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An Examination of the Effectiveness of Differing Types of Feedback Across Controlled Written Assignment Scenarios

Lisa Dopke
Grand Valley State University

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An Examination of the Effectiveness of
Differing Types of Feedback Across
Controlled Written Assignment Scenarios

Lisa Dopke
Grand Valley State University

Running Head: FEEDBACK

An Examination of the Effectiveness of
Differing Types of Feedback
Across Controlled Written Assignment Scenarios

A Thesis

By

Lisa Dopke

Grand Valley State University

In fulfillment of the requirements for
Criminal Justice 695: Thesis

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And lastly, but most importantly, I wish to dedicate this thesis to my children, Alison and Kyle, who have spent a significant amount of time in the library with mom when they would much rather have been doing other things.

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ABSTRACT

The development of effective writing skills is widely acknowledged as a primary goal in higher education. For this reason, instructors have devised several ways to help students develop and improve their writing proficiencies. Within this repertoire of strategies, the most common and often most practical method is providing feedback, particularly written feedback, on student's writing assignments. Because feedback is commonly recognized as advantageous in this respect, and because there continues to be a keen "interest in how to provide more effective, relevant feedback to students" (Wiltse, 2002, p. 127), various aspects of the feedback communication and related processes have been examined.

While this body of research has uncovered a wide range of potentially relevant variables which likely influence the efficacy of feedback communications, there remains little agreement as to a common set of dynamics that can facilitate the extent of improvement that most instructors hope to achieve. This presents several challenges for those charged with achieving the collective goal of improving student writing, as it leaves little to go on but individual experiences. The present research was therefore conducted in an effort to explore variables suggested across the literature as pertinent and likely to contribute to this efficacy. By collectively examining these variables, the research was able to build on the existing literature by providing empirically grounded support to reinforce the value of written feedback and a replicable method for exploring the multitude of variables that contribute to its effectiveness.

AN EXAMINATION OF THE EFFECTIVENESS OF DIFFERING TYPES OF FEEDBACK
ACROSS CONTROLLED WRITTEN ASSIGNMENT SCENARIOS

By: Lisa Dopke

CHAPTER I

Introduction to the Study

The opportunity for developing effective writing skills is widely acknowledged as a primary goal in higher education, as it is a critical attribute for success both in and beyond the university setting. Moreover, the importance of this goal has become increasingly evident across American campuses in recent years with the advent of Writing Across the Curriculum (WAC) programs, writing centers, and the addition of writing-specific objectives across course syllabi regardless of academic discipline. In each of these instances, it is common practice for educators to seek improvement in student writing proficiencies by offering feedback using one of several methods such as written comments and suggestions (Quible, 1997; Tang, 2000), one-on-one conferences (Quible, 1997; Shaw, 2002), audio recordings (Sipple, 2007), and peer review activities (Cho, Schunn & Charney, 2006; Van den Berg, Admiraal & Pilot, 2006).

This feedback typically serves as the instructor's best tool for conveying his/her values, attitude and agenda with respect to the particular writing assignment (Beach & Friedrich, 2006; Wyatt-Smith, 1999). For instance, feedback may be intended as a response to whether or not the student has fulfilled the assignment requirements (Willingham, 1990), to assign and/or justify a grade (Quible, 1997; Winter, Neal & Waner, 1996; Willingham, 1990), to begin a dialogue with the student (Perpignan, 2003), to help the student revise his/her work (Quible, 1997), to increase the level of self-regulation/self-assessment on drafts or to provide knowledge for increasing self-regulation (Beach & Friedrich, 2006; Quible, 1997; Winter, Neal & Waner, 1996; Willingham, 1990) and, perhaps most frequently, to improve the overall quality of the writing (Beach &

Friedrich, 2006; Winter, Neal & Waner, 1996; Tang, 2000). Furthermore, findings support the suggestion that “when taken, feedback does help students improve their marks” (Bharuthram & McKenna, 2006, p. 501). To this end, there are several things to consider in determining an appropriate process by which to provide students with feedback on their written assignments, especially when this process is thought to serve as a primary impetus for advancing writing skills (Willingham, 1990).

Because feedback is commonly recognized as advantageous in this respect, and because there continues to be a keen “interest in how to provide more effective, relevant feedback to students” (Wiltse, 2002, p. 127), various aspects of feedback communications and related processes have been examined. These include the different methods of response as previously described, the impact of the level of feedback provided (i.e., specific feedback, non-specific feedback, grade only) (Dorow & Boyle, 1998), the procedure used by the instructor to determine feedback - holistic versus analytical (Roid, 1994; Hayes, Hatch & Silk, 2000; Schoonen, 2005), the nature of the message - formative or evaluative (McGarrell & Verbeem, 2007), its intended function in the writing process such as serving as the impetus for revision (Willingham, 1990) or increasing self-regulation (Kellogg, 2004), student perception of the helpfulness of feedback (Bloxham & West, 2007; Gunn & Raven, 2005; Weaver, 2006), timing of the feedback (Frankenberg-Garcia, 1999), how feedback is used by students (Winter, Neal & Waner, 1996; Heyden, 2004), and its overall effectiveness at achieving its intended purpose.

However, while researchers have uncovered a multitude of empirically testable variables and/or combinations of variables that likely contribute to the efficacy of feedback, there remains little agreement as to a common set of practical dynamics that can facilitate the extent of improvement that most university instructors hope to achieve. In other words, which practices

most often result in improved writing assignments and assist students in developing writing proficiencies beyond the course? This presents several challenges for those charged with achieving the collective goal of improving student writing, as it leaves little to go on but individual experience and anecdotal evidence. Research must therefore begin to address such limitations by determining which dynamics render feedback most effective; thus resulting in empirically grounded improvements across student writing assignments.

Background

In order to broadly facilitate the improvement of writing proficiencies across the collective student population, it is necessary to consider the scope of theoretically relevant variables in establishing appropriate feedback, particularly written feedback, as it is the most common type outside of composition courses (Stern & Solomon, 2006). Examples of such variables include the student's ability to self regulate, feedback preferences, assignment attributes, function/purpose for offering feedback, and using a holistic versus analytical method of evaluation. This section of the thesis provides a brief discussion of both the limitations and major findings across the existing *feedback* research in an effort to demonstrate the necessity for, and significance of, the present study.

It is important to note in considering the literature to date that the exploration of writing and its many facets as a topic for empirical consideration is fairly recent – beginning with the 1971 benchmark publication of Emig's *The Composing Processes of Twelfth Graders* (Nystrand, 2006). Prior to this study, writing research tended to focus solely on the final written product, typically via content analysis, and often considered only the writing of professionals. Following the publication of this landmark study, however, the focus of research on writing shifted dramatically by introducing new methodologies to the study of writing and to understanding

writing as a process and not a product (Schultz, 2006). In other words, the study implicated the fact that there was more to explore in the research of writing than just the finished text. “Emig’s research not only gave writing researchers new insights but also suggested questions that might be asked about writing as a process to add to knowledge gained by the examination of written products” (Schultz, 2006, p. 361). As a result, research interests have since addressed a broad range of different but related concepts with respect to writing and the various methods by which writing tasks are accomplished and improved upon.

Within this existing body of work, the specific study of feedback is often regarded as a sub-topic of the larger discussion pertaining to the writing process, as feedback is considered a single component in one phase of the process (i.e., prewriting, composition, feedback/ assessment, and revision). This has resulted in few studies that pertain exclusively to feedback as the subject of the research, and in examining those that do, it is evident that the findings cannot always be extrapolated beyond the context of the study itself (Guénette, 2007).

For instance, researchers have repeatedly explored feedback as the sole mechanism affecting an improvement in writing proficiencies. However, such methodologies fail to consider that the written text is only the “tip of the iceberg,” and that there are many other variables, that must also be considered in combination with the feedback in order to accurately assess the level of influence each has on the writing. Such variables might include such affective domains as the student’s attitude toward writing (Graham, Berninger & Fan, 2007; Maimon, 2002), the student’s writing habits (Boice, 1989), the student’s ability to self regulate (Kellogg, 2004) and/or the student’s perception of him/herself as a writer (Lavelle & Zuercher, 2001). In most cases, it is probable that any or all of these potential variables may play a role in terms of the efficacy of the feedback regardless of whether or not they can be controlled for within the bounds of the

research methodology. That is, it is unlikely that feedback alone leads to improvement; rather these variables are interrelated dynamics, working in combination and influencing the student's writing decisions.

Consequently, researchers must remain cautious in their degree of certainty in concluding that it was the feedback alone and not a spurious variable that caused the improvement. Research methodologies that fail to account for such relationships likely result in findings that are limited in terms of validity. The possibility of identifying and accounting for spurious variables is enhanced when a substantial number of cases are examined, making it possible to explore for the influence of spurious variables (i.e., with a decent "n" a researcher may be able to determine, with some level of certainty, that it was in fact the feedback treatment that caused the improvement).

Similarly, writing is typically an individual activity and it can be difficult to control the conditions of a study that examines feedback in such a way that the findings are truly reflective of the conditions that will facilitate improvement across student populations. In exploring this idea further, one might consider the level of one student's writing proficiency relative to the other students in the classroom. In this case, as in any classroom, it becomes almost impossible to delineate precise findings, as one student may appear to improve significantly when compared to another, although he/she may have been a better writer in the first place. This issue might be addressed by collecting a baseline sample of the student participant's writing and examining several subsequent writing samples over the course of the study, as this would provide the opportunity to assess proficiency and differentiate those students who require additional help.

Another limitation of feedback research is that relatively few empirical studies pertain to the customary feedback practices generally used by university instructors. Much of the existing

research has been conducted with unique populations such as ESL/EFL students (i.e., English second language/English foreign language), students with learning disabilities, and students in primary grades (i.e., K - 12). This has inevitably resulted in lower levels of generalizability with respect to the findings because suggested practices may not be carried over from one context to the next, as the special needs of the sample population may preclude the use of the suggested practices outside of that group.

Of the studies specifically exploring the practices surrounding the role of feedback in the writing processes of university-level students, some seemingly common methodological choices tend to limit the findings. First, many studies have relied on low participant numbers with respect to the data gathered over a single semester. This alone limits the generalizability of the findings, as it makes it difficult to determine that the feedback alone served as the impetus for any demonstrated change. As discussed, it is not possible in such cases to determine with certainty that improvement is a direct result of the feedback and not a spurious or unexamined variable.

Another limitation of the existing research is the vast diversity in the various aspects of the writing under consideration (i.e., the aspect of the writing to which the feedback pertains). For instance, while some researchers have only explored the efficacy of feedback provided on issues of the writing trait, *grammar*, others have explored it by considering feedback that pertains to the traits of *content* and *organization*. Here, the improvement of writing based on feedback that only pertains to issues of grammar is sure to have a very different influence than feedback provided on content and organization. In such cases, it seems evident that the findings from one study would be technically incomparable to the other.

Likewise, concerns of inter-rater reliability may also limit the extent to which existing findings can be extrapolated to other feedback scenarios. In terms of replicating a study, it is

important to consider the individual observations, intentions and commenting style of the rater providing the feedback among other things. Here, generalization of research outcomes must be undertaken with extreme caution, as the “personal characteristics” of the rater are usually unknown. One way that findings might be reliably replicated by another researcher is by employing a common set of criteria contained within a rubric. This would limit the subjectivity of the feedback by keeping the rater focused on the criteria being applied to the writing.

Finally, some methodologies have lacked the degree of specificity and/or reliability necessary to generate conclusive findings, such as those that have been qualitative in nature (e.g., interviews with writers, documented observations, suggestions for “best” practices, content analysis of student-teacher communications). This is not to say that qualitative research has not been important in the study of writing. On the contrary, these methods have been used to build the body of knowledge about writing in a number of ways. For instance, Schultz (2006) notes:

Qualitative methods have allowed researchers to investigate writing across contexts, including boundaries between home, school and the community. Researchers have been able to investigate the many resources that individuals bring to writing, replacing the more typical focus on deficits with an understanding of an individual or group’s repertoire and strengths. Using qualitative methods, researchers have also looked across individuals, documenting interactions between and among teachers and students. (p. 360)

However, while qualitative research might effectively be used for exploring and/or identifying relevant variables, it often falls short of providing a clear answer regarding the conditions that consistently make feedback more or less pragmatic. In addition, it typically fails to provide consistency from one observation to the next, thus, leading to anecdotal information that may or may not be reliable in contexts outside of the study (Heyden, 2004; Mirador, 2000; Perpignan, 2003; Straub, 2002; Tang, 2000; Weaver, 2006). This lack of generalizability often results because the methods are better suited for addressing certain types of research hypotheses, such as investigating “how particular people in particular contexts interpret or make sense of

everyday interactions” (Schultz, 2006, p. 359). Combining various methodologies to examine the subject using a triangulation strategy could serve as a check to balance these inconsistencies; however, this strategy has rarely been deployed.

In light of the limitations, however, previous research has provided a foundation for further empirical examinations, as these studies have been successful in revealing several dynamics that likely contribute to the overall effectiveness of feedback communications and processes. Some of these dynamics include the effect of student attributes (i.e., attitudes and writing habits) (Boice, 1989), the method by which the feedback is presented (McGarrell & Verbeem, 2007), characteristics of the assignment (Kynell-Hunt & Savage, 2003), and the use of holistic versus analytical assessment of the writing (Hayes, Hatch, & Silk, 2000; Schoonen, 2005). The discovery that each of these variables likely plays a role in the feedback process provides the basis for creating a methodology with a greater degree of specificity, as it becomes more feasible to account for a majority of the noted limitations.

Statement of the Problem

As a community, university scholars have collectively agreed that the value of educating students to express their ideas and understandings via written communication is of utmost importance. However, few agree on a common set of dynamics that facilitate the extent of improvement that most hope to achieve. Moreover, findings of empirical research exploring feedback practices have suggested a wide range of potential theoretically relevant variables that may play a role in how students differentially progress in their abilities (i.e., feedback method, the type of assignment, the timing of feedback, or other dynamics). Therefore, this study attempted to determine the dynamics that evidence the greatest degree of improvement in student writing progress across a semester, as well as which student attributes (i.e., affective domains)

likely influence the differential progress across student writing proficiencies. The research questions were as follows:

1. Is the feedback method (i.e., holistic versus analytical) predictive of the rate of student writing progress across students?
2. Is the assignment type (i.e., progressive versus non-progressive) predictive of the rate of student writing progress across students?
3. Which student attributes (baseline competency, demographics [age, race, gender, etc.], school information [major, first generation, year in school]), self-reported work habits and classroom context (class size/instructor) are significantly related to the rate of student writing progress across students?

Purpose of the Study

The purpose of this research was to determine whether one method of providing feedback, more effectively accomplished the task of assisting university-level students in improving their written assignments than the other. The feedback methods under consideration were holistic and analytical. In using the holistic method, feedback comments were provided to the student throughout the text with no scoring rubric provided for guidance. In using the analytical method, the feedback comments were provided to the student throughout the text with a scoring rubric provided for guidance. The study also attempted to determine which assignment type, progressive or non-progressive, was most likely to evidence the greatest rate of student writing progress across the semester. For the purposes of this research, progressive assignments were comprised of one writing assignment requiring multiple drafts, while non-progressive assignments were comprised of a series of static/individual writing assignments. Additionally, the study sought to determine the degree to which other potentially relevant variables influence the feedback communication by concurrently examining the attributes suggested across the literature as pertinent. These variables included student attributes (baseline competency,

demographics [age, race, gender, etc.], school information [major, first generation, year in school]), and the affective domains of self-reported work habits and student self-perception as a writer. By collectively examining these variables, the present study attempted to build on the existing literature by providing empirically grounded support to reinforce the value of written feedback, and to determine which of the variables under examination evidenced the greatest influence on the efficacy of the feedback communication in a university setting. The researcher also intended to provide a research methodology for examining feedback that could be easily replicated. Findings of this research provide an insightful understanding of the conditions necessary for written feedback to advance writing across the student population.

Significance of the Study

Written comments and/or suggestions are the most common, and often the most pragmatic strategy for offering feedback to university-level students. Moreover, a solid understanding of the attributes related to feedback that facilitate the greatest degree of efficacy from a pedagogical standpoint is necessary, as these strategies will in turn promote the achievement of the writing-related goals set forth by the university community. For this reason, the present methodology provided a rigorous examination of the subject matter by capturing both aggregate and individual levels of analyses of a wide cross section of the student population. It was anticipated that this would result in findings that were generalizable beyond the present study. In addition, the data was collected in such a way that it provided the researcher with the capacity to isolate and/or cluster theoretically relevant variables for statistical analysis. This was important as it provided insight as to which variables are most significant in feedback scenarios.

Overview of the Thesis

This chapter introduced the study by offering a brief history of the continuum of research

related to writing and, more specifically, the role of feedback in writing improvement. While reviewing the scope of the existing research, this discussion provided insight as to the various problems and limitations of previous research methodologies, thereby setting the stage for the research questions to be addressed herein. Following the statement of the problem, the purpose and significance of the study were discussed. The remaining chapters of this thesis are traditionally organized as follows.

Chapter II, the review of literature, presents a comprehensive depiction of the literature to date including an exploration of issues such as the purpose and functions of feedback, its place in the writing process, and the methods and levels of response. This chapter also presents suggestions as to the value of feedback, problems commonly associated with written feedback, and what written feedback can and cannot offer the student writer.

Chapter III, the methodology, presents the research questions, hypotheses, and a review of the techniques used to collect data including a discussion of the research steps, methodological choices, and study rationales. The instruments used to collect the data are reviewed in detail, as are the scope, assumptions, delimitations, instrumentation and definitions of the key terms.

Chapter IV presents the analysis of the data collected, followed by an interpretation and discussion of the research findings in Chapter V. This final chapter attempts to place the findings of the current study in context with previous research in an effort to lend insight to the dynamics that enhance feedback efforts, as well as to draw conclusions with respect to the findings of the research.

CHAPTER II

Review of the Literature

Because one of the most fundamental goals across any university community is improving student writing, the process of providing students with some form of feedback on written assignments is common practice for a majority of instructors regardless of their academic discipline, as feedback is thought to serve a variety of important functions throughout the writing process that achieve this goal. These may include assigning/justifying a grade, beginning a dialogue with the student, or perhaps serving as the impetus for overall writing improvement through revision (Perpignan, 2003; Quible, 1997; Winter, Neal & Waner, 1996; Willingham, 1990). Moreover, it is not uncommon for the instructor's purpose in providing the feedback to serve more than one of these functions (Mirador, 2000). Whatever the purpose however, it is evident that even though feedback tends to be subjective in nature, it does provide a valuable opportunity to communicate with students about how they might improve their writing. For this reason, researchers and instructors alike continue to seek strategies that will successfully accomplish the notoriously difficult task of assessing student writing while providing a means for helping students develop the broad range of writing proficiencies needed for success (Schoonen, 2005).

Empirical examination of feedback communications and processes throughout the past several decades has demonstrated that there are a number of things that instructors should consider which likely render the feedback more or less effective for the student. Such things include the tone and specificity of the comments (Quible, 1997; Willingham, 1990), the timing of the feedback (during or after the assignment is completed), the commenting strategy (i.e., formative or evaluative) (McGarrell & Verbeem, 2007), and personal attributes specific to the

student such as writing habits, self-perception and attitude (Boice, 1989; Bottomley, Henk, & Melnick, 1998). But while researchers have uncovered a multitude of theoretical variables and/or variable combinations that likely contribute to effective feedback, there remains little agreement as to a common set of dynamics that can facilitate the extent of improvement that most instructors hope to achieve. In other words, which practices most often result in improved writing assignments and assist students in developing writing proficiencies beyond the course? Research must therefore begin to address such limitations by solidifying which dynamics render feedback most effective, thus resulting in empirically grounded feedback strategies that are effective for students. This chapter provides a review of the relevant feedback literature in an effort to place the present study in context with the existing research.

