# Critical Analysis of Embedded and Summative Feedback from Online Doctoral Instructors on Benchmark Assessments

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**Abstract.** Providing transparent written feedback to doctoral students is essential to the learning process and preparation for the capstone. Written feedback is even more critical in an online environment where face-to-face interaction is limited. Two major types of feedback that play a determining factor to student success are embedded and summative feedback. Hence, providing students with clear and consistent feedback on scholarly written course work enhances the writing abilities of doctoral candidates and prepares them to write their final capstone. The purpose of this study was to conduct an exploration of faculty feedback on benchmark written assignments in an online doctoral program. The researchers examined instructor feedback provided to online doctoral students on scholarly writing assignments throughout their doctoral program. The Corpus for this analysis included 236 doctoral level written assignments that included feedback from approximately 51 faculty members. Student papers were retrieved from all content courses in the doctoral program. Researchers identified the types and frequencies of embedded and summative written feedback, while also developing an analysis of relationships that existed between page length and embedded feedback. This study sought to accomplish four goals: (1) Describe the types and frequency of embedded feedback. (2) Describe the frequency and patterns of faculty summative feedback on student papers. (3) Analyze if there is a relationship between embedded feedback and summative feedback. (4) Analyze if there is a relationship between length of paper and embedded feedback.

**Keywords:** faculty feedback; online doctoral programs; embedded feedback; summative feedback

## Introduction

The purpose of this study was to conduct a qualitative exploration of faculty feedback on benchmark written assignments in an online doctoral program. The researchers examined instructor feedback provided to online doctoral students on scholarly writing assignments throughout their program. Researchers identified the types and frequency of embedded and summative written feedback. Using a method of move structure analysis, embedded feedback was reviewed and coded to determine moves and their frequency. Then moves were examined to determine if and/or how these were synthesized into patterns to provide summative written feedback on student papers. In addition, an analysis was conducted to determine if there were any relationships that could be determined between feedback and length of paper.

## Background

Despite attention given to doctoral education, there is still a lack of attrition and retention research at this level. High rates of doctoral student attrition, which consistently range from 40 to 50 per cent, are one of academia's well-kept secrets (Berelson, 1960; Bowen & Rudenstine, 1992; Lovitts, 1996; Cook & Pullaro, 2010). However, according to Cook and Pullaro (2010), "Although none of the existing national databases can provide a graduation rate that accounts for all students, all the databases do provide valuable information that contributes to our understanding of student success" (p. iv).

Degree completion and graduation rates can be linked with many different factors - such as institutional resources, student academic characteristics, and demographics (Scott, Bailey, & Kienzl, 2006). One of the most critical factors in completing the doctorate is adequate preparation of students for research. The role of the relationship between the mentor and the student has been found significant (Earl-Novell, 2006). Other factors include providing students with clear expectations and encouragement to finish the doctoral study in a timely matter (Ehrenberg, 2011). While it is the responsibility of the university to provide resources and institute policies that increase student success (Johnsrud & Banaria, 2004), it is the experience of the student throughout the program and the relationship with faculty that can make the difference.

Instructional faculty are in the position to determine the developmental needs of students and provide a transfer of knowledge and skills from their own experiences and education. This is consistent with the scaffolding of knowledge concept offered by Vygotsky (1979). Vygotsky's idea of scaffolding includes tools and techniques to provide support for students where they learn to become independent learners. Appropriate support is necessary for students to progress through the milestones in order to complete the doctoral degree.

In every doctoral course in this study, students are asked to submit written assignments that are aligned to program learning outcomes and course objectives. Giving written feedback on assignments has always been an important aspect of the teaching profession. While there is research that supports that instructor feedback is important to online students (Arbaugh &

Hornik, 2006; Wolsey, 2008), little research has focused on the frequency of instructor feedback in online doctoral courses. This study on embedded and summative feedback frequency was designed to offer a fuller understanding of the online teaching and learning experience.

