formative feedback that can be applied to teaching a persuasive writing unit to eighth graders?
- 2. At what point in the writing process should different types of formative feedback be implemented?
- 3. How do different types of formative feedback impact eighth grade students' intrinsic and extrinsic motivation to write a persuasive essay?

Importance of the Study

As stated previously, according to a large body of research, feedback has a definite impact on student achievement (Bruning & Horn, 2000; Carless, 2006; Duijnhouwer et al., 2010; Duijnhouwer et al., 2012; Hattie & Timperley, 2007; Kellogg and Whiteford, 2009; Kluger & DeNisi, 1996; Shute, 2008;). Studies on the relationship between feedback and student achievement span the past 30 years (Marzano, 2010). In a meta-analysis conducted by Kluger and DeNisi in 1996, it was determined that an average student in a class without feedback (one who fell within the 50th percentile) would be predicted to rise to the 66th percentile if he or she were to receive feedback. In

2007, Hattie and Timperley synthesized more current research on feedback and calculated an overall average effect size of 0.79 for feedback, which can be translated into a 29 percentile point gain. However, although these effect sizes are high, there is great variability reported, which indicates that some types of feedback are more effective than others in affecting student achievement.

The meta-analysis by Hattie and Timperley (2007) showed that, "the highest effect sizes involved students receiving information feedback about a task and how to do it more effectively" (p. 84). The most effective forms of feedback in the meta-analysis provided cues to learners about what to do next; came in the form of video-, audio-, or computer assisted instructional feedback; and/or related to goals the student was trying to meet (Hattie & Timperley, 2007). Kluger and DeNisi found similar results that concluded that in order to increase performance, the feedback interventions must be provided for a task that is familiar, contain cues that support learning, and attract attention to solutions for the gaps existing at the task level rather than providing cues that direct attention to the self (1996). Furthermore, students are more likely to increase their effort to achieve if the goal they must meet is clear, if they are fully committed to reaching it, and if their belief in eventual success is high (Kluger & DeNisi, 1996). In her 2008 review of the literature on feedback, Shute identified the following three cognitive mechanisms by which formative feedback can benefit learning: (1) it makes the student aware of a gap between their current level of performance and the target for which they are aiming, thus motivating higher levels of effort to complete the task; (2) it can provide scaffolding that assists in the performance of the task, thus reducing cognitive stress associated with

writing; and (3) if specific enough, it can provide information that might be helpful in fixing misconceptions or errors related to the task at hand.

On the other hand, some forms of feedback are actually found to have a negative impact on student achievement. For instance, Kluger and DeNisi found that in 30 % of the studies they analyzed, feedback had a negative impact on achievement (1996). According to the meta-analysis, feedback interventions were less effective when they involved praise, or threatened self-esteem (Kluger & DeNisi, 1996). Hattie and Timperley discovered similar results in that programmed instruction, praise, punishment, and extrinsic rewards were the least effective forms of feedback used to enhance student achievement (2007). Furthermore, according to a meta-analysis of 128 studies, Deci, Koestner, and Ryan (1999) concluded that extrinsic rewards can have a negative impact on achievement in various settings (education, sports, and work environments) because they undermine a person's ability to take the responsibility to motivate or regulate themselves. One of the extrinsic rewards that may be detrimental to improved achievement in an educational setting is a grade; once students receive a grade or final mark on a task, they are less likely to make further improvements to their performance (Carless, 2006). In addressing the negative correlation between certain types of feedback and student achievement, Hattie and Timperley (2007) concluded that,

Learning can be enhanced to the degree that students share the challenging goals of learning, adopt self-assessment and evaluation strategies, and develop error detection procedures and heightened self-efficacy to tackle more challenging tasks leading to mastery and understanding of lessons. (p. 103)

So, while a large body of research can confirm the impact of feedback, both positive and negative, on student achievement in various subjects, tasks, and settings (Bruning & Horn, 2000; Carless, 2006; Duijnhouwer et al., 2010; Duijnhouwer et al., 2012; Hattie & Timperley, 2007; Kellogg and Whiteford, 2009; Kluger & DeNisi, 1996; Shute, 2008), when conducting searches on a number of databases (ERIC on EBSCO, ERIC on ProQuest, and PsychINFO on ProQuest), there is an abundance of research on feedback, motivation, and writing as separate entities, but there is a lack of research that ties together the relationship among all three factors. Researchers discuss limitations in their studies stating that feedback is "comparatively under researched" (Carless, 2006, p. 219) and needs to be investigated through both qualitative and quantitative research methods to discover how feedback works specifically within the classroom and student learning process (Hattie & Timperley, 2007). While studies analyzed oftentimes depict feedback as a factor in motivating learning, they are not focused specifically on the details of the relationship between feedback and motivation, nor do they discuss how feedback is applied directly to writing in order to best motivate learners (Bruning & Horn, 2009; Hattie & Timperley, 2007; Kluger & DeNisi, 1996; Shute, 2008;). Overall, most feedback literature concerns tasks other than writing (Duijnhouwer et al., 2010).

The studies conducted on writing either focus on the impact that feedback has on writing achievement (Duijnhouwer et al., 2010; Graham & Perin, 2007), or on how the motivation to write is developed overall (Bruning & Horn, 2000); a clear-cut explanation on how the three can work together is either briefly discussed (Bruning & Horn, 2000) or absent from the findings altogether. According to Duijnhouwer, et al. (2010),

"...empirical research concerning feedback effects on motivation for writing is quite

limited" (p. 53). Most of the research focusing on feedback is concerned with the effects of feedback on performance rather than the effects on motivation (Graham & Perin, 2007; Hattie and Timperley, 2007; Kluger & DeNisi, 1996). Graham and Perin's 2007 meta-analysis involving writing interventions in grades 4-12 reveals there are gaps in the research literature for writing instruction when it comes to feedback; within their meta-analysis of 123 documents that yielded 154 effect sizes for quality of writing, only five studies fit into the intervention category of "feedback," and none of these studies were conducted with eighth grade students. In the end, researchers were unable to draw any reliable or meaningful conclusions about the use of feedback as a writing intervention due to their small number of effect sizes, the diversity of instructional procedures and controlled conditions, and the disparate findings. Within their limitations section, Graham and Perin (2007) state that the review:

...was limited to experimental and quasi-experimental studies involving controlled tests of writing interventions... Our decision to focus on these types of studies should in no way distract from the important contribution that other types of research make to our understanding of how to teach writing (see Pressley et al., 2006). This includes qualitative studies ... single subject design studies that closely monitor the effectiveness of an intervention with a small number of students. (p. 465)

In searching ERIC databases on both EBSCO and ProQuest for literature that mentioned all three factors together (writing AND feedback AND motivation) there were few relevant studies located, and those that were relevant were conducted in university settings overseas (Duijnhouwer et al., 2010; Duijnhouwer et al., 2011; Wingate, 2010);

the findings from these studies are not transferrable to an American secondary school setting.

Because writing is such a complex task, motivational issues are likely to become particularly prominent for students during the learning process (Burning & Horn, 2000). Though learners' beliefs and attitudes about writing are thought to fall within the area of intrinsic motivations, the development of those attitudes and beliefs is ultimately "in the hands of those who set the writing tasks and react to what has been written" (Bruning & Horn, 2000, p. 26). Within school settings, educators are the major persons responsible for setting writing assignment expectations and reacting to students' attempts at reaching those standards, so they should be informed of the most effective strategies available for motivating their students to write. In the past, teachers have demonstrated shortcomings in being able to develop their students' skills and motivation to write (Browning & Horn, 2000), and presently, there is little literature to prove that improvements have occurred. In order to fill that gap in the existing literature, especially in more recent years, this study was conducted to identify and examine the impact that feedback has on student motivation throughout the writing process. The results will inform educators in similar grade-level settings of the benefits or drawbacks of using certain types of feedback when working to develop the motivation of young writers.

Methods

The investigation of the research questions stated above was conducted in two steps. First, a literature review was conducted to answer the following research questions:

1. What are the different types of formative feedback that can be applied to teaching a persuasive writing unit to eighth graders?

2. At what point in the writing process should different types of formative feedback be implemented?

The literature review was also used to investigate and choose an appropriate way to measure the intrinsic motivation or self-efficacy of students within a classroom setting.

The findings were used to create a survey to collect data that answered the third research question:

3. How do different types of formative feedback impact eighth grade students' intrinsic and extrinsic motivation to write a persuasive essay?

To locate these sources, the Minnesota State University, Mankato's library databases and collections were used. These databases included ERIC on EBSCO, ERIC on ProQuest, PsycINFO, PsychARTICLES, SAGE Premier, and ScienceDirect using the search terms including "writing AND feedback," and "formative feedback AND writing." The researcher also sought out works listed in the appendices of useful articles found within the library databases to expand the search. When searching the online databases, the researcher utilized the "advanced search" options to search only peer reviewed articles, and evaluated each source using Creswell's checklists for evaluating the process of quantitative and qualitative studies to find the most accurate and relevant information related to the topic (Creswell, 2011). The majority of the literature came from primary sources and meta-analyses conducted by researchers to summarize research related to the topic, though secondary resources were consulted to gather general ideas and additional sources as recorded in the reference section. The majority of the literature had been published within the last 20 years, with a few dating back further in order to consult

landmark studies and get definitions of terms related to behaviors in the field of psychology.

Summary of Experiment

After exploring answers to research questions one and two, the researcher conducted an experiment in order to answer the third and final research question:

3. How do different types of formative feedback impact eighth grade students' intrinsic and extrinsic motivation to write a persuasive essay?

To investigate this question, a mixed methods research study was conducted, utilizing surveys for both quantitative and qualitative data. The experiment took place over the course of a 3-4 week persuasive writing unit in an eighth grade English classroom in a small, rural community in the Midwest. During this study, students were asked to use the writing process to create a final draft of a persuasive essay. After developing a rough draft of the essay, the teacher provided students with different levels of positive and corrective feedback as they pertained to specific traits of the piece of writing (ideas, organization, voice, word choice, sentence fluency, conventions, and works cited). These forms of feedback were delivered to students in a sequenced manner during the essay revision process (1-2 weeks long). Students were given time to utilize the feedback before another form was introduced. After each new form of feedback was introduced, students participating in the study completed a short survey through Qualtrics to measure student motivation as a result of the feedback given.

Setting and Population

The study took place during the second semester of the 2014-2015 school year in all four English 8 classrooms at a middle school located in a small, rural Midwestern

farm community. Each of the classes had between 20-25 students, for a total of 92 students. All students took part in the same unit, the same instructional methods, and the same feedback methods. Students who made up the participant population of this study were selected based on student agreement to complete surveys as indicated on signed student assent forms. Permission was granted to work with this population by completing all Institutional Review Board (IRB) procedures through Minnesota State University, Mankato. Before beginning research, permission was also obtained from the school administration and the parents/guardians of participants by sending out formal letters explaining the purpose of the study, the length of the study, the time required of participants, the specific activities being conducted, how the research would be used, the benefits to the school and individual participants as a result of the study, and the proactive steps that had been taken to protect the identity of participants.

Data Collection

Both quantitative and qualitative data were collected throughout the writing process by administering a short survey (four to eight questions depending on responses) through Qualtrics (taken on school-issued iPads) to participants each time a different form of feedback was given to them. The survey was created to measure both intrinsic and extrinsic motivation, and also asked students to elaborate on why the feedback did or did not motivate them. This survey was constructed, reviewed by advisors and revised for improved validity, and was piloted with eighth grade students several weeks before the start date of the study.

Confidentiality

All students were assigned a pseudonym within the study in order to maintain confidentiality within the results. All results were published as aggregate data, which eliminated any references to names.

Assumptions

All students participating in the study were aware of the English 8 course expectations and policies. During the course, all students needed to fulfill the requirement of writing a persuasive essay to meet Minnesota State Standards for English/Language Arts in Writing, specifically benchmark 8.7.1.1 (Minnesota Department of Education, 2010). At the time of the study, all students were able to write in complete sentences, develop solid paragraphs, and had instruction and experience in writing fiveparagraph essays consisting of an introduction paragraph, three body paragraphs, and a conclusion paragraph (their ability to create these key features of an essay had been assessed previously). Individual students differed based upon their attitudes, interests, and beliefs about writing, and therefore were likely to feel differently about the persuasive writing unit that was the focus of this study. Students also differed in the amount of time it took them to complete each step of the writing process, thus the feedback was provided to some students at different points in time, but was provided to all students at specific, predetermined points within the drafting process. It was assumed that all students within the course were able to participate in the study upon parent consent. During the study, it was assumed that each student would be honest in their responses on the survey administered to them after each form of feedback. All

participants were treated ethically, and their confidentiality was maintained throughout the study.

Limitations of Study

The literature review conducted for this study was limited to primary resources available through Minnesota State University, Mankato's online library database, as well as secondary resources purchased by the researcher or located within the online library database. If primary resources were not available at the library, or had not been published to one of the online databases subscribed to by the university, they were not considered in the literature review. Literature was also limited to studies published from 1970 – 2015, with the majority being published after 1995. While it is considered more desirable to keep the research literature within the past decade, it was difficult to do so in this case due to the lack of existing research connecting the three topics (feedback, motivation, and writing) of focus.

The findings of this research are limited to small rural schools, where class sizes range between 20-30 students; this is because the researcher taught at a small school located in a small, Midwestern community during the time of study. Thus, the classes and students chosen for the research were chosen based on convenience of the sample and the fact that the researcher was the only staff member who taught English 8 within the school. The findings of this study may not be applied to large settings that limit the teacher's amount of time spent with students one-to-one, and they may also not be applied to smaller settings where students receive even more one-on-one support from the teacher, as better strategies may be available in those settings.

The final draft of the persuasive essay served as a summative assessment for the unit, and within the courses, students were required to complete all summative assessments in order to receive a final grade in the course. That requirement of completion may have had some impact on the results of this study, as it may have acted as an extrinsic motivator to some students.

Validity of this study may have been compromised due to the study being conducted by the students' teacher. Students may have felt like they needed to say what they wanted the teacher to hear, or responded to feedback based on their feelings toward the teacher.

Bias is also present to some extent because the researcher was unable to control the experiences each of the selected students had outside of school during the timeframe for the study. For instance, students may have been motivated extrinsically at home by receiving compensation for good grades, or punishment for bad grades. This would have impacted how the students were motivated within the classroom studied.