Purpose of Feedback

As noted, providing feedback on student writing may fulfill one or more functions, as it is often the instructor's best tool for conveying his/her values, attitude and agenda with respect to the particular writing assignment (Beach & Friedrich, 2006). For instance, feedback may serve the purpose of responding to whether or not the student has fulfilled the assignment requirements (Willingham, 1990), to assign and/or justify a grade (Quible, 1997; Winter, Neal & Waner, 1996; Willingham, 1990), to begin a dialogue with the student (Perpignan, 2003), to help the student revise his/her work (Quible, 1997), to increase the level of self-regulation/self-assessment on drafts or to provide knowledge for increasing self-regulation (Beach & Friedrich, 2006; Quible, 1997; Winter, Neal & Waner, 1996; Willingham, 1990) and, perhaps most frequently, to improve the overall quality of the writing (Beach & Friedrich, 2006; Winter, Neal & Waner, 1996; Tang, 2000). Regardless the purpose, research has evidenced that "when taken, feedback does help students improve their marks" (Bharuthram & McKenna, 2006, p. 501).

Researchers have long suggested that instructors should remain cognizant of their intended purpose(s) for providing feedback, as these intentions typically drive the tone, specificity and usefulness of the feedback comments. According to Stern and Solomon (2006), there are three basic principles that should guide instructors as they provide feedback, although it is evident in reviewing the literature that there are likely many more. The first principle is to offer balanced feedback that encompasses both positive comments with critical or corrective statements. Other researchers have made similar suggestions, noting that positive comments seem to have an encouraging influence on the student's general affective domains (i.e., emotions and feelings related to student motivation, attitude toward writing and learning experience), thus resulting greater receptivity to feedback in general (Tang, 2000; Perpignan, 2003; Winter, Neal & Waner, 1996).

The second principle is that feedback should be focused on the aspects of the writing assignment that are required, and that these aspects should be clearly articulated before the instructor begins the response process. Stern & Solomon (2006) note that "in the writing and response literature, numerous guidelines, called "selective marking," "focused feedback," and "planned and specific feedback," all address this idea that faculty need to narrow the scope of their grading by identifying the important concepts (before they mark on the papers) and then communicate the feedback on these concepts clearly and specifically to students." (p. 26). In illustration of this point, if a position paper was assigned, the scope of the feedback comments might only focus on the content (i.e., inclusion of supporting documentation) and the overall persuasiveness of the writing, as opposed to content, grammar, sentence structure, etc. unless these other grading criteria were included from the outset. The use of a grading rubric is suggested as a strategy for employing this principle.

In conjunction with the second principle, the third suggests that instructors should provide feedback on specific problem areas of the text by identifying patterns of strengths and/or errors/weaknesses, thus ensuring that the suggested revisions are manageable for the student. One method suggested for employing this principle is to prioritize the feedback comments by aligning them according to a hierarchy of the student's ability (Willingham, 1990). In other words, feedback comments should be focused on one or two primary issues that the student is capable of addressing independently, rather than marking every mistake the student has made. Thus, while it may be tempting to mark every instance of poor word choice, this is not helpful to the student. Moreover, it has been further suggested that it is best to address certain types of errors, especially grammatical errors, by noting the first incorrect usage only and requiring the student to correct further mistakes (Graham, Berninger & Fan, 2007; Hyland, 2003).

The deployment of these principles should be guided by a consideration of the timing of the feedback (i.e., whether or not there is an opportunity for revision), the specificity of the comments provided (i.e., provide enough detail for the student to determine why an area of the text is good or bad), and whether or not assistance for making the improvements has been provided (e.g., handouts, web-based resources, availability of a writing center/writing tutor). Such considerations are especially important, as they are closely tied to the student's perception of, and subsequent response to, the feedback. This is likely the case as the quality and characteristics of the feedback have been shown to influence affective domains in students such as writing anxiety as it relates to writing habits, level of intrinsic motivation, attitude and self perception as a writer (Chai, 2006). Consequently, these characteristics ultimately determine the effectiveness of the feedback at achieving the intended goal (Crisp, 2007; Heyden, 2004; Perpignan, 2003; Dorow & Boyle, 1998; Winter, Neal & Waner, 1996).

Methods of Response

Researchers have also explored the various methods of response by which feedback is typically offered. These methods include written comments or suggestions, either handwritten or typed (Tang, 2000; Quible, 1997), one-on-one conferences (Shaw 2002; Quible, 1997), audio recordings (Sipple, 2007), and peer review activities (Cho, Schunn & Charney, 2006; Van den Berg, Admiraal & Pilot, 2006). Each method presents its own advantages and disadvantages, both for the instructor and the student, but oftentimes the method selected is the one that best facilitates the purpose for which the feedback is provided. For example, if justifying a grade is the instructor's primary purpose for providing the feedback, it is likely that he/she would choose written feedback rather than one-on-one conferencing.

For the majority of instructors, written feedback is the most common, and often most pragmatic method for providing feedback. As such, this method of response has been examined in a variety of contexts and for a number of reasons such as the efficacy of where the comments are placed – initial (beginning), marginal (throughout) or terminal (at the end), the quality of the information provided (specific versus vague comments), consistency of the comments and the effects of global versus micro-level comments on student understanding. Because it has been one of the most widely examined methods of response, the literature provides clear insight as to the advantages and disadvantages of this method (Beach and Friedrich, 2006; Stern & Solomon, 2006).

The primary advantage for instance is that it allows the instructor to respond to the text as it is read, thus making the process more practical than some of the other methods. Moreover, this method has demonstrated the capacity to be meaningful for most students, thereby helping them to improve their writing proficiencies so long as the feedback is consistent, balanced and specific

in concurrence with the previously suggested principles, as it offers the opportunity for him/her to revisit the comment(s) several times as needed. Research has demonstrated just as often however, that if these principles are lacking, written feedback can be vague and confusing, rendering it more or less useless for the student (McGarrell & Verbeem, 2007; Willingham, 1990). Providing written comments that consistently provide the level of detail that will be useful for each individual student tends to be very time consuming if done properly, which may be viewed as a disadvantage. Likewise, the instructor may experience difficulty in thoroughly explaining issues in a way that will motivate or help the student to improve the text.

Another method of response that is often used is peer review feedback in which the students provide written and/or verbal feedback on each others' writing assignments. "Composition instructors have come to see peer review as an essential practice, partly because it insures a round of drafting and revising and partly from an assumption that writers benefit both from commenting and from reading comments" (Cho, Schunn and Charney, 2006, p. 261). In addition, this method is significantly less time consuming for the instructor in that he/she may only need to supplement the feedback provided during the peer review exercise. Research has also evidenced a serendipitous result of using this method in that peer review feedback often serves as a motivating factor with respect to the level of effort put forth by the student writer, as there seems to be some degree of social desirability to write well.

Deploying the peer review method has become easier in recent years as a result of technological innovations. Web-based applications such as class discussion boards, wikis and Google Docs have made this method of response easier and more practical as students can participate in such activities online. These technologies also make it possible for a student to

receive multiple reviews on a single draft (Waltonen-Moore, Stuart, Newton, Oswald, and Varonis, 2006).

Disadvantages of peer review feedback as a method of response are that the feedback provided by a peer may “not carry as much weight as teacher comments,” as a peer does not have authority over grading (Beach & Friedrich, 2006, p. 229). Similarly, peer feedback may not be as thoughtful or adequate when it comes to improving student writing proficiencies, as students can only provide the knowledge that they themselves possess (i.e., the peer may not be a good writer him/herself). That being the case, peer feedback may be wrong or misguided based on the peer reviewer’s poor understanding of the assignment. However, it may be possible to reconcile such disadvantages if the peer feedback and subsequent revisions are guided by a rubric and somehow incorporated into the grading process (Quible, 1997).

The next method of response examined by researchers is conferencing, in which instructors provide written feedback on a draft and then meet with the student to discuss “their intentions for providing feedback, offering explanations for comments or asking students for their perspectives” (Beach & Friedrich, 2006, p. 228). This comprehensive approach allows for clarification of the feedback that the student writer would not otherwise have access to, thus increasing the likelihood that the feedback will be useful for improving the student’s writing proficiencies. This method of response has been widely adopted by instructors of composition courses based on these significant advantages. For most instructors however, the amount of time necessary to effectively deploy such a strategy in addition to the substantive course material is not feasible, and is therefore the primary disadvantage.

Two variations on this strategy have been noted in the literature; conferencing in a face-to-face setting and more recently, conferencing in an online discussion forum (i.e., video or real-

time writing in a discussion board setting, or a combination thereof). While comparison of one-on-one and online conferencing has evidenced positive results for both settings, online conferencing presents some additional benefits. As Carabajal, LaPointe & Gunawardena (2003) explain, online conferencing permits students to react without the uneasiness that sometimes accompanies face-to-face interactions, thereby allowing the student and instructor to remain focused on the writing without as much concern for social roles.

Finally, audio feedback in the form of recorded comments is another method used by instructors to provide feedback to students (Sipple, 2007). This method allows the instructor to provide a great deal more information than can be provided in writing, as well as in a shorter timeframe. Additionally, when combined with written comments, this method allows for the same degree of elaboration as conferencing. Similar to peer reviews, this method is becoming more widely used as a result of technology, as desktop applications for recording and e-mailing comments are readily available.

Commenting Strategies

Corresponding to the method of response, researchers have identified specific strategies (i.e., styles of providing feedback comments), which can be applied using either the holistic or analytical approach. The two primary strategies are evaluative or formative, in which evaluative feedback is presented in the form of directive statements and formative is presented as a question or series of questions that are meant to invoke additional response(s) from the student (McGarrell & Verbeem, 2007; Winter, Neal & Waner, 1996).

More specifically, evaluative feedback has most often been defined as comments in the form of statements pertaining to the overall quality of the written assignment to include organization, clarity, word choice, grammar and mechanics. Evaluative feedback advises the student as to how

and why he/she may wish to revise the writing, and is described throughout the literature as being a more directive form of feedback. One noted disadvantage of this commenting strategy is that instructors run the risk of appropriating the student's text. In addition, the focus of this feedback tends to be on correction rather than improving the skill base of the writer, thus leading to surface changes, rather than content changes (Tang, 2000; Willingham, 1990; Winter, Neal & Waner, 1996).

The second strategy, formative feedback, is presented to the student in the form of an open-ended question that is meant to help the student explore the content of his/her writing. The idea being that the student will have the opportunity to interpret these questions in clarifying sections of the written text (McGarrell & Verbeem, 2007), as the questions should indirectly prompt the student to make necessary revisions as opposed to "spelling out" what needs to be done. This type of feedback has evidenced success with experienced writers as a way to encourage learning, but may not be as appropriate for beginners as it is not overly directive (Heyden, 2004). Using this strategy, instructors can present "questions" based on their perceptions and responses to the writing from the perspective of the reader (Winter, Neal & Waner, 1996).

The Great Debate: Holistic Versus Analytical Feedback

Previous research has examined the influence of two different instructor approaches to providing feedback - holistic and analytical (Schoonen, 2005; Hayes, Hatch, & Silk, 2000). The first approach, holistic, is provided when the feedback comments and evaluation are based on the instructor's own internal criteria of what he/she believes constitutes "good" writing (i.e., subjective assessment) and examines the "wholeness" of the writing performance. The analytical approach on the other hand, is used when an instructor incorporates an assessment rubric to guide his/her comments and evaluation. This approach has been recognized as being more

“diagnostic” in that it provides a score based on the individual category or traits to be scored (Roid, 1994).

While both styles have their advantages and disadvantages, this is often a point of contention for institutional communities, as instructors typically feel strongly one way or the other about which approach best meets the needs of students. For instance, those who grade holistically tend to believe that because writing is a qualitative process (i.e., a cognitive process that is individual each writer), the visible errors are only a “piece” of a larger set of issues, and that feedback provided within a rubric is unable to adequately address these underlying problems (Frankenberg-Garcia, 1999). Many also argue that rubrics miss the big picture by pointing out every error. On the other hand, those who prefer the analytical approach to grading believe that feedback is bolstered by assignments that include criteria (Beach & Friedrich, 2006). For instance, students learn what to look for in terms of content (i.e., organization, clarity of content, word choice) and are provided with a common language of writing. The use of a rubric is also thought to help students become “more adept at assessing their own papers...” (Shapiro, 2004, p. 39), as understanding the traits of “good” writing will likely prompt the student to focus on the traits with which they have the most difficulty.

From an empirical standpoint, the holistic approach has been found to be a less reliable method of assessing student writing, even while it is the approach that is used more frequently (Wyatt-Smith, 1999; Winter, Neal & Waner, 1996). Here, research has demonstrated that “scoring texts holistically without explicit guidelines will evoke general impression scores in which positive characteristics may compensate for or even outshine weaker characteristics” (Schoonen, 2005, p. 5), as described in the following passage from Schullery (2003):

First, I make my preliminary judgment...My preliminary reaction may range from ‘this is pretty good’ to ‘oh, s/he’s missed the point entirely.’ This initial judgment leads to an

initial valuation as an 'A,' 'B,' etc. grade, which I pencil in and expect to modify somewhat after a second, more careful and analytical reading. (p. 87)

For those in favor of analytical scoring, the benefits of using a rubric are clear. Research has demonstrated that using a trait-based rubric as the basis for providing feedback and/or a grade mediates the rater effect more substantially than simply applying holistic standards. As noted by Roid (1994), "several advantages of analytical scoring methods that have shown slightly higher reliabilities in studies contrasting holistic versus analytical methods" (p. 159). All assignments then have a greater chance of receiving a score based on the same criteria.

Role of Assignment Type

Although some authors have suggested that requiring multiple drafts of a writing assignment leads to increased use of feedback, assignment type has not been considered as a research variable. Rather, it is discussed in the literature as a pedagogical approach to helping instill in students the habit of using a writing process. That is, by incorporating feedback on multiple drafts into the assignment requirements, process is factored in simultaneously. This system rests on the premise that good writing is the result of feedback and revision, and assumes the opportunity to obtain feedback on drafts of a text before turning it for a grade will improve the writing (Duarte Marinho, 2007; Wiltse, 2002).

What has been examined in relation to the would-be variable of assignment type is the timing of when the feedback is offered; that is, on a draft versus in assigning the final grade (Bharuthram & McKenna, 2006). Findings of these studies have consistently demonstrated that in order for feedback to be effective, students must have the opportunity to understand and internalize the grading criteria. Hence, having to complete a number of static writing assignments over the course of a semester, all with the same grading criteria seems that it should have a similar effect as receiving feedback and revising a single assignment, as students would

have an equal opportunity to internalize the grading criteria through repeated exposure.

However, this supposition has yet to be empirically tested.

Methods of Examining Feedback

While researchers have discerned that “the type of feedback is crucial” (Bharuthram & McKenna, 2006, p. 497), previous studies have not been entirely successful in revealing exactly which dynamics are able to reliably facilitate the desired outcomes most instructors hope to achieve by offering feedback. Within this body of work, the specific study of feedback is often regarded as a sub-topic of the larger discussion pertaining to the writing process, as feedback is considered a single component in one phase of the process (i.e., prewriting, composition, feedback/ assessment, and revision). This has resulted in few studies that pertain exclusively to feedback as the subject of the research, and in examining those that do, it is evident that the findings cannot always be extrapolated beyond the context of the study itself (Guénette, 2007). The following discussion presents a review of the variables that have been revealed in the literature as possibly having a catalyst effect in the effectiveness of feedback.

Student Attributes

Researchers have repeatedly explored feedback as the sole mechanism affecting an improvement in writing proficiencies. However, such methodologies fail to consider that the written text is only the “tip of the iceberg,” and that there are many other variables, that must also be considered in combination with feedback in order to accurately assess the level of influence each has on the writing. That is, “...there are a myriad of variables that enhance or inhibit students’ writing performance and the scores they achieve” (Chai, 2006, p. 199).

Writing is clearly influenced by affective domains that are both emotional and cognitive in nature. Researchers have suggested that such variables likely include the student’s attitude

toward writing (Graham, Berninger & Fan, 2007; Maimon, 2002), the student's writing habits (Boice, 1989), the student's ability to self regulate (Kellogg, 2004) and/or the student's perception of him/herself as a writer (Lavelle & Zuercher, 2001). In an illustration of how these variables interactively affect student writing, Kear, Coffman, McKenna & Ambrosio (2000) note that when students perceive of themselves as an incompetent writer, their level of engagement in writing activities is significantly lower. Likewise, Bottomley, Henk & Melnick (1998) stated that, "individuals who hold positive writer self-perceptions will probably pursue opportunities to write, expend more effort during writing engagements, and demonstrate greater persistence in seeking writing competence" (p. 287).

It is important to note here that in most cases, it is probable that any or all of these affective variables may play a role in terms of the efficacy of the feedback regardless of whether or not they can be controlled for within the bounds of the research methodology. That is, it is unlikely that feedback alone leads to improvement; rather these variables are interrelated dynamics, working in combination and influencing the student's writing decisions. Furthermore, one must understand that while it may be possible to tease apart these affective domains in order to examine how each aspect influences the effectiveness of feedback, these processes should be thought about holistically, as that is how they operate in reality (McLeod, 1987). That is, "...when everything is said and done, unfortunately, if the students are not committed to improving their writing skills, they will not improve, no matter what type of feedback is provided" (Guénette, 2007, p. 52).

Methodological Choices

Some seemingly common methodological choices tend to limit the findings of the research pertaining solely to feedback. First, many studies have relied on low participant numbers with

data gathered via cross-sectional research designs. This alone limits the generalizability of the findings, as it makes it difficult to determine if feedback alone served as an impetus for change if one occurred. It also makes it difficult to determine with any degree of certainty that improvement is a direct result of the feedback and not a spurious or unexamined variable.

Similarly, writing is typically an individual activity and it can be difficult to control the conditions of a study that examines feedback in such a way that the findings are truly reflective of the conditions that will facilitate improvement across student populations. In exploring this idea further, one might consider the level of one student's writing proficiency relative to the other students in the classroom. In this case, as in any classroom, it becomes almost impossible to delineate precise findings, as one student may appear to improve significantly when compared to another, although he/she may have been a better writer in the first place. This issue might be addressed by performing a "true experiment" in which control and treatment groups are used (Campbell & Stanley, 1963). In this context however, this method would likely present ethical dilemmas if applied in a natural classroom setting, as most instructors would be uncomfortable providing help to only a select group of students. Hence, this issue might better be addressed by collecting a baseline sample of the student participant's writing and subsequently using several writing samples over the course of the study, as this would provide the opportunity to assess proficiency and differentiate those students who require additional help. One must remain cautious in doing so as a research practice however, as this has the potential to influence the outcome of the study. That is, it presents a threat to validity, as the results would likely vary from one test to the next (i.e., test/re-test).

Another limitation of the existing research is the vast diversity in the various aspects of the writing under consideration (i.e., the aspect of the writing to which the feedback pertains). For

instance, while some researchers have only explored the efficacy of feedback provided on issues of the writing trait, *grammar*, others have explored it by considering feedback that pertains to the traits of *content* and *organization*. Here, the improvement of writing based on feedback that only pertains to issues of grammar is sure to have a very different influence than feedback provided on content and organization. In such cases, it seems evident that the findings from one study would be technically incomparable to the other.

Likewise, concerns of inter-rater reliability may also limit the extent to which existing findings can be extrapolated to other feedback scenarios. In terms of replicating a study, it is important to consider the individual observations, intentions and commenting style of the rater providing the feedback among other things. Here, generalization of research outcomes must be undertaken with extreme caution, as the “personal characteristics” of the rater are usually unknown but potentially influential to scoring. One way that findings might be more reliably replicated by another researcher is by employing a common set of criteria contained within a rubric. This would limit the subjectivity of the feedback by keeping the rater focused on the criteria being applied to the writing.

Finally, some methodologies have lacked the degree of specificity and/or reliability necessary to generate conclusive findings, such as those that have been qualitative in nature (e.g., interviews with writers, documented observations, suggestions for “best” practices, content analysis of student-teacher communications). This is not to say that qualitative research has not been important in the study of writing. On the contrary, these methods have been used to build the body of knowledge about writing in a number of ways.