## Problem

Students in the doctoral programs of this study participate in two years of coursework before entering the doctoral study phase. During this time, they work with many faculty members on assignments that range from discussion boards, to reflection pieces, to research papers. All of these courses include written assignments and most include a final benchmark assignment. Students must pass this benchmark assessment in order to continue in the program. Faculty are expected to provide feedback on these written assessments in order to scaffold student learning, improve student writing ability, and prepare students for the doctoral study process.

Providing transparent written feedback to doctoral students is essential to the learning process and preparation for the capstone. This may be even more critical in an online environment where face-to-face interaction is limited. Two major types of feedback that may play a determining factor to student success are embedded and summative feedback. Hence, providing students with clear and consistent feedback on scholarly written course work enhances the writing abilities of doctoral candidates and prepare them to write their final capstone.

## Purpose

The purpose of this study was to examine instructor feedback provided to online doctoral students on benchmark scholarly writing assignments throughout their program. The research team analyzed all feedback within these assessments, identifying the types and frequency of both embedded and summative comments, as well as noting any relationships between feedback and page length.

This study sought to accomplish four goals: (1) Describe the types and frequency of embedded feedback. (2) Describe the frequency and patterns of faculty summative feedback on student papers. (3) Analyze if there is a relationship between embedded feedback and summative feedback. (4) Analyze if there is a relationship between length of paper and embedded feedback.

## Rationale

Concise formative written feedback during the course work phase of an online doctoral program can be challenging. This formative feedback on written assignments should be aligned to the summative task of writing the final capstone. Using formative feedback during course work should support the philosophy of assessment for learning as opposed to assessment of learning. Although feedback takes many forms, embedded and summative feedback on student work can create a process of transparency, which allows faculty to clearly convey proficiency levels to their students. Therefore, understanding the frequency and types of embedded and summative feedback provided by this

large group of faculty may help online universities to determine if the feedback measures implemented in fact align to the skills needed to complete the capstone.

A recent review of the literature revealed limited findings on the role of written feedback in an online doctoral program (Scott, Bailey, & Kienzl, 2006; Earl-Novell, 2006; Walters, Henry, Vinella, Wells, Shaw, & Miller, 2015). While many studies have been conducted on feedback to students at the undergraduate level, limited studies have focused on the role of embedded and summative feedback at the post graduate level (Fook, & Sidhu, 2010; McVey, 2008). Furthermore, when narrowing the focus to online doctoral students, the results became scarce.

This study sought to offer an understanding of the type and frequency of embedded and summative feedback found in doctoral level assignments. The Research Questions follow:
1. What types of embedded and summative feedback are found in doctoral level written assignments?
2. What is the frequency of each type of feedback?
3. What relationship exists between the different types of feedback, if any?
4. What relationship exists between paper length and embedded feedback, if any?

**Research Design & Methods**

**Data Analysis**

Faculty feedback were examined at the MACRO: SUMMATIVE FEEDBACK and the MICRO: EMBEDDED FEEDBACK domains. Within the MICRO: EMBEDDED FEEDBACK domain, move structure analysis (Sinclair & Courtland, 1977; Swales, 1981; 1990; Bhatia, 1983; Halliday & Hassan 1985; Skelton, 1994; Mirador, 2000; Lewin, Fine, & Young, 2001) was used to examine the foundational components of faculty formative feedback on written student assignments. Move structure analysis is based on the analysis of both communicative purpose and linguistic structure. Skelton (1994) stated "Move structure analysis is a technique particularly used in the teaching of professional or academic writing, and is typically used as a means of describing what may always be done rather than what must or is always done" (p. 456). A 'move' refers to frequently occurring short phrases, with 'functions' purporting short sentences and 'exponents' as frequent individual words. Through the use of these identifiers, common themes, patterns, and frequencies were developed.

**Participants**

There were no participants involved in this study. All data used was collected from archived courses from 2011 in an online University. The students represented in this data are all working on their doctorate of education degree. Based on Fall 2010 demographic data, the students represented in these programs are all working on an advanced graduate degree. The student population is comprised of 43% African Americans, 39% European, 4% Hispanic

and 14% other individuals. The mean age is 43, with 76% of the population being female.