Delimitations

The definition of keys terms including motivation, extrinsic motivation, intrinsic motivation, formative assessment, summative assessment, positive feedback, corrective feedback and feedback used within in this study will be limited to the definitions gathered during the research process and chosen for this study.

Definition of Terms

Corrective feedback. Points out elements or places where student is "off track" or needs to make improvements. It may also include how to improve those areas and/or steps they can take to prevent those mistakes from occurring in future tasks.

Extrinsic motivation. A construct that pertains whenever an activity is done in order to obtain some separable outcome (Ryan & Deci, 2000). Examples of extrinsic motivation:

- 1. When a student does his homework only because he fears the consequences he will receive from his parents if he does not. He is extrinsically motivated because he is doing the work in order to avoid an external punishment (Ryan & Deci, 2000).
- 2. When a student studies for a test because she wants to receive a good grade. This student is extrinsically motivated because she is studying to earn a letter grade, rather than to increase her knowledge on the subject.

Formative Assessments. Also referred to as "assessments *for* learning;" assessments conducted frequently during the teaching and learning process, and are used to identify student needs, plan future instruction, and provide students with feedback to improve their understanding (Wormeli, 2006; Marzano, 2010; O'Connor, 2009; Stiggins, Arter, Chappuis, & Chappuis, 2006; Stiggins & Chappuis, 2012).

Formative Feedback. Also referred to in this study more simply as "feedback;" information communicated to the learner *during the learning process* that is intended to modify his or her behavior and thinking to reduce discrepancies between current understandings and set objectives (Based on combined definitions from researchers Hattie & Timperley, 2007 and Shute, 2008.)

Intrinsic motivation. Doing an activity for its inherent satisfactions rather than for some separable consequence (Ryan & Deci, 2000) Examples of intrinsic motivation:

- When a student does his homework to increase his feelings of competence on the subject. The student is intrinsically motivated because they are focused on the internal reward of competency, rather than on an outcome separate from the assignment.
- When a student completes an activity because they find it interesting or enjoyable.
 The student is intrinsically motivated because they find the task rewarding in itself.

Motivation. The act or process of giving someone a reason for doing something (to motivate), or the condition of being eager to act or work (to be motivated) (Merriam-Webster Dictionary).

Positive feedback. Points out elements or places where the student is "on track" or has performed well. It may also include why that performance should be continued in future writing tasks.

Summative Assessments. Also referred to as "assessments *of* learning," defined as assessments conducted to measure a student's knowledge or skills at the end of the learning process. (Wormeli, 2006; Marzano, 2010; O'Connor, 2009; Stiggins, Arter, Chappuis, & Chappuis, 2006; Stiggins & Chappuis, 2012).

Overview

The remainder of this thesis includes a review of the literature related to types of formative feedback given during writing and when they should be provided to writers, as well as previous studies done that in some way involve all three elements focused on in this study – feedback, motivation, and writing. Then, methods, procedures, and results for the study will be discussed. The final chapter will summarize the findings of the research,

draw conclusions, including the limitations of the study, and suggest ideas for future research.

Chapter Two

Review of the Literature

As mentioned in Chapter One, there are numerous studies that discuss the topics of writing, feedback and motivation as separate entities. However, when discussing the relationship among all three topics, there is a paucity of literature. Feedback is one of the most prevalent forms of formative assessment in education today and while there is research that discusses the impact of feedback on achievement, there is a lack of research existing to identify the impact of feedback on students' motivation, especially when undertaking the complex task of writing. The purpose of this study is to determine if using certain formative feedback processes through a focused persuasive writing unit influences the motivation of eighth grade students to complete the writing assignment. This review of current literature will explore studies and reviews of instructional practices in writing, the use of formative feedback, and motivation, and will work to identify any existing relationships. Two major research questions drive this review. The first question regarding what the different types of formative feedback are that can be applied to teaching a persuasive writing unit to eighth graders will be discussed in the literature about instructional practices needed for the improvement of writing. The second question addresses at what point in the writing process different types of formative feedback should be implemented, and this will be discussed in the literature about using feedback. The third research question of this study deals with how different types of formative feedback impact eighth grade students' intrinsic and extrinsic motivation to

write a persuasive essay, and in this review, will be addressed in sections regarding motivation and its impact on learning and achievement. After discussing literature on writing instruction, the use and impact of feedback, and motivation, gaps in the literature will be identified. The review will conclude with a summary of main points and a discussion of the need for the research conducted in the present study.

The Importance of Writing

In today's society, writing remains an important skill for communicating with others and navigating the increasingly demanding world of education and work. In order to thrive in our environment and reap the benefits of literacy in our advanced technological society, people must know how to write effectively. For this reason, writing remains a requirement in school curricula across the nation as it is aligned with statewide and national educational standards. However, according to the National Commission on Writing, in 2007 a large number of adolescents in the United States were not achieving the critical goal of being able to write effectively by the time they graduate from high school (Graham & Perin, 2007). As they entered college and the workplace, it became even clearer that these young adults could not adequately write for the purposes required of them (Kellogg & Whiteford, 2009). More recent data suggests that the issue of inadequate writing skills has not ceased. In 2012, though the number of graduating high school seniors taking the ACT had increased, the test score averages on the ACT showed writing scores plummeting from 2006 to 2010, and then remaining stagnate (2012 ACT National and State Scores). With writing skills diminishing with each passing year, it is imperative that a solution be found to not only increase success-rates of the nation's young adults, but also to strengthen the capabilities of the nation as a whole.

A Need For The Improvement of Writing

Improvements are needed in the teaching of writing in the United States, but before the suggestions for improvement can be fully understood, one needs to comprehend the difficulties associated with the task of writing itself. According to researchers Bruning and Horn (2000), two decades of cognitive research have shown that learning to write is an extremely challenging complex linguistic and cognitive task and Kellogg and Whiteford (2007) reiterate this in saying that written composition places intensive demands on the working memory. With that in mind, those who teach writing must pay close attention to the conditions they create for developing motivation and skills of the learners so that they can get students invested. Researchers Graham and Perin (2007) attributed the struggle with the complex task of writing to the idea that teachers are not sure how to effectively teach writing. To investigate this assertion, they conducted a meta-analysis of studies to identify effective instructional strategies for teaching writing to the middle grades (4-8), and their findings demonstrate that there are a variety of instructional approaches that improve the quality of adolescent writing (Graham & Perin, 2007). The major instructional approaches identified as helpful in increasing student writing skills follow.

First, when teachers are involved in professional development for using the process approach to teaching writing, a moderate effect on the quality of students' writing can be seen (average effect size 0.06) (Graham & Perin, 2007). According to Graham and Perin's meta-analysis (2007), explicit teaching on sentence-combining has a moderate impact on quality of writing (average effect size 0.46), but even more impactful is providing direct instruction for the writing process (planning, revising, and editing),

especially for struggling writers (average effect size 1.00) (Graham & Perin, 2007). In addition, teachers should work explicitly on summarization skills with students because this improves their ability to concisely and accurately present information in writing (average effect size 0.8) (Graham & Perin, 2007). Teachers should also use scaffolding to improve students' writing by engaging them in prewriting activities to help them brainstorm ideas for writing (average effect size 0.42), helping them sharpen their inquiry skills (average effect size 0.28) and by providing them with good models for each type of writing at the focus of instruction (average effect size 0.17); these practices have been proven to have a small impact on writing quality (Graham & Perin, 2007). Furthermore, assigning product goals (rubrics, objectives, specific goals, etc.) (average effect size 1.0) and guiding students in peer review practices (average effect size 0.70) have a strong, positive impact on writing quality (Graham & Perin, 2007). These are just some of the suggested approaches for teachers and administrators to apply when seeking to fix deficiencies in student writing abilities.

For another approach, Kellogg and Whiteford (2009) argue that the core cause of the poor scores in writing is that there is an insufficient degree of appropriate task practice distributed throughout the secondary and college-level curriculum. The solution they offer is more deliberate practice, which they define as "practice undertaken with a specific goal to improve. The learner mindfully engages in practice designed by an instructor, coach, mentor, or tutor, who further provides corrective feedback and encouragement to succeed" (Kellogg & Whiteford, 2009, p. 251). They believe that a novice can become an expert through the following aspects of deliberate practice: (a) effortful exertion to improve performance, (b) intrinsic motivation to engage in the task,

(c) carefully tailored practice tasks, (d) feedback knowledge and results, and (e) high levels of repetition over several years (Kellogg and Whiteford, 2009). A major downfall in assigning sufficient writing tasks for deliberate practice to improve writing skills is the time and effort involved. In order to be successful, a writing instructor must provide students with formative feedback, but this takes an extensive amount of time. It is believed that individuals may have to undergo an undergraduate career before they are able to develop into a competent writer in their respected field because they lack the domain knowledge prior to their post-secondary education (Kellogg and Whiteford, 2009). While feedback lies at the heart of Kellogg and Whiteford's (2009) approach to deliberate practice, Graham and Perin's (2007) meta-analysis only uncovered a small number of effect sizes that involved feedback, and because there was such a diversity of instructional procedures and control conditions within those effects, the findings made it impossible to draw any meaningful conclusions about effect sizes for the treatment of feedback specifically on writing. After exploring the approaches to improving writing instruction, more research was needed to uncover the usefulness of feedback as an improvement strategy in writing.

Using Feedback

One way to support students' learning is through the use of effective feedback practices. Feedback is considered a form of formative assessment and is among the most critical influences on student learning since it is used to help students identify gaps in their knowledge and to give them the next steps in closing those gaps (Bruno & Santos, 2010; Hattie & Timperley, 2007). However, there is a great deal of variability in the literature about feedback, making it difficult to come to a conclusion about what makes

feedback work; there is no "best" approach for all learners, all environments, or all tasks. But it has been shown that formative feedback can improve students' learning and enhance teachers' teaching to the extent that learners are receptive and the feedback is valid, objective, specific and clear (Shute, 2008). This section of the review will discuss the forms and uses of feedback.

As discussed in Chapter One, feedback can have many definitions and purposes. Hattie and Timperley (2007) identify feedback as "information provided by an agent regarding aspects of one's performance or understanding" (p. 81). Shute (2008) describes feedback as "information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning" (p. 154). Kluger and DeNisi (1996) describe feedback as "information provided by an external agent regarding some aspect(s) of the learner's task performance, intended to modify the learner's cognition, motivation, and/or behavior" (p. 255). Ramaprasad (1983) defined feedback as the "information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way" (p. 4). To summarize, from an educator's standpoint, feedback is information given to a student that is constructed with the intention of helping that student close the gap between their existing knowledge and the set learning objective. To close that gap, feedback must answer three major questions asked by a teacher and/or student: 1. Where am I going? (What are the goals I'm trying to reach?) 2. How am I going? (What progress am I making toward the goals? 3. Where to next? (What do I need to do in order to make better progress?) (Hattie & Timperley, 2007, p.86).

There are several different forms that feedback can take, and different levels or tasks at which feedback can be directed in order to help students meet their goals or predetermined objectives. In their meta-analysis about the power of feedback, Hattie and Timperley (2007) identify four major levels of feedback including feedback about a task (whether a work is correct or incorrect), feedback aimed at the process used to complete the task, feedback on self-regulation (informs how to better and more effortlessly continue on the task), and feedback about the self (for example, "you are a great student") (p. 90). This present study will focus on feedback directed toward the task and process. In addition, feedback at the different levels can also have different functions; directive feedback can tell a student what needs to be fixed or revised using specific details, while facilitative feedback provides comments and suggestions to help guide the student in the revision process (Shute, 2008). Directive and facilitative feedback are parallel to the two types of feedback information, verification and elaboration, discussed by Kulhavy and Stock (1989). Researchers are leaning toward the view that effective feedback should include elements of both, as there is growing consensus that the combination of the two can increase student achievement more than other types of feedback (Shute, 2008).

Though there is no "perfect" solution for feedback delivery, there are a number of recommendations provided from past studies on feedback. Above all, feedback should always remain objective and work to reduce the discrepancies between present performance and the learner's goals (Hattie & Timperley, 2007; Parr & Timperley, 2010; Shute, 2008). To do this, feedback should be focused on the task, not on the learner (Hattie & Timperley, 2007; Shute, 2008). Feedback should provide students with elaboration on next steps to take; highly specific comments are more helpful than vague

statements (Hattie & Timperley, 2007; Kellogg & Whiteford; Shute, 2008). However, feedback should not be presented to students in copious amounts at one time, but should be specific and clear and kept as simple as possible without losing the intended message (Bruno & Santos 2010; Hattie & Timperley, Kellogg & Whiteford, 2009; Shute, 2008). If teachers write too many comments, or the comments use academic language the student does not understand, students will get overwhelmed and become unmotivated because all of their work has been doubted and they are not sure how to move forward (Hattie & Timperley, 2007). Though the literature provides guidance on the most useful kinds of feedback, it has not identified a solution to the problem of overloading students with corrections and comments that would be tempting to ignore as a student (Kellogg and Whiteford, 2009). To minimize this problem, it may be helpful to focus on providing feedback to one aspect of the task at a time and to discuss vocabulary and expectations prior to the assignment of the task (Parr & Timperley, 2010). Overall, in order to be effective, feedback must be combined with effective instruction (Hattie & Timperley, 2007).

In addition to the specific instructional practices and methods used for delivering feedback, the timing of feedback can also play a role in its effectiveness. There are mixed results on feedback timing within the literature consulted, but cases for both immediate and delayed feedback will be discussed here. Immediate feedback is administered right after a student has responded to or completed a task, or in summative assessment, right after the assessment has been completed (Hattie & Timperley, 2007; Shute, 2008). At the process level, it is said that this type of feedback can be beneficial because the earlier corrective information is provided, the more likely it is that retention will result and

errors will not be encoded into memory (Shute, 2008). Delayed feedback is usually defined relative to immediate feedback and may occur minutes, hours, weeks, or longer after the completion of the task. Support for delayed feedback comes from the interference-perseveration hypothesis proposed by Kulhavy and Anderson (1972) that argues that if feedback is delayed, it allows the initial errors to be forgotten and the correct information to be encoded in memory with no interference (Bruning & Horn, 2000; Shute, 2008). Additional research proposes that feedback timing should be aligned with the task and/or the desired outcome of the task. For relatively simple tasks use delayed feedback, for difficult tasks use immediate feedback; for retention of procedural or conceptual knowledge, use immediate feedback, and to promote transfer, consider delayed feedback (Shute, 2008). Furthermore, formative comments on a first draft of writing may be more helpful than comments on a final draft because once a final draft has been turned in, there may be less incentive to process the information at a deep level and incorporate it into future writing tasks. Overall, there are inconsistent findings in feedback timing, but an interesting observation is that many field studies (such as those that take place in classrooms) value immediate feedback, while studies that take place in labs show positive effects of delayed feedback (Shute, 2008).