However, while qualitative research might effectively be used for exploring and/or identifying relevant variables, it often falls short of providing a clear answer regarding the

conditions that make feedback significantly (i.e., statistically) more or less pragmatic. In addition, it typically fails to provide consistency from one observation to the next, thus, leading to anecdotal information that may or may not be reliable in contexts outside of the study (Heyden, 2004; Mirador, 2000; Perpignan, 2003; Straub, 2002; Weaver, 2006). This lack of generalizability often results because the methods are better suited for addressing certain types of research hypotheses, such as investigating “how particular people in particular contexts interpret or make sense of everyday interactions” (Schultz, 2006, p. 359). As noted, combining various methodologies to examine the subject using a triangulation strategy could serve as a check to balance these inconsistencies; however, this strategy has rarely been deployed.

In light of the limitations, however, previous research has provided a foundation for more rigorous empirical examinations, as these studies have been successful in revealing several dynamics that likely contribute to the overall effectiveness of feedback communications and processes. Some of these dynamics include the effect of student attributes (i.e., attitudes and writing habits) (Boice, 1989), the method by which the feedback is presented (McGarrell & Verbeem, 2007), characteristics of the assignment (Kynell-Hunt & Savage, 2003), and the use of holistic versus analytical assessment of the writing (Hayes, Hatch, & Silk, 2000; Schoonen, 2005). The discovery that each of these variables likely plays a role in the feedback process provides the basis for creating a methodology with a greater degree of specificity, as it becomes more feasible to account for a majority of the noted limitations.

Conclusion

The importance of feedback is evident. “For students, faculty feedback on a paper serves as a road map – a way to measure where they have come from, where they have gone, and where they can go in the future” (Stern & Solomon, 2006, p. 24). Feedback provides students with a way to

determine whether or not they have clearly and effectively communicated their ideas via writing, and ideas for how they might improve their writing on future assignments. This may be why past research reminds us that, “students expect feedback from their teachers and generally feel that it helps them” (Guénette, 2007, p. 51).

However, problems with feedback can abound for a variety of different reasons. Schoonen (2005) observes that:

In writing assessment numerous sources of variance other than the writing ability of the students contribute to the variance in writing scores. Possible sources of variance are the topic the student writes about (e.g., prescribed or self-chosen), the discourse mode, text type or genre that is required (e.g., description, exposition, narrative or argumentation), the time limits imposed, the writing mode (e.g., paper-and-pencil or text processor), the testing conditions, rater inconsistency, scoring procedure (e.g., holistic or analytic), and traits to be scored (Content, Language Use or Spelling), to name but a few. (p. 2)

This multitude of potentially relevant variables presents several challenges for those charged with providing feedback that will effectively motivate individual students to improve their writing. In other words, which of these is most important in creating an effective method of responding to student writing? For this reason, the present study sought to begin to address such limitations by determining which dynamics render feedback most effective; thus resulting in empirically grounded improvements across student writing assignments.

CHAPTER III

Methodology

This study attempted to build on the existing body of research that examines the use of written feedback as a means for advancing student writing proficiencies. Because past studies have been successful in revealing several dynamics (i.e., variables) that likely contribute to the overall effectiveness of feedback communications and processes, the present study deployed a mixed methodology using previously validated pre- and post-intervention survey instruments within a quasi-experimental design to construct a more rigorous method which was believed to be capable of capturing the influence of the variables and variable combinations (e.g., student self perception, student work habits, assignment attributes, function/purpose for offering feedback, and holistic versus analytical assessment).

More specifically, this methodology was used to determine which combination of feedback method (i.e., holistic versus analytic assessment) and assignment type (i.e., progressive or non-progressive) was most effective at improving university-level students' written assignments. The method also allowed for the concurrent examination of the attributes suggested across the literature as pertinent (i.e., student characteristics (baseline proficiency, demographics, school information [major, first generation, year in school], self-reported work habits and student self-perception as a writer) in order to determine the degree to which each of these variables likely influences the feedback communication.

In collectively examining these variables, the present study attempted to advance the literature in three ways. First, the study was intended to provide a more rigorous methodology than has been used in prior research. This was accomplished by deploying the study in a "natural classroom setting" and controlling for those attributes of the feedback communication --

feedback method and writing assignment type -- believed to influence the effectiveness of the feedback. In addition, the methodology allowed for the exploration of potential theoretically relevant student attributes (i.e., self perception, attitudes and other characteristics) both before and after the feedback intervention. This provided insight as to which of the identified attributes was most likely to influence the effectiveness of the feedback.

The second way that this study attempted to advance the literature was by providing a method that could be easily replicated in exploring the influence of written feedback on student writing progress. Here, a rubric was used as the basis for all feedback provided as well as a standard scoring mechanism. While the quasi-experimental design called for only half of the student participants to receive a copy of this rubric with their assignment, it was nonetheless used to assign a score and provide feedback on all student writing assignments. As such, the findings were meant to present empirically grounded support for a practical method by which to offer written feedback on student assignments. This section of the thesis provides a detailed explanation of the methodology deployed.

Institutional Review Board Procedures

Approval from the university's institutional review board (i.e., the Human Research Review Committee [HRRC]) was obtained during December of 2008, prior to the initiation of data collection (IRB #08-88-H). As required by IRB protocol, each student participant was provided with information regarding: 1) the purpose of the study, 2) the reason(s) they were selected for participation and the voluntary nature of the data collection, 3) assurances that would be taken to guarantee confidentiality of personal information, and 4) data collection procedures. Thereafter, signatures for informed consent were obtained from each student participant.

Operationalization of the Relevant Variables

For the purposes of this research, the key terminology was defined as follows:

1. Feedback Communication: A general term referring to the circumstances surrounding each instance in which feedback is provided on a student's writing assignment, and encompasses the delivery method (i.e., written, peer review, etc.), the method used to respond - holistic versus analytic (i.e., with or without a rubric), the timing of the feedback, the nature of the feedback message (i.e., formative or evaluative), the level (i.e., specific, non-specific or grade only) and its intended purpose.
2. Feedback Method: The method by which feedback is communicated to the student writer. Feedback methods have included written comments and/or suggestions, audio recordings, oral feedback delivered via a one-on-one conference and peer review.
3. Progressive Assignment: An assignment that requires the student to produce several drafts of a single assignment prior to turning in the final paper. The student receives feedback on each draft and is expected to incorporate this into the final paper.
4. Non-progressive Assignment: An assignment for which no rough drafts are to be turned in prior to the final paper.
5. Holistic Assessment: The practice of scoring the quality of student writing without a rubric. In using this method, the instructor bases his/her feedback on the internal criteria (i.e., personal criteria) that he/she deems necessary for "good" writing.
6. Analytical Assessment: The practice of scoring the quality of student writing using a writing rubric with pre-determined traits/domains as the basis for the feedback. The student is given a score for each trait/domain of the rubric, which indicates their level of proficiency within that trait/domain.

7. 6-Trait Writing Assessment: An assessment model that examines six different traits/domains of writing (i.e., organization, content, voice, sentence fluency, word choice, and grammar & mechanics) to determine areas of weakness and strength in the written assignment; thereafter, each of the six traits is individually scored. This assessment model was created by Spandel (2005) and was used in the present study.
8. Assignment Scenario: The context of the written assignment. This could include a written assignment that is turned in only once time for a final grade, or an assignment that is written by way of multiple drafts.

Research Hypotheses

In order to address the general research questions presented in the introductory chapter of this thesis, it was necessary to first outline the null hypotheses to be tested. Thus, the present study was conducted based on the following questions and subsequent null hypotheses:

Research Question 1: Is the feedback method (i.e., holistic versus analytical) predictive of the rate of student writing progress across students?

Research Question 2: Is the assignment type (i.e., progressive versus non-progressive) predictive of the rate of student writing progress across students?

H₁: There is a positive relationship between feedback and student writing progress.

Null₁: There is no positive relationship between feedback and student writing progress.

H₂: There is a relationship between how the feedback is delivered (i.e., analytical/use of a rubric versus holistic/no rubric) and aggregate rate of student writing progress.

Null₂: There is no relationship between how the feedback is delivered and aggregate rate of student writing progress.

H₃: There is a relationship between how the feedback is delivered (analytical versus holistic) and phased rate of student writing progress (observed at specific points throughout the semester).

Null₃: There is no relationship between how the feedback is delivered and phased rate of student writing progress.

H₄: There is a relationship between assignment type (i.e., progressive versus non-progressive) and aggregate rate of student writing progress.

Null₄: There is no relationship between assignment type and aggregate rate of student writing progress.

H₅: There is a relationship between assignment type (i.e., progressive versus non-progressive) and phased rate of student writing progress.

Null₅: There is no relationship between assignment type and phased rate of student writing progress.

H₆: There is an interactive effect between how the feedback is delivered (i.e., analytical/use of a rubric versus holistic/no rubric), the assignment type (i.e., progressive versus non-progressive) and aggregate rate of student writing progress?

Null₆: There is no interactive effect between how the feedback is delivered, the assignment type and aggregate rate of student writing progress.

Research Question 3: Which student attributes (baseline competency, demographics [age, race, gender, etc.], school information [major, first generation, year in school]), self-reported work habits and classroom context (class size/instructor) are significantly related to the rate of student writing progress across students?

H₇: Student writing progress, as measured by cumulative rubric scores, is influenced by student attributes, school information, and/or classroom context.

Null₇: Student writing progress, as measured by cumulative rubric scores, is not influenced by student attributes, school information, and/or classroom context.

Scope of the Research

The research was conducted at a four-year, Midwestern university serving a population of both traditional and nontraditional students. Total enrollment for the university in 2008 was approximately 20,000 students. The data was collected during the Winter 2008 semester, over four sections of a course entitled, *Introduction to Criminal Justice*, which were delivered traditionally (i.e., lecture within a classroom setting) during both morning and afternoon class periods. Sections selected for survey were derived by means of a convenience sample of students enrolled in multiple sections of the introductory courses. The participants of this research included all students enrolled in each of the four courses (i.e., 100% participation rate). This combination of course sections produced a total research “N” of 238 student participants. Each of the students enrolled in the four sections received the benefit of feedback on their written work whether they chose to participate in the study or not, as written assignments (and subsequent feedback) were part of the standard course requirements. Moreover, it would have been unacceptable to provide writing support in the form of feedback to some students but not others. In providing this feedback, each student had the opportunity to benefit from the intervention regardless of whether or not he/she chose to participate in the study through survey collections.

Traditionally, this introductory course has been offered as a theme course¹, and draws students from several diverse areas of study, as opposed to only criminal justice majors. This was also evidenced across the sample population of the present study as presented in Figure 1 below.

Figure 1: Student Participant Majors

Major Area of Study	Count	Major Area of Study	Count	Major Area of Study	Count
Accounting	8	History	1	Engineering	1
Advertising	2	Hospitality & Tourism Mgt	6	English	1
Art	1	Information Systems	1	Exercise Science	2
Art Education	1	International Business	2	Film & Video	4
Biology	7	International Relations	2	Finance	5
Biomedical Science	7	Journalism	3	Forensic Accounting	1
Broadcast Journalism	1	Legal Studies	1	Graphic Design	1
Business	30	Liberal Arts	1	Health Professions	6
Chemistry	1	Marketing	6	Pre-Med	1
Cinema Studies	1	Mechanical Engineering	1	Psychology	13
Clinical Lab Sciences	2	Music	1	Public Relations	4
Communications	7	Nursing	7	Sociology	2
Computer Engineering	1	Nutrition	1	Spanish	2
Computer Science	5	Occupational Therapy	1	Sports Management	1
Criminal Justice	13	Photography	2	Writing	1
Electrical Engineering	1	Political Science	6	Undecided	44
Elementary Education	4	Pre-Health	1		

Other student demographic data including age, race, gender, and class standing was also collected by the researcher, and subsequently analyzed using a Chi-Square 'Goodness of Fit' test (see Chapter 4) to determine whether or not the cross-sectional sample employed in the present

¹ A theme course is defined by the university as a course that must be taken as part of the general education requirement. Such courses are divided into four groups, and students select one course from each group. The courses in Group A are designed to teach students to reason formally. Courses in Group B are designed to provide students with an intellectual encounter with foreign and multicultural perspectives. The courses in Group C explore the history of Western civilization. In the courses in Group D, students are encouraged to examine values and ideas critically.

study was representative of the other populations enrolled in a Criminal Justice 101 theme courses during the Winter 2008 semester. This demographic data is presented in Figure 2.

Figure 2: Student Participant Demographics

Student Demographics			
<u>Class Standing</u>		<u>Heritage</u>	
Freshman	64%	Caucasian	81%
Sophomore	22%	African American	9%
Junior	10%	Asian	5%
Senior	4%	Hispanic	3%
<u>Age</u>		<u>Other</u>	
18	47%		
19	30%	<u>Gender</u>	
20	15%	Female	52%
21 and older	9%	Male	48%

While each of the courses were taught by separate instructors, the content of the assignments (i.e., the assignment instructions and grading criteria) and the verbal instructions remained static within the quasi-experiment, which is described in greater detail in the following section (refer to Appendix D: Student Writing Assignments). In addition, a single rater using previously validated criteria in the form of a rubric instrument provided the feedback for each of the assignments (refer to Appendix C: Rubric and Related Documentation). It is expected that this likely increased both internal validity and the reliability of the study.

Instrumentation

Survey

Researchers have established that the quality of student writing can be impacted by a variety of factors to include the student's level of confidence (Kellogg, & Raulerson, 2007), work habits (Boice, 1989; Solomon & Rothblum, 1984), feedback preferences and understanding (Montgomery & Baker, 2007), and the level of self-efficacy (Boice, 1990; White & Bruning,

2005; Boscolo, Arfé & Quarisa, 2006). Moreover, it appears that a relationship likely exists between attitude/writer self-perception and action when it comes to students and writing. Here, researchers suggest that the importance placed on the writing task will be equal to the level of effort taken to improve those skills (Williamham, 1990). For this reason, the student participants of the present study were asked to complete two surveys over the course of the semester to empirically measure each student's feedback preference, self-perception as a writer, work habits and perceived proficiencies related to writing both pre- and post-intervention. This provided a measurement for assessing the significance of these variables as they "interact" with the feedback, and to check the impact of the intervention on these affective domains.

The purpose and a brief overview of the first survey was systematically shared with all students prior to their completing it. Each survey took approximately 15 minutes or less to complete, and was given with instructor permission during class time. The first survey was given during the first week of class, prior to the students receiving the first written assignment, and the second survey was given during the final week of the course, after all written work for the semester had been completed and returned to the student.

The survey questions were drawn from previously validated instruments used to capture data in the areas of writing-related attitudes and apprehension (Rhoads, Duerden & Garland, 1998; Bottomley, Henk & Melnick, 1998), work habits (Solomon & Rothblum, 1984) and feedback preferences (Montgomery & Baker, 2007). Some of the survey questions were re-worded slightly to adapt the vocabulary, not content, for college-level students. To this end, the survey was used to capture information related to those attitudes/self-perceptions and habits that might interact with the "feedback intervention" in an effort to determine which combination of variables should be considered when providing feedback.

Quasi-Experiment

Because the study deployed a mixed methodology, the pre- and post-intervention surveys were integrated using a quasi-experimental design. This design called for each of the four courses to be assigned to one of two types of written assignments, either progressive or non-progressive. Each course was also assigned a feedback method; either holistic or analytical. By aligning the courses in this manner, it was possible for each type of assignment to be paired with a feedback method that was opposite what the reverse course was receiving. In other words, one of the progressive courses received holistic feedback, while the other progressive course received analytical and vice versa with respect to the non-progressive courses. This research strategy is represented below in Figure 3. A visual model that represents this strategy in greater detail is also provided as Appendix B: Visual Methodology.

Figure 3: Research Strategy

Pre-Intervention Survey		
Section	Assignment Type	Feedback Method
1	Progressive	Analytical
2	Progressive	Holistic
3	Non-progressive	Analytical
4	Non-progressive	Holistic
Post-Intervention Survey		

Progressive Assignments

The progressive writing assignments required the students to complete four drafts of a single written assignment (i.e., a position paper) over the course of the semester. In this case, the students produced a final paper by means of writing incremental sections of the paper to meet course-imposed deadlines. Upon completion of a section/draft, students received written feedback on their work. Feedback comments were written in the margins and at the end of each

subsequent draft of the assignment. Additionally, a rubric was attached to the assignments of those students slated to receive analytical feedback. The principle investigator made copies of each student's paper to compare the feedback to any revisions made as part of the final draft.

Students were encouraged to revise their writing as suggested (i.e., they could choose to accept or reject the feedback) prior to completion of the final draft. The progressive assignment drafts consisted of producing: 1) the introduction and an outline for the rest of the paper, 2) the arguments of the position taken and the counter-arguments, 3) the conclusion, and 4) the final draft. The final draft was worth 20%² of the student's final grade, while each section of the assignment was also worth 20%. The total required page length of the final written draft was to be between 10 and 12 pages.

Non-Progressive Assignments

The non-progressive assignments required the students to complete four separate written assignments (i.e., position papers) over the course of the semester. This required students to produce shorter papers (e.g., approximately 2 pages each) to meet course-imposed deadlines but to arrive at the end of the term with approximately "same" amount of written product thereby minimizing "amount of writing" as a variable. Upon completion of a paper, feedback comments were written in the margins and at the end of each assignment, and rubrics were attached to the assignments of those students slated to receive analytical feedback. Students were encouraged to revise their writing based on this feedback (i.e., they could choose to accept or reject the feedback), in an effort to improve upon subsequent writing assignments.

The principle investigator made copies of each student's paper to compare the feedback to any revisions made as part of the final draft. These assignments were worth 20% of the student's

² Course instructors of record collectively determined the total value of the assignment in terms of the final course grade.

final grade. Taken together, these assignments were also to total between 10 and 12 pages of writing when combined.

Feedback

Written feedback was provided to students using one of two feedback methods, holistic or analytical, and was meant to guide the student toward improving his/her writing. In addition, the feedback was provided by a single rater (i.e., the primary researcher) in an effort to minimize any differences with respect to how it was offered, thus increasing the consistency of the feedback content. The feedback was coded based on the traits of a previously validated rubric, which is described in the following section, to achieve consistency and accuracy regardless of whether or not the student was slated to receive a copy of the rubric according to the specific treatment of the course he/she was enrolled in per the quasi-experimental design. It was anticipated that the feedback would assist the student in improving his/her writing proficiencies and, ultimately, his/her grade beyond what is traditionally offered by instructors. This assumption is based on the context in which the feedback was offered; the principal investigator was solely focused on providing the student highly detailed feedback, whereas the instructor may or may not have offered less detailed feedback resulting from balancing multiple other responsibilities in addition to providing feedback on student writing.

Rubric

The rubric used in scoring the written assignments was derived from the trait-based assessment model that was developed and validated by Spandel (2005). This model offered a way for students to learn and use a common language in referring to the characteristics of writing, and provided the opportunity for the researcher and student to form a shared vision of what “good” writing looks like. Trait-based rubrics have traditionally been used to pinpoint areas

of strength and weakness with respect to the areas of the text that do or do not need improvement. The six traits that were reviewed included organization, content, sentence fluency, voice, word choice and conventions (see Appendix C: Rubric and Related Documentation). In determining the score for each trait, the principle investigator used a scoring continuum that accompanied the rubric. This continuum relied on the assignment of a score between one and five based on the level of proficiency demonstrated by the student in their written work, where a score of one was the lowest (ineffective) and a score of five was the highest (strong) as shown in Figure 4. Additionally, the researcher's scoring of each particular trait was guided by a continuum table that listed a description of the trait as it would correspond to each of the five scoring categories.

Figure 4: Scoring Continuum

Ineffective ← 1	Emerging 2	Developing 3	Proficient 4	Strong → 5
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While all written feedback was based on the previously described rubric, it was presented to the students either holistically (i.e., without a grading rubric) or analytically (i.e., with a grading rubric) to determine whether or not this variable had an influence on the level of writing proficiency demonstrated by the student. For those courses randomly selected to receive the “analytical” method of feedback, scores for each trait as well as feedback corresponding to each criterion of the rubric were written on a separate grading sheet (i.e., that corresponded to the rubric categories) and was attached to the front of the assignment. In addition, feedback was provided throughout the student's assignment. The two courses randomly selected to receive the “holistic” method of feedback did not receive a copy of the rubric; only written feedback throughout their assignment.

