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It is entitled:
A Study on the Impact of Collective Feedback in the Online Technical and Professional Communication Classroom

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A Study on the Impact of Collective Feedback in the Online Technical and Professional Communication Classroom

A dissertation submitted to the Graduate School of the University of Cincinnati in partial fulfillment of the requirements for the degree of

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In the Department of English
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by

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Abstract

This dissertation study seeks to determine whether feedback in the online Technical and Professional Communication classroom impacts student performance. This dissertation proposes that online Technical and Professional Communication instructors consider adopt such a feedback methodology in order to engage students with writing practices that better align with workplace writing activities. My research encompasses two parts: a small pilot study and a larger study. The larger study was developed from the results of an initial pilot study assessing impact of feedback on student performance in Technical and Professional Communication courses. Based on quantitative research through the analysis of student artifacts by outside reviewers, this larger dissertation study sought to determine the quantifiable impact collective feedback had on student performance versus that of individual feedback in online Technical and Professional Communication writing courses. Then, this study consulted participating faculty to determine hesitation or willingness of the instructor to adopt such pedagogical changes in their online courses. This feedback provided insights into how instructors respond to large shifts in pedagogy and impacts future adaptation of this study. Furthermore, this study also surveyed professionals within technical fields to gain a better understanding of the writing practices that take place within the workplace.

Because a central aim to Technical and Professional Communication courses is to prepare students for workplace practice as technical writers, this study sought to determine if current academic practices align with those in the field. Through qualitative feedback from the field, this study proposes that collective feedback better prepares students for workplace practice than do academic feedback strategies currently used in the Technical and Professional Communication classroom. Ultimately, this study proposes that collective feedback provides opportunities for more efficient, workplace oriented practices in online pedagogy that would allow faculty to engage in more meaningful interactions with
online students. Furthermore, efficiencies in online writing instruction can allow for redistributing tome saved to other pedagogical activities.
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I. Writing process/practices in the field – Background/Rationale/Questions

Background
By and large, writing instructors turn to the draft and feedback stages of the writing process to help students acquire the skills necessary to be effective writers. Traditionally, this process involves a dialogic process between instructor and student who translate specific, individualized comments into content revisions. However, writing pedagogy continuously fluctuates between the theories that writing is an individual process and that writing is collaborative, and therefore instructors often add a peer review element to the writing process to encourage collaboration. Regardless of whether or not instructors use a peer review element, in the academic space, the draft and feedback stages typically manifest as instructor-to-student interactions culminating in specific, time-intensive, individualized instructor feedback on each student’s text. Providing feedback in this manner accounts for a significant percentage of instructor’s teaching time. Conversely, in professional practice, the writing process largely takes place online as a collaborative, collective process, leaving little space for the form of feedback students become accustomed to in the academic writing classroom (Duin, 1991; Winsor, 1989; Olsen, 1989). This discrepancy between writing practice in the academic classroom versus that taking place in the field is particularly problematic for students and pedagogy in the Technical and Professional Communication (TPC) service course. We will use Meloncon and England’s (2011) definition of the service course: “introductory courses for nonmajors delivered primarily as a service to other departments and programs on campus” (p. 398). Furthermore, Knievel (2007) writes that the service course “remains a crucial curricular site, significant to the long-term health, credibility, and viability of the field. This is, of course, because the service course touches so many students it functions as a distillation and encapsulation of the field’s values” (p. 89). Because this course aims to prepare students to be practitioners with specific writing skillsets, the writing activities should more closely align with those from professional practice.
Moreover, term after term, instructors voice concerns about whether or not students use the feedback provided to them to improve their writing. However, without alternative solutions, instructor burnout, time constraints, and other factors such as training and professional development for the large number of contingent faculty, lead feedback to becoming a rote practice of copying and pasting recurring comments addressing the same errors across multiple student drafts. Essentially, instructors perpetuate the “genre of the end comment” (Smith, 1997) that scholars have long warned against. Feedback eventually becomes meaningless and useless to both student and instructor. This dissertation posits, however, that an effective alternative does exist that serves multiple purposes: to prepare students for workplace writing practices, to update TPC pedagogical practices beyond those adapted from the composition field, and to allow instructors to reallocate time to other teaching practices.

Historically and currently, a central tenant to TPC programs has been preparing students to be effective communicators and writers within the workplace. While curricula vary across institutions, due in large part to a lack of an accrediting body for such programs, scholars in TPC have found that “core courses” do exist that cut across programs (Meloncon & Henschel, 2013). Moreover, others have pointed to consistent aims that include a functional understanding of rhetorical situation, the ability to write and edit correct and accurate texts, the ability to be effective researchers and critical thinkers, and the ability to critically use technology to communicate within the workplace (Harner and Rich, 2005). Ultimately, TPC programs help students acquire the skills necessary to perform effectively as technical practitioners who write well.

However, a critical review of the drafting and feedback process in the classrooms, discussed at length in the literature review in Chapter 2, begs the question, are classroom practices supporting such outcomes? Particularly, are academic TPC classrooms preparing students to participate in current workplace writing and revision practices? Or, are TPC classrooms using traditional academic writing strategies—strategies that are not necessarily in alignment with those of today’s workplace?
Broadly speaking, this dissertation seeks to offer a solution to providing online technical and professional communication students with usable feedback that also prepares students to be effective practitioners, suggesting a change to long-standing pedagogical practices to more closely align with current technical communication workplace writing practices. This study set out to achieve two primary goals:

- To determine whether or not a shift away from providing individualized feedback toward collective feedback, a process that would better mimic workplace practices, would ultimately affect student performance
- To learn more about how faculty account for challenges in adopting new pedagogy

If no empirical evidence exists to suggest that students perform better when provided with individualized feedback over collective feedback, online TPC writing instructors may be able to modify widely held pedagogical feedback practices which would in turn better prepare the students to perform effectively as workplace writers. Such a modification would allow for instructors to devote more time to course design and content delivery, which would positively impact the struggle they have with managing the time necessary to effectively design and teach online TPC service courses. However, it became clear that such a change may be a more difficult transition for faculty than for students.

Finally, the results of the pilot and larger studies suggest that perhaps feedback can once again become a useful tool for both students and instructors—especially in the online classroom where mediated instruction provides ample opportunities for collective writing and revision—that aligns with writing practices heavily relied upon in the workplace rather than simply as a genre that students will only encounter within the writing classroom. Feedback can come to serve as an additional professional practice training tool and a way for TPC curricula to adequately prepare students for effective workplace
communication by exposing them to many of the genres—and accompanying feedback practices—they will encounter in their professional fields.

**Rationale**
I will now provide a more thorough explanation of the specific research topic, the rationale for the project’s larger questions, which draws upon specific, and in many ways distinct, scholarly literature, and the questions that drive this research.

**Research Topic**
With the creation of the Committee for Best Practices in Online Writing Instruction (OWI) within the Conference on College Composition and Communication (CCCC) in March 2007, online composition pedagogy has become a central topic among an increasing number of writing scholars. The OWI Committee at that time was charged with identifying best practices in several areas:

- Online writing instruction in general
- The use of various online media and pedagogies
- Online writing instruction for English language learners and students with disabilities

And, they sought to identify best practices in training and developing online writing instructors. In 2010, the Committee was redeveloped and recharged to, in addition to their previous charges, create a Position Statement on the Principles and Standards for OWI Preparation and Instruction and to create a way to share these practices with the OWI community at large.