## Data Collection
The doctoral program consists of many different program specializations across a single College. Specifically, the College of Education ranges in specializations from K-12 programs to higher education teacher and leadership programs. Each of the specializations includes courses with benchmark assignments known commonly as major assessments. These benchmark assessment assignments were used for this corpus. The final analysis included 236 doctoral level written benchmark assessments that include feedback from approximately 51 faculty members.

Student papers were retrieved from all content courses in the doctoral program that were submitted between January and December 2011. Papers were pulled from approximately 16 courses (from all specializations) taught over the course of the year. The course instructors included both full time and contributing faculty members and are all employed by the online institution where the research was conducted, while also representing a plethora of universities where many of the contributing faculty are also employed.

## Study Limitations
The data collected in this study was rich and varied and provides valuable insights into the frequency and nature of academic feedback as a tool to guide, direct, and support students in their learning. Time constraints placed some limitations on labor intensive manual coding resulting in some instances where only a descriptive account of the nature and frequency of feedback comments could be provided in this report.

Whether faculty used other types of feedback was entirely beyond the scope of the analysis as the data provided did not cover methods of feedback outside of embedded comments recorded in the assignments under scrutiny. Academics may well use other means of providing feedback such as tutorials, formal or informal meetings, university website and other communicative technologies, such as Skype for example, to augment assignment feedback. No account of these methods is considered in this analysis of students' assignments and where such additional methods are used to communicate to students that may mitigate some of the findings of this report.

## Part A: Overview of Benchmark assessment papers within the scope of the study
Papers in this study ranged in page length from 4-33 pages. Sixty-three percent of all papers had between 8-15 pages. More than half (52.2%) were between 10-15 pages. Figure 1 summarizes this information and shows that just over four out of every five papers were between four and sixteen pages in length.
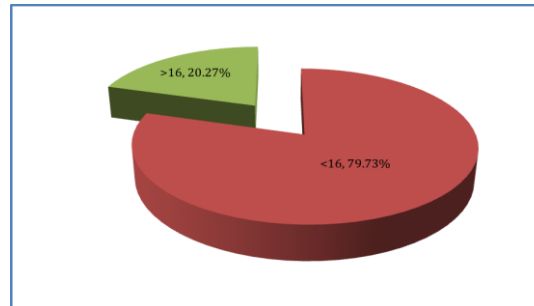
**Figure 1 – Number of Papers with Greater or Less than 16 Pages**

Of the 80% of papers with less than 16 pages, one out of every eight assignments was 10 pages in length.

## Summary for Part A
Paper's submitted for doctoral benchmark assessments averaged between 10 to 15 pages in length.  Most interesting was that of the 236 papers reviewed more than 80% were less than 16 pages in length, while 52.2% of papers were between 10-15 pages.

## Part B: Types of embedded feedback found in doctoral level benchmark assessments
The four types of embedded feedback across all these papers include:
- Comments in the margin
- Using 'track changes' in Microsoft Word
- Using highlighters
- Using summative comments

When weighted by frequency, these types of embedded comments are set out relative to each other in Figure 2:
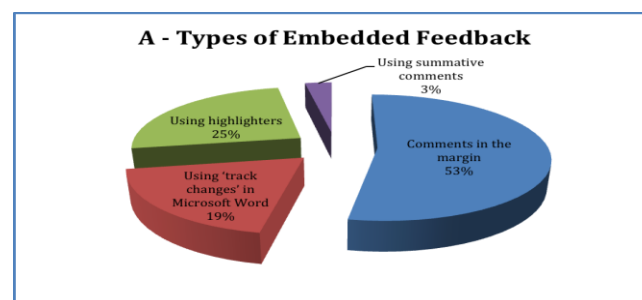