While the researcher used a highly detailed rubric instrument to determine scores for each trait, a simplified version of the rubric was created for those students slated to receive a copy of the rubric per their assigned group within the quasi-experimental design. The rubric instrument and all accompanying materials have been provided for review in Appendix C: Rubric and Related Materials.

Limitations

The purpose of this section is to review the potential limitations of the present study that, as with all research, should be considered when interpreting the data and findings. The study sought to provide a rigorous methodology that would inform the understanding of the feedback and revision process, as opposed to exploring and/or describing it. While each type of inquiry (qualitative and quantitative) has its own limitations and weaknesses, these can complement one another when taken together. With respect to each of the limitations described herein, the researcher took steps to minimize the impact of each within the constraints of the study design.

Due to the nature of the subject under consideration, limitations were inherent as the writing process, including the review and incorporation of feedback, generally takes place outside of a controlled environment. This fact is not a limitation in and of itself, as the student typically attempts revision activities independently; rather, the limitation is that it may be difficult to capture every intervening variable impacting the student's decisions with respect to the feedback. While this has been a recurrent problem across the feedback literature to date, other studies pertaining more directly to the writing process have provided valuable insight as to a number of potentially relevant variables that likely influence the efficacy of the feedback such as the student's attitude toward writing, the student's work habits and/or the student's self-perception of themselves as writers. Moreover, methods for exploring these variables relative to the

feedback communication were incorporated into the study design using previously validated survey questions and instruments.

Surveys as a method however, generally present additional limitations with respect to the value of the data collected. For example, survey participants are asked to self-report on behaviors they feel are not socially acceptable in a university setting; procrastination, poor study habits, writing difficulties, general dislike for writing, belief that they have poor writing skills, for example may produce responses influenced by social desirability. In other words, a student may be inclined to provide untruthful answers. Another example of how survey data may be limited is that the respondent may define the concepts different than the researcher (i.e., procrastination, study/work patterns, what good writing is, etc.). In this respect, survey data is limited in that it offers no opportunity for qualitative interpretation of the answer. Thus, some questions must remain unanswered.

While repeated measures were employed to enhance research rigor, the research nevertheless took place over a single semester during 2008, and while it is assumed that the intervention (i.e., the feedback that students received on their written assignments) was the impetus for the improvement demonstrated by many student participants, it is possible that the improvement will not be long-term. In other words, findings that suggest improvement across student writing proficiencies may be temporary in the sense that the student has learned to interpret what the instructor wants based on the feedback provided. Therefore, as the student moves on to future courses, the next instructor may have a very different interpretation of the criteria for “good writing.” Hence, while the researcher made every effort to define the traits of good writing using the most universally accepted criteria possible, some instructors evaluate student writing by different standards.

With respect to the feedback itself, another potential limitation may be that the content of the feedback comments was not standardized. As described by Schoonen (2005):

The assessment of writing proficiency is notoriously difficult and problematic as can be inferred from several studies into the reliability and validity of writing assessment. The two major areas of concern are the rating reliability and the task reliability. Raters often diverge in their ratings of the same texts and often do not agree with themselves at different points in time. (p. 4)

The researcher made every effort to control for these concerns by providing every student with feedback that addressed the same six traits of “good” writing found in the scoring rubric. Thus, it was similar in this respect. It is acknowledged however that because the students received comments specific to his/her assignment, the consistency across feedback may have varied to some extent.

Issues related to maturity of the population may also limit the present research, as the scope of the population was primarily freshman and sophomore students. Students of this age group have typically not yet reached their full potential to practice and share introspective ideas. This is particularly important to note in considering the influence of feedback, as this may prevent the student from fully engaging in the revision process. In illustration of this point, the student may choose to simply incorporate the suggestions without much consideration as to how the feedback could be used to inform more extensive changes that would ultimately improve the writing. In this instance, the student may not identify the value of writing beyond the classroom context, and thereby fail to recognize the necessity of improving their writing.

Similarly, another potential limitation exists with respect to generalizability and the scope of the population dynamics (i.e., average age of population). The limitation is that the influences and effectiveness of feedback as evidenced by the current study population may not be generalizable to older, non-traditional student populations. However, while the population of the

present research was not representative of the entire university population, it is likely representative of a typical general education (i.e., freshman/sophomore) population in any university setting.

Delimitations

The scope of all research is bounded by the methodologies employed therein, as it is impossible to control for every conceivable aspect of the study in a majority of research contexts. This section seeks to define those limits with respect to the present study, as they should be taken into consideration when interpreting the findings.

First, a single rater (i.e., the researcher) provided the feedback, thus avoiding some potential threats to validity. The rater used a standardized and empirically validated rubric as the guide for providing all of the feedback, regardless of whether the student received a copy of the rubric or not (i.e., some sections of the population received a copy of the rubric along with the feedback while the other sections received only the feedback, as the rubric was a variable). This rubric required the rater to consider the writing with respect to six different trait categories that included organization, content, word choice, sentence fluency, grammar and mechanics, and voice. In addition, the rubric was accompanied by a continuum table listing questions pertaining to each of the scoring categories. This table was used as guidance by the rater to inform the score and feedback that was provided. Each trait category was given a score that ranged from one to five, with one being the lowest score (i.e., the student demonstrated no understanding of the trait) and five being the highest (i.e., demonstrated the trait effectively). Because the categories, scores and guiding questions used to assign scores were predetermined by the rubric and accompanying materials (i.e., accompanying chart/questions), it will be possible to replicate such a model for future studies. However, the possibility for replicating the study exactly is limited, as the

feedback is confined to the rater's interpretation of the rubric/feedback categories. Moreover, this is compounded by the fact that the writing and the feedback are a byproduct of the specific time, place and participants involved.

Second, because the feedback in this case was provided as part of a study, it may have been possible that students were more attentive to incorporating it into their writing assignments than they would otherwise have been had they not been a part of a study (i.e., the Hawthorn Effect). However because each assignment was part of the regular coursework, allowing the student to earn a predetermined number of points regardless of the quality of the work (i.e., it was not graded per se, but was instead given credit or no credit), and because the writing took place over the course of an entire semester, students likely viewed the work as routine as opposed to a special test of their writing proficiency. Therefore, any effect was expected to be insignificant.

It is also worth noting that human error may also have had some influence on the feedback communications, as mood, fatigue of the rater, and time constraints (i.e., not all of the 200+ papers could be reviewed in one sitting) are always a concern in providing adequate and equal feedback on all student assignments. Therefore, while the influence may have been insignificant within the greater scheme of the research design, it is nevertheless an issue for consideration.

Finally, the level of improvement demonstrated by individual students was based, to some degree, on whether or not the student was a good writer to begin with. The researcher attempted to control for this by capturing individual student "baselines" prior to initiating the feedback intervention. This is important to note as baseline competencies affected the feedback that the rater was able to provide. Here, the research design originally required the rater to provide only one of two types of assigned feedback – formative or evaluative; formative consisting of questions about specific sections of the text intended to initiate revisions of those sections, and

evaluative consisting of directive comments pertaining to the overall quality of the written assignment to include organization, clarity, word choice, grammar and mechanics (McGarrell & Verbeem, 2007). However, it became clear as the study progressed that to be fair, some students would require both types of feedback. For instance, when issues of basic grammar and mechanics were a serious concern, it was impossible to shape the feedback into a question that the student would be able to effectively interpret. Rather, it is more practical to tell the student that there was a problem and subsequently list the concerns (i.e., “Please consider correcting your comma usage, misspellings, and capitalization errors.”). Therefore, the rater had to offer more evaluative feedback in the beginning, as it was difficult to address the more complex writing issues if the student appeared not to comprehend basic writing “tools” (e.g., basic grammar rules, use of complete sentences, organization of ideas, comprehension of assignment requirements). In order to compensate for this issue, the rater offered predominately the type of feedback assigned, rather than strictly the type of feedback assigned to allow for certain student characteristics and fairness in grading – a research practice known as emergent design.

Analyses

The following protocols were used to analyze, and subsequently report on, the data that was collected for this research.

Chi-Square ‘Goodness of Fit’ Test

The Chi-Square ‘Goodness of Fit’ protocol was used to test the generalizability of the research findings. This comparative analysis was deployed using the demographic variables of age, race and gender. Comparative information for the statistical test was derived from university census data on undergraduate students enrolled in a CJ 101 theme course during the study’s

temporal parameters (i.e., Winter 2008 semester), and information gathered by the researcher on student respondents that had been methodologically selected for research participation.

Repeated Measures

The Repeated Measures protocol using a multivariate approach was employed in order to measure the rate of student writing progress between each of the assignment phases and in combination with one or more of the treatment variables (i.e., assignment type and feedback method). In other words, it is possible in using this protocol to test hypotheses that compare the same subjects under several different treatments, or those that follow performance over time. For example, “a well-known repeated measures design is the pre-test/post-test experimental design, with intervening treatment which measures the same subjects twice over an intervally-scaled variable” (Minke, 1997, p. 1).

Backward Stepwise Regression

A Stepwise Regression using the backward elimination function was used to scale down the pool of theoretically relevant variables defined by the literature. During this procedure, all potential variables were included in the analysis. This protocol then automatically tested them one by one for statistical significance, deleting any that were not significant. Thereafter, the variables identified as significant in the present research were used to create a ‘best-fit’ model in order to perform a Linear Regression procedure.

Linear Regression

A Linear Regression can be used for the purpose of predicting a relationship between variables (i.e., Are $X_1 - X_9$ related to y) when several independent variables are present in a model. The protocol can also be used to quantify the strength of the relationship between y and the X , to assess which X may have no relationship with y at all, and to identify which subsets of

the X contain redundant information about y , so that once one of them is known, the others are no longer informative (Salkind, 2008). A Linear Regression was used to model the relationship between each of the theoretically relevant independent variables and the dependent variable, rate of student writing progress.

Analysis of Variance (ANOVA)

An analysis of variance (ANOVA) was employed to test the interactive effect between how the feedback was delivered (i.e., analytical/use of a rubric versus holistic/no rubric), the assignment type (i.e., progressive versus non-progressive) and aggregate rate of student writing progress. This test was selected as is applicable in situations in which several interventions were applied to determine if the response variable values change (Salkind, 2008). In other words, it indicated the estimation of the ranges of response variable values that the intervention would generate in the overall student population.

The following chapter, *Analysis and Findings*, provides a detailed discussion of these analyses as they were used in analyzing the data for the present research.

CHAPTER IV

Analysis and Findings

This chapter details the statistical protocols that were employed to analyze whether variables of interest demonstrated a statistically significant influence on the rate by which student writing changed across the semester. Here, it was assumed that the potential variables, as identified across relevant literature, were more or less likely to influence any noted changes, whether positive or negative. Potential variables of interest included feedback method (i.e., holistic versus analytical), assignment type (i.e., progressive versus non-progressive), classroom context (i.e., instructor) and student attributes (i.e., demographics, writing instruction experiences, self-perception as a writer and writing habits/behaviors). Prior to conducting these analyses, a Chi-Square 'Goodness of Fit' protocol was employed to determine if findings were generalizable across the entire undergraduate student population enrolled in a CJ 101 course during the Winter 2008 semester.

Goodness of Fit

Because a convenience sampling methodology for student participant selection was employed, statistical analyses were conducted to compare the sample drawn to the total undergraduate student population enrolled in a CJ 101 theme course at the university during the Winter 2008 semester. This analysis informed the degree of generalizability of research findings produced as part of the current study. Specifically, a Chi-Square 'Goodness of Fit' analysis of the percentages of cases in these populations as a function of the demographic variables (i.e., age, race and gender) was conducted. Comparative information for these statistical tests was derived from university census data on undergraduate students enrolled in a CJ 101 them course during the study's temporal parameters (the Winter 2008 semester), and via information gathered by the researcher from student respondents who had been methodologically selected for

participation in this research. This analysis revealed that these comparisons demonstrated no significant difference across the respective variables of age, race, and gender as coded in the present study (refer to Table 1).

Table 1: Chi-Square 'Goodness of Fit' Test

Chi-Square 'Goodness of Fit' Test			
CJ 101 Theme Courses vs. Research Sample			
	CJ 101 Sample (n = 586)	Study Sample (n = 238)	Test Statistic & Results
Age			
18	41.8% (n = 245/586)	43.7% (n = 104/238)	Chi-Square = 6.978 df = 3 p-value = .073 No Significant Difference
19	31.8% 182	27.7% (n = 66)	
20	13.1% 77	14.3% (n = 34)	
21 and older	14.0% 82	8.0% (n = 19)	
Missing	0% (n = 0)	6.3% (n = 15)	
Race			
Caucasian	80.2% (n = 470/586)	76.1% (n = 181/238)	Chi-Square = 3.591 df = 2 p-value = 0.17 No Significant Difference
African American	6.5% 38	8.4% (n = 20)	
Other	11.1% 65	9.7% (n = 23)	
Missing	2.2% 13	5.9% (n = 14)	
* Note: Ethnic categories of 'Asian, Hispanic and Other' were collapsed for statistical comparison as a required conditions of the Chi-Square test (expected count in each category must be at least 5%).			
Gender			
Male	49.7% (n = 291/586)	47.5% 113/238	Chi-Square = 0.758 df = 1 p-value = 0.38 No Significant Difference
Female	50.3% 295	52.5% 125	
Missing	0% (n = 0)	0% (n = 0)	
** Note: all variables selected to compute statistical group comparisons were limited to available census data.			

Statement of the Hypotheses

As stated, the goal of this research was to explore the student and feedback attributes that influence the efficacy of feedback in relation to the rate of student writing progress. The three primary research questions are listed below. These are followed by the respective hypotheses and null hypotheses and the associated analyses of each.

Research Question 1

R₁: Is the feedback method (i.e., holistic versus analytical) predictive of the rate of student writing progress across students?

Research Question 2:

R₂: Is the assignment type (i.e., progressive versus non-progressive) predictive of the rate of student writing progress across students?

Research Question 3:

R₃: Which student attributes (baseline competency, demographics [age, race, gender, etc.], school information [major, first generation, year in school]), self-reported work habits and classroom context (class size/instructor) are likely significantly related to the rate of student writing progress across students?

Hypothesis 1

H₁: There is a positive relationship between feedback and student writing progress.

Null₁: There is no positive relationship between feedback and student writing progress.

In order to test **H₁**, a “Repeated Measures” analysis was conducted in SPSS, where student “baseline scores” identified via cumulative rubric scores were statistically compared to final “4th rubric scores.” This aggregate comparison between first and final cumulative rubric scores across the total population (n = 209) resulted in the following descriptive statistics, evidencing an 8.34 increase in cumulative rubric scores across the semester under review (refer to Graph 1 and Table 2). It is also worth noting that the standard deviations across these two Repeated Measures were nearly identical (i.e., .017 difference), meaning that the aggregate student population

advanced significantly and equally when provided with written feedback regardless of whether or not the feedback was holistic or analytical.

Graph 1

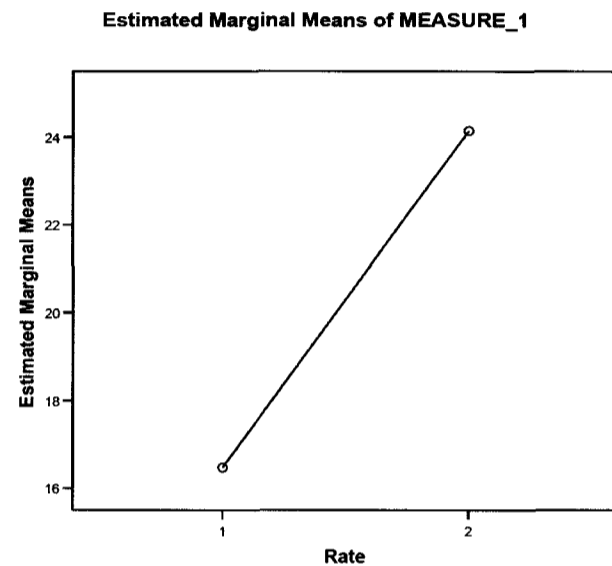


Table 2

Descriptive Statistics			
	Mean	Std. Deviation	n
Baseline Rubric Score	16.48	4.773	209
4th Rubric Score	24.14	4.790	209

Further analysis, using multiple Multivariate testing procedures confirmed a statistically significant difference between the aggregate “baseline rubric score” and the final “4th rubric score” (refer to Table 3).

Table 3

Multivariate Tests (b)						
Effect		Value	F	Hypothesis df	Error df	Sig.
Rate	Pillai's Trace	.704	494.283(a)	1.000	208.000	.000
	Wilks' Lambda	.296	494.283(a)	1.000	208.000	.000
	Hotelling's Trace	2.376	494.283(a)	1.000	208.000	.000
	Roy's Largest Root	2.376	494.283(a)	1.000	208.000	.000

- a. Exact statistic
 b. Design: Intercept
 Within Subjects Design: Rate

A condition (i.e., assumption) of these Multivariate tests includes “Sphericity.” The SPSS computer program (originally, Statistical Package for the Social Sciences) reported that the diagnostic condition of Sphericity had been met, as the Mauchly's Test of Sphericity was not statistically significant ($p = < .00$) (refer to Table 4). In other words, analysis indicated valid findings resulting from the Multivariate tests.

Table 4

Mauchly's Test of Sphericity (b)							
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon(a)		
					Greenhouse-Geisser	Huynh-Feldt	Lower Bound
Rate	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

- a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.
- b. Design: Intercept
Within Subjects Design: Rate

H₁ Findings: Data found no support for the null hypothesis. Analysis demonstrates a statistically significant positive relationship across aggregate rates of student writing progress, as measured via cumulative rubric scores. In other words, feedback, in whatever form, was related to an increase in writing scores across the academic semester. Therefore, the H₁ null hypothesis was rejected.

Hypothesis 2

H₂: There is a relationship between how the feedback is delivered (i.e., analytical/use of a rubric versus holistic/no rubric) and aggregate rate of student writing progress.

Null₂: There is no relationship between how the feedback is delivered and aggregate rate of student writing progress.

In order to test H₂, a “Repeated Measures” analysis was conducted in SPSS, where student “baseline scores” identified via cumulative rubric scores were statistically compared to final “4th rubric scores” across two groups – those respondents that received analytical feedback (use of a

rubric) and those that received holistic feedback (no rubric). This aggregate comparison between the first and final cumulative rubric scores by feedback type across the total population (n = 209) resulted in descriptive statistics evidencing an 8.55 cumulative increase in rubric scores for those receiving analytic feedback versus a 6.5 cumulative increase for respondents receiving holistic feedback (refer to Graph 2 and Table 5).

Graph 2

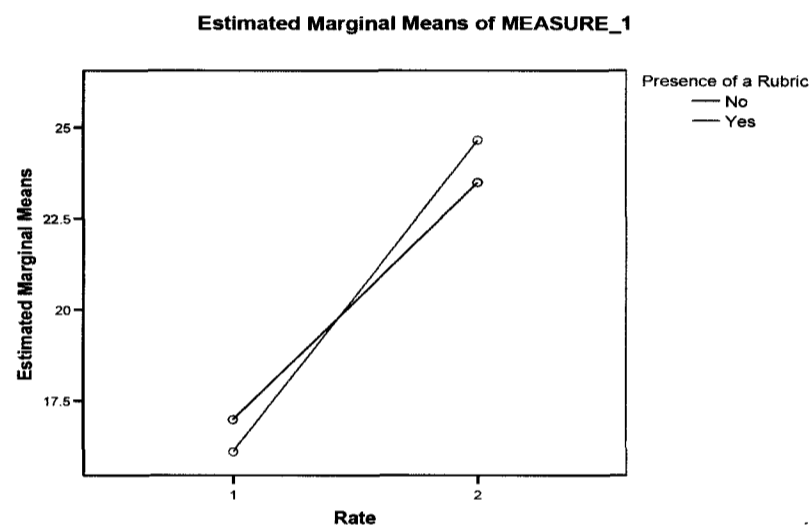


Table 5

Descriptive Statistics				
	Presence of a Rubric	Mean	Std. Deviation	N
Baseline Rubric Score	No	16.98	4.849	91
	Yes	16.09	4.698	118
	Total	16.48	4.773	209
4th Rubric Score	No	23.48	5.476	91
	Yes	24.64	4.140	118
	Total	24.14	4.790	209

Further analysis, using multiple Multivariate testing procedures, found a statistically significant difference between cumulative score progress by group – analytical vs. holistic (refer to Table 6).