This Committee’s charge to identify best practices in OWI has led to some interesting insights into the current state of online writing pedagogy. Data from the Committee’s 2013 CCCC membership survey revealed that over 75% of the online faculty surveyed used peer review or commenting in their online courses. Additionally, when asked to rate the degree to which learning new pedagogical strategies was a contributing factor to an instructor’s willingness to teach online, nearly 65% indicated
that it would increase willingness either very significantly or significantly (CCCA, 2013). The comprehensive results of this survey indicated that there was a clear need and interest from online faculty to explore new strategies for OWI. Yet, there remains little data or research that explores new pedagogies for online teaching beyond simply including multi-modal, technology-enhanced strategies.

In response to the CCCC call for best practices or new strategies in OWI and to others for the same in online instruction in general, organizations devoted to research in online learning, such as the Online Learning Consortium, the Quality Matters Organization, and the United States Distance Learning Association, and have provided momentum for researchers seeking to understand the unique qualities of teaching online. And while much new ground has been covered in learning theories associated with general online learning, very little scholarship exists, however, at the intersection of writing pedagogy, professional writing processes and online learning.

As we reconsider long-standing pedagogical practices within the writing classroom, we must also consider how such altered practices would affect online students. Online course offerings continue to grow as institutions adapt to meet the needs of a more non-traditional student body. According to the National Center for Education Statistics’ Integrated Postsecondary Education Data Systems (IPEDS) data, in 2014 (Allen & Seaman), 70.8% of higher education academic leaders reported that online learning is critical to institutional long-term strategies, and public, four-year institutions showed the greatest growth rate of 7.2%. This increased emphasis on online learning has spawned a growth in not only fully online degree programs, but also a diversification of course offerings. More and more, departments seek opportunities to place certificate and individual courses online. Oswal and Meloncon (2014) report that in a sample of 96 schools, 21% offered the TPC service course either fully online or in a hybrid delivery. As more technical writing programs make the transition to online modalities, best practices call for instructors to re-evaluate their traditional classroom pedagogy and course design.
It is within the context of OWI, that we reconsider the role of feedback. Best practices in online instruction call for instructors to be present and engaged within a course (Shea, Li and Pickett, 2006; Swan, Garrison, & Richardson, 2009), and instructor feedback plays a large role in developing instructor presence within an online writing course. Feeling the pressure to respond to student questions and provide the same level of detail in written correspondence (and feedback) and attention as they would in the classroom, online instructors impose upon themselves the burden to be in a constant state of engagement with their online students. As departments assign a growing number of online sections to those instructors who have the experience and willingness to teach online, online instructors continuously look for pedagogical efficiencies, yet they prioritize quality of engagement over quantity. This tension between the desire to provide valuable feedback and the time required to do so, leads online writing instructors to a perpetual balancing act between wanting to engage and feeling tethered to their computer.

Ultimately, despite the time-consuming nature of delivering online writing feedback, individualized feedback strategies remain a central component of the online TPC student writing process. Writing pedagogy scholars have widely researched what kind of feedback students respond to and what those responses are. Yet, there has been little research assessing the impact of feedback delivery on student performance. This is particularly true for research devoted to online writing instruction, and even more specifically to online TPC instruction. With feedback playing a central role in writing pedagogy and assessment, it became clear that in order to further improve our online TPC pedagogy and understand its impact on students, additional research needed to focus specifically on the impacts of feedback delivery in online technical and professional writing courses, and furthermore whether or not those academic practices aligned with those in the workplace.
Questions
This dissertation study fills the unexplored space of feedback studies and student performance in online TPC writing courses. Existing research within the TPC field, composition studies, and online pedagogy investigates various aspects of this topic individually, but no studies currently exist that merge the interests. As these three areas are often separated in research, this study brings them together to propose opportunities for a pedagogical shift surrounding instructor feedback. This feedback study assesses the impact of feedback methodology on online TPC writing students in a quantitative way that has not been explored before. Specifically, this study is based on several recurring questions for online writing faculty:

1. **Are students using instructor feedback during the draft stage of their writing process?**
   Instructors have often questioned whether or not students consult the feedback provided to them. Various studies provide insights into how students engage with what they consider “usable” feedback (Still and Koerber, 2009), but there have been few studies that explore quantitatively whether or not instructor feedback affects student performance.

2. **Does individual versus collective feedback impact student performance?**
   Technical and professional writing faculty spend hours reviewing student drafts and providing individualized feedback based on long-standing practices in composition pedagogy. However, there has not been an assessment of whether or not this time-consuming practice versus another more efficient methodology (collective feedback) translates into improved student performance.

3. **Does providing individualized feedback (versus collective feedback) best prepare students as practitioners in technical fields?**
   Knowing that TPC service courses are meant to provide students with the skills they need to engage in effective workplace writing, I question whether or not the individualized approach to
providing feedback best prepares students for the writing process they will likely encounter in the field. Individualized feedback strategies seem to clash with common practices in professional writing. Furthermore, I question if a collective feedback method might better align with technical and professional writing course learning outcomes.

**Chapter Overview**

In Chapter 2, I will survey the existing literature in the fields that influence this study. Because this study intersects several areas of research, this literature review will take time to explore each. First, in Chapter 2, we must understand what it is we teach within the TPC service course. As a field with history, TPC scholarship provides some insights into what program and course goals exist across offerings. Knowing what we teach leads us to question why we teach the way we do. Therefore, we will then spend time with existing TPC literature devoted to feedback strategies in the writing classroom. As composition studies forms the foundation of current TPC writing course feedback strategies, it is important that we survey the historic and current rationale for providing individualized feedback in the student academic writing process. As this dissertation focuses specifically on the online TPC service course, we will connect the TPC and writing pedagogy to online pedagogy and the scholarship dedicated to best practices in online learning and assessment.

Knowing what we teach in the TPC service course and why we teach it, this dissertation posits that this approach may not be the most effective. Therefore, Chapter 3 will explore why the TPC field may need to make a change in pedagogy. Through survey results received from professionals in the field, this chapter will explore the discrepancies between academic classroom writing practices and those existing in the workplace. This chapter will provide the survey results and discuss their significance to this research and the future of online TPC pedagogy. This chapter will also detail the proposed change to collective feedback via the “Feedback File.” I will outline what a Feedback File is, how instructors use it within a classroom, and what benefits they provide.
In Chapter 4, I will outline my study methodology. I will discuss the background and motivation for the pilot and larger studies. In particular, I will describe the initial pilot study that launched the second larger study. I will also describe the initial and adapted methods used to

- Identify faculty to participate in the study
- Prepare participating faculty to adjust and experiment with pedagogy
- Determine the impact of individualized versus feedback

This chapter will detail the faculty participants, the assignments used and the rationale, and the process used for outside analysis of the student submissions. This chapter will also discuss the larger study used for this particular research project and the results of further analysis of student submissions. I will also provide examples from the assessments and rubrics used in the pilot and larger studies.