Another variable in feedback delivery is the format in which it is administered. Feedback can be provided by teacher, peers, or other mentors, and it can be delivered verbally (audio), through written comments, or by using new technologies (Ice, Swan, Diaz, Kupczynski, & Swan-Dagen, 2010). According to Parr and Timperley (2010), oral feedback is essential to learning. This verbal feedback can be provided during instructional time, or during a scheduled conference. Written comments have also proven

an effective form of feedback and there is considerable evidence that proves written comments are more effective than providing students with a grade (Hattie & Timperley, 2007). When providing written comments, it is recommended that comments be located directly next to the areas that need revision (Bruno & Santos, 2010). Peer feedback is also a valuable form of feedback, and can come in the forms of editing suggestions or peer response to content of the task. This form of feedback can be used to increase the amount of practice assigned to students without increasing the time it takes instructors to grade assignments, and it has proven to be even more effective in increasing quality of writing between drafts than when the instructor provides feedback (Kellogg and Whiteford, 2009), However, if not supported by the teacher, this feedback strategy can fall flat (Parr & Timperley, 2010). Just as the use of word-processing became the norm, spell checking, grammar checking, and plagiarism detection software are now prominent. Computerized feedback technology can lend itself to immediate feedback and cut down on the amount of time it takes instructors to provide feedback, but more research is needed to determine its effectiveness in increasing student learning (Kellogg & Whiteford, 2009). Of all of the feedback formats available, it has been shown that students think written feedback is more helpful than audio feedback (especially when feedback is given on citations and issues with conventions), but that a combination of both is the most effective (Ice et. al., 2010; Stern & Solomon, 2006). All of the suggestions offered for administering feedback can have an impact on the way the feedback is received, which in turn has proven to affect the level of achievement of the receiver.

The Impact of Feedback on Achievement

In their 2007 meta-analysis, Hattie and Timperley identified feedback as one of the top ten highest influences on student achievement. However, it has been proven in various studies that the type of feedback and the way it is administered can impact achievement differently in different settings (Hattie and Timperley, 2007; Kluger & DeNisi, 1996). And while most of the research proves that feedback has a positive impact on achievement, the majority of studies on the positive impact of feedback ignore the fact that there are also studies that show feedback having a negative impact (Black & Wiliam, 1998; Brookhart, 2007; Bruno & Santos, 2010; Hattie & Timperley, 2007; Kluger & DeNisi, 1996). In their meta-analysis, Black and Wiliam (1998) reported that in 40% of the 131 studies they analyzed, feedback had a negative impact on student performance. In addition, more recent studies demonstrate that students' performance worsens if feedback is focused on the individual self, rather than on the task or process (Brookhart, 2007; Hattie & Timperley, 2007). However, Butler (1987) found that student performance is higher after receiving some feedback as opposed to receiving just grades or no feedback at all. The common practice of praising performance and providing students with grades has the potential to impair, as well as benefit performance (Kluger & DeNisi, 1996). The overall conclusion is that feedback can promote learning and achievement if it is specific and focuses on what needs to be done to improve performance, and when it provides the recipient with the steps or strategies needed to make those improvements (Brookhart, 2007; Hattie & Timperley, 2007). The goal is to provide students with feedback that promotes learning by requiring students to think critically about revisions, not to provide students with answers or fix their discrepancies for them (Kluger & DeNisi, 1996).

While looking at the impact of feedback overall is beneficial to the study, the impact of feedback on writing instruction specifically needs to be examined. Though teachers of writing spend an immense amount of time providing students with feedback on their writing (Stern & Solomon, 2006), there is a limited amount of research available on the effects of that feedback (Graham & Perin, 2007). In fact, both Hattie and Timperley's (2007) and Graham and Perin's (2007) meta-analyses point out that feedback in adolescent writing is so under researched that it can rarely be included when looking at instruction that impacts the quality of writing. The little research existing shows that feedback is an instructional practice that enhances both students' skills and motivation (Bruning & Horn, 2009; Kellogg & Whiteford, 2009; Kluger & DeNisi, 1996) and should lead to improved writing (Parr & Timperley, 2010). To provide more detail, in their 2010 study Duijnhouwer et al., concluded that "In general, feedback cues that direct attention to task-motivation processes or task-learning processes – coupled with corrective information on erroneous ideas or hypotheses – are assumed to enhance feedback effects on performance" (p. 54). And in their 2012 study, they concluded that both improvement strategies and reflection on feedback can be beneficial to performance, but using them simultaneously can be detrimental (Duijnhouwer et al., 2012). Kellogg and Whiteford (2009) found that teacher-supported peer feedback processes could increase writing achievement. Wingate (2010) confirmed the effectiveness of formative feedback as an instructional method, in that it enabled students in her study to make quicker progress in their academic writing than they would in other university programs. Though the studies provide relevant information, many of them are conducted with

university students, which can make it difficult to apply their implications to the adolescents in the present study focusing specifically on middle school students.

In conclusion, feedback has been proven to be one of the most powerful influences on learning (positive or negative) and needs to be more fully researched both qualitatively and quantitatively in order to better understand how feedback works in the classroom, on learning processes, and more specifically, during the writing process. The research on feedback discussed here touches on the ability of feedback to impact motivation, but further explanation is needed in order to better understand the concept of motivation and form conclusions about the relationship between the two.

Defining Motivation

Motivation has been widely studied in the fields of psychology and sociology, and the findings have made vast contributions to educational practices. According to Ryan and Deci (2000), "To be motivated means to be moved to do something" (p. 54) and those who are motivated are energized toward an end. A person who feels no inspiration to act is characterized as unmotivated. Within their Self-Determination Theory, Deci and Ryan (1985) distinguish between two main types of motivation— extrinsic and intrinsic— and these two types of motivation are shown to have different impacts on performance and achievement. Extrinsic motivation is defined as doing something because it leads to a separable outcome (Ryan & Deci, 2000). Similarly, in classic psychology, Skinner's operant theory (1953) was focused on extrinsic motivation as he maintained that all behaviors are motivated by rewards, which function as external motivators that lead to separable outcomes. For example, a student doing his homework because he fears punishment for not doing so is being extrinsically motivated to complete the task in order

to avoid the separable outcome of punishment. Similarly, a student studying for a test because he wants to get a good grade in the class is being extrinsically motivated because he is working for the separable outcome of a good grade. Contrasting with extrinsic motivation is intrinsic motivation. Intrinsic motivation is defined as "doing something because it is inherently interesting or enjoyable" (Ryan & Deci, 2000, p. 55). When intrinsically motivated, someone is moved to do something based on the fun or challenges involved in the task, rather than because of external rewards or pressures. This phenomenon of intrinsic motivation was first recognized in studies of animal behavior where it was discovered that many organisms engage in a task even in the absence of positive reinforcement or rewards (White, 1959). From the time of birth onward, humans are naturally equipped with intrinsic motivation as they are inherently active and curious creatures that do not require external incentives to engage in exploration or learning; however, not everyone is intrinsically motivated for the same tasks or in the same situations (Ryan & Deci, 2000). For example, one student may be intrinsically motivated to read for enjoyment, but another student may only engage in the task of reading because it was assigned to them, or they know they have to in order to increase their literacy skills.

Within studies on motivation, extrinsic motivation can be quite simple to detect, however, intrinsic motivation is more difficult to measure. There are two common measures used to study intrinsic motivation: (1) the behavioral measure of "free choice" and (2) the task-specific measure of self-reported interest and enjoyment (Ryan & Deci, 2000). The free-choice measure exposes participants to a task under varying experimental conditions, and following the task period, the experimenter tells participants they no longer need to work with the target task any longer, and then leaves the participant in the

room with the task as well as other distractor activities. Thus, participants are left with "free choice" about whether to return to the target task or choose another activity. It is assumed that if there is no extrinsic reason to do the task, the more time spent with target task, the more intrinsically motivated the participants are. The self-reported measure is assessed with either a single item or with multiple items (usually in the form of a questionnaire) administered to participants before, during, and/or after the study, to determine levels of intrinsic motivation (Deci et al., 1999). Thus, if someone is intrinsically motivated to continue a task, a free-choice period will allow them to choose to continue that task and a self-reported measure will allow them to report on their interest in the task. Both of these measures have been used in the various studies existing on the impact of feedback on motivation; the present study will utilize self-reported measures.

The Impact of Feedback on Motivation

In the field of education, there are many factors that can support intrinsic motivation and many forces that can pose as threats, or undermine motivation (Ryan & Deci, 2000), with one of the common factors being feedback. The positive effects of progress feedback on performance have been shown in a very comprehensive meta-analysis on the effects of feedback on performance (Kluger & DeNisi, 1996). These researchers also came up with the Feedback Intervention Theory, which suggests that students' motivation is thought of as a road through which feedback affects performance. However, empirical research concerning the effects of feedback on motivation for writing in particular is quite limited, as most research on writing focuses on the effects of feedback on performance rather than on motivation (Graham & Perin, 2007; Hattie &

Timperley, 2007; Kluger & DeNisi, 1996). Nonetheless, studies on feedback and performance in other content-areas can be used to demonstrate how the nature of feedback can maintain or undermine student motivation (Butler & Nisan, 1986; Graham & Perin, 2007; Kluger & DeNisi, 1996; see also Hattie & Timperley, 2007).

Three decades of research has shown that the quality of performance can be very different when someone is behaving as a result of intrinsic versus extrinsic reasons (Ryan & Deci, 2000). While feedback has often been thought to enhance the motivation of the recipient, there are many instances in which particular forms of feedback or improvement strategies function negatively and weaken motivation and self-efficacy (Butler & Nisan, 1986; Duijnhouwer et al., 2012; Wiliam, 2011). One form of feedback that often negatively impacts motivation is grades, yet this form of feedback is one of the most common forms of feedback given in schools. If not used correctly, grades may encourage an emphasis on quantitative aspects of learning, depress creativity, foster a fear of failure, cause evaluation anxiety, and undermine students' interest and intrinsic motivation (Butler & Nisan, 1986; Crooks, 1988). In addition, when grades are provided as feedback, students may not know how to "decode" the grade to understand its meaning and take appropriate action (Wiliam, 2011).

Another form of feedback that can have negative effects on motivation is praise, as it draws attention away from the task and towards the self, which in turn has a negative impact on performance (Kluger & DeNisi, 1996; Wiliam, 2011), though some students like praise when it is accompanied by an explanation (Duijnhouwer et al., 2010). Regardless, both the form in which praise is delivered, as well as the context in which it is received can affect motivational consequences (Koestner et al., 1987).

There is also a strong argument against using rewards and punishment; both are commonly used with the intent of motivating, but it has been demonstrated that they can have a debilitating effect on both motivation and performance. Verbal rewards are often thought to enhance intrinsic motivation, but they also have a controlling component that leads people to engage in behaviors that could result in acknowledgement or approval, which undermines intrinsic motivation; instead of completing a task for the challenge or enjoyment, people desire external rewards from others in order to complete the task (Deci, Ryan & Koestner, 1990), and they no longer take responsibility for motivating or regulating themselves. As noted by Kohn in 1993, when schools or other institutions use rewards to control behavior, those rewards are likely to be followed by greater surveillance, evaluation, and competition, and these too have been found to undermine intrinsic motivation (Deci & Ryan, 1985). Furthermore, rewards are most damaging to motivation and interest when the task is already intrinsically motivating because there is that much more interest to lose when the extrinsic motivators are introduced (Brandt, 1995; Deci et al., 1999). And, the more you reward someone for completing a task, the less interest that person will have in that task, and in addition, they will tend to do lower quality work in the future in comparison with those that were never offered a reward (Brandt, 1995). Though punishment is considered the opposite of praise, they go hand-inhand in their ability to debilitate intrinsic motivation. According to Kohn, punishment is destructive because it is another way of manipulating student behaviors (Brandt, 1995). Though interpersonal context must be considered in any feedback situation, it is important to realize that when schools focus on short term strategies that control people's behavior, such as praise and punishment, their decision can have long-term effects

students (Deci et al., 1999). Teachers shouldn't use rewards or punishments to get students to do something, instead they should reconsider the task and find ways to make it more engaging for students – interesting tasks lead to intrinsic motivation (Brandt, 1995).

According to Kohn, "There are at least 70 studies showing that extrinsic motivators – including A's, sometimes praise, and other rewards – are not merely ineffective over the long haul but counterproductive with respect to the things that concern us most: desire to learn, commitment to good values, and so on" (as cited in Brandt, 1995). Furthermore, in schools, students' intrinsic motivation appears to become weaker with each advancing grade (Ryan & Deci, 2000). To combat this unfortunate reality, there are several approaches that can be taken to increase intrinsic motivation, several of which involve careful consideration of context and individual needs.