Table 6

Multivariate Tests (b)						
Effect		Value	F	Hypothesis df	Error df	Sig.
Rate	Pillai's Trace	.702	487.458(a)	1.000	207.000	.000
	Wilks' Lambda	.298	487.458(a)	1.000	207.000	.000
	Hotelling's Trace	2.355	487.458(a)	1.000	207.000	.000
	Roy's Largest Root	2.355	487.458(a)	1.000	207.000	.000
Rate * RubricUse	Pillai's Trace	.042	8.996(a)	1.000	207.000	.003
	Wilks' Lambda	.958	8.996(a)	1.000	207.000	.003
	Hotelling's Trace	.043	8.996(a)	1.000	207.000	.003
	Roy's Largest Root	.043	8.996(a)	1.000	207.000	.003

- a. Exact statistic
b. Design: Intercept+RubricUse
Within Subjects Design: Rate

A condition of these Multivariate tests includes "Sphericity." Analysis indicated that the diagnostic condition of Sphericity had been met, as the Mauchly's Test of Sphericity was not statistically significant ($p < .00$) (refer to Table 7). In other words, analysis indicated valid findings resulting from the Multivariate tests.

Table 7

Mauchly's Test of Sphericity (b)							
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon(a)		
					Greenhouse-Geisser	Huynh-Feldt	Lower Bound
Rate	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

- a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.
b. Design: Intercept+RubricUse
Within Subjects Design: Rate

In considering the results of the statistical analyses in which the rate of writing progress demonstrated a positive increase when all four phases of the quasi-experiment were combined (where seemingly similar cumulative rates of writing progress were made in each group), it seemed possible that this trend in the rate of change could be more related to time than to rubric use. It was therefore determined that further analyses would be beneficial. Specifically, in order

to more accurately determine if cumulative rates of writing progress were influenced by type of feedback or external issues of validity, a Pairwise comparison using the Bonferroni protocol was employed in order to adjust for multiple comparisons. Here, analysis indicated that the cumulative rate of change previously identified as significant was more likely driven by external factors (e.g., maturation, regression to the mean) rather than by the type of feedback provided to respondents (refer to Table 8).

Table 8

Pairwise Comparisons						
(I) Presence of a Rubric	(J) Presence of a Rubric	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
No	Yes	-.138	.571	.809	-1.263	.987
Yes	No	.138	.571	.809	-.987	1.263

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

H₂ Findings: Data found mixed support for the null hypothesis. In other words, empirical evidence initially demonstrated a differential rate of student writing progress depending on the mode of feedback delivery. Specifically, while descriptive findings evidenced a substantively similar relationship in the rate of student writing progress, analysis of data found that the analytical method demonstrated a statistically significant increase in student writing scores when compared to the holistic method. However, further statistical analyses indicated that such change may have actually been more related to external factors not controlled for in the current study. Therefore, the H₂ null hypothesis was not rejected.

Hypothesis 3

H₃: There is a relationship between how the feedback is delivered (analytic versus holistic) and phased rate of student writing progress (observed at specific points throughout the semester).

Null₃: There is no relationship between how the feedback is delivered and phased rate of student writing progress.

In order to test **H₃**, a “Repeated Measures” analysis was conducted in SPSS, where student “baseline scores” identified via cumulative rubric scores were statistically compared by phase according to the method of feedback provided. This temporal comparison of the cumulative rubric scores at each phase by method of response across the total population (n = 182) resulted in the following descriptive statistics, evidencing cumulative increases of 3.04 from baseline to phase two, 2.03 from phase two to phase three, and 3.52 from phase three to phase four for those receiving analytical feedback versus 1.65 from baseline to phase two, 0.5 from phase two to phase three, and 4.07 from phase three to phase four for respondents receiving holistic feedback (refer to Graph 3 and Table 9).

Graph 3

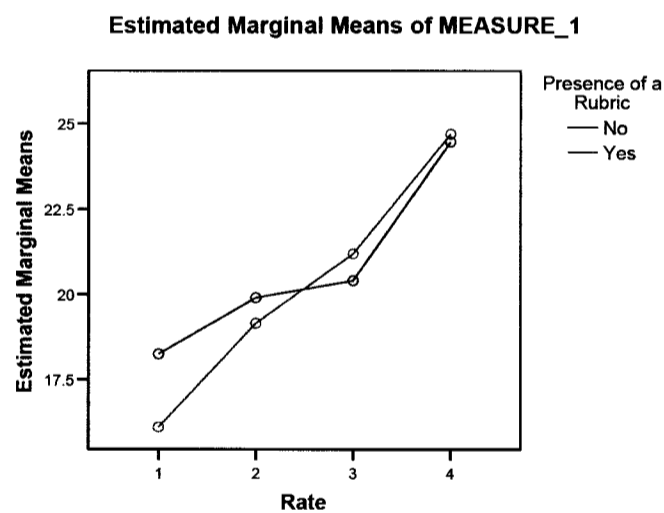


Table 9

Descriptive Statistics				
	Presence of a Rubric	Mean	Std. Deviation	N
Baseline Rubric Score	No	18.25	4.530	68
	Yes	16.11	4.736	114
	Total	16.91	4.763	182
2nd Rubric Cum Score	No	19.90	4.945	68
	Yes	19.15	4.239	114
	Total	19.43	4.517	182
3rd Rubric Cum Score	No	20.40	4.585	68
	Yes	21.18	4.318	114
	Total	20.89	4.424	182
4th Rubric Score	No	24.47	4.958	68
	Yes	24.70	4.079	114
	Total	24.62	4.416	182

In order to determine if cumulative rates of writing progress were influenced by type of feedback or external issues of validity, a Tests of Within-Subjects Contrasts protocol was employed in order to adjust for multiple comparisons. This analysis looked at the differences between phases to determine significance when a rubric was included. The results evidenced a statistically significant difference between phases 1 and 2 and again between phases 2 and 3 (refer to Table 10).

Table 10

Tests of Within-Subjects Contrasts						
Source	Rate	Type III Sum of Squares	df	Mean Square	F	Sig.
Rate	Level 1 vs. Level 2	937.256	1	937.256	48.953	.000
	Level 2 vs. Level 3	273.734	1	273.734	15.568	.000
	Level 3 vs. Level 4	2454.419	1	2454.419	149.807	.000
Rate * RubricUse	Level 1 vs. Level 2	83.102	1	83.102	4.340	.039
	Level 2 vs. Level 3	100.371	1	100.371	5.709	.018
	Level 3 vs. Level 4	13.166	1	13.166	.804	.371
Error(Rate)	Level 1 vs. Level 2	3446.310	180	19.146		
	Level 2 vs. Level 3	3164.860	180	17.583		
	Level 3 vs. Level 4	2949.097	180	16.384		

H₃ Findings: Data analysis found only partial support for the null hypothesis. Specifically, analysis of data demonstrated a significant difference in student writing progress across method of response by temporal phase. To this end, a statistically significant difference was realized in the rate of change between observations 1 and 2, and again between observations 2 and 3, dependent on feedback method. It should be noted that no statistical significance was evidenced with respect to method of response between observations 3 and 4. Therefore, the H₃ null hypothesis was rejected.

Hypothesis 4

H₄: There is a relationship between assignment type (i.e., progressive versus non-progressive) and aggregate rate of student writing progress.

Null₄: There is no relationship between assignment type and aggregate rate of student writing progress.

In order to test **H₄**, a “Repeated Measures” analysis was conducted in SPSS, where student “baseline scores” identified via cumulative rubric scores were statistically compared to final “4th rubric scores” across two groups – those respondents that completed a progressive assignment and those that completed non-progressive assignments. This aggregate comparison between the first and final cumulative rubric scores by assignment type across the total population (n = 209) resulted in descriptive statistics evidencing an 8.82 cumulative increase in rubric scores for those that completed a progressive assignment versus a 6.69 cumulative increase for respondents that completed non-progressive assignments (refer to Graph 4 and Table 11).

Graph 4

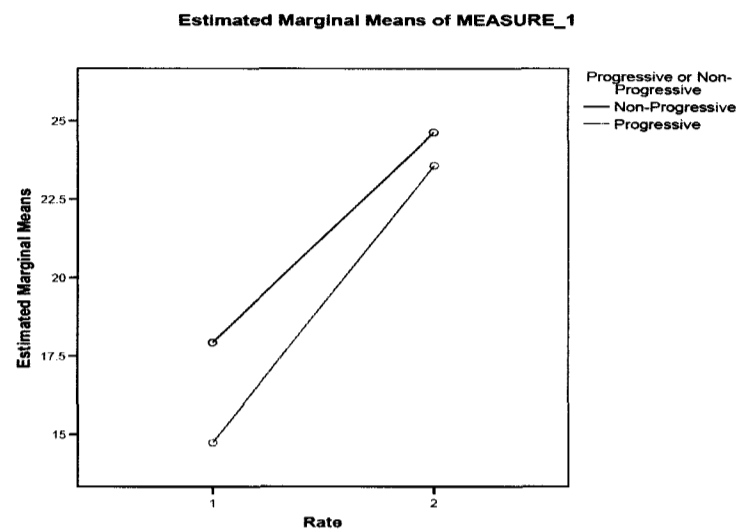


Table 11

Descriptive Statistics				
	Progressive or Non-Progressive	Mean	Std. Deviation	n
Baseline Rubric Score	Non-Progressive	17.93	4.497	114
	Progressive	14.74	4.525	95
	Total	16.48	4.773	209
4th Rubric Score	Non-Progressive	24.62	4.506	114
	Progressive	23.56	5.073	95
	Total	24.14	4.790	209

Further analysis using multiple Multivariate testing procedures identified a statistically significant difference between cumulative score progress between groups – progressive versus non-progressive (refer to Table 12).

Table 12

Multivariate Tests (b)						
Effect		Value	F	Hypothesis df	Error df	Sig.
Rate	Pillai's Trace	.717	524.070(a)	1.000	207.000	.000
	Wilks' Lambda	.283	524.070(a)	1.000	207.000	.000
	Hotelling's Trace	2.532	524.070(a)	1.000	207.000	.000
	Roy's Largest Root	2.532	524.070(a)	1.000	207.000	.000
Rate * PorNP	Pillai's Trace	.045	9.861(a)	1.000	207.000	.002
	Wilks' Lambda	.955	9.861(a)	1.000	207.000	.002
	Hotelling's Trace	.048	9.861(a)	1.000	207.000	.002
	Roy's Largest Root	.048	9.861(a)	1.000	207.000	.002

a. Exact statistic

b. Design: Intercept+PorNP
Within Subjects Design: Rate

A condition of these Multivariate tests includes “Sphericity.” Analysis indicated that the diagnostic condition of Sphericity had been met – the Mauchly's Test of Sphericity was statistically significant ($p = < .00$) (refer to Table 13). In other words, analysis indicated valid findings resulting from the Multivariate tests.

Table 13

Mauchly's Test of Sphericity (b)							
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon(a)		
					Greenhouse-Geisser	Huynh-Feldt	Lower Bound
Rate	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b. Design: Intercept+PorNP
Within Subjects Design: Rate

In addition to considering conflicting findings across the descriptive statistics (where relatively similar cumulative rates of writing progress were made in each group) and the statistical analyses (where a statistical difference between groups was identified), it was nevertheless determined that further analyses would be beneficial. Specifically, in order to more

accurately determine if cumulative rates of writing progress were influenced by type of assignment or external issues of validity a Pairwise comparison using the Bonferroni protocol was employed in order to adjust for multiple comparisons. Here, analysis indicated that the cumulative rate of change previously identified as statistically significant was supported (refer to Table 14).

Table 14

Pairwise Comparisons						
(I) Progressive or Non-Progressive	(J) Progressive or Non-Progressive	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
Non-Progressive	Progressive	2.129(*)	.549	.000	1.047	3.211
Progressive	Non-Progressive	-2.129(*)	.549	.000	-3.211	-1.047

Based on estimated marginal means

* The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

H₄ Findings: Data found no support for the null hypothesis. In other words, while descriptive findings evidenced a comparable relationship in the rate of student writing progress regardless of assignment type, further analysis of the data found that the progressive assignment group demonstrated a statistically significant increase in student writing scores when compared to the non-progressive group. Therefore, the H₄ null hypothesis was rejected.

Hypothesis 5

H₅: There is a relationship between assignment type and phased rate of student writing progress.

Null₅: There is no relationship between assignment type and phased rate of student writing progress.

In order to test H₅, a “Repeated Measures” analysis was conducted in SPSS, where student “baseline scores” identified via cumulative rubric scores were statistically compared by each phase according to the type of assignment completed. This temporal phase comparison of the

cumulative rubric scores at each phase by feedback type across the total survey population (n = 182) resulted in the following descriptive statistics, evidencing cumulative increases of 3.67 from baseline to phase two, 2.23 from phase two to phase three, and 3.4 from phase three to phase four for those receiving a progressive assignment versus 1.66 from baseline to phase two, 0.89 from phase two to phase three, and 3.97 from phase three to phase four for respondents receiving non-progressive assignments (refer to Graph 5 and Table 15).

Graph 5

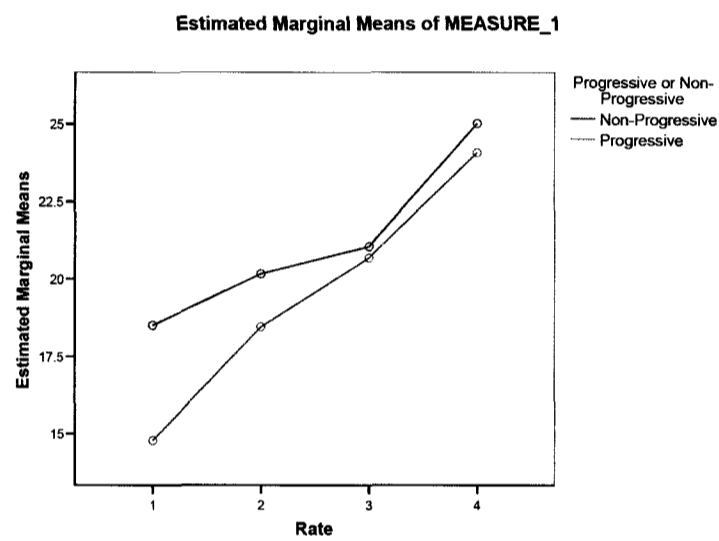


Table 15

Descriptive Statistics				
	Progressive or Non-Progressive	Mean	Std. Deviation	n
Baseline Rubric Score	Non-Progressive	18.50	4.187	104
	Progressive	14.78	4.676	78
	Total	16.91	4.763	182
2nd Rubric Cum Score	Non-Progressive	20.16	4.483	104
	Progressive	18.45	4.401	78
	Total	19.43	4.517	182
3rd Rubric Cum Score	Non-Progressive	21.05	4.255	104
	Progressive	20.68	4.658	78
	Total	20.89	4.424	182
4th Rubric Score	Non-Progressive	25.02	4.141	104
	Progressive	24.08	4.731	78
	Total	24.62	4.416	182

Further analysis examining rate of student writing progress and assignment type, using Tests of Within-Subjects Contrasts protocol, evidenced a statistically significant difference between phases 1 and 2 and again between phases 2 and 3 (refer to Table 16).

Table 16

Tests of Within-Subjects Contrasts						
Source	Rate	Type III Sum of Squares	df	Mean Square	F	Sig.
Rate	Level 1 vs. Level 2	1266.286	1	1266.286	68.028	.000
	Level 2 vs. Level 3	432.593	1	432.593	24.452	.000
	Level 3 vs. Level 4	2420.055	1	2420.055	147.785	.000
Rate * PorNP	Level 1 vs. Level 2	178.858	1	178.858	9.609	.002
	Level 2 vs. Level 3	80.769	1	80.769	4.565	.034
	Level 3 vs. Level 4	14.671	1	14.671	.896	.345
Error(Rate)	Level 1 vs. Level 2	3350.554	180	18.614		
	Level 2 vs. Level 3	3184.462	180	17.691		
	Level 3 vs. Level 4	2947.593	180	16.376		

H₅ Findings: Data analysis found only partial support for the null hypothesis. Specifically, analysis of data demonstrated a significant difference in student writing progress across feedback methods by temporal phase. To this end, a statistically significant difference was realized in the rate of change between observations 1 and 2, and again between observations 2 and 3, dependent on feedback method. Therefore, the H₅ null hypothesis was rejected.

Hypothesis 6

H₆: There is an interactive effect between how the feedback is delivered (i.e., analytic/use of a rubric versus holistic/no rubric), the assignment type (i.e., progressive versus non-progressive) and aggregate rate of student writing progress.

Null₆: There is no interactive effect between how the feedback is delivered, the assignment type and aggregate rate of student writing progress.

In order to test H₆, an “ANOVA” analysis was conducted in SPSS, where student “baseline scores” identified via cumulative rubric scores were statistically compared to final “4th rubric scores” with the feedback method and assignment type as fixed factors. This comparison between the first and final cumulative rubric scores across the total survey population (n = 209),

in relation to the fixed factors resulted in the following descriptive statistics, evidencing a 3.11 cumulative increase when the student received a progressive assignment versus a .25 cumulative increase in rubric scores when the student received non-progressive assignments across the semester under review (refer to Graph 6 and Table 17).

Graph 6

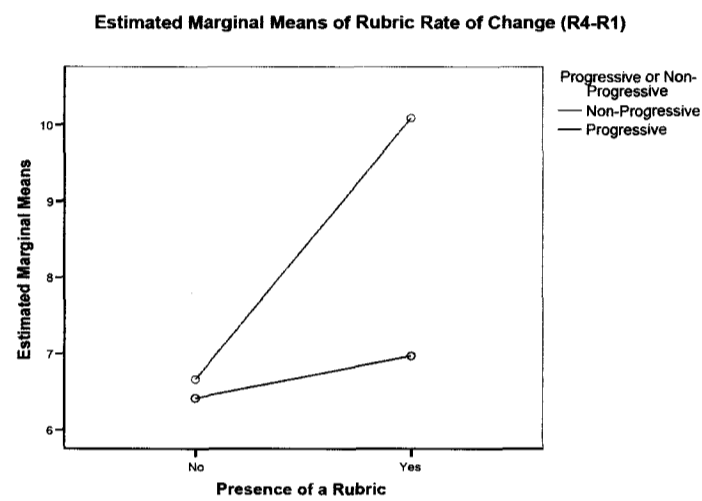


Table 17

Descriptive Statistics				
Dependent Variable: Rubric Rate of Change (R4-R1)				
Progressive or Non-Progressive	Presence of a Rubric	Mean	Std. Deviation	n
Non-Progressive	No	6.41	5.447	56
	Yes	6.97	4.056	58
	Total	6.69	4.777	114
Progressive	No	6.66	5.729	35
	Yes	10.08	4.060	60
	Total	8.82	4.998	95
Total	No	6.51	5.526	91
	Yes	8.55	4.334	118
	Total	7.66	4.981	209

Further analysis, using Tests of Between-Subjects Effects procedures, revealed that the variables of assignment type and feedback method were statistically significant with respect to their influence on progress across cumulative rubric scores (refer to Table 18).

Table 18

Tests of Between-Subjects Effects					
Dependent Variable: Rubric Rate of Change (R4-R1)					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	502.927(a)	3	167.642	7.378	.000
Intercept	11290.195	1	11290.195	496.890	.000
PorNP	140.884	1	140.884	6.200	.014
RubricUse	197.274	1	197.274	8.682	.004
PorNP * Rubric Use	102.629	1	102.629	4.517	.035
Error	4657.954	205	22.722		
Total	17425.000	209			
Corrected Total	5160.880	208			

a. R Squared = .097 (Adjusted R Squared = .084)

H₆ Findings: Data analysis found no support for the null hypothesis. Specifically, analysis of data demonstrated a significant interactive effect in student writing progress across feedback methods and assignment type. To this end, a statistically significant increase was realized in student writing progress when the student received a progressive assignment and analytical feedback. Therefore, the H₆ null hypothesis was rejected.