Chapter 5 will discuss the results of the two studies and detail the outside reviewer assessments.

In Chapter 6 I will address the potential challenges presented to enacting such a pedagogical change in a TPC classroom. Initial concerns voiced during the recruitment process led me to surveying faculty to more fully understand the experience using collective feedback. I will share results from these participating instructor post-study surveys as well as those of instructors who ultimately chose not to participate. These results and commentary illuminate particular hesitations instructors may have to adopting such a feedback strategy. These results may also have implications on faculty recruitment for further research.

Finally, in Chapter 7, I will discuss the implications of the study on the TPC and online pedagogy fields. I will also present recommendations for future research, the potential application across disciplines, and the weaknesses in the study design that further research adaptations may address.
II. Our Current Pedagogy – Why We Do What We Do (A Literature Review)

This dissertation merges together several areas of scholarship; therefore, this literature review will be broken down into several sections:

- **Section 1: TPC – What We Teach and How** – This section provides an historical background to the emergence of TPC as a field and the pedagogy used within the service course which underscores the need to ensure the TPC service course is preparing students for workplace practice.

- **Section 2: Why We Teach the Way We Do** – This section explores the influence of composition studies on TPC instruction. As a field historically and currently closely tied to composition studies, the use of feedback in the TPC classroom still relies on its roots in composition pedagogy.

- **Section 3: Online Pedagogy** – This section discusses the theoretical foundation for online pedagogy scholarship and its synthesis with OWI and TPC curriculum.

- **Section 4: Rubrics and Assessment** – This section discusses scholarship supporting the use of rubrics as objective assessment tools and also discusses their weaknesses that are addressed within this study’s design.

- **Section 5: Intersections and Gaps** – Finally, as this literature review does survey a wealth of scholarship, this section will highlight specific literature that provide unique insights to the questions posed in Chapter 1. Additionally, this section will also bring to bear the gaps that exist within the scholarship in these fields that this study addresses.

**TPC – What We Teach and How**

As this research focuses primarily on the use of feedback within OWI practices, this literature review will first survey the historical development of TPC as a field and how current curricula emerged.
A survey of the current landscape of TPC service courses helps provide a fuller understanding what standardized learning outcomes exist for the service course and what drove the development of these learning outcomes. While Connors argues that technical writing has been in existence as long humans have wanted to communicate about tools (1982), TPC scholarship focuses on two central developments in the United States as the launching points for technical writing. The ability to mass produce texts which came about in the late 18th and 19th centuries brought the ability to share texts more widely using early technology (O’Hara, 2001). At the same time, growing interest in the research and development of technology for military purposes was supported with this ability to widely share more scientific journals dedicated to reporting the results from growing research contracts funded by the federal government (O’Hara, 2001). Among these research interests was the use of technology for commercial and military purposes. These two forces, technology research and development and the ability to report findings, led to the growth of technical writing as a job title and the ability to write content that translated technical jargon into content that other users could consume. Further supporting the development of technology was the drive of post-war development of consumer goods, leading to the birth of engineering positions in an expanding workplace (Pringle and Williams, 2005).

As consumer and commercial technology grew exponentially, so did technical writing as a field. More workplaces needed writers who could write research reports, white papers, and documentation for the end user of the newly developed technology. This need for writers with a unique set of qualities—the ability to write about and use technology—generated a need for trained technical “writers.” This led colleges and universities to creating writing courses that focused not only the ability to produce grammatically correct and rhetorically sound texts, but also to further develop the skillsets of engineers’ to include the ability to write sound and effective technical texts. As these programs emerged, largely out of writing programs that focused on rhetoric and composition, the 20th century brought the development of the first technical writing textbook (Pringle and Williams, 2005), one that
differed significantly from traditional composition texts in an attempt to try to fill the gap between academic and technical writing. The second half of the 20th century brought the emergence of entire programs and courses specializing in technical writing. With these, professional organizations like the Association of Teachers of Technical Writing also developed, further solidifying the development of TPC as a “new” academic field.

Technical writing as a field has from its early beginnings been driven largely by the development and influence of technology within commercial business and personal life. From the beginning, technical communication emerged from the need to create documentation devoted to communicating legal, medical, scientific, and technical content. Technical writers have historically needed the ability to not only manipulate technology and the tools necessary to create documentation that would accompany technology, they also needed be able to communicate such technical concepts to a variety of audiences. This has led to TPC programs focused not only on the technological tools used in writing and editing, but they have also focused on developing the literacy of theories rooted within rhetoric programs.

In 2013, Meloncon and Henschel found that there were 185 undergraduate TPC programs in the United States, a 131% growth since a prior review in 2005 (Harner and Rich, 2005). With such large growth in program offerings, it became clear that, as a field, TPC would need to determine a consistency among curricula. And while there has yet to be a credentialing body devoted to TPC curricular standards, TPC scholars have collectively sought a consistency in learning outcomes across programs. While the goals may be varied, the central concern is consistent. TPC programs should prepare students to become effective writers and communicators within technical fields.

To ensure TPC courses were indeed preparing students to meet professional demands, Meloncon and Henschel (2014) aligned Cook’s (2002) layered literacies and Reich’s (1992) symbolic-analytic abilities to determine five essential learning outcomes, or conceptual skills, for the TPC service
course: 1) rhetorical proficiency, 2) abstraction, 3) social proficiency, 4) experimentation and 5) critical system thinking. Meloncon and Henschel’s review of TPC literature found that TPC courses needed to address both practical skills (i.e. the ability to analyze audience, write and edit, etc.) and, increasingly, complex conceptual skills (i.e. the ability to think critically and problem solve). Aligning and merging Cargile Cook’s six “layered literacies” (basic, rhetorical, social, technological ethical and critical) and Reich’s four basic skills (abstraction, system thinking, experimentation, and collaboration), Meloncon and Henschel outline these five conceptual skills as the standardized central learning outcomes as defining elements of TPC course and program curricula. Their research culminated in a visual table with which faculty could assess course and curriculum in their ability to meet these outcomes.

Figure 1. Meloncon and Henschel’s development of five conceptual skills (2014)
Meloncon and Henschel’s matrix of essential skills formed the foundation of the practical skills they propose as necessary for TPC students to master. Among those practical skills are rhetorical analysis, content management, self-activation and evaluation, and collaboration. The authors believed that defining these conceptual and practical skills as outcomes to TPC coursework helps to ensure that current and newly developed courses or programs support the overarching conceptual skills or outcomes. The TPC field uses this matrix and the accompanying skills as a starting point for understanding what is taught in TPC service courses (Cook, 1992; Reich, 1992; Meyer & Bernhardt, 1997). As TPC services courses largely serve professionalized STEM majors (Science, Technology, Engineering, and Math), the TPC field focuses course content on what students will likely encounter in those workplaces.