Deci and Ryan's (1985) Cognitive Evaluation Theory (CET) specifies factors in social contexts that produce variability in intrinsic motivation, and argues that,

interpersonal events and structures (e.g., rewards, communications, feedback) that conduce toward feelings of competence during action can enhance intrinsic motivation for that action because they allow satisfaction of the basic psychological need for competence. Accordingly, for example, optimal challenges, effective promoting feedback, and freedom from demeaning evaluations are all predicted to facilitate intrinsic motivation. (Deci & Ryan, 1985, p. 58)

When students are able to choose a higher level of challenge, they demonstrate higher levels of intrinsic motivation and performance on future related, more complex tasks (Koestner, Zuckerman, Koestner, 1987), which demonstrates the long-term effect of

intrinsic motivation. As mentioned, students' intrinsic motivation and achievement can also be enhanced or maintained through receipt of systematically designed feedback (Duijnhouwer et al., 2012; Shute, 2008). However, it is important to remember that with regard to feedback, it has been found that self-efficacy beliefs are liable to change, even after just one single episode of teacher feedback (Duijnhouwer et al., 2012). Thus, teachers must construct feedback carefully to ensure interest and motivation are not undermined (Butler & Nisan, 1986). Lastly, learning environments have the ability to facilitate or predict intrinsic motivation by supporting versus thwarting the needs for autonomy and competence; ultimately, intrinsic motivation will only occur for activities that hold interest for an individual (Ryan & Deci, 2000). And, in order to maintain constant intrinsic motivation, individuals must experience perceived self-efficacy and consider their behavior to be self-determined (Ryan & Deci, 2000). In schools, this facilitation of more self-determined learning requires classroom conditions that allow satisfaction of three basic human needs; support of the innate needs to feel connected. effective, and self-reflective as one is exposed to new ideas and exercises new skills (Ryan & Deci, 2000). Creating this supportive classroom environment becomes even more important when teaching the complex task of writing, as students can become increasingly discouraged by its cognitive demand. Though there is a clear relationship between feedback and motivation, there is a small body of research that focuses specifically on the impact of feedback on motivation when writing is the focus activity.

Existing Studies That Discuss the Impact of Feedback on Motivation in Writing

While the impact of feedback on achievement and motivation has been discussed in various contexts, there remains a small amount of existing research that discusses the research question of how feedback can impact student motivation when writing.

In their study, Bruning and Horn (2000) discuss that in a complex task like writing, motivational issues assume particularly prominent status and it is in the hands of those who teach writing to help students develop the motivation needed to succeed. They suggest that to develop motivation for writing, there are four main conditions: (1) teachers must guide students in developing functional beliefs about writing as a difficult task and intellectual and social tool, as well as help students develop confidence in their abilities, (2) teachers must foster student engagement by using authentic writing tasks with real audiences and purposes, (3) teachers must provide a supportive context for writing motivation which involves providing scaffolding, helping students set goals, administering feedback on progress toward goals, and teaching specific writing strategies and when to use them, and (4) teachers must create a positive emotional environment for students in which to write to offset negative self-talk and anxiety, and welcome intrinsic motivation (Bruning & Horn, 2000).

In her study, Wingate (2010) found that college students who utilized feedback comments given to them on their writing improved their writing, and students who paid little attention to feedback had persistent problems in their writing. The interviews conducted in the study uncovered that some of the reasons for engaging or not engaging with the feedback provided included students' high or low motivation based on the enjoyment of the degree program and their self-perceptions of their writing abilities, and

students' ability levels. As a result of her findings, Wingate argues that the objective of feedback must be to encourage all students, including those with low motivation, to use it. For instance, if negative comments are directed repeatedly to low-achieving students, they will become discouraged and disregard the feedback (Wingate, 2010). More research must be done to explore an effective approach for delivering constructive feedback to weaker students who become more easily overwhelmed by criticism on various topics at once (Wingate, 2010).

Duijnhouwer, et al. have conducted two research studies in which feedback is linked specifically to motivation and writing. In their 2010 study, they examined the effects of progress feedback on university students' writing mastery goal, self-efficacy beliefs, and writing performance. The experimental group received progress feedback, while the control group received feedback without progress information. The results showed that progress feedback did not affect students' goals or performance levels, but did impact self-efficacy beliefs. This impact depended on the number of progress comments given; in order to increase self-efficacy beliefs, it was found that at least three progress comments must be given. Researchers hypothesized that progress feedback did not affect students' mastery goals and performance because there was also a grade assigned with the feedback, or, because the mastery goal required more time and feedback than were provided in the six-week span of the study (Duijnhouwer et al., 2010). In their 2012 study, Duijnhouwer, et al. investigated the effects of feedback providing improvement strategies on university students' writing motivation, writing process, and writing performance. Through their experiment, they discovered that both improvement

strategies and reflection assignments can be beneficial for writing performance, but that simultaneously using both can be detrimental to writing performance.

While the studies discussed in this section are able to show an existing relationship among writing, feedback, and motivation, the researchers also point out that there is a need for further research. Motivation plays an important role in all learning, and utilizing feedback information is one form of learning, however, researchers have paid little attention to the relationship between motivation and student engagement with feedback information (Wingate, 2010). In relation, Bruning and Horn (2010) state, "Although there is a wealth of practical knowledge about writing instruction, there is still relatively little in the way of scientific analysis aimed at the motivational factors critical to writing development" (p. 26). Furthermore, Duijnhouwer et al., (2010) claim that though they have proven positive effects of feedback occur, more research is required to validate the idea that feedback can impact writing motivation. And though Graham and Perin's previously mentioned meta-analysis does not focus on the relationship among writing, feedback, and motivation, they do state that they are unable to provide information about how any of the strategies mentioned in their research can boost motivation (2007). All of these researchers have determined there are gaps existing in the literature provided at the time of their research.

Summary

Research shows that feedback has an impact on both achievement and motivation in various contexts. There are various strategies offered for how to use feedback to increase achievement, as well as recommendations for how to use feedback to increase

motivation. However, there is still a lack of research available that discusses the impact of feedback on the motivation to write, especially with adolescents.

The present study aims to fill that gap existing within the research. The purpose of this study is to determine if using various formative feedback processes throughout a focused persuasive writing unit influences the motivation of eighth grade students to complete the assignment to the best of their ability. Results of this study will be used to inform teachers of writing, and others in the field of education, about how to motivate their students to succeed in the complex cognitive task of writing.

Chapter Three

Methodology

This study was conducted to determine how using various formative feedback practices throughout a focused persuasive writing unit can impact the motivation of eighth grade students to complete a complex writing task to the best of their ability. This chapter discusses the context for research, the research sample, validity, and research design.

To review, the three major research questions that guided this research are as follows:

- 1. What are the different types of formative feedback that can be applied to teaching a persuasive writing unit to eighth graders?
- 2. At what point in the writing process should different types of formative feedback be implemented?
- 3. How do different types of formative feedback impact eighth grade students' intrinsic and extrinsic motivation to write a persuasive essay?

The focus of the research methodology was to answer the third research question.

Context for Research

Prior to this unit of instruction, students had completed a unit on determining credibility of sources, as well as a unit on persuasive appeals (ethos, logos, pathos). When completing writing assignments specifically, students also had experience with peer editing, one-on-one writing conferences with their teacher, and formative feedback administered verbally, as well as in written form upon student request. The instructional

and feedback practices used in the present study were chosen by the teacher (the student investigator for this study) based on previous teaching experiences and the findings from the literature review. These practices include providing direct, scaffolded instruction throughout the writing process by utilizing brainstorming activities, graphic organizers, outlines, and drafting, followed by revising and editing based on both teacher and peer feedback practices. Students were also provided with models of persuasive essays and were introduced to product goals (in the form of a rubric) at the forefront of the unit. The rubrics were used by students to determine the quality of the essay models provided. All of the research-based strategies selected for this study were said to have a positive impact on writing quality (Graham & Perin, 2007). When administering feedback to students, the teacher devoted a large amount of time (approximately 5 hours per day) to provide students with written, formative feedback on their writing drafts. This feedback was considered by the teacher to exemplify characteristics of immediate feedback in relation to delayed feedback, as it was delivered to students within a 24 hour period of completing a draft (with the exception of days that fell before a weekend break). Based on findings from motivational research, the teacher chose to use task-specific feedback, rather than delivering feedback related to the self in order to avoid undermining intrinsic motivation (i.e. using praise, rewards, and punishments). Furthermore, the beginning stages of feedback were designed to offer only information about whether or not students had met expectations for the task, but later stages of feedback were specific, focused on what needed to be done to improve performance in relation to the product goals, and provided students with the steps or strategies needed to make improvements to their writing. Research on these later stages of feedback indicated that it would support learning and

achievement in many cases (Brookhart, 2007; Hattie & Timperley, 2007). These instruction and feedback practices were employed alongside feedback delivery with the intention of supporting the development of motivation during the study.

It should also be noted that within this study, the teacher chose to deliver feedback to all 92 students, rather than just the 52 students within the research sample. This decision was made based on the teacher's belief that feedback is crucial to the learning process, and withholding it would have a negative impact on student growth within the course.

Sampling Procedures and Participant Characteristics

Convenience sampling was used in this study to recruit participants based on their enrollment in the teacher's English 8 courses within a small, public middle/high school. These courses were based upon a curriculum focused heavily on writing. Originally 54 students had parent consent and personal assent to participate in the study, with one student withdrawing prior to the beginning of the study, and one student withdrawing during the study. Gender distribution of the population included 28 females, and 24 males. Four participants in the study were currently receiving full inclusion special education services. Participants' diversity is indicated by the following demographics: Hispanic (8), Asian/Pacific Islander (2), American Indian (1), and White (41). The age of eighth grade students ranged from 13 to 14 years old.

Validity

This case study was conducted using a large sample size of 52 students, out of a possible 92 students available in the chosen setting. After obtaining permission from the IRB and school administration, the principal investigator, with whom the students were

not familiar, visited the classrooms at the research site to explain the research study to students and certify that there were no pressures or grading factors associated with participation. This was done to assure the voluntary participation of students and to minimize the impact of extrinsic motivation on participation. Additionally, students were informed they could be released from the study at any point without consequence. On this visit, the principal investigator also provided students with the consent forms for the study, which required a parent signature for participation; the assent process was also described.

The survey questions used to gather data for this case study were created by the teacher with the assistance of both the principal investigator and an additional research advisor. The questions were designed to measure both intrinsic and extrinsic motivation of students. After creating the initial survey questions, the survey was piloted with the research population weeks before the study to identify changes that needed to be made prior to the study. The pilot showed a need for the clarification of terms used within the survey, but proved to be valid in measuring what the survey was intended to measure. Based on the results of the pilot, the teacher worked with the principal investigator to make final changes to the survey before the research study began.

Research Design

This study used a mixed-methods research design, utilizing two surveys, designed and tested by the teacher, to collect both quantitative and qualitative data about the impact of feedback on both intrinsic and extrinsic motivation. The design of the surveys used in this study (see Appendix A) organized student responses into the following four categories of answers: the impact of positive feedback on intrinsic motivation, the impact

of positive feedback on extrinsic motivation, the impact of corrective feedback on intrinsic motivation, and the impact of corrective feedback on extrinsic motivation (see Appendix A for copies of the surveys). Students were given the following definitions of positive and corrective feedback at the beginning of the study, as well as each time they took a survey in order to understand the survey questions:

Positive feedback points out elements or places in your writing where you are "on track" or have performed well. It may also include why that performance should be continued in future writing tasks.

Corrective feedback points out elements or places in your writing where you are "off track" or need to make improvements. It may also include how to improve those areas and/or steps you can take to prevent those mistakes from occurring in future writing tasks.

All surveys were completed by participants on their school-issued iPads through the online data-collection software, Qualtrics. Each survey was intended to take students less than 10 minutes. During the study, survey results were stored in a password protected server space. After the survey responses were recorded and analyzed, any data in Qualtrics was deleted.

During the three-week study, all students were asked to participate in the course under normal instructional practices, during a unit on writing a persuasive essay. Both positive and corrective written feedback was provided to all students several times during the persuasive essay-writing unit to focus feedback on different aspects of the Persuasive Writing Rubric (see Appendix B for this rubric), and following each receipt of feedback,

participants of the study were asked to complete a survey. For this study, the levels of feedback were defined as follows:

Level 1 feedback: Provides the student with whether they are "on track" or "off track" in reference to the standards set for them ahead of time on a Persuasive Essay Rubric. (Provided using feedback form Level 1. See Appendix C for feedback form examples for Levels 1, 2, 3).

Level 2 feedback: Provides the student with feedback concerning which parts of the essay are "off track" or "on track". This feedback was provided using feedback form Level 2 (Appendix C). On the rubric, areas that were "on track" were highlighted in blue and areas that were "off track" were highlighted in yellow.

Level 3 feedback: Provides the student with elaboration or the next steps about how to improve their writing to get "on track," or what to continue doing correctly /do more of in order to remain "on track" The feedback was provided using feedback form Level 3 (Appendix C), as well a printed copy of the student's writing. On the rubric, areas that were "on track" were highlighted in blue and areas that were "off track" were highlighted in yellow. In addition, students were provided with written comments directly on the paper copy of the draft.

Experimental Interventions

Research for the study began as students submitted a full rough draft of their persuasive essay to the teacher. Upon receiving a full draft from each student, the teacher recorded the first round of focused, written feedback for each student, regardless of his or her participation in the study. This feedback consisted of feedback on Ideas and Organization, and was provided using both the Level 1 and Level 2 feedback forms (see

Appendix C). On the Level 1 feedback form, the teacher provided feedback by placing a check mark in the "on task" or "off task" box for each rubric category assessed (in this case, a check was provided for the categories of Ideas and Organization). On the Level 2 feedback form, the teacher highlighted positive feedback in blue (the areas that the student did well) and corrective feedback in yellow (the areas that the student needed to improve).

During the next class period, the teacher provided the students with their Level 1 feedback forms focused on the Ideas and Organization of their essay, and after examining the feedback, those participating in the study were asked to take Survey 1 (administered after each receipt of Level 1 feedback). After participants finished the first survey, the teacher provided students with their Level 2 feedback forms on the Ideas and Organization of their essay. After looking at the Level 2 feedback, the participants were asked to take Survey 2 (administered after each receipt of Level 2 and Level 3 feedback). Students were then given the remainder of the class period to make revisions if they wished.

That evening, the teacher made printed copies of the students' essays and used both the Level 3 feedback form (see Appendix C) and the margins of the essays to provide Level 3 feedback to students. For this Level 3 feedback, the teacher provided both Level 1 and Level 2 feedback once again, but in addition, provided specific, written comments in the margins to help guide students in revisions.

The following day of class, all students were provided with their Level 3 feedback form and essay copy. After looking at the feedback, participants were again asked to take Survey 2. They were then given the remainder of the class period to make

revisions if they desired. This process was repeated again for the Voice, Word Choice, and Sentence Fluency sections of the rubric, as well as the Conventions and Works Cited portions of the rubric. The feedback intervention schedule for the full unit is located in Appendix D.