Hypothesis 7

H₇: Student writing progress, as measured by cumulative rubric scores, is influenced by student attributes, school information, and/or classroom context.

Null₇: Student writing progress, as measured by cumulative rubric scores, is not influenced by student attributes, school information, and/or classroom context.

In order to explore potentially significant and theoretically relevant variables of influence with respect to cumulative writing progress across respondents, SPSS Stepwise Regression using the “backward” function was employed. Specifically, “cumulative rate of changes” was

examined as the dependent variable in relation to a series of independent variables, grouped into classifications (refer to Table 19).

Table 19

Classification of Independent Variables into Theoretical Groupings		
Dependent Variable		
Rate of Writing Progress		
Variables of Interest	Level of Significance	Classification
High school location ***	.914	High School Attributes
High school type ***	.354	
Gender ***	.198	Demographics
Race ***	.695	
Age ***	.378	
CJ major***	.803	School information
College***	.436	
First generation***	.717	
Class standing***	.165	
Instructor		Classroom/assignment context
Instructor (H)*	.001	
Instructor (B)*	.003	
Holistic vs. Analytical*	.003	
Progressive vs. Non-progressive*	.000	
Clarity of assignment and instructions***	.437	Writing instruction experiences
High school writing course***	.953	
College writing courses***	.371	
Writing Center assistance***	.997	
Instructor feedback***	.299	
Writing in my future career***	.818	Self-report Information
Feedback is helpful***	.339	
Procrastination Index***	.593	
Desire to decrease procrastination***	.851	
Procrastination reasons (25 variables)	Varied	
Degree of self-regulation**	.079	Writer self-perception
General progress***	.870	
Specific progress***	.589	
Observational comparison***	.794	
Social feedback**	.039	
Physiological states***	.460	Writing behavior
APA use*	.008	
Writing center use**	.030	
Did you seek outside feedback? ***	.668	Course grade information
Self-reported grade expectation**	.057	
Final grade***	.660	

* statistically significant at alpha = .01

** statistically significant at alpha = .05

*** statistically significant at alpha = .10

Stepwise Regression, using the “backward” function resulted in various levels of significance across variables as noted in Table 20.

Table 20

Backward Step-Wise Regression Results	
Dependant Variable Rate of Writing Progress	
Independent Variables	Level of Significance
Instructor (H)	.001
Instructor (B)	.003
Holistic vs. Analytical	.003
Progressive vs. Non-progressive	.000
Degree of self-regulation (.79)	
When an area of my paper is rated as "weak" with respect to a particular trait, I know how to fix it.*	.073*
Procrastination reasons (Varied)	
PASS - You waited until a classmate did his/hers, so that he/she could give you some advice.	.042
Procrastination reasons (Varied)	
PASS - You resented having to do things assigned by others.	.042
Procrastination reasons (Varied)	
PASS - You really disliked writing term papers.	.035
Procrastination reasons (Varied)	
PASS - You felt it just takes too long to write a term paper.	.004
Procrastination reasons (Varied)	
PASS - You just felt too lazy to write a term paper.	.008
Social Feedback	
Survey 1 - Social Feedback (WSP Domain 4)	.039
Did this student use APA?	.008
Writing Center Use (.03)	
Did this student use the writing center/Paper 4?	.021
Self-reported grade expectation*	.057*

* = Not included in the final ‘Best Fit Model’

Variables identified as significant at the .05 level were thereafter used to produce a “best fit” model for statistical examination. This model included 14 total independent variables, 12 of which were included. In order to arrive at an informed understanding regarding the number of cases necessary for the best-fit model to be analyzed, a resource derived from the literature on ‘power analysis’ in the social sciences was used – A Power Primer (Cohen, 1988). Here, it was possible to combine across tables, information regarding the types of statistical analyses to be conducted in association with the number of variables, alpha levels, and effect sizes, to arrive at the number of cases necessary to produce statistically significant findings (refer to Figure 5 and Figure 6).

Figure 5

**‘A Power Primer’
(Indexes and their Values for Small, Medium, and Large Effects)**

Test	ES index	Effect Size		
		Small	Medium	Large
mA vs. mB for $d = \frac{mA - mB}{\sigma}$ Independent Means	σ	.20	.50	.80
Chi-square for Goodness of Fit and Contingency	$w = \sqrt{\sum_{i=1}^k \frac{(O_i - P_{oi})^2}{P_{oi}}}$.10	.30	.50
Multiple and Multiple Partial Correlation	$f^2 = \frac{R^2}{1 - R^2}$.02	.15	.35

(Cohen, 1988, p. 157)

Figure 6

Statistical Test Criterion Selection by required N
(N for Small, Medium and Large ES at Power = .80 for $\alpha = .01, .05, \text{ and } .10$)

Test	α								
	.01			.05			.10		
	Sm	Med	Lg	Sm	Med	Lg	Sm	Med	Lg
1. Mean diff	586	95	38	393	64	26	310	50	20
6. χ^2									
1df	1,168	130	38	785	87	26	618	69	25
2df	1,388	154	56	964	107	39	771	86	31
3df	1,546	172	62	1,090	121	44	880	98	35
4df	1,675	186	67	1,194	133	48	968	108	39
5df	1,787	199	71	1,293	143	51	1,045	116	42
6df	1,887	210	75	1,362	151	54	1,113	124	45
8. Mult R									
2k ^b	698	97	45	481	67	30			
3k ^b	780	108	50	547	76	34			
4k ^b	841	118	55	599	84	38			
5k ^b	901	126	59	645	91	42			
6k ^b	953	134	63	686	97	45			
7k ^b	998	141	66	726	102	48			
8k ^b	1,039	147	69	757	107	50			

(Cohen, 1988, p. 158)

In review of Figures 4 and 5, information provided for Multiple Regression was referenced. From this data, it was initially determined, as suggested by Cohen (1988), that because the best-fit model proposed for analysis was comprised of 12 variables, that it might not be possible to guarantee statistically significant findings with the limited number of sample cases. More specifically, Cohen (1988) didn't anticipate or provide calculations for models consisting of greater than eight variables. However, additional literature regarding the "power" required to employ this method of analysis has suggested a minimum of 5 observations (with a preference of

20) for each variable in the model (Hair, Anderson, Tatham, & Black, 1998). With this the case, and because the model had access to a representative set of 209 cases, it was anticipated that analytical findings derived by means of regression analyses would have the capacity to produce statistically significant findings for the best-fit model under examination.

Next, testing for the significant influence of variables on cumulative student writing progress was undertaken. Regression analysis was used to determine if theoretically selected and logistically available variables across study sample cases significantly influenced the cumulative student writing progress scores. In this model, variables found to influence cumulative student writing progress were assignment type, instructor, and whether or not the student cited his/her paper correctly (refer to Table 21).

Table 21

		Coefficients^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.830	.474		14.414	.000
	Progressive or Non-Progressive	2.136	.704	.214	3.036	.003
2	(Constant)	6.830	.463		14.752	.000
	Progressive or Non-Progressive	3.388	.792	.339	4.277	.000
	Course instructor (H)	-3.339	1.050	-.253	-3.182	.002
3	(Constant)	5.435	.741		7.330	.000
	Progressive or Non-Progressive	3.846	.806	.385	4.774	.000
	Course instructor (H)	-3.142	1.040	-.238	-3.021	.003
	Did this student use APA on this draft?	1.357	.568	.172	2.391	.018

a. Dependent Variable: Rubric Rate of Change (R4-R1)

H₇ Findings: Data analysis found limited support for the null hypothesis. Specifically, analysis of data demonstrated a significant interactive effect in student writing progress with respect to three of the potentially relevant independent variables tested -- assignment type, instructor, and whether or not the student consistently cited his/her paper correctly. Therefore, the H₇ null hypothesis was rejected.

The current chapter provided insight into research analyses conducted as part of the current study along with a review of research hypotheses. Specifically, 6 of 7 hypotheses were found to be empirically supported, while 1 was not supported. A detailed discussion of these findings as they related to the existing literature and research expectations is provided in the following chapter.

CHAPTER V

*Discussion**Purpose of the Study*

The purpose of this research was to explore which of the independent variables identified in the literature as potentially relevant, particularly those that can be controlled for, were most likely to influence the efficacy of feedback communications. Specifically, the purpose of the research was threefold. The first objective was to determine whether one method of providing feedback (i.e., holistic versus analytical) more effectively advanced the task of assisting university-level students in improving their written assignments. The second objective was to determine which assignment type (i.e., a series of static assignments [non-progressive] or one assignment requiring multiple drafts [progressive]) was more likely to evidence the greatest rate of student writing progress across the semester. The third objective of the study was to determine which other relevant variables (e.g., affective domains, school information, and/or classroom context) influenced the student's response to the feedback communication.

Significance of the Study

Written comments and/or suggestions are the most common, and often the most pragmatic strategy for offering feedback to university-level students. It is therefore of utmost importance to understand attributes related to providing effective feedback, as these strategies will in turn promote the achievement of the writing-related goals set forth by the university community. For this reason, the present methodology attempted to provide a rigorous examination of the subject matter by capturing data at both the aggregate and individual levels of analyses across a representative section of the student population.

It was anticipated that this would result in findings that are generalizable beyond the present study while providing a method of inquiry that could be easily replicated. In addition, the data was collected in such a way that it provided the researcher with the capacity to isolate and cluster theoretically relevant variables for statistical analysis. This was important as it provides insight as to which of the potentially relevant variables are most significant in feedback scenarios.

Review of Methods

The study deployed a mixed methodology, with pre- and post-intervention surveys integrated using a quasi-experimental design. A convenience sampling method was used to select four *Introduction to Criminal Justice* (CJ 101) theme courses for observation, each of which was in session during the Winter 2008 semester. This design called for each of the four courses to be assigned to one of two types of written assignments, either progressive or non-progressive. Each course was also assigned a feedback method; either holistic or analytical. By aligning the courses in this manner, it was possible for each type of assignment to be paired with the opposite feedback method that the other course was receiving. In other words, one of the progressive courses received holistic feedback, while the other progressive course received analytical and vice versa with respect to the non-progressive courses. The pre- and post-intervention surveys were used to obtain an initial indicator of the students' self-perceptions as a writer and their self-reported work habits, as well as to obtain a post-measurement of these same items as a way to assess the impact of the intervention on these perceptions. A visual representation of this research design is shown in Chapter 3 in Figure 3, page 38.

Limitations

Limitations are inherent in feedback research as writing in general is highly personal in nature. This fact is not a limitation in and of itself, as the student typically attempts revision

activities independently; rather, the limitation is that it may be difficult to capture each intervening variable impacting the student's decisions with respect to the feedback. However, in the present study every attempt was made to identify potentially relevant variables (i.e., attitude toward writing, work habits, self-perception of themselves as writers, etc.) and assess their levels of influence.

Additional limitations involved the issue of generalizability of research findings. For example, this research took place over a one semester time period at a single institution of higher education, and while it is assumed that one or both of the interventions (i.e., feedback and assignment type) were the impetus for any demonstrated change, it is possible that any changes realized may not be extrapolated to other time periods or institutional contexts.

Another potential limitation to the generalizability of the present study was that the principle investigator served only as the "rater" as opposed to the dual roles of rater and instructor. In other words, the principal investigator was solely focused on providing students with highly detailed feedback, whereas the instructor may or may not have offered less detailed feedback as a result of balancing multiple other responsibilities. While this methodological choice was not a limitation in and of itself, it is necessary to consider that the generalizability of the findings may have been affected.

A further limitation is the findings related to improvement. Here, findings that suggest improvement across student writing proficiencies may be temporary in the sense that the student has learned to interpret what the instructor wants based on the criteria and/or feedback provided, as feedback can be highly subjective in nature. This phenomenon is recognized in the social sciences as social desirability and may have implications for the generalizability of findings.

Finally, issues related to the age of the population may also limit the present research, as the scope of the population was primarily freshman and sophomore students. Students of this age group have typically not yet reached their full potential to practice and share introspective ideas. This is particularly important to note in considering the influence of feedback, as this may prevent the student from fully engaging in the revision process. In illustration of this point, the student may choose to simply incorporate the suggestions without much consideration as to how the feedback could be used to inform more extensive changes that would ultimately improve their understanding writing. In this instance, the student may not identify the value of writing beyond the classroom context, and thereby fail to recognize the necessity of improving their writing.

Overview of the Findings

Overall, the findings of this research were in keeping with the general themes found throughout the literature. This section of the thesis reviews each of the hypotheses and their respective findings, followed by a discussion of how the overall findings align with the existing literature. Policy implications and suggestions for future research are also discussed.

The findings for the first hypothesis (H₁), which stated that “there is a positive relationship between feedback and student writing progress,” determined that feedback was in fact linked to a positive relationship across aggregate rates of student writing progress. That is, written feedback, as provided in the present study, was related to an increase in student writing proficiencies across the academic semester. This finding is consistent with the majority of the feedback literature which asserts that when taken, feedback does increase students’ writing scores (Wiltse, 2002; Hillocks, 1986). Moreover, it provides empirical support for the primary assumption of this research and supports the continued effort of researchers and instructors toward improving the

effectiveness of writing feedback. Because the analysis revealed that student writing scores improved when feedback was provided, further exploration of the potentially relevant variables as suggested in the literature was undertaken to determine which of these interacted synergistically as part of the feedback communication to generate a significant change across students. To this end, additional variables and/or variable combinations were analyzed.

With respect to the second hypothesis (H₂), which stated “there is a relationship between how the feedback is delivered (i.e., analytical/use of a rubric versus holistic/no rubric) and aggregate rate of student writing progress,” findings demonstrated only mixed support. Initial analysis which provided an aggregate comparison between the first and final cumulative rubric scores by feedback type across the total population demonstrated a greater increase in rubric scores for those students receiving analytical feedback. However, when additional analyses were conducted, the findings seemed to indicate that this cumulative rate of change was more likely driven by external factors (e.g., maturity, regression to the mean), rather than by the type of feedback provided to respondents. Because feedback method of response was considered a “high interest” variable however, further analysis was conducted.

The third hypothesis (H₃), stated that “there is a relationship between how the feedback is delivered (analytical versus holistic) and phased rate of student writing progress (observed at specific points throughout the semester).” In light of the mixed support evidenced in analyzing the H₂ hypothesis (which examined whether or not a relationship exists between the type of feedback provided and the overall rate of student writing progress), findings for the H₃ hypothesis evidenced differing rates of progress based on the method of response, both of which were positive. Specifically, based on the method of response there were statistically significant differences between the rates of student writing progress in two of the three phases when a rubric

was present; that is, the students who received a rubric in combination with the feedback evidenced greater progress. This is supported by previous research which has demonstrated more often than not that “the active use of criteria by students, teacher comment, and revision” has proven to be optimal in helping students to improve their writing (Hillocks, 1986, p. 168). However, while this finding is evident in the literature, the current research is the first to have empirically examined the rate of writing progress by phase. This study therefore provided a practical means for examining the rate of student writing progress across a period of time when different interventions have been provided.

With respect to the fourth hypothesis (H4), which stated “there is a relationship between assignment type (i.e., progressive versus non-progressive) and aggregate rate of student writing progress,” findings initially appeared to evidence no substantive difference between the progressive and non-progressive assignment groups. However, when additional analyses were conducted, the findings revealed that the progressive assignment group did evidence a greater rate of progress than the non-progressive group. While timing of when the feedback has been offered has been considered as a variable of interest in previous feedback research, assignment type has rarely been used in this way; rather it has more often than not been discussed in the literature as a pedagogical approach for instilling in students the habit of using a writing process. However, because findings provide strong empirical support that the assignment type influences the overall writing progress demonstrated across students, this strategy should be noted as a best practice, especially for instructors outside of composition where the strategy is often less likely to be deployed.

The fifth hypothesis (H5) stated that, “there is a relationship between assignment type and phased rate of student writing progress.” Findings again determined that based on the assignment

type there were significant differences between the rate of student writing progress in two of the three phases when a rubric was present. Similar to the findings evidenced in the analysis of the third hypothesis, this seems to indicate that when using a progressive assignment, it can be expected that there will be greater improvement in the initial drafts of the paper than there will be on later drafts. One reason for this may be that students are inclined to be more highly motivated at the beginning of the semester when they are “fresh,” as opposed to the end of the semester when they are completing several tasks for a number of courses.

With respect to the sixth hypothesis (H₆), which stated “there is an interactive effect between how the feedback is delivered (i.e., analytical/use of a rubric versus holistic/no rubric), the assignment type (i.e., progressive versus non-progressive) and aggregate rate of student writing progress,” findings revealed that there was indeed a significant interactive effect in student writing progress across method of response and assignment type. Based on the results of the analyses conducted for hypotheses three and five, this was expected. Thus, the analytical method of providing feedback, when combined with a progressive assignment, does evidence the greatest degree of efficacy in terms of when and how to provide written feedback on student writing.

Finally, with respect to the seventh hypothesis (H₇), which stated “student writing progress, as measured by cumulative rubric scores, is influenced by student attributes, school information, and/or classroom context,” the analysis determined that, at least within the context of the present study, only three of the potentially relevant variables had a significant influence on the rate of student writing progress; none of which were the affective domains, self-perception as a writer, attitude, and self-reported work habits. The three variables that did prove statistically significant were assignment type, instructor, and whether or not the student cited his/her paper correctly

using APA format. This analysis as conducted in the present study provided no support for previous suggestions that affective domains are pertinent in the efficacy of written feedback.

This finding suggests two things. First, in instances where a structured, progressive assignment is deployed, students are more likely to be successful, as the assignment requires that they stay on task by producing text throughout the duration of the course. Moreover, if an instructor facilitates a structured classroom experience, in combination with using a progressive assignment, it is highly likely that students will be more successful in demonstrating advances across writing proficiencies. However, it may also be the case that an instructor who is less rigid can deploy a progressive assignment and the students will still demonstrate some level of progress. Further research is needed to determine the specific traits that influence the variable of “instructor.” Second, with respect to the student’s use of APA (i.e., a student who cited his/her paper correctly using APA format) being significant, findings may suggest that students who follow instructions are more likely motivated to make the effort to incorporate feedback, and thus demonstrate a greater increase in writing proficiency. In other words, student attributes other than the affective domains examined in the present research, likely influence the efficacy of feedback. Again, additional research would be useful for gaining insight into the influence of this variable.

Discussion of Findings

The pedagogical practice of providing students with some form of feedback on written assignments is common practice, as one of the primary goals of higher education is to provide students with the skills they need to be successful, including the ability to write proficiently. Thus, instructors continue to formulate strategies for helping students develop and improve their writing proficiencies. Within this repertoire of strategies, the most common and often most

practical method is providing feedback, particularly written feedback, on student's writing assignments. Because feedback is commonly recognized as advantageous, and because there continues to be a keen "interest in how to provide more effective, relevant feedback to students" (Wiltse, 2002, p. 127), various aspects of the feedback communication and related processes have been examined. The present study attempted to add to this body of work by determining which potentially relevant variables suggested across the literature as pertinent most influence the efficacy of written feedback communications. It also sought to provide a more rigorous method for examining student writing progress in conjunction with feedback interventions.

The first key finding of this research was that student participants demonstrated the most improvement across writing proficiencies when the writing assignment required them to work on multiple drafts of a single assignment over the course of a semester. Hence, while having the students complete a number of static writing assignments over the course of a semester, all with the same grading criteria seems that it should have a similar effect as receiving feedback and revising a single assignment, the results of the present research clearly evidenced that this was not the case. Furthermore, given that progressive assignments allow the student time to refine a particular text following research of the topic, it is not surprising that the overall writing also improved in terms of content and organization (Hillocks, 1986).

While "type of writing assignment" (i.e., progressive versus non-progressive) has not previously been examined as a variable in how effective feedback is, the use of progressive assignments has been routinely suggested as a best practice across the writing literature, and is a strategy frequently deployed by English and composition instructors. This strategy of incorporating the writing process into regular class assignments rests on the premise that good writing is the result of feedback and revision, and assumes the opportunity to obtain feedback on

drafts of a text before turning it in for a grade will improve the writing (Duarte Marinho, 2007; Wiltse, 2002). The present findings provided strong empirical support for this assumption.