Therefore, to really prepare TPC students for professional practice, the TPC field needed to determine what exactly programs should be preparing students to do. That is, in addition to understanding what skillsets TPC students should have, there was a lack of definition of what TPC students would “do” in the workplace. This knowledge gap sparks specific field-based questions, such as what do professionals in a technical field write about and why? What tools do the writers use to communicate? TPC has always been affected by advancements in technology and workplace practice. Therefore, even if these questions were answered early in the development stages of the TPC field, recent innovations in technology, both for consumer and commercial use, led several scholars in search of current answers. To this end, Cunningham and Stewart (2011) surveyed architects and engineers who attended continuing education seminars with the aim of answering questions about how architects and engineers spent their time. After receiving 185 responses, their results indicated that the respondents spend most of their time reading and writing correspondence. In the writing itself, respondents indicated that organization, comprehensiveness, and accuracy were more important than technical and
mechanical issues. Therefore, as the TPC considers useful feedback in preparing students for workplace practice, feedback that focuses more intently on displaying and explaining larger issues of organization and purpose better prepares students for the workplace than feedback that focuses more on mechanical fixes like spelling and grammar. This, however, is the type of feedback seen most often in individualized feedback because of the physical space and time limitations instructors have.

These findings support similar conclusions from other TPC scholarship that encourages preparing students for the workplace. Many TPC scholars argue that coursework should ask students to work collectively and author collaboratively (Carliner, 1992; Hedden, 1992; Barnum, 1994; Henry, 1998; Morgan, 1991; Wambeam & Kramer, 1996; Loehr, 1995; Scott, 1995; Forman, 1993; Allen, 1993; Spilka, 1993). As technical writers are often just one member of a larger team collectively producing a document, a key outcome to TPC curricular and course design is preparing students for collaborative writing and knowledge making. In the TPC field, writing is primarily a process involving the contributions of subject matter experts, writers, editors, supervisors and others. Course activities that prepare students for collaborative writing also align with Meloncon and Henschel’s conceptual skill of social proficiency—writing and working collaboratively. Overall, TPC scholars agree and have devoted substantial research to understanding the function of collaboration within the TPC field. Specifically, Thompson (2000) found that collaboration was a central focus to a large swath of technical communication literature published from 1990 to 1999. Therefore, TPC courses that place collaborative writing activities at the center of service coursework support the outcomes as defined by Meloncon and Henschel and others, and these courses respond to the call for research for the development of a social proficiency in TPC student writing.

Preparing students to become professional writers also means preparing students to become writers within a larger organization. That is, in a corporate organization, an individual writer’s voice must conform to that agreed upon voice representing the organization. Several themes emerge from TPC
literature on corporate authorship: the significance of defining the technical writer as author within an organization; whether or not the label of “author” professionalizes the position; and the need for a technical writer to assume the identity of a corporate sponsor (Debs, 1993; Slack, Miller & Doak, 1993; Slack, 2003). As writers negotiate this power dynamic, as Slack et. al (1993) note in their original work on corporate authorship, authorship in the corporate sector “empowers certain individuals while at the same time renders transparent the contributions of others” (13). Therefore, the writing process within the technical writing classroom should prepare students to assume the authority their organization, or not. Additionally, preparing TPC students to navigate the authorial power or lack thereof within the corporate environment provides them an opportunity to learn that in many contexts, their writing is not theirs. They must adapt their own writing to the needs of the corporate entity they represent.

Professional writers often do not possess the authority to write and publish content without receiving the appropriate permissions to do so. In some cases, this “permission” comes in the form of a writer conforming their own content to that of the organization’s prescribed style. Through the use of a style guide in the field, or a Feedback File in the classroom, writers learn to conform their writing into the voice and conventions of a larger entity—to indeed transform their work to meet the needs and expectations of their instructor and eventually their organization. Again in this case, we see the coursework serving as a preparation tool for workplace practice.

Because TPC writers often write within prescriptive environments, TPC students must also learn to work with specific genres that are prevalent within technical fields to ensure their writing complies with and meets the needs of the documentation their situation requires. One such genre that students will likely encounter is a style guide, a document in the field which defines protocols for writing standards across an organization. The use of such a document asks students to combine many of the conceptual and practical skills Meloncon and Henschel define with revision practices in order to produce professional documentation. Incorporating style guides into TPC classrooms asks students to critically
engage with content (system thinking), interpret and evaluate their own text and the rhetorical situation in which it exists (rhetorical proficiency, experimentation) and revise appropriately (abstraction). Social proficiency is not to be ignored and will be addressed later in this review as it relates to the need for students to engage in collaborative writing, as well.

**Why We Teach the Way We Do**

While it is evident that TPC as a field has certainly developed its own scholarship and definitions of what the TPC curriculum should include, it has often borrowed pedagogical practices from rhetoric and composition studies.

For many TPC instructors, the only pedagogy course they ever take is a course offered by composition and rhetoric specialists, which would naturally focus on pedagogy for first-year composition (Meloncon, 2009; Melon, England, Ilyasova, 2016). Composition scholarship has for generations sought to answer the question: how do students write? Early work from current-traditionalists argued that students write and learn to write through rigid, repetitive practices until students comprehend absolutes in rhetoric and technical correctness (Crowley, 2010; Berlin, 1982). The 60s and 70s brought about an enlightenment period in composition studies, or as Hairston coined “winds of change” (1982), when composition studies began to view writing and the teaching of writing as a process of improvement rather than a practice focused on the final product. Process theorists in composition studies argue that writing is a series of activities through which writers move as they create and produce a text (Emig, 1971; Murray, 1982; Macrorie, 1970; Elbow, 1998). And while the field continues to shift now toward a new post-process perspective of writing wherein context and writer experience play a vital role in the approach to writing (Kent, 1999; Olson, 2002; Trimbur, Bizzell, Knoblauch, & Brannon, 1994; Hyland, 2003), this dissertation situates itself within the process-oriented approach to writing and writing instruction. As students progress through the defined stages of pre-writing, drafting, and revision, feedback plays an interesting role in these final two stages.
Until the late 1970s, composition scholarship suggested instructors teach students to write through the use of rigid, repetitive activities founded on the practice of classical traditionalist rhetoric. However, the field’s later turn toward a focus on the writing process over the written product provided an opening for new pedagogy scholarship devoted to better assisting students through the writing process (Murray, 1972, 1982; Flower & Hayes, 1981; Emig, 1968; Elbow, 1998). These process-centric scholars sought to understand how students move through the writing process, what resources students turn to for instruction, and what role the instructor plays within the sequence. Some paid particular attention to the individual stages within the process, which led to research on the strategies of pre-writing and idea generation exploring how students find meaning and build ideas within the writing process (Rohman, 1965; Emig, 1977; Berthoff, 1978; Bizzell, 1986). Others shifted their attention to the drafting and revision stages, and assisting students in using the revision process to solidify ideas and improve writing (Faigley and Witte, 1981; Sommers, 1980; Hyland, 1988). Revision and feedback played large roles within this more process-oriented approach to writing instruction. Because, as scholars noted, the writing process is a cycle of stages, each building on progress from the prior. If faculty could assist students through those stages, strengthening the drafts each time, students would develop their own personalized approach to writing, something that could be replicated each time a writing task presented itself.