The focus of this study was to determine the impact that positive and corrective feedback had on students' motivation during the writing process. Participants received Level 1, Level 2, and Level 3 feedback on their essay drafts in the rubric categories of Ideas and Organization, Voice, Word Choice and Sentence Fluency, and Conventions and Works Cited. After each receipt of feedback, participants took a survey to measure levels of intrinsic and extrinsic motivation. At the conclusion of the study, the teacher created tables of the results in order to best examine trends in the data and used constant comparative analysis to create grounded theories for the qualitative results. The findings of the research study will be discussed in the following chapter.

Chapter Four

Results

Both the quantitative and qualitative results from this experiment provide an answer to the third and final research question of the study, which is as follows:

3. How do different types of formative feedback impact eighth grade students' intrinsic and extrinsic motivation to write a persuasive essay?

The initial results of the study tend to indicate that students were less motivated by Level 1 feedback that simply provided information about whether students were "on track" or "off track," and more motivated by Level 3 feedback which provided specific, written comments for improvement. This seemed to hold for all rubric categories, though when looking at the quantitative data, minor inconsistencies arise in the categories of Voice, Word Choice and Sentence Fluency, and Conventions and Works Cited. These inconsistencies were analyzed further through the qualitative data. What follows are the detailed results, organized by the questions from the survey to show students' responses to the three different levels of feedback in each of the essay rubric categories.

Quantitative Results

The design of the surveys used in this study (see Appendix A) organized student responses into the following four categories of answers: the impact of positive feedback on intrinsic motivation, the impact of positive feedback on extrinsic motivation, the impact of corrective feedback on intrinsic motivation, and the impact of corrective feedback on extrinsic motivation. The survey software Qualtrics provided percentages

and participant counts for each response, and the student investigator used these to create tables of the data collected for each survey question. The student investigator then used the tables to look for trends in the data collected, and more specifically, for increases or decreases in the data based on the levels of feedback provided.

Impact of Positive Feedback on Intrinsic Motivation

Data collected through the surveys on Qualtrics shows that the positive feedback administered by the teacher did indeed impact students' intrinsic motivation, especially when the feedback contained the characteristics of Level 3 feedback. The tables below document students' levels of agreement with the following question designed to measure intrinsic motivation: If you received positive feedback, did this feedback help you value the specific writing skills you demonstrated?

Table 1

Impact of Positive Feedback on Intrinsic Motivation

Response	Rubric Category	Level of Feedback Provided			
		Level 1	Level 2	Level 3	
Yes	Ideas & Organization	38% (20)	62% (32)	73% (38)	
	Voice, Word Choice & Sentence Fluency	50% (26)	67% (35)	65% (34)	
	Conventions & Works Cited	54% (28)	50% (26)	60% (31)	
Somewhat	Ideas & Organization	42% (22)	27% (14)	23% (12)	
	Voice, Word Choice & Sentence Fluency	35% (18)	17% (9)	23% (12)	
	Conventions & Works Cited	21% (11)	17% (14)	29% (15)	
No	Ideas & Organization	4% (2)	6% (3)	0% (0)	
	Voice, Word Choice & Sentence Fluency	8% (4)	8% (4)	2% (1)	

	Conventions & Works Cited	13% (7)	8% (4)	6% (3)
N/A	Ideas & Organization	15% (8)	6% (3)	4% (2)
	Voice, Word Choice & Sentence Fluency	8% (4)	8% (4)	10% (5)
	Conventions & Works Cited	12% (6)	15% (8)	6% (3)

^{*}N/A means that positive feedback was not provided to the student.

Overall, responses in all three categories of the rubric indicate the largest percentage of students answering "yes" to the survey question, regardless of the category. However, when looking more specifically at the "yes" responses, feedback given on Ideas and Organization demonstrates consistent growth in the level of motivation as more specific feedback is delivered. In the categories of Voice, Word Choice and Sentence Fluency, "yes" responses increase significantly from Level 1 to Level 2, but then decrease by 2% as a result of Level 3 feedback. In the category of Conventions and Works Cited, "yes" responses experience a decrease of 4% from Level 1 to Level 2 feedback, and then experience 10% growth as a result of Level 3 feedback.

There were a rather large number of students who responded to the question with "somewhat." And though that number does decrease with more detailed feedback received on Ideas and Organization, results for Voice, Word Choice and Sentence Fluency show inconsistencies, while results for Conventions and Works Cited show growth in the number of students choosing the response. Very few students overall responded "no" to the question. It is also important to note that the response of "N/A" indicates that the student did not receive any positive feedback. This leads to the question of whether or not a lack of positive feedback can impact student perceptions of intrinsic motivation. Does failure to receive any positive feedback about their work impact their

motivation in some way? The quantitative data cannot answer this question, but it will be explored further in the qualitative results. Overall, the results of this survey question show that Level 3 positive feedback intrinsically motivates students the most, with Level 1 and Level 2 feedback yielding mixed results.

Impact of Positive Feedback on Extrinsic Motivation

Data collected indicates that Level 3 positive feedback is the most influential level of positive feedback on students' extrinsic motivation, specifically in relation to grades. The tables below document students' levels of agreement with the following question designed to measure students' extrinsic motivation: If you received positive feedback, did this feedback help you to understand how to maintain your grade?

Table 2

Impact of Positive Feedback on Extrinsic Motivation

Response	Rubric Category	Level o	Level of Feedback Provided			
		Level 1	Level 2	Level 3		
Yes	Ideas & Organization	44% (23)	48% (25)	60% (31)		
	Voice, Word Choice & Sentence Fluency	52% (27)	50% (26)	62% (32)		
	Conventions & Works Cited	46% (24)	44% (23)	60% (31)		
Somewhat	Ideas & Organization	27% (14)	40% (21)	29% (15)		
	Voice, Word Choice & Sentence Fluency	31% (16)	31% (16)	17% (9)		
	Conventions & Works Cited	33% (17)	29% (15)	23% (12)		
No	Ideas & Organization	15% (8)	6% (3)	6% (3)		
	Voice, Word Choice & Sentence Fluency	10% (5)	12% (6)	13% (7)		
	Conventions & Works Cited	10% (5)	10% (5)	10% (5)		

N/A	Ideas & Organization	13% (7)	6% (3)	6 % (3)
	Voice, Word Choice & Sentence Fluency	8% (4)	8% (4)	8% (4)
	Conventions & Works Cited	12% (6)	17% (9)	8% (4)

^{*}N/A means that positive feedback was not provided to the student.

Student responses to this question indicate that more students answered "yes" to the question than any other, indicating that the feedback they received helped them understand how to improve their grade on the essay. Data collected for the category of Ideas and Organization shows a steady increase in the impact of positive feedback on extrinsic motivation, while data for Voice, Word Choice and Sentence Fluency, and Conventions and Works cited experience a decrease of motivation with Level 2 feedback, and significant gains with Level 3 feedback. Following "yes" responses, many students responded with "somewhat" with that number generally decreasing as feedback became more specific. But, what is more interesting is the increase in the number of students responding "no" in the category of Voice, Word Choice and Sentence Fluency. This will be examined further in the discussion of the qualitative data. The overall findings of this question show that when provided with positive feedback, the majority of students found that the more detailed the feedback was, the more they understood how to maintain their grade and were extrinsically motivated. However, when compared with the results of the previous question, findings show that this detailed, Level 3, positive feedback has a greater impact on intrinsic motivation than it does on extrinsic motivation.

The Impact of Corrective Feedback on Intrinsic Motivation

Data collected shows that corrective feedback has an even stronger impact on intrinsic motivation than positive feedback, especially when looking at the data for Level

3 feedback. The tables below document students' levels of agreement with the following question designed to measure intrinsic motivation: If you received corrective feedback, did this feedback motivate you to improve your writing?

Table 3

Impact of Corrective Feedback on Intrinsic Motivation

Rubric Category	Level	Level of Feedback Provided			
	Level 1	Level 2	Level 3		
Ideas & Organization	21% (11)	44% (23)	85% (44)		
Voice, Word Choice & Sentence Fluency	46% (24)	56% (29)	58% (30)		
Conventions & Works Cited	38% (20)	58% (30)	73% (38)		
Ideas & Organization	19% (10)	31% (16)	13% (7)		
Voice, Word Choice & Sentence Fluency	17% (9)	35% (18)	31% (16)		
Conventions & Works Cited	25% (13)	31% (16)	12% (6)		
Ideas & Organization	12% (6)	8% (4)	2% (1)		
Voice, Word Choice & Sentence Fluency	8% (4)	2% (1)	2% (1)		
Conventions & Works Cited	6% (3)	6% (3)	0% (0)		
Ideas & Organization	48% (25)	17% (9)	0% (0)		
Voice, Word Choice & Sentence Fluency	29% (15)	8% (4)	10% (5)		
Conventions & Works Cited	31% (16)	6% (3)	15% (8)		
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^{*}N/A means that positive feedback was not provided to the student.

Data shows a steady increase from Level 1 to Level 3 in the number of students responding "yes" to the survey question. In the category of Ideas and Organization, 85% of students were motivated to improve their writing after receiving Level 3, corrective

feedback, followed by 73% in the category of Conventions and Works Cited, and 58% in the category of Voice, Word Choice, and Sentence Fluency. One factor that must be considered in this data set is the number of students who did not receive Level 1 corrective feedback in each of the categories. This large number indicates that at the time feedback was given, there were many students who were already "on track," which left little to improve. This number tends to decrease when looking at data for Level 2 and Level 3 feedback, as the teacher was able to point out more minor areas that required improvement using more detailed feedback. Furthermore, the number of students responding to the question with "somewhat" increases in all categories when Level 2 feedback is provided; this is something that will be investigated further in the qualitative results section. Overall, the quantitative data indicates that the more detailed the corrective feedback, the bigger impact it had on intrinsic motivation across all categories of the rubric.

Impact of Corrective Feedback on Extrinsic Motivation

Similar to the impact of corrective feedback on intrinsic motivation, the impact of corrective feedback on extrinsic motivation often remains more impactful than that of positive feedback. The tables below document students' levels of agreement with the following question designed to measure extrinsic motivation: If you received corrective feedback, did this feedback help you to understand how to improve your grade?

Table 4

Impact of Corrective Feedback on Extrinsic Motivation

Response	Rubric Category	Level	Level of Feedback Provided			
		Level 1	Level 2	Level 3		
Yes	Ideas & Organization	27% (14)	54% (28)	85% (44)		
	Voice, Word Choice, Sentence Fluency	38% (20)	58% (30)	54% (28)		
	Conventions & Works Cited	42% (22)	52% (27)	71% (37)		
Somewhat	Ideas & Organization	19% (10)	23% (12)	8% (4)		
	Voice, Word Choice & Sentence Fluency	23% (12)	21% (11)	33% (17)		
	Conventions & Works Cited	13% (7)	33% (17)	15% (8)		
No	Ideas & Organization	8% (4)	6% (3)	8% (4)		
	Voice, Word Choice & Sentence Fluency	8% (4)	10% (5)	4% (2)		
	Conventions & Works Cited	13% (7)	10% (5)	2% (1)		
N/A	Ideas & Organization	46% (24)	17% (9)	0% (0)		
	Voice, Word Choice & Sentence Fluency	31% (16)	12% (6)	10% (5)		
	Conventions & Works Cited	31% (16)	6% (3)	12% (6)		

^{*}N/A means that positive feedback was not provided to the student.

The overall quantitative results show that "yes" was the most dominant response to the question for students who received corrective feedback. Level 3 feedback had the largest impact on extrinsic motivation in the categories of Ideas and Organization, and Conventions and Works Cited, while Level 2 feedback had a slightly larger impact than Level 3 in the category of Voice, Word Choice and Sentence Fluency (4%). This will be discussed further in the qualitative results section. And again, it is important to note the

large number of students who did not receive Level 1 feedback on their writing, but this number consistently decreased as more specific feedback was given. Generally, the quantitative data indicates that the more detailed the corrective feedback, the bigger impact it had on extrinsic motivation across all categories of the rubric except for Voice, Word Choice, and Sentence Fluency, which will be explored in the qualitative results section.

Qualitative Results

Qualitative data for this study was analyzed and interpreted using the six steps described by Creswell (2011). First, qualitative data was collected through the use of Survey 2 (see Appendix A) administered on Qualtrics, which asked participants to provide short, written comments on their level of agreement with the quantitative questions used on Survey 1. The student investigator prepared the data for analysis by printing out hard copies of the data from Qualtrics. Next, the student investigator read through the data to get a general sense of the students' responses. The data was then coded using the constant comparative method to create grounded theories for the phenomenon indicated in the student responses (Glaser & Strauss, 1967; Strauss & Corbin, 1990). This involved providing an initial to code all of the responses by numbering them one by one (responses that were similar received the same number, while differing responses received the next available number). Once all of the responses had an initial code (a number in this case), the data was revisited and recoded several times as understandings of the definitions of categories and the relationships between the categories became clearer.

At the conclusion of the coding process, eighteen themes were identified in the data. The student investigator then determined the frequency with which those eighteen themes appeared and utilized memoing to keep track of the changes and provide notes for analysis. The themes and frequency of responses for each of the survey categories that were analyzed in the qualitative data will be addressed separately below. Within the tables, the themes are labeled as being tied to intrinsic motivation, extrinsic motivation, or having a neutral stance. Themes relating to grades and other external factors are considered measures for extrinsic motivation, while themes relating to a personal desire to improve, the value of writing skills, and individual emotions are considered measures for intrinsic motivation. Themes labeled as "neutral" depend on the context of the specific survey question in order to deduce meaning. These themes identified as aligning with the different types of motivation based on the findings from the literature review and the student investigator's understanding of intrinsic and extrinsic motivation, which was used to create the surveys designed specifically to measure the elements most commonly tied to extrinsic and intrinsic motivation in a classroom setting. After examining all of the qualitative results, it was discovered that every time an intrinsic question was asked on the survey, student responses were most often tied to responses identified as intrinsic themes. Similarly, every time an extrinsic question was asked on the survey, student responses were most often tied to extrinsic themes. These responses validated the design of the survey in that the questions used proved to measure the types of motivation for which they were intended. These findings also validate the use of the constant comparative method in identifying the existing themes.