**Figure 2 – Types of embedded feedback**

Comments in the margin resulted in the largest amount of embedded feedback followed by the use of highlighting. Summative comments resulted in only 3% of total feedback across all papers in the study.  These types of feedback were further analyzed for their location in the paper and the following types of feedback were identified and coded as set out now in Figure 3.
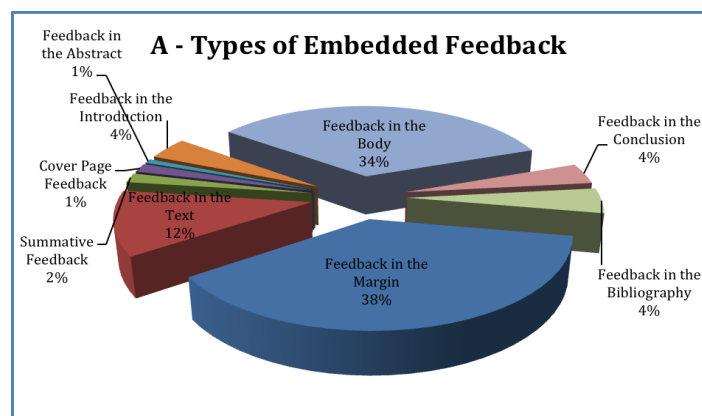
**Figure 3 - Location of Embedded Feedback**

## Summary for Part B

There appears to be alignment between the 53% type of 'comments in the margin' and location of 'feedback in the margin' at 38%. Both locations of 'feedback in the body' and 'feedback in the text' comprised 46% of all embedded feedback located in the textual part of the papers. This aligns with both text type 'highlighting' and 'track changes' that comprise 44% of all feedback. In addition, the 3% of summative feedback corresponds to the 2% summative feedback and the 1% in both the abstract and cover page where most summative feedback was considered.

## Part C - Frequency of each type of embedded feedback

The types of embedded feedback from Part B comprised:
- Comments in the margin
- Using 'track changes' in Microsoft Word
- Using highlighters
- Using summative comments

Part C details the frequency of each of the four identified types of embedded feedback.

## Comments in the Margin

Feedback that comprised comments written into the margins of student papers averaged eight comments per paper across the entire data set, or ten comments if only papers that used this means are considered. One-hundred-and seventy-nine of two-hundred-and-thirty-six papers coded had comments in the margin, interestingly that when this was the only means of embedded feedback only 10 comments were provided. The range of comments ran from the highest amount recorded being sixty-six to the lowest recorded being one. Seventy-six papers had between fifty to ten comments. The range of these frequencies is now set out in Figure 4.
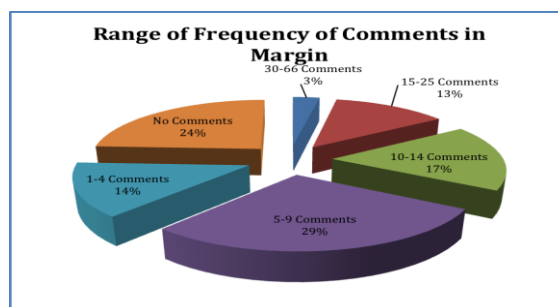
**Range of Frequency of Comments in Margin**

- 30-66 Comments 3%
- 15-25 Comments 13%
- 10-14 Comments 17%
- 5-9 Comments 29%
- 1-4 Comments 14%
- No Comments 24%

**Figure 4 – Range of Frequencies of Comments in the Margin**

Of all papers analyzed, nearly a quarter did not have comments in the margin at all.  Nearly a third of all margin comments for a paper extended between 5-9 total comments. Another third consisted of between 10 – 25 comments throughout the papers.  Based on the analysis between page length and comments in the margin conclusions can be developed that paper lengths between 6 and 15 pages had between 6 and 25 comments noted in the margins. In addition, the highest concentration of 'comments in the margin' was on papers that ranged from 10-13 pages. This is interesting in that the determined average number of margin comments across all papers was eight with combined feedback and 10 when this was the sole feedback.