In considering how students would transition from stage to stage, composition pedagogy researchers noted that instructor feedback could play a large role within the student writing process, as it can guide students not only in the technical correctness of their writing (a product-centered approach), but it can also serve as a tool to assist students through the critical analysis of their own work (process-centered writing) (Knoblauch and Brannon, 1981; Odell 1974; Auten, 1992; Chaudron, 1983; Dragga, 1991; Hawisher, 1987; Hillocks, 1982; Moxley, 1992; Perl, 1979). Sommers (1982) recognized what many faculty had been employing in providing feedback—the “end comment” (Smith, 1982).
Sommers argued that given the emphasis on its significance in the process, instructor commentary developed as its own genre, becoming a repeated and standardized methodology in writing pedagogy. This “genre” continues to serve as the standard by which faculty deliver individualized feedback on each student’s draft, but it has in turn trained students to expect and engage with feedback in a particular way. Students seek out the technical corrections first, then the easily interpretable comments next, leaving the more difficult and dense comments for last (Still & Koerber, 2009), sometimes leaving them unaddressed altogether. Ultimately, composition faculty spend great amounts of time simply reviewing and commenting on student drafts, only to be disappointed and discouraged to see some errors left unchanged from draft to draft. The struggle to provide students with usable feedback without spending hours doing so is an ongoing challenge for many new and seasoned instructors.

Sommers’s (1982) landmark work on responding to student writing concluded that instructors comment on student writing in such a way that students perceive them as rules to follow. For Sommers, while theory indicates that writing is a process, feedback relays the message that instructors really place emphasis on product. Rather than reading to find meaning within a student’s text, instructors often read to find errors, which are reflected in the comments placed on student work. Sommers calls for instructors to view comments not as the end of the dialogue between student and instructor, but rather as a “means for helping students to become more effective writers” (153). As Sommer’s pointed out, and as is still the case, feedback and commenting on student work is one of the most time consuming activities in writing instruction. This holds true for online instructors, as well, as will be discussed later in the implications of this study in Chapter 7, who struggle to find the balance between time dedicated to student feedback and time dedicated to content delivery and course design. Because feedback consumes so much of our time as instructors, Sommers writes, we must “understand the nature of the enterprise” (148) and adapt our practices to provide students with usable, meaningful feedback. In the context of a TPC classroom, meaningful, usable feedback does not come in the common form of
individualized feedback that emerged from composition studies. To provide meaningful, usable feedback in the TPC classroom, an instructor must adapt those feedback strategies as Sommers calls for and must instead consider feedback as a tool that can assist students in adopting writing strategies that transfer to workplace practice.

For composition scholars, Sommers’ work served as a directive in understanding how and why instructors provide feedback, and moreover how it impacts the decisions students make as they revise their work. Further research in feedback studies have determined that students prefer and address more consistently comments that are specific, understandable, and support the areas of writing that the instructor has conveyed as important (Hillocks, 1982; Ferris, Pezone, Tade & Tinti 1997; Straub, 1997; Dohrer, 1991; Jonsson, 2012). Additionally, students tend to direct their attention first toward comments that provide concrete issues of correctness and direction rather than abstract concepts like purpose and audience (Connors and Lunsford, 1993). Early feedback scholarship (Macrorie, 1968; Hirsch, 1977; Daly and Miller, 1975; Ziv, 1980; Dragga, 1986; Emig, 1977; Shaughnessy, 1977; Hayes & Daiker, 1989) and recent feedback scholarship (Bardine, Bardine & Dugan, 2000; Beason, 1993; Stern & Soloman, 2006) agree that positive comments from faculty that encourage and instruct students on writing growth create a more positive writing and learning environment than do comments that focus on weaknesses and deficiencies. Yet, in a time-constrained environment, instructors fall back onto commenting habits that are both easier for the instructor and the student—line-by-line editing or short, extremely condensed comments that hopefully convey the issue in the space and time available.

But, this dissertation asks instructors to view feedback as more of a tool than simply a dialogue alone. If feedback is viewed as a tool, one that helps students to complete a task (revision) and prepare for workplace practice, how can we best situate students to use such a tool? Before we can repurpose a tool, we must first understand its initial intention. Instructors have had an intended use of feedback as a tool to communicate to students. For generations, instructors have commented throughout a text on
specific elements, saving summary views for a final critical paragraph at the end of the essay. They expected students to read all of the comments, consider their meaning, and apply the answers to their papers. Additionally, instructors have expected that these final thoughts in feedback at the end of the paper, “the end comment,” created an opportunity for students to engage in a conversation with the instructor. This places a large emphasis on these comments provided to students at the end of their drafts. Scholars have argued that the content of these final comments can have an impact on the student writer. Comments that convey a negative message or are perceived as impersonal can have dramatic, destructive effects on a student’s self-confidence in writing and willingness to revise (Cho, Schunn & Charney, 2006). Conversely, comments conveying a positive message can create a sense of reward for students and encourage additional revisions (Gee, 1972). Additionally, Scrocco (2012) found that when instructors use comments as a dialogic tool to generate thinking through open-ended suggestive, discussion-like feedback, students engage more frequently with such comments. Viewing commenting and feedback as a dialogue between instructor and student is important particularly for the online student who receives little in the way of one-on-one, direct interaction with faculty. Therefore, a more in-depth review of dialogic feedback specifically in the online modality will be discussed later in this chapter.

A continued exploration of instructor use of feedback in composition studies also finds cautionary tales to instructors. As pedagogy research seems to support a balance between negativity and positivity in feedback, some have found that positivity tends to replace specificity, making feedback actually less useful to students (Duncan, 2007). In fact, a highly influential, and widely recognized work within composition, is a cautionary tale to faculty in becoming too comfortable in this “genre of the end comment” that is a formulaic balance between negative and supportive comments is Smith’s work (1997) urging faculty to avoid generic responses. Instead, Smith urges faculty to challenge themselves to vary responses to students. An end comment that reflects a prescribed system of positive statement,
followed by critical response, closing with a summative response becomes too familiar to students, placing the comments in danger of being ignored. Ultimately, Smith warns, faculty who rely on this genre of commenting confine themselves to finding elements within the writing that fit this predefined blueprint of delivery, rather than fully exploring and sharing truly beneficial comments with students that may ultimately fall outside of the comfort zone.

Regardless of the theoretical lens through which the research is conducted, feedback has remained a central component of the writing process of student writers. And while feedback strategies emanating from composition scholarship works within its own context of the composition classroom, it presents a unique issue for those teaching writing outside of the composition classroom. In particular, the TPC service course classroom poses unique challenges. Among these are the fact that often it is the student’s last (and sometimes only) exposure to writing before they graduate. TPC courses are also naturally sprinkled among a variety of disciplines, having been found in the professional colleges to which the courses cater (engineering programs, business schools, health professions colleges, etc.) in addition to specific TPC programs and general professional writing programs. Finally, the TPC course is taught overwhelmingly by contingent faculty (Meloncon and England, 2011) who are a mix of graduate students, full-time non-tenure track faculty, and adjuncts. Many service courses are also taught by working, active professionals in the field who teach only as part-time faculty. TPC programs often tap into professional writers as a teaching resource for the service course because of the first-hand knowledge of the field they bring to the classroom. This variety of instructional background leads to a variety of pedagogical approaches.