Impact of Positive Feedback on Intrinsic Motivation

Quantitative findings showed that, overall, Level 3 positive feedback on Ideas and Organization, and Conventions and Works Cited intrinsically motivates students to write the most, with feedback on Voice, Word Choice, Sentence Fluency yielding slightly higher motivation for Level 2 feedback. There were also a number of students who did not receive positive feedback, which may or may not have an impact on student perceptions of intrinsic motivation to write. To understand why students held these perceptions, the surveys provided a space for students to comment on specific qualitative questions during Level 2 and 3 feedback surveys. The following tables were created to show the frequency of qualitative themes included in the data for the following survey question provided to students if they received positive feedback: Explain how this feedback did or did not help you value your skills. Tables are organized by the categories in which feedback was provided.

Table 5

Frequency of Qualitative Themes for Impact of Positive Feedback on Intrinsic Motivation

Themes		Rubric Category					
		Ideas & Organization		Voice, Word Choice		Conventions &	
			& Senten	ce Fluency	Works	Cited	
	Level 2	Level 3	Level 2	Level 3	Level 2	Level 3	
The feedback showed me my strengths and weaknesses (N)	7	6	4	1	4	3	
I can see what I need to do to improve/fix my writing (I)	8	12	5	4	8	4	
I can see what I did correctly/need to keep doing in my writing (I)	10	19	21	16	12	20	
I can see what I did incorrectly (N)	1	-	-	1	2	0	
I can see what I need to do to get a better grade (E)	-	-	-	-	-	-	
I know how to maintain my grade (E)	2	-	-	1	-	-	
I will/want to fix my writing (I)	2	-	-	-	5	1	
Feedback provided me with specific skills or elements I am good at (N)	4	7	6	5	3	4	
Feedback gives specific skills or elements I need to improve (N)	5	-	5	4	-	4	
Feedback gave me confidence in my writing abilities (I)	1	-	3	3	-	2	
Based on the feedback, I don't need to make changes (N)	1	-	-	-	1	1	
The feedback showed me where I fit on the rubric (E)	8	-	1	5	2	1	
The feedback didn't help me to improve or value my skills (I)	4	2	3	1	2	3	

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I didn't understand the feedback given to me (N)	-	1	-	-	1	1
The feedback showed my progress (N)	-	-	-	4	-	-
I will not change my writing (I)	-	-	1	-	-	-
I want to write a good essay (E)	-	-	-	-	-	1
The feedback reduced my confidence in my writing skills (I)	-	-	-	-	-	-

Key: I = intrinsic motivation, E = extrinsic motivation, N = neutral

The qualitative data for students agreeing they were more intrinsically motivated by Level 3, positive feedback on Ideas and Organization is supported by the increase in the number of students responding with statements fitting into the theme of "I can see what I did correctly/need to keep doing in my writing" from Level 2 to Level 3 feedback. When looking at Level 3 theme frequencies, there were also two less responses for the theme "the feedback didn't help me value my skills," which indicates that the Level 3 feedback was able to intrinsically motivate two more students than the Level 2 feedback for the same category. The quantitative data for positive feedback on Voice, Word Choice and Sentence Fluency shows a decrease in one student's intrinsic motivation from Level 2 to Level 3 positive feedback. The quantitative data also shows that there was an increase in the number of students responding that the feedback "somewhat" helped them value their skills for Level 3 feedback. Qualitative data show that with Level 3 feedback, there were six less instances of the theme "I can see what I did correctly/need to keep doing in my writing," which could both help explain the reason for the decrease in intrinsic motivation. The quantitative data for positive feedback on Conventions and Works Cited showed a slight decrease in intrinsic motivation from Level 1 to Level 2 feedback. The reason for this is difficult to determine based on the present qualitative data available. There is also no explanation for the impact of "no feedback" on student perceptions of intrinsic motivation, as students who did not receive feedback were not asked to provide qualitative responses. In order to form better conclusions about the data overall, there is a need for qualitative data about Level 1 positive feedback and qualitative data from students who did not receive positive feedback on their writing.

The Impact of Positive Feedback on Extrinsic Motivation

Quantitative findings showed that overall, Level 3, positive feedback extrinsically motivates students most, with Level 1 and Level 2 feedback yielding mixed results depending on the rubric category. The following tables were created to show the frequency of qualitative themes included in the data for the following survey question provided to students if they received positive feedback: Explain how this feedback did or did not help you to understand how to maintain your grade. Tables are organized by the categories in which feedback was provided.

Table 6

Frequency of Qualitative Themes for Impact of Positive Feedback on Extrinsic Motivation

Themes		Rubric Category					
	Ideas & Organization		Voice, Word Choice		Conventions &		
			& Sentence Fluency		Works Cited		
	Level 2	Level 3	Level 2	Level 3	Level 2	Level 3	
The feedback showed me my strengths and weaknesses (N)	4	3	1	2	1	1	
I can see what I need to do to improve/fix my writing (I)	1	-	2	1	-	1	
I can see what I did correctly/need to keep doing in my writing (I)	-	1	5	3	4	1	
I can see what I did incorrectly (N)	1	-	-	-	-	-	
I can see what I need to do to get a better grade (E)	13	17	7	10	11	16	
I know how to maintain my grade (E)	12	14	17	13	9	11	
I will/want to fix my writing (I)	1	-	-	-	-	-	
Feedback provided me with specific skills or elements I am good at (N)	8	3	3	2	2	2	
Feedback gives specific skills or elements I need to improve (N)	5	-	2	5	3	5	
Feedback gave me confidence in my writing abilities (I)	1	-	-	1	-	-	
Based on the feedback, I don't need to make changes (N)	2	1	1	1	2	2	
The feedback showed me where I fit on the rubric (E)	4	3	4	6	4	4	
The feedback didn't help me to improve or value my skills (I)	2	-	4	2	2	1	

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I didn't understand the feedback given to me (N)	-	-	1	3	3	1
The feedback showed my progress (N)	-	1	-	-	-	-
I will not change my writing (I)	-	-	-	-	-	-
I want to write a good essay (E)	-	1	1	1	1	-
The feedback reduced my confidence in my writing skills (I)	-	-	-	-	-	-

Key: I = intrinsic motivation, E = extrinsic motivation, N = neutral

Based on the quantitative data, Level 3, positive feedback showed the highest impact on extrinsic motivation when delivered on both Ideas and Organization and Conventions and Works Cited. While Ideas and Organization demonstrated positive growth from Level 1 to Level 3, quantitative data for Conventions and Works Cited showed a slight decrease (by one student) in extrinsic motivation from Level 1 to Level 2 feedback, before significantly increasing for Level 3. Quantitative data for positive feedback on Voice, Word Choice and Sentence Fluency demonstrated the same decrease. The qualitative data for Voice, Word Choice, and Sentence Fluency show there were three instances of the theme "the feedback didn't help me to improve or value my writing skills" for Level 2 feedback, and only one instance at level 3, so this may provide some insight into why there was a decrease because they needed more specific feedback. Qualitative data for Conventions and Works Cited shows that three students did not understand the feedback provided to them, so this may be an explanation for why motivation decreased. However, without qualitative data for Level 1 feedback, it is difficult to make any complete conclusions as to why the quantitative data showed a decrease in intrinsic motivation for Level 2 positive feedback. Furthermore, based on the qualitative data, the number of students who responded that the feedback on Voice, Word Choice, and Sentence Fluency did not help them increased by one student consistently from Level 1 to Level 2, and from Level 2 to Level 3. While this was a small change, it does show an unexpected trend in the data. The qualitative data for this category show that in response to Level 2 feedback, 17 students felt the feedback helped them to maintain their grade, while in response to Level 3 feedback, only 13 students felt the feedback helped them maintain their grade. While this may explain the trend partially,

again, a complete conclusion cannot be drawn without qualitative data for Level 1 positive feedback.

The Impact of Corrective Feedback on Intrinsic Motivation

Quantitative findings showed that overall, there was an upward trend in the impact of corrective feedback on students' intrinsic motivation to improve their writing; the more detailed the feedback, the more intrinsically motivated students became. There were also a large number of students who found Level 2 corrective feedback to be "somewhat" impactful in motivating them to improve their writing. Furthermore, there were a large number of students who did not receive Level 1 corrective feedback. The qualitative results will be discussed here to further clarify the reasoning for the trends in the quantitative data. The following tables were created to show the frequency of qualitative themes included in the data for the following survey question provided to students if they received corrective feedback: Explain how this feedback did or did not motivate you to improve your writing. Tables are organized by the rubric categories in which feedback was provided.

Table 7

Frequency of Qualitative Themes For Impact of Corrective Feedback on Intrinsic Motivation

Themes		Rubric Category						
·		Ideas & Organization		Voice, Word Choice		ions &		
			& Sentenc	e Fluency	Works Cited			
	Level 2	Level 3	Level 2	Level 3	Level 2	Level 3		
The feedback showed me my strengths and weaknesses (N)	1	-	-	-	1	-		
I can see what I need to do to improve/fix my writing (I)	12	22	15	15	14	23		
I can see what I did correctly/need to keep doing in my writing (I)	1	-	1	-	-	-		
I can see what I did incorrectly (N)	2	1	1	1	5	-		
I can see what I need to do to get a better grade (E)	1	6	5	3	5	7		
I know how to maintain my grade (E)	-	-	-	1	1	-		
I will/want to fix my writing (I)	4	7	5	5	2	5		
Feedback provided me with specific skills or elements I am good at (N)	1	-	-	-	-	-		
Feedback gives specific skills or elements I need to improve (N)	5	9	15	13	4	6		
Feedback gave me confidence in my writing abilities (I)	-	-	-	-	-	-		
Based on the feedback, I don't need to make changes (N)	-	1	-	1	1	-		
The feedback showed me where I fit on the rubric (E)	2	1	-	-	4	2		
The feedback didn't help me to improve or value my skills (I)	3	-	1	1	1	-		

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I didn't understand the feedback given to me (N)	5	-	3	2	5	-
The feedback showed my progress (N)	-	-	-	-	-	-
I will not change my writing (I)	-	-	-	-	-	-
I want to write a good essay (E)	9	2	-	2	1	-
The feedback reduced my confidence in my writing skills (I)	-	-	1	0	-	-

Key: I = intrinsic motivation, E = extrinsic motivation, N = neutral

The consistent upward trend in the impact of intrinsic motivation from Level 1 to Level 3 corrective feedback is supported by the qualitative trends in each category for Level 2 and Level 3 feedback. In Ideas and Organization, the number of students who saw what they needed to do to improve/fix their writing increased from 12 to 22, and the number of students who stated they wanted to or would fix their writing increased from four to seven. However, according to the qualitative themes present, there was also a large increase (from one to nine) in the number of students who stated they wanted to write a good, quality essay and an increase (from one to six) in the number of students who stated they knew what to do in order to get a better grade; both of these indicate extrinsic motivators. Similarly, in Conventions and Works Cited, the qualitative data shows an increase (from 14 to 23) in the number of students who could see what they needed to do to improve their writing, and in the number of students (from two to five) who stated they wanted to or would fix their writing based on the corrective feedback received. There was also an increase in the number of students (from five to seven) who mentioned they knew how to improve their grade, and a decrease (by one) in the number of students who wanted to write a good essay; though these numbers are small, they should still be noted. A possible reason for these increases in extrinsic motivation indicated in the qualitative data is that when students were presented with Level 3 feedback, they were not only presented with the written comments, but also the rubric; this rubric may have been linked directly to grading in the minds of many students. In Voice, Word Choice, and Sentence Fluency, there were very mixed qualitative results. The number of students who saw what they needed to do to fix their writing remained stable, as did the number of students who claimed they wanted to or would fix their

writing. When looking at extrinsic motivators, the number of students who said they knew how to improve their grade actually decreased from Level 2 to Level 3 feedback.

The number of students who wanted to write a good, quality essay increased from zero to two, but other than that, there was no explanation for the increased intrinsic motivation based on the qualitative results.

In attempting to explain the large number of students who found Level 2 corrective feedback to be "somewhat" impactful in motivating them to improve their writing, there is one factor that stands out in the qualitative data. In all three categories, there was a small number of students who indicated they did not understand the feedback provided to them, or the feedback did not help them to improve or value their writing skills. For further explanation, there is a need for qualitative data on Level 1 feedback. The quantitative data also showed there was a large number of students who did not receive Level 1 feedback; there is no concrete explanation for this other than the teacher found students' writing to be considered "on track" for this particular round of feedback.

The Impact of Corrective Feedback on Extrinsic Motivation

The quantitative results indicated that the more detailed the corrective feedback provided to students, the bigger the impact it had on extrinsic motivation across all categories of the rubric except for Voice, Word Choice, and Sentence Fluency. The qualitative results will be discussed here to attempt to further clarify the quantitative findings. The following tables were created to show the frequency of qualitative themes included in the data for the following survey question provided to students if they received corrective feedback: Explain how this feedback did or did not help you to

understand how to improve your grade. Tables are organized by the rubric categories in which feedback was provided.

Table 8

Frequency of Qualitative Themes for Impact of Corrective Feedback on Extrinsic Motivation

Themes		Rubric Category						
	Ideas & Organization		Voice, Wor	Voice, Word Choice		Conventions &		
			& Sentence	e Fluency	Works	Cited		
	Level 2	Level 3	Level 2	Level 3	Level 2	Level 3		
The feedback showed me my strengths and weaknesses (N)	3	-	1	-	1	-		
I can see what I need to do to improve/fix my writing (I)	1	4	-	1	-	1		
I can see what I did correctly/need to keep doing in my writing (I)	-	-	-	-	-	-		
I can see what I did incorrectly (N)	1	-	1	-	1	-		
I can see what I need to do to get a better grade (E)	26	27	26	33	26	33		
I know how to maintain my grade (E)	1	1	2	2	2	2		
I will/want to fix my writing (I)	1	-	1	2	1	2		
Feedback provided me with specific skills or elements I am good at	-	-	-	-	-	-		
(N)								
Feedback gives specific skills or elements I need to improve (N)	5	8	5	8	5	8		
Feedback gave me confidence in my writing abilities (I)	-	-	-	-	-	-		
Based on the feedback, I don't need to make changes (N)	1	1	1	1	1	1		
The feedback showed me where I fit on the rubric (E)	3	5	2	-	2	-		

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The feedback didn't help me to improve or value my skills (I)	2	2	1	1	1	1
I didn't understand the feedback given to me (N)	3	1	6	1	6	1
The feedback showed my progress (N)	-	-	-	-	-	-
I will not change my writing (I)	-	-	-	-	-	-
I want to write a good essay (E)	-	2	-	1	-	1
The feedback reduced my confidence in my writing skills (I)	-	-	-	-	-	-

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Key: I = intrinsic motivation, E = extrinsic motivation, N = neutral

In Ideas and Organization, the qualitative data supports the findings of the quantitative data for Level 2 and Level 3 corrective feedback through slight increases in the number of students who could see what they needed to do to improve or fix their writing (one to four), in the number of students who could see what they needed to do to get a better grade (26 to 27) and in the number of students who claimed the feedback helped show them where they fit on the rubric. The qualitative data for Level 2 and Level 3 feedback on Conventions and Works Cited shows a significant increase in the number of students who could see what they needed to do to get a better grade (26 to 33). The qualitative data also reveals that there was a slight increase in the number of students who said they would or wanted to fix their writing (one to two); though this increase is very minor, it may have been due to students' desire for a high grade on their writing, or due to some sense of intrinsic motivation.