## Using 'Track Changes' in Microsoft Word

Feedback which relied on the use of 'Track Changes' in Microsoft Word as a means of embedding responses on student papers averaged three changes per paper across the entire data set, or seven changes if only papers that used this means of feedback are considered. One hundred of the two-hundred-and-thirty-six papers analyzed used this method. The range of comments ran from the highest amount recorded being one-hundred-and-fifty-six to the lowest recorded being one. Fourteen papers had between forty-three to ten comments. The range of these frequencies is now set out in Figure 5:
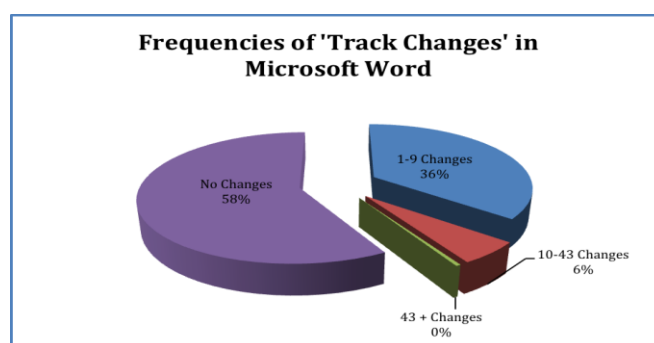
**Frequencies of 'Track Changes' in Microsoft Word**

- No Changes 58%
- 1-9 Changes 36%
- 10-43 Changes 6%
- 43 + Changes 0%

**Figure 5 - Frequencies of Track Changes' in Microsoft Word**

## Using Highlighters

Feedback which relied on the use of highlighters as a means of embedding feeding back on student papers averaged four highlighted sections per paper across the entire data set, or twelve highlighted sections if only papers that used this means of feedback are considered. Seventy-three of the two-hundred-and-

thirty-six papers analyzed used this method. The range of highlighted sections ran from the highest amount recorded being one-hundred-and-sixty-five, to the lowest recorded being one. Thirty-one papers had between ten and forty-eight highlighted sections. Highlighting consisted of 25% of all embedded feedback. The range of these frequencies is now set out in Figure 6:
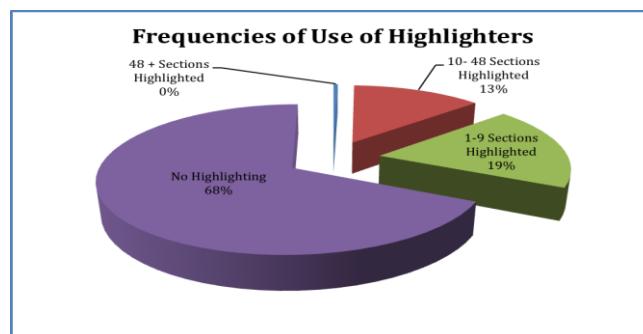


**Figure 6 – Frequencies of Highlighted Sections**

Highlighting resulted in nearly a quarter of all embedded feedback. Instances of highlighting were sometimes not accompanied by additional comments and therefore made analysis difficult from a student perspective. Highlighting is not necessarily intuitive without accompanying text therefore any use of highlighting would need to be accompanied by descriptors to benefit the student.

**Summary for Part C**
Aligning these findings with the frequencies figure indicating that papers with ten pages had received nearly twice as many track changes comments than any other number of pages paper the next closest in track changes comments were in the 11-13 page ranges. After 13 pages the number of track changes dropped. Patterns developed between types and frequencies of embedded feedback and paper length. Papers between 10-13 pages seemingly attracted the most embedded feedback across the entire dataset with highlighting being nearly one quarter of all feedback.

**Part D: Relationship between length of paper and embedded feedback**
Analysis indicates that there is a relationship between page length and the amount of embedded comments in papers. Papers with page lengths between 10-13 pages had the most types of embedded feedback regardless of the type of embedded feedback. Ten page papers had the most significantly noted embedded feedback. In addition, papers longer than 16 pages had a significant drop in embedded comments when compared with papers less than 16 pages. Table 1 indicates the specific relationships between page length and embedded feedback.