What remains constant in varied pedagogical approaches is the use of feedback in the writing and revision process. And while it may seem that the varied credentials of the instructors would affect the feedback provided to students, research has shown this is not the case. Feedback scholarship exploring the impact of instructor discipline has found that instructors tend to agree on the qualities of
effective writing (Smith, 2003; Miller, Bausser & Fentiman, 1998; Abbott & Eubanks, 2005). Regardless of whether the instructor comes from an academic or professional background, they most often highlight in their feedback the same qualities of successful writing: rhetorical effectiveness, organization and clarity, and technical correctness.

Some scholars have come to understand that the role of feedback and its delivery within writing across the curriculum courses (Beason, 1993; Bazerman, 1991) and service courses, like the technical and professional writing service course, must be adapted to the needs of these students, courses and the learning outcomes they aim to achieve (Selzer, 1983; Winter, Neal, & Waner, 1996). The unique qualities of these courses that extend beyond the domain of composition, with their contrasting learning outcomes and distinct expectations for student professional preparedness (Meloncon & Henschel 2014), beg TPC writing instructors to question why and how they deliver instructor feedback. Instructors teaching the TPC service course are keenly aware of their students’ career-centric approach to writing, and use writing to not only assess critical thinking and analysis skills, but also to engage students with genres and practices they will likely encounter in the field. This distinctive context presents an opportunity for TPC instructors to reframe their use of feedback.

Because research has discovered that professional TPC practices largely involve online collaboration, teaching an online TPC service course presents an opportunity to further reconsider the role of feedback and its use in the virtual classroom. Literature from the online pedagogy field provides a framework within which OWI instructors can reposition feedback as a useful tool.

**Online Pedagogy**
A review of scholarship driving best practices in online learning and instructional design will provide a better understanding of the current and potential use of feedback within the online TPC service course. With such a broad spectrum of scholarship devoted to online learning best practices, we will limit the purview of online pedagogy literature. For the purposes of this dissertation study, we will use Mayadas
and Miller’s (2014) definition of elearning as we discuss online learning: learning that takes place online with no required face-to-face interactions or on-campus activities. Online learning defined this way eliminates any geographical or curricular constraints and focuses on facilitating interactions between student and content, student and instructor, and student and peers in a completely technology-mediated learning environment. Specifically, as we continue to discuss online learning theory, we will be excluding from that discussion hybrid learning (some online, some face-to-face) and correspondence courses (completed completely via mail). Furthermore, we will limit the discussion to studies that focus on asynchronous online learning, that which does not require students to participate at set dates and times in order to interact in real-time discussion with peers or the instructor. While literature that includes a broader definition of elearning and multiple delivery modalities is certainly fruitful to the development of best practices in online and distance learning, excluding them from this discussion will allow a more direct emphasis on the unexplored space this dissertation research fills and the potential impact my study may have on asynchronous, fully online TPC service course pedagogy.

Today’s online learning theories developed out of a long history of traditional learning theory. Early education scholarship from cognitive and constructive learning remains relevant to how students learn in the online environment (Beetham and Sharpe eds, 2013). Current online learning scholarship and best practices rely heavily on three major learning theorists from education: Jonassen, Gange and Vygotsky, and Bloom. We turn to these early education theorists because they provide the theoretical foundation on which not only online education courses in general are built, but the learning concepts are also applicable and useful to the online TPC course. Effective OWI practices integrate strategies from education with writing pedagogy. Furthermore, organizations like Quality Matters and the Online Learning Consortium (which will be discussed in detail later in this section) endorse courses that are built from sound learning outcomes, learning goals that rely on the principles from these early education theorists.
Online learning theory is heavily influenced by Jonassen’s (1999) constructivist approach to learning environments. Constructivist learning theory places the learner in the control position, setting individual goals and objectives for learning. Learning is embedded in complex, problem-based scenarios and tasks, and built through the individual learner’s opportunity to create knowledge from experience. In a constructivist learning environment, assessment is continuous and embedded within learning tasks. Online learning activities that follow constructivist learning theory include case studies, problem-based learning, and scenarios that mimic the workplace which allow students to analyze context, consider opportunities, and determine solutions.

Another of the most influential learning theories to online pedagogy and instructional design is Gagne’s (1970) objectivist learning theory. Objectivist learning theory considers knowledge as an object to be learned and considers the conditions which bear upon the student to learn: content, situation, and the learner himself. Teachers play an important role in objectivist learning as they provide an organized, structured, and prescriptive environment in which students are able to replicate knowledge provided to them. Gagne outlined nine events of effective instruction which needed to take place in order for a student to have learned new content: 1) attention, 2) objectives, 3) recall, 4) stimulus, 5) guidance, 6) performance, 7) feedback, 8) assessment, 9) retention. Many online students respond well to course design influenced by objectivist learning because of its highly structured, organized, and sequential learning style. As online students find themselves struggling with the freedom and flexibility that online coursework provides, instructors rely on a more restrictive learning environment to keep students participating and engaged throughout the course.

Finally, Vygotsky’s (1978) theory of learning, which argues that knowledge creation is a social act rather than an individual one, can be seen throughout best practices in online instructional design. Learning, according to Vygotsky, is the result of dialogic interactions among peers and experts. Learning as a social engagement as Vygotsky posited influences today’s pedagogy and instructional design within
online learning in that socio-cultural learning theory places the learning environment in the center of learning. Furthermore, Vygotsky supported the role of experts within learning who helped students to learn material through tools that helped mediate learning. Viewing feedback through the lens of socio-cultural learning theory provides the opportunity for writing instructors to truly see feedback as a learning tool, as this dissertation proposes, rather than simply as a dialogue between student and instructor. Feedback within the socio-cultural environment would be part of a two-part process: learning and development (Hall, 2007). Students, as a group, would first learn by being provided the feedback from an expert (instructor) with an explanation of how to use the tool. The development occurs when students have an opportunity to internalize the document and apply the concepts themselves. Socio-cultural learning theory supports the use of feedback as a tool.

While these three learning theories have unique strengths, best practices in online learning call for a variety of learning approaches to engage students with a variety of learning strengths from the first day of the course. Instructors must be mindful that the physically restrictive nature of distance learning can make social engagements difficult (Vygotsky’s socio-cultural learning theory). However, complete flexibility and self-guided knowledge construction can be more than many students can handle (Jonassen’s constructivist learning theory). And, online students tend to not respond well to instructors who deposit knowledge (Freire, 1970) into their students (Gagne’s objectivist learning theory). Therefore, a heavy reliance on only one or two of these theories in an online course design can unintentionally exclude students from the learning process.

The ways that students interact with content and build community are one part of a positive online learning experience. In order for online students to perform well, sounds measures must be in place to assess student performance. Sound learning outcomes are the foundation on which an effective online course is built. When writing learning outcomes that effectively measure student performance, instructional designers and instructors turn to another influential scholar in learning theory. Bloom
developed a framework for categorizing how students achieve learning goals. His “taxonomy of cognitive learning” outlined the cognitive levels at which students build knowledge. Bloom defined six major categories of learning that built on each other as learning concepts became more difficult. Figure 2 below displays the six categories of learning in the traditional pyramid structure exemplifying the systematized nature of the learning categories and the continuum of learning concepts as students move from basic recollection to more advanced knowledge creation.