Quantitative data for the category of Voice, Word Choice, and Sentence Fluency indicated a slight decrease (by two) in the impact of Level 3 corrective feedback on extrinsic motivation. The qualitative data brings up a few possibilities for this minor decrease in the data. The frequency tables for Level 2 and Level 3 corrective feedback show that the number of students indicating that they knew what to do to get a better grade decreased by one student, as did the number of students indicating they knew which specific skills they needed to improve. There was also a minimal increase in the number of students who did not understand the feedback given to them (two to three).

Summary

The overall quantitative results indicated that the more specific feedback was, regardless of whether it was positive or corrective, the bigger impact it had on both

intrinsic and extrinsic motivation to write. However, detailed corrective feedback had a larger impact on both types of motivation than did detailed positive feedback, and corrective feedback had a bigger impact on intrinsic motivation than it did on extrinsic motivation. Qualitative results supported the findings from the quantitative results and also uncovered details necessary to understanding the impact of motivation. For instance, qualitative data indicated that a major factor in occurrences of a lack of motivation was students' inability to understand the feedback given to them; this happened most often within the rubric category of Voice, Word Choice and Sentence Fluency. Furthermore, qualitative data uncovered the idea that part of the intrinsic motivation that came from corrective feedback had been partly tied to extrinsic motivators present within the study. Overall, though the findings of the research provide support for the instructional practice of feedback in teaching writing, missing qualitative data for Level 1 feedback has left holes in the analysis. Without Level 1 data, no conclusion can be made about the decreases or increases occurring between Level 1 and Level 2 feedback in the quantitative data.

Chapter Five

Conclusions

The purpose of this study was to determine the impact of formative feedback on students' motivation to write in eighth grade English courses. Research was based on the following three questions:

- 1. What are the different types of formative feedback that can be applied to teaching a persuasive writing unit to eighth graders?
- 2. At what point in the writing process should different types of formative feedback be implemented?
- 3. How do different types of formative feedback impact eighth grade students' intrinsic and extrinsic motivation to write a persuasive essay?

Questions one and two were approached through the literature review in Chapter Two, and question three was the focus of the original research conducted. Chapter Three covered the methodology used for the original research study, and Chapter Four discussed the quantitative and qualitative results of the study. This chapter will review the conclusions that can be made based on the findings of the literature review and the results presented in Chapter Four, and will close with a discussion of limitations and suggestions for future research

Key Findings From the Literature

The first question of this study involved identifying the different types of formative feedback that could be applied to teaching a persuasive writing unit to middle

school students. Research from the literature review showed that there was a definite need for improvement in writing skills (2012 ACT National and State Scores; Graham & Perin, 2007; Kellogg & Whiteford, 2009), and that effective feedback practices were among the most critical influences on students learning (Bruno & Santos, 2010; Hattie & Timperley, 2007). However, there was a large amount of variability in the literature about feedback. Based on the findings, it was difficult to determine a "best" approach to feedback for all learners, all environments, or all tasks. It has been shown in previous studies that feedback can improve students' learning and enhance teachers' teaching, but there are several different forms and levels of feedback that can have this impact.

In their study, Hattie and Timperley (2007) identified the following four levels of feedback: feedback about a task, feedback aimed at the process used to complete a task, feedback on self-regulation, and feedback about the self. Based on the descriptions of the various levels, this study was designed to focus on feedback directed toward the task (whether a work is correct or incorrect) and the process used to complete the task.

Regardless of the level of feedback, the feedback could also serve different functions. For example, directive feedback tells a student what needs to be revised using specific details, while facilitative feedback provides comments and suggestions that help guide the revision process (Shute, 2008). A combination of these two functions was found to be most effective in increasing achievement (Shute, 2008).

When searching to discover how different forms of feedback can be applied to the teaching of writing, the literature review revealed that effective feedback always remains objective and works to reduce discrepancies between present performance and the learner's goals (Hattie & Timperley, 2007; Parr & Timperley, 2010; Shute, 2008).

Feedback should be focused specifically on the task and provide explanation for the next steps the student should take. In addition, feedback should be kept as clear and concise as possible. To do this, one should consider discussing vocabulary and expectations prior to the assignment of the task, and then focus on providing feedback to one part of a task at a time so that the student does not become overwhelmed (Parr & Timperley, 2010). Furthermore, studies showed that students thought written feedback could be more helpful than audio feedback, but a combination of both was shown to be the most effective (Ice et. al., 2010; Stern & Solomon, 2006). Most importantly, for feedback to be most effective, it must be combined with effective instruction (Hattie & Timperley, 2007).

The literature review showed that effective writing instruction can be made up of a variety of approaches. Graham and Perin's (2007) meta-analysis identified the following approaches as having a moderate impact on writing achievement: teaching sentence-combining explicitly, providing direct instruction for the writing process, teaching summarization skills, scaffolding students' writing process using prewriting activities, helping students sharpen their inquiry skills, providing students with good models of writing, and guiding students in the peer review process. In addition, assigning product goals such as rubrics, objectives, or learning targets can also have a strong impact on writing quality. It is also believed that the more opportunities students are given to deliberately practice writing, the more they will improve their writing skills (Kellogg & Whiteford, 2009).

The second question of this study focused on at what point in the writing process the different types of formative feedback should be implemented. The timing of feedback can play a role in its effectiveness, but the literature showed mixed results when

discussing the effectiveness of immediate versus delayed feedback. Support for immediate feedback argued that the earlier corrective information is provided, the more likely it is that retention will result and errors will not be encoded into memory (Shute, 2008). Support for delayed feedback argued that if feedback is delayed, it allows initial errors to be forgotten and the correct information to be encoded into memory without interference (Bruning & Horn, 2000; Shute, 2008). Other studies proposed that feedback timing should be aligned with the task and/or desired outcome of the task. Delayed feedback should be used for simple tasks, while immediate feedback should be used for difficult tasks, which in the case for this study, includes writing. To further support the timing of feedback on writing, it was discovered that formative comments on a rough draft of writing might be more helpful than comments on a final draft because after a grade is given, there is less incentive to fix the error in future writing tasks. All of the findings discussed here helped the teacher to develop the instructional practices and feedback practices used within the present study.

The third question of this study involved investigating how different types of formative feedback impacted eighth grade students' intrinsic and extrinsic motivation when writing a persuasive essay. There was a very limited amount of research available to make conclusions about the relationship among writing, feedback, and motivation within middle school classrooms. Research was either done within a university setting, or the relationship among all three was touched upon in the form of a meta-analysis but sample sizes were too small to form conclusions. Furthermore, studies from the literature review point out a need for further research on the relationship among feedback, motivation, and writing (Bruning & Horn, 2010; Duijnhouwer et. al., 2010; Duijnhouwer

et. al., 2012; Graham & Perin, 2007; Wingate, 2010). Due to these gaps in the literature, this research question was answered through the original research for this study, and conclusions about the findings will be discussed in the four sections to follow.

The Impact of Positive Feedback on Intrinsic Motivation

The results indicate that within the context of this study, the more specific the positive feedback was, the more intrinsically motivated students were to improve their writing skills within the rubric category of Ideas and Organization. In the rubric categories of Voice, Word Choice and Sentence Fluency, and Conventions and Works Cited, Level 2 feedback was the most intrinsically motivating, but there was only a slight decrease in numbers for Level 2 and Level 3 feedback, which makes the difference rather insignificant. The qualitative findings for all three rubric categories show that the number of students who indicated that the feedback helped them value their writing skills was far greater than the number of students who indicated that the feedback did not help them value their skills at all. This shows there is strength of preference for the help that positive feedback provided students.

The Impact of Positive Feedback on Extrinsic Motivation

The findings of this research again show that the more specific the positive feedback, the bigger the impact it has on students' extrinsic motivation, specifically in relation to grades. This was especially true in the rubric category of Ideas and Organization, which showed continuous growth in quantitative results for extrinsic motivation and the qualitative themes related to grades. In the rubric categories of Voice, Word Choice and Sentence Fluency, and Conventions and Works Cited, there was a slight decrease in motivation when receiving Level 2 feedback. In these categories,

qualitative data suggested that students were looking for more specific feedback in order to understand their current achievement levels and that some students did not understand the feedback provided to them. However, because there is no qualitative data available for Level 1 feedback, no complete conclusion can be drawn for the data to provide explanation for the slight decrease that occurred. However, these results show that overall, positive feedback can motivate students to maintain their grades as long as it is detailed enough to point out students' specific strengths, and as long as the vocabulary can be understood by the student.

The Impact of Corrective Feedback on Intrinsic Motivation

Overall, the results of the study show that corrective feedback consistently enhanced intrinsic motivation to write across all of the rubric categories addressed in this study. The more detailed and specific the corrective feedback was in indicating errors and providing steps on how to proceed in revisions, the more intrinsically motivated students became. The impact of corrective feedback proved to be stronger here than in any instances of positive feedback. Qualitative results supported this strength of impact as a large number of students reported that the feedback helped them understand how to improve their writing. In addition, there was an increase in the number of students who reported that they wanted to fix their writing as a result of the feedback. However, there was also an increase in the number of students responding that the feedback helped them know what to do to get a better grade; this indicates some level of extrinsic motivation present. A possible reason for the presence of these extrinsic themes is that when students were presented with Level 3 feedback in the study, they were not only presented with written comments, but also the writing rubric. This rubric may have been linked directly

to grades in the minds of many students. Thus, though corrective feedback demonstrated a large impact on intrinsic motivation, part of its power may have been derived from extrinsic motivators. In future studies, the feedback delivery process could be revised in order to deliver Level 3 feedback purely through written comments, with no inclusion of a rubric to see if intrinsic motivation is supported without ties to extrinsic, grade motivation.

The Impact of Corrective Feedback on Extrinsic Motivation

The quantitative results of this study indicated that the more detailed the corrective feedback, the bigger impact it had on extrinsic motivation, except for within the category of Voice, Word Choice and Sentence Fluency. Throughout the entire study, there continued to be a lack of impact on motivation within the category of Voice, Word Choice and Sentence fluency. This lack of impact may be due to student difficulty in understanding the categories of Voice, Word Choice and Sentence Fluency due to their lack of exposure and experience with this newer content focus in writing. In order to understand the feedback provided, students may have required more deliberate practice and clarification in these rubric categories, which was not built into the instructional plans during this study. Overall, results from this study showed that corrective feedback had a stronger impact on intrinsic motivation than extrinsic motivation and that the more specific the feedback, the more impact it had on either type of motivation. However, further research must be done to separate the possibility of extrinsic motivators impacting the results of intrinsic motivation.

Limitations

One of the most significant limitations within this study is in the literature review, as there was a lack of research available to discuss the relationship among feedback, motivation, and writing. The literature discussed in this study focuses primarily on the literature available on feedback in various contexts, literature available on writing instruction, and literature available on motivation in a general sense. Furthermore, much of the primary research used in the literature review was conducted with age groups and settings that are not directly applicable to the middle school students examined in the current study.

The present study was conducted at a single site, which consisted of a small public school in the rural Midwest. At this site, one teacher taught all courses included in the study; this teacher was also the student investigator of the study. The instructional practices used to teach the unit of study were specific to the teacher's beliefs and the findings of the literature review she felt were important. Within the context of the study, the teacher was also willing to set aside approximately five hours a day to provide feedback to all students within her courses, based on her belief in the power of feedback in the learning process. Generalizability to other settings may be limited where similar settings, instructional practices, and extent of feedback are not present.

Another limitation of this study is that feedback was delivered in a particular order. The order of this feedback may have had an impact on how students received the feedback, and therefore had an impact on how the feedback motivated students to write. In this study, all students received feedback on the rubric category of Ideas and Organization first, Voice, Word Choice and Sentence Fluency second, and Works Cited

and Conventions third. If the delivery of feedback had been changed, or randomly delivered to different groups of students, the results of this study may have been different.

Lastly, there was no qualitative data collected for Level 1 feedback in any category of writing. This led to some significant limitations when attempting to make conclusions about the quantitative data available. Without qualitative data on Level 1 feedback, decreases in Level 2 feedback could not be fully explained.

Suggestions for Future Research

There are a number of opportunities for future research that arose as a result of this study. The present study examined a small population in a rural public school setting. It did not examine urban, suburban, and rural settings with more diverse populations. Future research should be conducted in different types of settings to compare results. The present study also only focused on the relationship among feedback, motivation, and writing, though there is a clear tie between achievement and motivation. Future studies should attempt to incorporate feedback, writing, motivation, and achievement together in order to form conclusions about the relationships among them.

Research should be conducted on whether the results of this study would remain consistent regardless of the instructional practices utilized in combination with the types and levels of feedback provided. Every teacher takes a different approach to learning, and it would be interesting to delve into variations of the context of the study discussed in Chapter Three and study the differences in data that occur.

In this study, quantitative data was collected for all three levels of feedback provided in all three rubric categories of writing skills; however, as mentioned in the limitations section, qualitative data was only collected after administering level 2 and

level 3 feedback. Future studies should gather qualitative data for all levels of feedback to better analyze and understand the relationships among writing, feedback, and motivation.

This study was conducted by a teacher who was able to spend approximately five hours per day delivering feedback to students; this was not an easy task and for many teachers, is not manageable. More research is needed to determine how teacher time can be managed when offering detailed feedback to students. Future research could also examine what happens as time for feedback increases or decreases. On a related note, in seeking to find a solution to the time management issue, it would be telling to explore what happens to the impact of feedback when class sizes decrease, which in turn likely decreases the total amount of time spent on providing feedback but may allow an increased amount of feedback per student.