**Table 1 – Relationship between length of paper and embedded feedback**

| Relationship Between Length of Paper and Embedded Feedback | Comments in Margin | Track changes made within MS Word | Using Highlighters | Summative Comments |
|---|---|---|---|---|
| Pages = 04 | | | | |
| Pages = 05 | | | | |
| Pages = 06 | | | | |
| Pages = 07 | | | | |
| Pages = 08 | | | | |
| Pages = 09 | | | | |
| Pages = 10 | | | | |
| Pages = 11 | | | | |
| Pages = 12 | | | | |
| Pages = 13 | | | | |
| Pages = 14 | | | | |
| Pages = 15 | | | | |
| Pages = 16 | | | | |
| Pages = 17 | | | | |
| Pages = 18 | | | | |
| Pages = 19 | | | | |
| Pages = 20 | | | | |
| Pages = 21 | | | | |
| Pages = 22 | | | | |
| Pages = 24 | | | | |
| Pages = 25 | | | | |
| Pages = 29 | | | | |
| Pages = 30 | | | | |
| Pages = 33 | | | | |

Figure 7 shows a cross-reference between embedded feedback and length of paper.
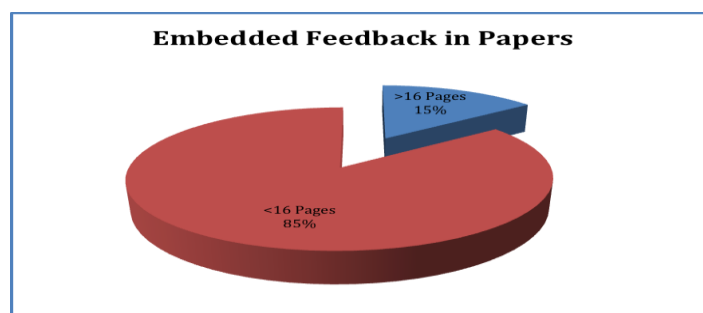


**Figure 7 – Embedded Feedback Cross Referenced with Length of Paper**

Longer papers, defined as more than fifteen pages, comprised twenty per cent of all papers yet only received fifteen per cent of all feedback provided. Therefore, longer papers receive less rather than more feedback when considered against the entire data set.

**Summary for Part D**

The insertion of comments into the margin of the paper was the most frequently used method of embedded feedback. Three out of every four papers analyzed had comments in the margin. Six out of every ten papers where comments were used had between one and fourteen comments inserted. Only four out of every ten papers used 'Track Changes' in Microsoft Word as a means of embedding feedback. Of these, there were between one and ten insertions in all cases except one that had more than that. Proportionately, longer papers received less feedback than shorter ones.

There was a relationship between the length of the paper submitted and the amount of feedback received. This means that prorated embedded feedback should equate to the one in four papers containing over sixteen pages drawing one quarter of all feedback as shown in Figure 8, while Figure 9 shows that when all four forms of feedback are cross referenced with papers with more than

or less than sixteen pages, larger papers draw only fifteen per cent of feedback although they make up twenty per cent of all papers.

From a teaching and learning perspective in using embedded feedback as a means to increase student understanding and scaffold learning opportunities this analysis reveals that assignment lengths for the most frequent types and occurrences of instructor embedded feedback from instructors should be targeted to no more than 13-15 pages. Longer and shorter paper page lengths in this dataset received less feedback from both frequency and type perspectives.

**Part E Summative review**

Feedback that comprised the use of summative statements as a means of embedding feedback on student papers comprised twenty-one per cent of all papers across the entire data set. Fifty of the two-hundred-and-thirty-six papers analyzed used this method. The range of summative comments ran from the highest amount recorded being nine, to the lowest amount recorded being one. Fourteen papers had between two to nine summative comments. The range of these frequencies is now set out in Figure 8:
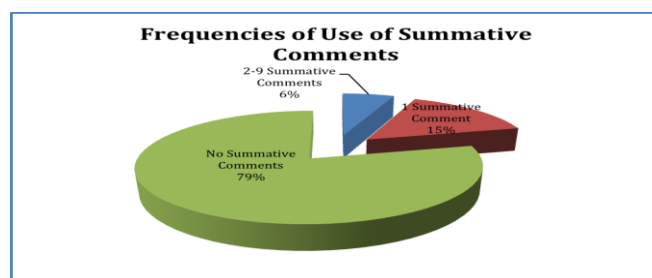