This pyramid of learning helps instructors to identify learning goals that engage the learner at various levels. When courses start with learning outcomes that reference Bloom’s taxonomy of learning, there is a stronger probability that the course is built on a strong theoretical foundation.

While much of learning theory was initially developed through studies of student engagement and knowledge creation in a traditional classroom, we find that extending the application of learning theory to the online environment proves fruitful for online pedagogy scholarship. Because many of the same foundational concepts of how learners learn in the classroom are applicable to how students learn
in the online environment, online pedagogy best practices scholarship continues to help to connect and adapt face-to-face classroom pedagogy to online learning. Govindasamy (2002) broadens such an application of learning theory fundamentals, such as content development, learning outcomes, and assessment, to instructional design and from this application puts forth best practices in online course design. He argues that there are five essential elements to designing online learning content that is pedagogically sound: developing content based on learning outcomes, storing and managing content within a learning management system, packaging content for easy learner access, student support, and assessment. Placing Govindasamy’s principles of online learning in conversation with Bloom’s taxonomy of cognitive learning, we build a strong foundation on which to develop sound pedagogical principles to guide students and instructors to effective learning experiences in a digitally enhanced learning environment.

What instructional designers and online instructors gain from learning theory, though, especially in today’s mediated learning environment and regardless of the guiding learning theories underscoring the course design, is that the pedagogy must influence and determine the technology and content delivery rather than the inverse. There is no lack of scholarship supporting this claim that pedagogy should drive course design (Ascough, 2002; McLoughlin, 2001; Caplan & Graham, 2004; Leasure et. al, 2000; Carr-Chellman & Duschastel, 2000; Mioduser, Nachmias, Lahav & Oren, 2000; Cargile Cook, 2005). Swan et. al (2006) affirm this interpretation with their research in student satisfaction in asynchronous online courses which found that students report significantly more satisfaction and perceived learning when courses include clear design, interactions with instructors, and active, social learning. This combination of social and structured theoretical approach provides an environment for both student and instructor to feel engaged with the content and each other.

Relevant to this dissertation study is Hattie and Gan’s (2011) research which overlays feedback studies with Vygotsky’s learning theory to view feedback as a “cognitive apprenticeship,” (p. 255), an
opportunity for novice learners to learn from more advanced learners through social interactions of feedback. This process replaces the instructor as the knowledge center by using feedback as an opportunity for students to create content knowledge with each other in a co-construction of meaning. Viewing feedback as a social activity, rather than as a one-on-one interaction between instructor and student, creates a learning and working environment more closely aligned with current workplace practices. An interest in aligning classroom writing strategies with those from the workplace was a motivator in developing Feedback Files for the online TPC service course. The goal of asking students to engage with a Feedback File to revise their writing was to give students an opportunity to develop skills more directly applicable to workplace writing strategies.

Additional best practices in online pedagogy focus on instructor presence and interactions with students within an online course. Such practices call for instructors to engage consistently and frequently with students in order to build the learning networks necessary to ensure long-term success in the online environment, just as instructors would do in a traditional classroom (Swan 2002). Moore’s (1993) highly influential work in learning networks suggests that online learning provide opportunities for students to interact in the online classroom in three different ways: 1) learner to content, 2) learner to instructor, and 3) learner to learner. An instructor’s presence, when combined with the student’s cognitive and social presences, forms the triad necessary for effective distance learning and student success. Online instructors must also be conscious, though, that the risk of student alienation and lack of social engagements can present real challenges to student success in online learning (Peters, 1993). Online instructors easily fall into the pitfall of not being present enough in an online course, leaving students feeling isolated and disconnected from both social and cognitive elements of the course.

Pedagogy which emphasizes the role of the instructor role within the virtual classroom relies on scholarship from across fields that support an instructor’s presence in an online course as a key component of learner success. Online pedagogy scholarship tends to agree that frequent and consistent
interaction with instructors, which includes feedback, is essential for student success in online learning for several reasons (Janicki & Liegle, 2001; Thiele, 2003; Getzlaf, Perry, Toffner, Lamarche & Edwards 2009). For example, feedback and instructor interaction serve as a way for instructors to create presence within an online course and further build learning communities (Richardson & Swan, 2003; Swan, 2002; Swan, Shea, Fredericksen, Pickett, Pelz & Maher, 2000; Rovai, 2004; Graham, Cagiltay, Lim, Craner & Duffy, 2001; Thorpe, 2002). Scholars continue to find that actual performance and perceived satisfaction are correlated to instructor presence within a course through student-instructor communication and feedback.

While online student performance research overwhelmingly tells us that instructor presence in an online course is indeed an essential characteristic of effective course design, we also know that this area is where many courses fall short. In Vonderwell’s (2002) study, interviews of undergraduate students revealed that students commonly reported a lack of a one-on-one relationship with the instructor. Furthermore, responses indicated that instructor feedback was initially immediate but slowed progressively as the term advanced. Finally, this study revealed that instructors should “be consistent with the amount of time they provide feedback or response to the students...inconsistency can cause frustration and decrease motivation” (88). While many instructors intend from the outset of a course to fully participate and be present, active, and engaged, the demands of teaching, research, professional practice, and grading eventually leave instructors with little time to engage in meaningful interactions with students.

However, interaction within the online course is not simply limited to that between student and instructor. Instructor presence and engagement is only one aspect of those interactions necessary for a beneficial online learning experience. Instructor interaction was only one of Moore’s (1993) three main interactions in online learning to build a learning community within an online course – interaction with content and peers are also important to sustained online student success and engagement.
Therefore, we now consider the two other important interactions within an online course: student-content and student-student. Students must be able to engage with course content on a level that allows for critical application of concepts. Additionally, students must also be given opportunities to engage with their peers. Palloff and Pratt (1999) note that interaction among students is just as important to successful learning taking place in an online environment. Feedback in a writing course allows students the opportunity for both student-instructor and student-student interactions. Students engage with content by focusing attention on the assignment points noted in the feedback which are explained in the context of the course and learning outcomes. Through feedback students also engage with peers, as feedback as a learning tool uses examples from peer work as a way to illustrate the concepts and application of corrections.

And while literature has shown us that interactions are important to an online learning success, Garrison & Cleveland-Innes (2005) argue that simple interactions are in fact not enough, that the faculty role within an online course must be as leader. The shift of instructor role within the online learning environment has also been the subject of recent scholarship in both education and TPC (Maor, 2003; Heuer & King, 2004; Mazzolini & Maddison, 2003; Coppola, Hiltz & Rotter, 2002; Easton, 2003; Coppola, 2005; Hewett & Ehmann, 2004; Tebeaux, 1995). Coppola outlines nine roles which TPC instructors assume in the traditional classroom: cognitive, affective, disciplinary, managing, performing, facilitator, gatekeepers and boundary-spanner (2005). These roles re-emerge in the online classroom; however, whereas in a traditional classroom an instructor’s ability to act out these roles is guided by both verbal and non-verbal cues, instructors have less interaction with students to develop themselves into these roles. Additionally, the tasks and responsibilities associated with these roles shifts within the online classroom. Cognitive roles in the online classroom require faculty to assume a much larger leadership and subject matter expert role, suggestive of Vygotsky’s influence in online learning. Affective roles require an instructor to build a sense of community and social presence in online courses. Instructors
must become much more rigid and formal managers of an online classroom. What underlies an online instructor’s ability to enact these roles in the online classroom is communication. Frequent, consistent and meaningful communication often leads online instructors to feeling obligated to engage in uniquely time-consuming dialogues with online students.