Aside from the time consuming nature of this strategy, which requires that the instructor provide feedback more than once over the course of a semester, this type of assignment represents a practical method for improving student writing in core courses of the degree program. Additionally, there are ways to mediate the time factor such as the use of peer review activities, as suggested in Chapter II (Cho, Schunn and Charney, 2006), for earlier drafts of the paper. Moreover, in an effort to account for the specific findings which demonstrate that students are most likely to revise their initial drafts, it may be more beneficial for the student if the instructor provides feedback on initial draft, and requires peer feedback on later ones.

The second major finding of the present research was that students are most likely to improve their writing when specific criteria is provided within the framework of a rubric, as this provides students with the opportunity to understand and internalize the grading criteria (Beach & Friedrich, 2006) and an idea of what constitutes “good” writing. This finding is in keeping with the much of the feedback research which has demonstrated that scoring texts holistically without explicit guidelines typically evokes general impression scores in which positive characteristics may compensate for, or even outshine, weaker characteristics (Schoonen, 2005). Moreover, the use of a trait-based rubric as the basis for providing feedback, such as the rubric used for the present study, mediates the rater effect more substantially than simply applying holistic standards. In other words, the criterion by which the writing is graded is more consistent from one paper to the next when a rubric is deployed.

It is also worth noting here that while all of the students demonstrated positive writing progress over the course of the semester to end up at roughly the same level, when this

phenomenon is examined by phase, it is evidenced that the progress was steadier for those students who received a rubric. This confirms the expectation of some instructors in that it likely reveals that when students are not required to continually build on a particular assignment, many will make a last minute effort at the end of the semester. While it is beyond the scope of the present study, this presents a question as to what degree students develop an understanding of the mechanics of good writing that they can carry beyond a single course.

Finally, contrary to suggestions across the literature, current findings evidenced that the affective domains of writer self-perception, attitude toward writing and self-reported work habits had no interactive effect in the efficacy of the feedback communications. Analyses revealed that the only variables that did demonstrate a significant interactive effect were assignment type, the instructor, and whether or not the student cited his/her paper correctly using APA format. While this was somewhat surprising given the emphasis placed on affective domains in previous writing research, it may be that the variables do play a role in the writing process, just not a significant role in the feedback/revision phase of the writing process. As previously noted, this finding does not clearly demonstrate that these variables play no role, as they clearly influence student writing in a number of ways; rather it means that they just are not influential in the ways hypothesized in the current study. Additional research is therefore necessary for determining how affective domains influence writing improvement.

The efficacy of the feedback as demonstrated by the present analyses, is likely determined by whether or not the student is given the opportunity to improve the paper, and has a clearly defined way of improving it, as opposed to whether or not the student perceives him/herself as a good writer. That is, the motivating factor is likely opportunity to improve the writing and thus

achieve a better grade (i.e., writing in drafts combined with a set of clearly defined criteria), as opposed to the student's self perception as a writer or attitude toward writing.

Similarly, it is likely that the expectations set forth by the instructor served as the motivating factor in why some classes were more likely to improve their writing by incorporating the feedback and others were not. However, while "instructor" was not necessarily a variable of interest in the present research per se, it was a variable that was coincidentally available based on the convenience sampling method. For this reason, further research to explore how the teaching practices, the personal characteristics and classroom management strategies of the instructor likely play a role in the efficacy of feedback is necessary. While characteristics of the instructor were beyond the scope of the present research, this finding sets the stage for continued exploration of this variable. Moreover, it suggests that professional development for instructors in the area of writing instruction perhaps should be considered as part of best practice. Such opportunities would allow a department champion to emerge who could then encourage other faculty members to employ strategies that they themselves have found to be useful.

Policy Implications

The present research provided an examination of the variables identified in previous studies pertaining to feedback as potentially influential in the efficacy of feedback communications. Findings revealed that feedback communications using the analytical method of response (i.e., use of rubric), in combination with a progressive assignment requiring the student to submit multiple drafts of a single paper, evidenced the greatest degree of efficacy. That is, these conditions produced the greatest positive increase in the rate of writing progress across students. The literature suggests however, that writing improvement is much more complicated than

simply changing the way that instructors grade writing assignments or the type of assignments.

Rather, a more comprehensive approach to writing improvement must be taken.

With this in mind, and because “curriculum innovation, improvements and assessment especially those pertaining to writing-skill improvement initiatives, are important features of contemporary education” (Ashbaugh, Johnstone & Warfield, 2002, p. 124), it seems that the findings of the present research could serve as the basis for such an initiative beginning at the department level; especially for departments outside of English or composition.

The introduction of such an initiative might commence with professional development activities focused on improving student writing that provide the venue for discussions among the faculty leading to shared processes, understanding and expectations. From these shared insights, successful strategies can then grow, such as “standard” grading criteria or assignment types specific to particular courses. Typically, one or more department “champions” would emerge from professional development activities and help to lead the charge that eventually integrates the concepts and practices into department culture. An example of such professional development initiatives are those undertaken as part of the National Writing Project (NWP), which invites instructors to share their own best writing practices toward the collective improvement for all.

While individual initiatives of the NWP may begin with a single department, many expand to become university-wide including more than one college or university within a community. The professional development then encompasses the consideration of different demands of individual subjects and the differing interpretations of writing requirements (Lea & Street, 1998). This is an important aspect of the NWP as it provides participants with insight into the different assumptions about the nature of writing, different epistemological presuppositions about the

nature of academic knowledge and learning, and which often implicitly, impact the writing strategies subsequently deployed by the participant instructors.

Future Research Agenda

The findings of the present research provide empirical support for the fact that feedback demonstrates the greatest effectiveness when students are given the opportunity to integrate comments and suggestions into their written work. Thus, it is not entirely surprising then that when feedback was provided on an assignment that required multiple drafts in combination with readily available criteria, that the students would be more successful in their writing efforts. However, what remains unknown is whether or not the improvements demonstrated by the student participants will be carried over to future writing endeavors. Longitudinal studies would therefore be beneficial in determining the true influence of written feedback on student writing proficiencies.

Additionally, previous researchers have suggested that there are links between personal affective domains and student writing abilities. Analysis of data collected as part of the present study however, evidenced no interactive between the feedback communication and the affective domains of self perception as a writer, attitude toward writing, and self reported writing/work habits. Further examination of the role of student affective domains would therefore be valuable for gaining insight into the role that these variables might play in the improvement of student writing proficiencies, as it is highly likely that these variables influence gains in student writing proficiencies in some way. For instance, while affective domains don't seem to play a role in the efficacy of the feedback and revision phase of the writing process, it is highly likely that these domains could play a role in the composing phase, motivating the student to begin prewriting activities or drafting of the initial text. Further research to explore the role of these variables is

therefore necessary, as instructional practices can benefit from planned interventions to address potential issues related to students' attitudes toward writing or self perception as a writer during the appropriate phase (Kear, Coffman, McKenna & Ambrosio, 2000).

Finally, the study design provided a rigorous methodology for examining feedback by capturing variables at both aggregate and individual levels of analysis across a wide section of the student population. By collectively examining the variables in differing combinations, the research was able to build on the existing literature by providing empirically grounded support that reinforced the value of written feedback as well as a replicable method for exploring the multitude of variables that contribute to its effectiveness at advancing writing skills across the student population. Future research replicating this same advanced methodology would be valuable in demonstrating reliability of findings.

Conclusion

Written comments and/or suggestions are the most common, and often the most pragmatic strategy for providing feedback to university-level students. A solid understanding of the attributes related to feedback that facilitate the greatest degree of efficacy from a pedagogical standpoint is necessary, as these strategies will in turn promote the achievement of the writing-related goals set forth by the university community. For this reason, the present study identified and examined variables in an effort to more definitively determine which of these influence the efficacy of feedback communications. Moreover, the data was collected in such a way that it provided the researcher with the capacity to isolate and cluster theoretically relevant variables for statistical analysis. This was important as it provides insight as to which variables are significant in feedback scenarios.

Subsequent findings have provided a practical starting point for beginning to develop best practices for improving university-level student writing, particularly in departments outside of English or composition. But while findings suggest where to begin with respect to feedback, it is important to realize that feedback is only a single piece of the puzzle in achieving the fundamental goal of improving student writing. In considering the best way to respond to student writing, McGovern & Hogshead (1990) emphasized that it is important to understand the complexity of the intellectual process involved in composing a text, and to acknowledge that writing interventions should address problems/issues from a variety of angles if real progress is to be made, as there are no “quick fix solutions.” Thus, systemic changes are often necessary, beginning at the department level, using evidence-based strategies, with one or two champions motivating additional faculty members to facilitate practices for sharing “what works.”

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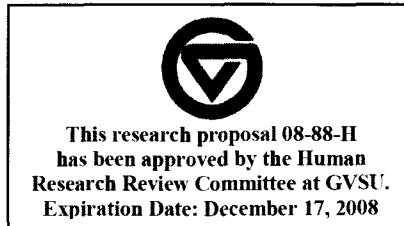
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APPENDICES

Appendix A: Survey Instruments

- 1) Student Participant Consent Form
- 2) Survey Instrument 1
- 3) Survey Instrument 2



SURVEY: WHAT ARE YOUR THOUGHTS ON WRITING?

You are invited to participate in this survey, which will take approximately 10 minutes of your time. The following information is provided in order to help you make an informed decision whether or not to participate. If you have any questions, please do not hesitate to ask.

This survey is part of a graduate student thesis used to collect information on your opinions about writing, attitudes about writing, writing feedback preferences, your work habits related to written assignments and beliefs related to learning to write. In addition, the feedback that you receive on each written assignment will be used in correlation with the survey to determine any changes in writing proficiencies, the effectiveness of the assignment(s) and changes in attitudes over the semester. Information collected from this survey and feedback experiment may be published or presented at scientific meetings, but there will be no way of identifying you. In other words, after all feedback information has been collected your identity will be stripped from the data so as not to directly connect you to any research information.

We are asking you to be a part of this study because you are a student enrolled in Criminal Justice (CJ) 101 during the winter semester of 2008. As a participant in this study you will be asked questions regarding 1) your opinions about writing, 2) your attitudes about writing, 3) feedback preferences, 4) your work habits related to written assignments, and 5) beliefs related writing improvement. It will take approximately 10 minutes to complete each survey.

There are no risks to you if you participate in this study. We have NO way of identifying you or connecting the survey to you after it has been processed. The feedback you receive on your written assignments will be a part of the normal grading process. This feedback will not affect your grade, which will be assigned exclusively by the instructor.

There are no direct benefits to you as a result of your participation; however, your participation will contribute to our knowledge about student attitudes related to writing and writing proficiencies, student work habits related to writing, feedback preferences, and feedback effectiveness.

You do not have to take part in this study. If you do decide to participate, you are free to stop the survey at any time. Your decision to not take part in this study or to stop the survey cannot and will not be used against you in any way. Should you choose to participate, any information obtained during this research that could identify you will be kept strictly confidential.

PARTICIPANT: YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS RESEARCH STUDY.

PRINT YOUR NAME HERE: _____

RESEARCH PARTICIPANT SIGNATURE

DATE

If you have any questions or concerns about your participation in this study or the way the survey was conducted, please contact the Principal Investigator at 331-7130 or the Chair of the Human Research Review Committee at 331-3417.

Survey Instrument 1

VIEWS ABOUT WRITING SURVEY

Listed below are statements about writing. Please read each statement carefully. Then circle the letter that corresponds to your best answer.

1) What is your class standing?

- a) Freshman
- b) Sophomore
- c) Junior
- d) Senior

2) Are you:

- a) Male
- b) Female

3) Would you describe your heritage as:

- a) Caucasian
- b) African American
- c) Asian
- d) Hispanic
- e) Other

4) What is your age: _____

5) Is criminal justice your major?

- a) yes
- b) no

If no, please indicate your major area of study:

6) Are you the first generation of your family to attend college?

- a) yes
- b) no

7) Did you take any writing courses in high school?

- a) yes
- b) no

8) How many college writing courses have you taken?

- a) 0 - 1
- b) 2 - 3
- c) 4+

9) Have you ever used GVSU's writing center?

- a) yes
- b) no

10) Do you typically seek instructor feedback on your writing?

- a) yes
- b) no

11) Please indicate which population your high school primarily served:

- a) Urban/City
- b) Rural

11) Did you attend a:

- a) Public high school
- b) Private high school

12) In your future career, how important are good writing skills?

- a) Very important
- b) Somewhat important
- c) Not important at all
- d) Don't know

WORK HABITS

When writing a term paper:

1) To what degree do you procrastinate on this task?

- (a) Never
- (b) Almost never
- (c) Sometimes
- (d) Nearly always
- (e) Always procrastinate

2) To what degree is procrastination on this task a problem for you?

- (a) Not a problem at all
- (b) Almost never a problem
- (c) Sometimes
- (d) Nearly always
- (e) Always a problem

3) To what extent do you want to decrease your tendency to procrastinate?

- (a) Do not want to decrease
- (b)
- (c) Somewhat
- (d)
- (e) Definitely want to decrease

WRITER SELF-PERCEPTION SCALE

1) I write better than other students in my courses.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

2) I like how writing makes me feel.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

3) Writing is easier for me than it used to be.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

4) When I write, my organization is better than other students in my courses.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

5) People in my family think I am a good writer.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

6) I am getting better at writing.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

7) When I write, I feel calm.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

8) My writing is more interesting than my peers' writing.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

9) My professors think my writing is fine.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

10) Other students think that I am a good writer.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

11) My sentences and paragraphs fit together as well as other students' sentences and paragraphs.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

12) I need less help to write well than I used to.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

13) People in my family think that I write pretty well.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

14) I write better now than I could before.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

15) I think that I am a good writer.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

16) I put my sentences in better order than the other students.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

17) My writing has improved.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

18) My writing is better than before.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

19) It's easier to write well now than it used to be.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

20) The organization of my writing has really improved.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

21) The sentences I use in my writing stick to the topic more than the ones the other students use.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

22) The words that I use in my writing are better than the ones I used before.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
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23) I write more often than other students.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

24) I am relaxed when I write.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
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25) My descriptions are more interesting than before.

- (a) Strongly Agree
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- (a) Strongly Agree
- (b) Agree
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- (e) Strongly Disagree

29) My sentences stick to the topic better now.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

30) My writing seems to be more clear than my peers' writing.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

31) When I write, the sentences and paragraphs fit together better than they used to.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

32) Writing makes me feel good.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

33) I can tell my professors think my writing is fine.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

34) The order of my sentences makes better sense now.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

35) I enjoy writing.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

36) My writing is more clear than it used to be.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

37) My peers would say I write well.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

38) I choose the words I use in my writing more carefully now.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

FEEDBACK PREFERENCES

1) For me, written feedback is helpful:

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

2) Feedback is part of my writing process:

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

Think of the last time the following situation occurred. It's near the end of the semester. The term paper you were assigned at the beginning of the semester is due very soon. You have not begun work on this paper. There are reasons why you have been procrastinating on this task.

Rate each of the following reasons on a 5-point scale according to how much it reflects why you procrastinated at the time. Mark your answers by marking an "X" in the box under the letter that best describes your answer. Use the scale:

	Not at all reflects why I procrastinated	Somewhat reflects why I procrastinated	Definitely reflects why I procrastinated		
	A	B	C	D	E
You were concerned the professor wouldn't like your work.					
You had a hard time knowing what to include and what not to include in your paper.					
You waited until a classmate did his/hers, so that he/she could give you some advice.					
You had too many other things to do.					
There's some information you needed to ask the professor, but you felt uncomfortable approaching him/her.					
You were worried you would get a bad grade.					
You resented having to do things assigned by others.					
You didn't think you knew enough to write the paper.					
You really disliked writing term papers.					
You felt overwhelmed by the task.					
You had difficulty requesting information from other people.					
You looked forward to the excitement of doing the task at the last minute.					
You couldn't choose among all the topics.					
You were concerned that if you did well, your classmates would resent you.					
	A	B	C	D	E
You didn't trust yourself to do a good job.					
You didn't have enough energy to begin the task.					
You felt it just takes too long to write a term paper.					
You like the challenge of waiting until the deadline.					
You knew your classmates hadn't started the paper either.					
You resented people setting deadlines for you.					
You were concerned that you wouldn't meet your own expectations.					
You were concerned that if you got a good grade, people would have higher expectations of you in the future.					
You waited to see if the professor would give you some more information about the paper.					
You set very high standards for yourself and you were worried that you wouldn't be able to meet those standards.					
You just felt too lazy to write a term paper.					
Your friends were pressuring you to do other things.					

Survey Instrument 2

VIEWS ABOUT WRITING AND FEEDBACK

Listed below are statements about writing. Please read each statement carefully.
Then circle the letter that corresponds to your best answer.

NAME: _____

- 1) **What grade do you expect in this course?**
- (a) "A"
(b) "B"
(c) "C"
(d) "D"
(e) "F"
- 2) **In general, instructor feedback helps me to improve my writing skills?**
- (a) Strongly Agree
(b) Agree
(c) Somewhat Agree
(d) Disagree
(e) Strongly Disagree
- 3) **How much of your original paper do you typically read over again when your instructor returns it to you?**
- (a) All of it
(b) Some of it
(c) None of it
- 4) **Are you more likely to review instructor feedback when you have the opportunity to revise a paper?**
- (a) Yes
(b) No
(c) Doesn't matter
- 5) **When editing, do usually you re-write portions of the text or only incorporate the suggested changes?**
- (a) I only incorporate the suggestions
(b) I re-write portions of the text
(c) I do re-write portions of the text AND incorporate the suggestions
(d) I don't usually change anything
- 6) **"In general," incorporating instructor feedback improves your grade.**
- (a) Strongly Agree
(b) Agree
(c) Somewhat Agree
(d) Disagree
(e) Strongly Disagree
- 7) **How likely is it that you will review previous papers and feedback prior to undertaking new writing assignments?**
- (a) Very likely
(b) Possibly
(c) Not very likely
(d) Never
- 8) **Did you have a clear understanding of the requirements for the written assignment(s) for this course?**
- (a) Yes
(b) No
- 9) **How likely are you to remember previous papers and feedback on new writing assignments?**
- (a) Very likely
(b) Possibly
(c) Not very likely
(d) Never
- 10) **Was the feedback that you received on your written assignments:**
- (a) Very easy to interpret
(b) Easy to interpret
(c) Somewhat easy to interpret
(d) Difficult to interpret
(e) Very difficult to interpret
(f) No opinion
- 11) **If you were able to interpret the feedback, did you know how to fix the problem?**
- (a) yes
(b) no
- 12) **What type of feedback do you typically find *most* helpful?**
- a) Written feedback
b) One-on-one conference with the professor
c) Peer feedback
d) One-on-one feedback with a writing center tutor
e) Other
- If other, please specify:

- 13) **Did you seek feedback from a peer or family member on your writing this semester?**
- a) yes
b) no
- 14) **How many writing-specific courses have you taken while at university?**
- a) 0 - 1
b) 2 - 3
c) 4+
- 15) **Did you use GVSU's writing center this semester?**
- a) yes
b) no
- 16) **Did you seek instructor feedback on your writing?**
- a) yes
b) no
- 17) **In your future career, how important are good writing skills?**
- a) Very important
b) Somewhat important
c) Not important at all
d) Don't know

WRITER SELF-PERCEPTION SCALE

1) I write better than other students in my courses.

- (a) Strongly Agree
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24) I am relaxed when I write.

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37) My peers would say I write well.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

38) I choose the words I use in my writing more carefully now.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

RUBRIC

1) The rubric was helpful in guiding my writing.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

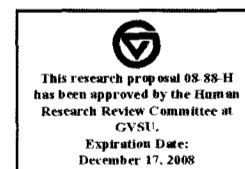
2) I have a clear understanding of each of the traits described in the rubric.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

3) When an area of my paper is rated as "weak" with respect to a particular trait, I know how to fix it.

- (a) Strongly Agree
- (b) Agree
- (c) Somewhat Agree
- (d) Disagree
- (e) Strongly Disagree

THANK YOU FOR PARTICIPATING!!