**Figure 8 – Frequencies of Use of Summative Comments**

In the initial coding stage, the category summative feedback had not been given a definition and only one-hundred-and-seven feedback comments had been coded to this category. The relationship between summative and embedded feedback was not distilled enough after the first round of coding. Therefore, additional detailed comparative analysis and re-coding was necessary to filter the 'actual' embedded feedback into specific categories leaving the summative feedback relating to the rubric criteria of the assessments. Only fifty of the two-hundred-and-thirty-six papers analyzed used this feedback style. Summative feedback comments also comprised a variety of data that was re-coded to other feedback categories that had been developed during the process of distilling and refining thematic categories; and the weightings of this coding are shown in Figure 9.
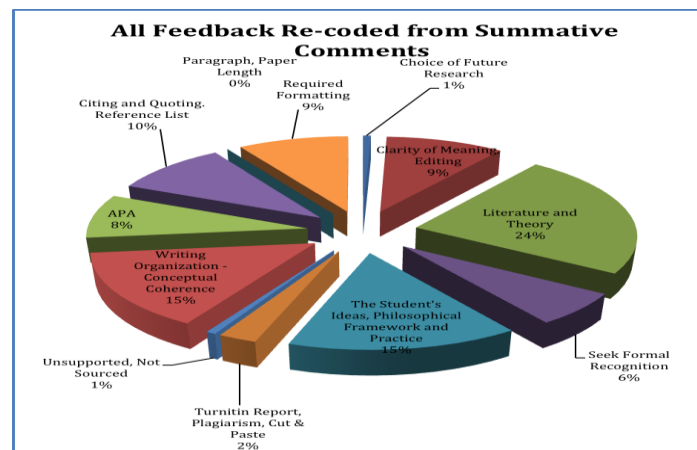
**Figure 9 - Feedback Re-coded from Summative Comments**

Thus comments re-coded from the category summative feedback fit into the categories that had already been developed. Nearly 79% of summative comments were aligned with areas covering aspects of the assignment rubric that was used for assessing the assignment for a grade, leaving only 3% of comments remaining as coded 'summative'. A pattern was identified for summative comments with general comments provided by the instructor relating to overall student performance in regards to the alignment of the student's work to the requirements of the assignment.

### Summary for Part E

Many of the original elements coded to the summative category ended up to be re-coded to eleven other categories. Once re-coding of summative feedback was complete only 3% of all feedback related to the summative category. These summative items related to overall student performance. Interestingly, the re-coded elements originally aligned to the summative category and re-coded to embedded feedback categories were aligned to categories relating specifically to the rubric criteria for the assignment.

### Key Findings and Suggestions

The levels of summative feedback re-coded to elements relating to the use of a rubric were noteworthy. In qualitative terms, it could be suggested that use of a rubric provides the student with the most comprehensive form of feedback, as it is explicative in addressing *all* the key elements and expectations of an assignment and the extent to which a student has met or fallen short of those standards. The quantitative analysis demonstrated a co-relation between paper length and amount of feedback given. Longer papers defined as more than sixteen pages comprised twenty per cent of all papers yet only received fifteen per cent of all feedback provided.

Although limited in scope, this study determined that both 'track changes' and 'margin comments' were the most frequently used online doctoral writing benchmark assessment feedback comments to students. In addition, the use of highlighting could be more useful to students as a mechanism for feedback

when accompanied by additional comments explaining the highlighted areas of the assignment. A relationship developed between the amount of feedback provided by faculty and the number of pages in assignments. Papers between 10 and 13 pages received the most detailed feedback from faculty when considering paper lengths between 4 and 33 pages.

Universities considering course benchmark assessments should be cognizant of the declining input from faculty when page length exceeds 16. Assignments ranging from 6-15 pages should be considered for maximizing faculty feedback to students, with an optimal page length of 10 for capitalizing instructor feedback to students. Limited summative feedback is provided when the assignment is evaluated through the use of a rubric that can provide detailed assignment criteria expectations intuitively for the student.