Future research could restructure how feedback is delivered to students. To do this, the order in which feedback on each of the rubric categories is delivered would have to be varied among students. By varying the feedback delivery options, the order in which the feedback was delivered would have less of an impact on the final results of the study, making the measures of feedback on motivation more valid.

The results of this study indicated a lack of student understanding in the rubric categories of Voice, Word Choice and Sentence Fluency. This is partly due to a lack of student exposure to instruction in these areas. Future research could involve more focused instruction on these specific areas before and during the feedback period.

Future studies are needed to both expand on the research, and provide more literature on the relationships among writing, feedback, and motivation. After a number

of studies have been conducted on the relationships among the three factors discussed, a meta-analysis on the findings could prove useful to the field.

Summary

This study examined the impact of feedback on student motivation to write in eighth grade English courses, specifically during a persuasive essay unit. The quantitative and qualitative data gathered through surveys indicated that students were most motivated when they received detailed feedback that provided them with the next steps in the revision process. Detailed corrective feedback had a larger impact on intrinsic motivation than it did on extrinsic motivation, but student responses indicated support for the impact on each. Positive feedback also had an impact on intrinsic and extrinsic motivation, though its impact was smaller than that of corrective feedback. These results provide support for the instructional practice of feedback in teaching writing. To be most effective in delivering feedback that motivates students during the writing process, the teacher must identify students' current writing abilities and provide detailed comments that direct them in making revisions to their writing. The comments provided must use language and vocabulary that students understand in order to be beneficial, so it is advised that teachers teach relevant vocabulary and skills at the forefront of each unit in which feedback will be provided.

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Appendix A

Survey 1

- 1. If you received positive feedback, did this feedback help you to value the specific writing skills you demonstrated?
 - (1) Yes (2) Somewhat (3) No (4) N/A I did not receive positive feedback
- 2. If you received positive feedback, did this feedback help you to understand how to maintain your grade in writing?
 - (1) Yes (2) Somewhat (3) No (4) N/A I did not receive positive feedback
- 3. If you received corrective feedback, did this feedback motivate you to improve your writing? (1) Yes (2) somewhat (3) No (4) N/A I did not receive any corrective feedback
- 4. If you received corrective feedback, did this feedback help you to understand how to improve your grade?
 - (1) Yes (2) Somewhat (3) No (4) N/A I did not receive any corrective feedback

Survey 2

- 1. If you received positive feedback, did this feedback help you to value the specific writing skills you demonstrated?
 - (1) Yes (2) Somewhat (3) No (4) N/A I did not receive any positive feedback Explain how this feedback did or did not help you value your skills:
- 2. If you received positive feedback, did this feedback help you to understand how to maintain your grade in writing?
 - (1) Yes (2) Somewhat (3) No (4) N/A I did not receive any positive feedback Explain how this feedback did or did not help you to understand how to maintain your grade:
- If you received corrective feedback, did this feedback motivate you to improve your writing? (1) Yes (2) Somewhat (3) No (4) N/A I did not receive any corrective feedback

Explain how this feedback did or did not motivate you to improve your writing:

- 4. If you received corrective feedback, did this feedback help you to understand how to improve your grade?
 - (1) Yes (2) Somewhat (3) No (4) N/A I did not receive any corrective feedback Explain how this feedback did or did not help you to understand how to improve your grade:

Appendix B

	Exceeds	Meets	Approaching	Below	Requires Revision
Ideas	The writer's chosen cause or issue is presented in a clear opinion statement in the introduction paragraph. There are at least 3 realistic reasons with supporting evidence from credible sources that support the writer's opinion. Writer avoids using "fuzzy thinking" and avoids an "all or nothing" argument.	Cause or issue is presented in clear opinion statement in the introduction paragraph, and there are at least 3 realistic reasons with evidence using some credible sources to support the writer's opinion.	Opinion statement is present. Realistic reasons are given. No credible sources used within evidence.	The opinion statement is unclear. Reasons and evidence are not as complete as they need to be.	An opinion statement, reasons, and details are needed.
Organization	The organization logically presents a smooth flow of ideas from beginning to end. Introduction contains effective attentiongrabber, clear opinion statement, and preview of reasons. Body paragraphs use topic sentences that state each reason and then provide detailed evidence (examples, etc.) to provide clear support for reason. Conclusion restates opinion, summarizes reasons, and provides a concluding statement or call to action. Transitions build strong connections within and between	Introduction contains attention-grabber, opinion statement, and preview of reasons. Body paragraphs use topic sentences and provide clear reasons for argument using some evidence. Conclusion restates opinion statement and provides a concluding statement, or call to action. Transitions are present but are not always the most effective.	Introduction contains opinion statement. Body paragraphs provide reasons for argument. Ending restates opinion statement and provides concluding statement. Transitions are attempted but often ineffective.	The beginning, middle, and ending of the essay run together. No transitions are used effectively.	The organization is unclear. The reader is easily lost.
Voice	paragraphs. The writer's voice is confident, consistent and effectively convinces chosen audience. Writer is clearly passionate about the cause or issue they chose.	The writer's voice is consistently heard and helps persuade the reader at several points in the essay.	The writer's voice needs to be more consistent and persuasive to convince audience.	The writer's voice can rarely be heard and is not effective in persuading.	The writer's voice can't be heard at all or is inappropriate to topic & audience.

Word Choice	Writer uses strong words, phrases, and clauses that tie the writing together and clarify the relationships among opinion, reasons, and evidence to make the main message clear. Writer avoids repeating words too often.	Majority of words are strong; there are 1-2 overused words that need synonyms.	Several words need to be stronger and/or need synonyms to avoid overuse.	The same weak words are used and repeated throughout the whole essay.	Word choice has not been considered. Words are used incorrectly.
Sentence Fluency	Writer uses a variety of simple, compound, and complex sentences to vary length and structure of sentences, and sentence beginnings are varied to make the whole essay flow smoothly from beginning to end.	Varied sentence beginnings are used. More variety in length and structure is needed to make essay read more smoothly.	More varied sentence beginnings and structures are needed. Writing seems choppy and/or drawn out at times.	Majority of sentences begin the same way. Many sentences are simple, making the writing seem choppy throughout and/or sentences are "stringy" and make writing run together.	Sentence fluency has not been established. Ideas do not flow smoothly.
Conventions	Essay follows the basic rules of grammar, spelling, and punctuation without errors.	Essay follows the basic rules of grammar, spelling, and punctuation with only 1-3 errors that do not affect meaning.	Grammar, spelling, and punctuation errors are seen in a few sentences and distract the reader in those areas.	There are several errors that may confuse the reader or affect meaning.	Essay contains careless errors throughout.
Works Cited	Works cited is included with all entries listed correctly in MLA format. Proper MLA parenthetical citations and quotations are included throughout the essay.	Works cited and parenthetical citations are included with minor error in MLA format.	Works cited is included and attempted in MLA format.	Sources appear somewhere on the essay.	No sources are listed.

Appendix C

Example of Level 1 Fe	edback Form	
Name:		_
	F 11 1 11	10 : 4:

Feedback on Ideas and Organization

	On track	Off track
Ideas		
Organization		

RESEARCH PARTICIPANTS ONLY:

After looking at your feedback, please take the survey titled, "Feedback on Ideas and Organization Survey 1" on Moodle.

Example of Level 2 Feedback Form	
Name:	

Feedback on Ideas and Organization

Blue = Positive Feedback Yellow = Corrective Feedback

Diu	Exceeds	Meets Approaching		Below	Requires
			rr ···· ə		Revision
Ideas	The writer's chosen cause or issue is presented in a clear opinion statement in the introduction paragraph. There are at least 3 realistic reasons with supporting evidence from credible sources that support the writer's opinion. Writer avoids using "fuzzy thinking" and avoids an "all or nothing" argument.	Cause or issue is presented in clear opinion statement in the introduction paragraph, and there are at least 3 realistic reasons with evidence using some credible sources to support the writer's opinion.	Opinion statement is present. Reasons and evidence are not as complete as they need to be.	The opinion statement is unclear. Reasons and details are needed.	An opinion statement, reasons, and details are needed.
Organization	The organization logically presents a smooth flow of ideas from beginning to end. Introduction contains effective attention-grabber, clear opinion statement, and preview of reasons. Body paragraphs use topic sentences that state each reason and then provide detailed evidence (examples, etc.) to provide clear support for reason. Conclusion restates opinion, summarizes reasons, and provides a concluding statement or call to action. Transitions build strong connections within and between paragraphs.	Introduction contains attention-grabber, opinion statement, and preview of reasons. Body paragraphs use topic sentences and provide clear reasons for argument using some evidence. Conclusion restates opinion statement and provides a concluding statement, or call to action. Transitions are present but are not always the most effective.	Introduction contains opinion statement. Body paragraphs provide reasons for argument. Ending restates opinion statement and provides concluding statement. Transitions are attempted but often ineffective.	The beginning, middle, and ending of the essay run together. No transitions are used effectively.	The organization is unclear. The reader is easily lost.

RESEARCH PARTICIPANTS ONLY:

After looking at your feedback, please take the survey titled, "Feedback on Ideas and Organization Survey 2" on Moodle.

Example of Level 3 Feedback Form	
Name:	

Feedback on Ideas and Organization

	On track	Off track
Ideas		
Organization		

Blue = Positive Feedback Yellow = Corrective Feedback

	Exceeds	Meets	Approaching	Below	Requires
	Lacecus	IVICELS	Approaching	Delow	Revision
Ideas	The writer's chosen cause or issue is presented in a clear opinion statement in the introduction paragraph. There are at least 3 realistic reasons with supporting evidence from credible sources that support the writer's opinion. Writer avoids using "fuzzy thinking" and avoids an "all or nothing" argument.	Cause or issue is presented in clear opinion statement in the introduction paragraph, and there are at least 3 realistic reasons with evidence using some credible sources to support the writer's opinion.	Opinion statement is present. Reasons and evidence are not as complete as they need to be.	The opinion statement is unclear. Reasons and details are needed.	An opinion statement, reasons, and details are needed.
Organization	The organization logically presents a smooth flow of ideas from beginning to end. Introduction contains effective attentiongrabber, clear opinion statement, and preview of reasons. Body paragraphs use topic sentences that state each reason and then provide detailed evidence (examples, etc.) to provide clear support for reason. Conclusion restates opinion, summarizes reasons, and provides a concluding statement or call to action. Transitions build strong connections within and between paragraphs.	Introduction contains attention- grabber, opinion statement, and preview of reasons. Body paragraphs use topic sentences and provide clear reasons for argument using some evidence. Conclusion restates opinion statement and provides a concluding statement, or call to action. Transitions are present but are not always the most effective.	Introduction contains opinion statement. Body paragraphs provide reasons for argument. Ending restates opinion statement and provides concluding statement. Transitions are attempted but often ineffective.	The beginning, middle, and ending of the essay run together. No transitions are used effectively.	The organization is unclear. The reader is easily lost.

See paper for written comments

RESEARCH PARTICIPANTS ONLY:

After looking at your feedback, please take the survey titled, "Feedback on Ideas and Organization Survey 3" on Moodle.

Appendix D

Unit Feedback Schedule

	I	T	ı	ı
Day 1	Day 2	Day 3	Day 4	Day 5
Students receive copy of rubric for persuasive essay In small groups, students read an example persuasive essay to determine it's strengths and weaknesses using the rubric. Class then shares findings as a whole group Review persuasive appeals (ethos, pathos, logos)	Brainstorm list of possible topics for persuasive essay From list, choose 3 topics to put into brainstorming chart to decide which one is strongest for essay	Students choose final essay topic The teacher models how to fill out graphic organizer with opinion statement, audience, reasons, and evidence. Then, students complete their own graphic organizer Students consult internet to locate additional evidence/resource s.	Students complete outline for introduction of paper (use WriteSource text to discuss good techniques for introductions) Create Google Doc for essay, share with teacher, and then type introduction	Students complete outline for all 3 body paragraphs of essay (Use WriteSource text to discuss good body paragraphs as a class) Students draft body paragraphs on Google Doc
Day 6 • Students complete outline for conclusion (use WriteSource to discuss good conclusion techniques as a class) • Students finish typing full rough draft *Level 1 and level 2 feedback for Ideas and Organization	 Day 7 Students receive level 1 feedback on Ideas and Organization Students complete survey 1 Students receive level 2 feedback on Ideas and Organization Students complete survey 2 Students are given time to work on revisions based on the feedback they 	 Day 8 Students receive level 3 feedback on Ideas and Organization Teacher clarifies what "transitions" and "fuzzy thinking" means (as stated on the rubric) Students complete Survey 2 Students are given time to work on revisions based on the feedback they received today *Level 1 and level 2 feedback for Voice, Word Choice, and Sentences Fluency 	Day 9 • Students receive level 1 feedback on Voice, Word Choice, and Sentence Fluency • Students complete survey 1 • Students receive level 2 feedback on Voice, Word Choice, and Sentence Fluency • Students complete survey 2	Day 10 • Students receive level 3 feedback on Voice, Word Choice, and Sentence Fluency. • Teacher further clarifies elements of rubric categories. • Students complete survey 2 • Students are given time to work on revisions based on the

	received today		feedback on Voice, Word Choice and Sentence Fluency	feedback they received today
Day 11 Teacher delivers direct instruction on how to create a works cited page and intext citations for the essay Students create their own works cited page and add it to their draft. Level 1 and level 2 feedback for Conventions and Works Cited	Day 12 Students receive level 1 feedback on Conventions and Works Cited Students complete survey 1 Students receive level 2 feedback on Conventions and Works Cited Students complete survey 2 Students complete survey 2 Level 3 feedback on Conventions and Works Cited Level 3 feedback on Conventions based on the feedback they recieved	 Students receive level 3 feedback on Conventions and Works Cited Teacher provides mini lesson on grammar usage issues common to all essays. Students complete survey 2 Students are given time to work on revisions based on the feedback they received 	Day 14 • Students participate in peer review process • Students make final revisions to essay	Day 15 • Students turn in final draft of essay

^{*}Teacher (Student Investigator of study) provides feedback