Appendix B: Visual Methodology

Key:

R = Random assignment (X _F or X _E)
X = Survey
A _{NP} = Non-progressive assignment
A _P = Progressive assignment
O = Observation of the writing
X _{F/A} = Formative-Analytic feedback intervention
X _{E/A} = Evaluative-Analytic feedback intervention
X _{F/H} = Formative-Holistic feedback intervention
X _{E/H} = Evaluative-Holistic feedback intervention

Course #1:
 Progressive Assignments – Formative/Analytic Feedback
 Progressive Assignments – Evaluative/Analytic Feedback

R	X	A _P	O	X _{F/A}	A _P	O	X _{F/A}	A _P	O	X _{F/A}	A _P	O	X _{F/A}	O	X
	X	A _P	O	X _{E/A}	A _P	O	X _{E/A}	A _P	O	X _{E/A}	A _P	O	X _{E/A}	O	X

Course #2:
 Non-Progressive Assignments – Formative/Analytic Feedback
 Non-Progressive Assignments – Evaluative/Analytic Feedback

R	X	A _{NP}	O	X _{F/A}	A _{NP}	O	X _{F/A}	A _{NP}	O	X _{F/A}	A _{NP}	O	X _{F/A}	O	X
	X	A _{NP}	O	X _{E/A}	A _{NP}	O	X _{E/A}	A _{NP}	O	X _{E/A}	A _{NP}	O	X _{E/A}	O	X

Course #3:
 Progressive Assignments – Formative/Holistic Feedback
 Progressive Assignments – Evaluative/Holistic Feedback

R	X	A _P	O	X _{F/H}	A _P	O	X _{F/H}	A _P	O	X _{F/H}	A _P	O	X _{F/H}	O	X
	X	A _P	O	X _{E/H}	A _P	O	X _{E/H}	A _P	O	X _{E/H}	A _P	O	X _{E/H}	O	X

Course #4:
 Non-Progressive Assignments – Formative/Holistic Feedback
 Non-Progressive Assignments – Evaluative/Holistic Feedback

R	X	A _{NP}	O	X _{F/H}	A _{NP}	O	X _{F/H}	A _{NP}	O	X _{F/H}	A _{NP}	O	X _{F/H}	O	X
	X	A _{NP}	O	X _{E/H}	A _{NP}	O	X _{E/H}	A _{NP}	O	X _{E/H}	A _{NP}	O	X _{E/H}	O	X

Appendix C: Rubric and Related Documentation

- 1) 6-Trait Rubric (Researcher Version)
- 2) 6-Trait Rubric (Student Version)

Rubric for Writing as a Continuum³					
Trait	Ineffective ← 1	Emerging 2	Developing 3	Proficient 4	Strong → 5
Organization	The writing lacks a clear sense of direction. Ideas, details, or events seem strung together in a loose or random fashion; there is no identifiable internal structure. Lacks any use of transitions.	The paper is difficult to follow, even with effort. The introduction and/or conclusion is minimally useful, and transitions are missing. Significant re-organization is needed.	The organizational structure is strong enough to move the reader through the text without too much confusion. Transitions generally suggestive of connections.	Purposeful organization is present, drawing attention to key ideas. Thoughtful use of transitions that clearly connects the ideas. The structure helps the reader track/process the ideas.	The organization enhances the central idea or theme. The order, structure, or presentation of information is compelling and moves the reader through the text with ease. Transitions are smooth, enhancing the overall cohesion of the piece.
Content	To extract meaning from the text, the reader must make inferences based on sketchy or missing details pertaining to the key components of the issues.	The writer describes various components of the issues, but no mention is made of opposing viewpoints. The writer demonstrates no attempt to move beyond description to contemplation or evaluation of the issues.	Key components are revealed but they are not presented in a way that leads to logical development of the topic. The writer provides more filler than substance and therefore the paper lacks critical contemplation or evaluation.	The writer identifies and explains key components of the issues, and summarizes opposing viewpoints. A critical evaluation of the subject is emerging.	The writer identifies and explains key components of the issues including a clear, fair and thorough summarization of the opposing viewpoints, which leads to a critical contemplation and evaluation of the subject. The writer's logical development of the topic prepares the reader to take his/her own position.
Sentence Fluency	The reader has to struggle in order to give this paper a fair interpretive reading. Many fragments missing words, awkward moments and irregular structure. The writer demonstrates a limited vocabulary or has not searched for words to convey specific meaning.	The text contains many run-ons, choppy sentences, non-sentences and other problems. There is minimal variety in style and length. Overworked language, words used incorrectly, or thesaurus overload. The word choice and/or wordiness cloud the message, leaving the reader confused.	The text flows, but tends to be a more businesslike than musical, more mechanical than fluid. Some variety in style and length. The language is functional, even if it lacks much energy. It is easy to figure out the writer's meaning on a general level.	Significant variety in the style and length of the sentences. Natural language is used well, and the text is engaging. Words are appropriately used to create clear sense of the ideas.	The writing has an easygoing rhythm, flow and cadence. Sentences are well constructed, with strong and varied structure. Words convey the intended message in a precise, interesting, and natural way. The words are powerful and engaging. Every word carries its own weight.

³ Specific criteria used in this rubric were derived from the writing of: Spandel, V. (2005). *Creating writers through 6-trait writing and assessment* (4th eds.). Person Education: Boston, MA.

Trait	← Ineffective 1	Emerging 2	Developing 3	Proficient 4	Strong → 5
	Voice	The writer seems indifferent to the topic and the content. The writing lacks purpose and audience engagement. There is no apparent engagement with the topic or concern for the audience.	The writing provides a hint of voice, but is not yet ready for sharing and/or the voice is not appropriate for the audience (i.e., inappropriately informal).	The writer seems sincere, but not fully engaged or involved. The writing has discernable purpose, but is not compelling. The voice is appropriate for the audience.	Distinctive, original voice, that is well suited for the audience. Sparks of individuality, but the voice fades at times.
Word Choice	The writer demonstrates a limited vocabulary or has not searched for words to convey specific meaning. Some vocabulary misused.	The writer makes no attempt at deliberate word choice. The writing is monotonous, often repetitious, and sometimes inappropriate.	The language is functional, even if it lacks much energy. It is easy to figure out the writer's meaning on a general level.	The writer uses a descriptive, broad range of words, and his/her word choice energizes the writing.	Words convey the intended message in a precise, interesting, and natural way. The words are powerful and engaging.
Conventions	Serious errors in spelling, punctuation, capitalization, usage, and grammar and/or paragraphing repeatedly distract the reader and make the text difficult to read. No attention to the format of the paper.	Frequent, distracting errors that get in the way of the message. The writer has done minimal editing if any. Limited attention to the format of the paper.	The writer shows reasonable control over a limited range of standard writing conventions. Conventions are sometimes handled well and enhance readability; at other times, errors are distracting and impair readability. Acceptable attention to format.	Minor errors which are easily overlooked. Sufficient complexity reflects proficiency in numerous conventions. Good use of format. Ready to publish with light touch-ups.	The writer demonstrates a good grasp of standard writing conventions (e.g., spelling, punctuation, capitalization, grammar, usage, paragraphing) and uses conventions effectively to enhance readability. Errors tend to be so few that just minor touch-ups would get this piece ready to publish.
APA Usage	Citation for the article did not follow APA format and was missing essential information.		Citation for the article did follow APA format; however, a few (2) errors in essential information were evident.		Citation for the article did follow APA format. Essential information was accurate and complete.

WRITING RUBRIC

Scores for each of the categories below range from 1 to 5; with 1 being the lowest score and 5 being the highest score. Below each topic, you will find questions pertaining to the criterion of each category (i.e., what the writing should include).

Feedback comments within each category are intended to provide you considerations as to how you might improve your writing within the specified areas.

ORGANIZATION

- Is this paper well organized with a clear focus?
- Does the paper hold the reader's attention?
- Is the flow of the paragraphs logical and effective?
- Did the writer use appropriate transitions

CONTENT

- Has the topic been sufficiently narrowed?
- Are the writer's ideas clearly presented?
- Has appropriate support of each argument has been provided?

SENTENCE FLUENCY

- Are the sentences constructed in a way that underscores and enhances the meaning?
- Do sentences vary in length as well as structure?

VOICE

- Does the writer connect with the audience through the focus of the topic, the selection of details, and the use of engaging language?
- Is the purpose of the writing accurately reflected?
- In persuasive writing reflects a strong commitment to the topic by the careful selection of ideas that show why the reader needs to know this?

WORD CHOICE

- Is the word choice appropriate for the topic and audience?
- Is the word choice specific and accurate?
- Is the paper free of colloquialisms?

CONVENTIONS, GRAMMAR AND MECHANICS

- Has the writer taken the time to proofread?
- Is the paper free of spelling, punctuation, capitalization and other mechanical errors?
- Have paragraphs been structured in such a way as to reinforce the organization of the paper?

Appendix D: Student Writing Assignments

- 1) Progressive Assignment
- 2) Non-Progressive Assignment
- 3) Position Paper Topics

Position Paper Assignment

In the field of criminal justice there are issues and topics that are arguable and controversial to include the verdicts of cases and the resultant case law which follows, as well as the actions of police officers (such as in their use of force and the decision to enter into high-speed pursuits) that can evoke considerable outrage and dispute. Ethical decisions among criminal justice professionals are commonplace, and frequently come under daily public scrutiny. The topics listed on the following page each pertain to a current controversial issue within the field of criminal justice.

For the purposes of this course, you will be required to write an 8-10 page position paper in which you advance your position on an issue related to one of the "Position Paper Topics" on the accompanying page. Your position can be used to promote change or to support the status quo. In other words, it should not be misconstrued with that of a technical report or a term paper.

ASSIGNMENT DIRECTIONS:

1. Select a topic from the worksheet entitled "Position Paper Topics."
2. Once you have selected your topic, visit the library to gather research. Remember throughout this process that although you may have an opinion and a "side" you wish to take; any argument that you present must also be well supported logic, facts, and/or expert opinions.

While the final draft of your paper will not be due until the end of the semester, you are responsible for turning in rough drafts of each section prior to that date -- due dates are listed below. You will receive feedback on each section of the paper that you turn in.

ALL drafts must be typed (12-point font) and double-spaced with one-inch margins on all sides.

- Do not write in the first person (I, me, my, our, etc.).
- The citations and reference section of your paper should be in proper APA format.
- When choosing sources for this paper, *please note* that Wikipedia & works by "anonymous" authors should not be used as sources.

Draft #1: Due: _____ (2 pts.)

- ❖ Outline of your paper
 - Please provide a detailed outline of your entire paper to include the following sections 1) Introduction, 2) Counter Argument, 3) Your Position, and 4) Conclusion
 - Include an introductory paragraph for each section of the outline describing what is to be discussed
- ❖ Section 1: Introduction
 - Introduce the topic (the theme of your paper should be clearly stated in the intro)
 - The introduction should include 1) a description of the topic to be argued, and 2) why/how this topic is significant
 - Assert your thesis (i.e., your position on the issue = Therefore, the position asserted on this issue is...)

Draft #2: Due: _____ (2 pts.)

- ❖ Section 2: The Counter Argument (i.e., the argument(s) against the position you have chosen to take)
 - Summarize the counterclaims
 - Provide supporting information for counterclaims

- Refute the counterclaims (i.e., this provides a transition into the main body of your paper)
- ❖ Your Position/Argument
 - Assert point #1 of your position
 - Give your position
 - Provide support for your position – supported logic, facts, and/or expert opinions
- ❖ Assert the next point of your position (and so on...you may have several points to assert)
 - Provide support

Draft #3: Due: _____ (2 pts.)

- ❖ Conclusion
 - Restate/briefly summarize your argument
 - Provide a plan of action with respect to your position (i.e., maintain the status quo or promote change)

Final Draft: Due: _____ (14 pts.)

Requirements:

- ❖ The required length of your final draft must be 8-10 pages -- not to include title page or reference page(s)
- ❖ Do not write in the first person (I, me, my, our, etc.)
- ❖ The citations and reference section of your paper should be in proper APA format
- ❖ You are to use a minimum of 6-8 “scholarly” sources for this assignment
 - Please do not use Wikipedia, or “anonymous” sources

Outline for Final Draft:

- 1) Title Page (i.e., cover page) – this should include:
 - student’s name
 - student’s e-mail
 - instructor’s name
 - the title of your paper
 - the title and section number of the course
- 2) Introduction (typically 1 page in length)
- 3) Counter Argument (approx. 2 – 3 pages)
- 4) Your Position/Argument (approx. 4 – 5 pages)
- 5) Conclusion (approx. 1 page in length)
- 6) Reference Page – this should include:
 - The title “References” should be centered at the top of the page
 - Using American Psychological Association (APA) format - list all sources (6-8 are required) in alphabetical order – see the APA handout provided

Opposing Viewpoints

In the field of criminal justice there are issues and topics that are arguable and controversial to include the verdicts of cases and the resultant case law which follows, as well as the actions of police officers (such as in their use of force and the decision to enter into high-speed pursuits) that can evoke considerable outrage and dispute. Ethical decisions among criminal justice professionals are commonplace, and frequently come under daily public scrutiny. The topics listed on the accompanying page entitled “Position Paper Topics,” each pertain to a current controversial issue within the field of criminal justice.

ASSIGNMENT DIRECTIONS:

For the purposes of this course, you are to review and select two of the position paper topics provided. Next, you will complete four 2-3 page position papers in which you advance the two different positions on an issue related to your chosen topic. In other words, you will select your first topic (e.g., gun control) and write a 2-3 page position paper supporting position #1 (e.g., gun ownership increases the incidences of violent crime...). Thereafter, your second assignment will be to support position #2 of this same topic (e.g., guns don't kill people...).

This process will be repeated for one additional topic, resulting in four 2-3 page completed writing assignments.

ALL papers must be typed (12-point font) and double-spaced with one-inch margins on all sides.

- Do not write in the first person (I, me, my, our, etc.).
- The citations and reference/bibliography section of your paper should be in proper APA format.
- When choosing sources for this paper, please note that Wikipedia & works by “anonymous” authors should not be used as sources.

ALL papers should include the following:

1. Title Page (i.e., cover page) – this should include:

- ***This page is not included in your total page count***
- student's name
- student's e-mail address
- instructor's name
- the title of your paper
- the name and section number of the course

2. Introduction (typically 1/2 page in length)

3. Your Position/Argument (approx. 1 - 2 pages)

4. Conclusion (1/2 page)

Reference/bibliography Page – this should include:

- ***This page is not included in your total page count***
- “References” should be centered at the top of the page
- Using APA format - list all sources (a minimum of 3 sources are required) in alphabetical order

Position Paper #1: Due: _____ (10 pts.)

Select a topic/position from the attached list.
Once you have selected your position, research your topic.
Write a 2-3 page position paper advancing your chosen position on the topic.

Position Paper #2: Due: _____ (10 pts.)

Using the previous position paper topic, research the opposing position.
Write a 2-3 page position paper advancing the opposing viewpoint.

Position Paper #3: Due: _____ (10 pts.)

Select a topic/position from the attached list.
Once you have selected your position, research your topic.
Write a 2-3 page position paper advancing your chosen position on the topic.

Position Paper #4: Due: _____ (10 pts.)

Using the previous position paper topic, research the opposing position.
Write a 2-3 page position paper advancing the opposing viewpoint.

Position Paper Topics

When writing a position paper, your purpose is to present your audience with an opinion, with the goal of convincing the reader to side with you through the presentation of valid and supported arguments. In some position papers you present one side of an argument, and in other position papers you present both sides of the argument. In either case, you should be able to demonstrate an in-depth knowledge of your subject.

Remember that position papers should be as unbiased (objective) as possible. They are always supported using logic, facts, and/or expert opinion(s). Emotion-based (subjective) arguments should not be used in position papers.

Under each category heading below, you will find a series of different topics. Select a topic, and take one of the positions.

Category One: Defining Crime and Criminal Justice Today

Topic: Gun Control

Each year thousands of Americans are killed by guns in incidents ranging from accidents to homicide. The link between guns and violent/criminal behavior seems obvious, but drawing conclusions from statistics is often problematic. Moreover, there is considerable debate as to whether or not gun laws can affect the prevalence of firearm violence in our society (Gaines & Miller, 2006, p. 44).

Position #1: Gun ownership increases incidents of violent crime, and laws should be enacted to prevent access to them.

Position #2: Guns don't kill people; rather people kill people using guns. Therefore, anti-gun legislation is inconsequential in preventing incidents of violent crime.

Topic: Legalization of drugs

In the United States, the use and/or possession of many drugs is a criminal offense. In efforts to enforce these laws, U.S. leaders have initiated a "War on Drugs," the success of which is debatable. One suggested "solution" to the War on Drugs is the legalization of controlled substances (illegal drugs).

Position #1: The legalization of controlled substances (illegal drugs) will drastically reduce criminal activity and will provide for a safer society.

Position #2: The legalization of controlled substances (illegal drugs) would make harmful and addictive substances available and marketable, thereby expanding the problematic use of drugs.

Category Two: Law Enforcement

Topic: The Use of Non-Violent Weapons

Law enforcement officers are expected to use their discretion when it comes to the use of force in dangerous situations. Even when justified, some officers may hesitate to use deadly force for fear of repercussions. As an alternative to using deadly force in these situations, non-lethal weapons such as "tasers" have been developed. Although these weapons may offer a practical alternative for officers in these situations, some human rights groups have called for a ban, advocating that further research be conducted as to how tasers affect the human body (Gaines & Miller, 2006, p. 149).

Position #1: Taser stun guns offer law enforcement officers a practical alternative to the use of firearms.

Position #2: The dangers associated with taser stun guns are being grossly underplayed, and therefore should not be used by law enforcement officers.

Topic: Unreasonable Searches and Seizures

In recent years, the question of reasonableness in the context of counter-terrorism strategies has become intertwined with the troubling specter of racism in our nation's law enforcement agencies (Gaines & Miller, 2006, p. 183). Here, the question remains, where does our reasonable expectation to privacy end, and our "need to know" begin?

Position #1: The practice of "profiling" certain citizens for concentrated police attention is inappropriate and irresponsible in all situations.

Position #2: There are certain situations in which the practice of "profiling" certain citizens for concentrated police attention is appropriate and responsible.

Category Three: The Adjudication Process

Topic: Plea Bargaining

Plea bargaining is one of the most significant processes in the U.S. criminal justice system, as 97% of criminal cases are resolved by guilty plea rather than a trial. This controversial practice has both advantages and disadvantages depending on the position taken. Here, critics worry that prosecutors have too much discretion, while proponents believe that guilty defendants are treated too leniently (Gaines & Miller, 2006, p. 229).

Position #1: Prosecutors have too much discretion in which cases are plea bargained, and what deals are offered.

Position #2: The cost effectiveness, combined with the need to reduce the caseload of overburdened court systems, outweighs the negative effects resulting from the practice of plea bargaining.

Topic: Juvenile Justice

Juveniles are believed to be a special population, requiring a separate justice system. However, with the rise of juvenile involvement in violent crimes, courts have used the rationale of "future deterrence of criminal activity" in transferring juveniles to the adult justice system.

Position #1: Because age is a mitigating circumstance, there are no crimes for which a juvenile should be tried as an adult.

Position #2: Under certain circumstances, it is appropriate to waive juveniles for trial in the adult court system.

Category Four: The Corrections Process

Topic: Capital Punishment

Few topics in the criminal justice system inspire such heated debate as capital punishment. While some argue that this is an archaic form of punishment, others believe that the death penalty serves as the "ultimate deterrent" (Gaines & Miller, 2006, p. 271).

Position #1: Capital punishment has a deterrent effect on crime, and therefore should remain legal.

Position #2: Capital punishment has no deterrent effect on crime, and therefore should be abolished.

Topic: Community Corrections

As jails and prisons have become progressively plagued with problems of overcrowding, the popularity of community corrections programs has grown. These include halfway houses, work-release programs, and electronic monitoring which are based on the underlying assumption that not all offenders need, or are benefited by, incarceration. However, some view community corrections as less severe, and therefore a less appropriate alternative, to imprisonment (Gaines & Miller, 2006, p. 290).

Position #1: Community-based correction programs positively address society's concerns with respect to rehabilitation and reintegration of criminals.

Position #2: Community-based correction programs fail to address society's concerns with respect to incapacitation and deterrence of criminal behavior.