## Conclusion

There were four types of embedded feedback used by faculty members in an online Universities' benchmark assessment papers. The four types include 'comments in the margin', 'using track changes in MS Word', highlighting, and summative comments. The most frequently used type of embedded feedback was margin comments with the least as summative comments. Initially, there was overlap between what was coded as summative feedback and what was coded as embedded feedback. Through comparative analyses, most elements originally coded as summative were re-coded to embedded feedback categories. Many of these categories related back to the evaluation rubric used for the assignment. Therefore, the relationship between embedded feedback and summative feedback included re-coding of comments from the summative to categories relating to the assignment rubric. Additionally, there was a relationship between paper length and embedded feedback. Papers between 13-16 pages received the most feedback, while papers longer than 16 pages declined in the amount of feedback provided.

## References

Arbaugh, J., & Hornik, S. (2006). So Chickering and Gamson's seven principles also apply to online MBA's? *The Journal of Educators Online, 3*(2), 1-18.

Bhatia, V. (1983). An applied discourse analysis of English legislative writing. Birmingham, UK: The University of Aston.

Berelson, B. (1960). *Graduate education in the United States*. New York: McGraw-Hill.

Bowen, W. G., & Rudenstine, N. L. (1992). *In pursuit of the Ph.D.* Princeton: Princeton University Press.

Cook, B., & Pullaro, N. (2010). College Graduation Rates: Behind the Numbers. Washington DC, USA: American Council on Education.

Earl-Novell, S. (2006). Determing the extent to which program structure features and integration mechanisms facilitate or impede doctoral persistence in mathematics. *International Journal of Doctoral Studies, 1*, 45-57.

Ehrenberg, R. G., Jakubson, G. H., Groen, J. A., So, E., & Price, J. (2007). Inside the black box of doctoral education: What program characteristics

influence doctoral students' attrition and graduation possibilities? *Educational Evaluation and Policy Analysis, 29*, 134-150.

Fook, C. Y., & Sidhu, G. K. (2010). Authentic Assessment and Pedagogical Strategies in Higher Education. *Journal of Social Science, 6*, 153-161.

Halliday, M. A. K., & Hassan, R. (1985). Language, context, and text: Aspects of language in a social-semiotic perspective. Victoria: Deakin University Press.

Johnsrud, L. K., & Banaria, J. S. (2004). Doctoral education: National issues with "local" relevance. *Educational Perspectives, 27*(2), 20-27.

Lewin, B. A., Fine, J., & Young, L. (2001). *Expository discourse: A genre-based approach to social science research texts*. London: Continuum.

Lovitts, B. E. (2001). *Leaving the ivory tower: The causes and consequences of departure from doctoral study*. Lanham, MD: Rowman & Littlefield.

Mirador, J. (2000). A move analysis of written feedback in higher education. *RELC Journal*, *31*(1), 45-60.

McVey, M. (2008). Writing in an online environment: Student views of "inked" feedback. *International Journal of Teaching and Learning in Higher Education, 20*(1), 39-50.

Scott, M., Bailey, T., & Kienzl, G. (2006). Relative success: Determinants of college graduation rates in public and private colleges in the U.S., *Research in Higher Education, 47*, 249-279.

Sinclair, J. M., & Courtland, M. (1975). *Towards an analysis of discourse*. Oxford: Oxford University Press.

Skelton, J. (1994). Analysis of the structure of original research papers: An aid to writing original papers for publication. *British Journal of General Practice, 44*, 455-459.

Swales, J. (1981). *Aspects of article introductions*. Birmingham: University of Aston.

Swales, J. M. (1990). *Genre analysis: English for academic and research settings*. Cambridge: Cambridge University Press.

Vygotsky, L. (1979).  Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

Walters, K., Henry, P., Vinella, M., Wells, S., Shaw, M., & Miller, J. (2015). The genre of instructor feedback in doctoral programs: A corpus linguistic analysis. *International Journal on E-learning, 14*(4), 525-550.

Wolsey, T. D. (2008). Efficacy of instructor feedback on written work in an online program. *International Journal on E-Learning, 7*(2), 311-329.