Despite our evolving understanding of the role of communication as it relates to instructor presence and course management in online pedagogy, instructors continue to struggle with balancing the time needed for course design that places cognitive development and social development in the center of effective learning goals with the time required to coach students to attaining those goals. Therefore, the adjustment to the instructor’s role within an online course is very much an element of managing time. Just as someone who is promoted to a new position within a company must learn to adapt to the expectations and workload, so must instructors adapt to their ever evolving role as instructor in an online course. Skill adaptation and time management factor heavily into an instructor’s ability to manage time effectively. Activities that once were second nature and easily embedded within course delivery now become more challenging as instructors wrestle with when to be highly involved and when to step back and allow students to explore on their own.

Online instructor time management is not a new research interest for online pedagogy scholarship (Spector, 2005; Dabbagh, 2000; Fein & Logan, 2003; McKenzie, Mims, Bennett & Waugh, 2000). One proposed solution is the streamlining of activities by combining learning activities to serve multiple purposes. If instructors are able to combine social building activities with cognitive learning activities, instructors would be able to free up time, time they could reallocate to other areas of online course design and delivery (Felix, 2005). In other words, feedback used as not only a tool to create social presence but also to serve a cognitive learning function could allow instructors to build multiple presences through one activity, creating efficiencies in online instruction. This would also allow students to build multiple literacies with one interaction, thereby freeing instructors to engage in other
interactions with students, for example including more on-on-one interactions or creating innovative content.

The intense growth of online course offerings combined with the shrinking number of full-time faculty and increasing number of part-time faculty has led to an accelerated development of best practices in online learning—practices that provide clear guidance to both novice and experienced online instructors. Because of the nature of this dissertation study, we narrow the survey of literature focused on research-based, published best practices in online course design to those relating to feedback. In 2001, Graham, Cagiltay, Lim, Craner and Duffy used the “Seven Principles for Good Practice in Undergraduate Education,” a list originally published in 1987 developed through higher education research and faculty and institutional inventories, to evaluate four online courses in a professional school at a large Midwestern university. From these evaluations, the team developed their own newly adapted list of seven principles for faculty to use as a guide of good practices in online course design. Principle 4 is of particular interest to this study as it addresses feedback in online courses. The principle, which states “Good practice gives prompt feedback,” identifies two types of feedback that instructors need to provide in an online course: information and acknowledgement. Information feedback provides students with feedback on assignments or tasks completed. Acknowledgement feedback simply confirms that certain events have occurred, for example acknowledging an email or assignment receipt. While online instructors inherently know that communication with their online students is important, in many cases time constraints only allow for certain communications. When weighing the significance of informational feedback against acknowledging feedback or more one-on-one interactions, instructors place grading and commenting above those more informal interactions as these seem the most impactful on student performance. However, following Vonderwell’s study (2002) which showed that instructor feedback promptness waned over time, Graham, et. al also concluded that an instructor’s feedback tended to become increasingly delayed throughout the term and less specific. From these
studies, we can speculate that despite the influence and motivation of best practices in online pedagogy, as a course progresses and assignments become more involved, writing instructors in particular who rely on feedback as an instructional tool begin to struggle with time management. The ongoing struggle to manage time and feedback stamina throughout a term reinforces the need for feedback studies like the one this dissertation conducts to focuses the field’s attention on determining the most efficient and effective method of providing quality feedback to online students.

Despite the wealth of knowledge created by online pedagogy research in what theoretically works in online learning, little quantitative research exists praxis, and how faculty create active learning and opportunities for student interaction. And, more importantly, there is little data-driven research on how the praxis impacts student performance. The development of professional organizations like the Online Learning Consortium, the “leading” organization dedicated to the advancement of quality online learning, professional development opportunities, and best practices in online learning, and the Quality Matters Institute, the international organization devoted to the creation of a widely-adapted course rubric to determine quality within an online course, have sought to combat this lack of awareness of what is happening in the thousands of online courses students take each year at colleges and institutions across the globe. Both of these organizations, however, require membership in order to access evaluation materials. Encouragingly, though, each year there is an increased offering of full conferences, conference tracks, and professional development opportunities for online faculty to learn about emerging strategies, best practices, and tools used in online course design and delivery.

The fields of composition and TPC have taken notice of this need for best practices and research on the impact of teaching practices on student performance. Recent data from the Conference on College Composition and Communications subcommittee, the Committee for Effective Practices in Online Writing Instruction, shows that overwhelming online writing faculty employ many of the same tools in their online courses that they use in their traditional classrooms (lectures via Word or
PowerPoint files) (2013). This report led to the 2013 publication of *A Position Statement of Principles and Examples of Effective Practices in OWI (Online Writing Instruction)*. In this publication, the committee outlines 15 OWI principles meant to guide online writing faculty and institutions in the implementation and design of effective online writing courses. Of main concern to this study are OWI Principles 2, 4, and 6. OWI Principle 2 calls for OWI that is focused on writing and not on technology or technology instruction. This OWI principle references the belief that pedagogy and outcomes should drive content within a course rather than allowing technology to take center stage within an online course at the expense of sound content delivery and instruction. OWI Principle 4 also remains focused on pedagogy and again encourages faculty to migrate sound learning practices from their traditional classrooms to the online environment. Finally, OWI Principle 6 calls for OWI and teacher preparedness to be held to the same principles that guide coursework development in the traditional classroom. This report aligns with scholarship from the education field that online writing instruction maintains the same standards and praxis based on pedagogical theory as has historically been the case in the traditional bricks and mortar classroom.

Further development of these principles and of the practices within OWI emerged in the text *Foundational Practices of Online Writing Instruction* published in 2015 (Hewett & DePew, eds). In the first several chapters, the editors reveal some rationale and background for the principles developed by the OWI committee. Hewett writes that the rationale for Principle 2 rests on the understanding that many of the instructors (largely contingent) teaching OWI courses are both unfamiliar with and underprepared to teach the online writing course (OWC) (p. 46). While the computer-mediated element of OWI is certainly important, OWI principle 2 stresses the fact an OWC should maintain writing as its focus rather than mediated instruction. This allows the instructor to remain focused on his or her area of expertise rather than attempting to become a technology guru while trying to instruct students. In order to stay focused on the writing, Warnock writes in Chapter 4, that students should be oriented to OWI;
instructors should be prepared with a backup plan should technology fail; and instructors should be provided ample time for course preparation and design (p. 154-155). Principle 4, Hewett writes, extends this discussion of how instructors will teach OWCs. Because of the rich history in writing pedagogy, those strategies that have long worked so well in the classroom should be translated into OWI. For example, instructors who participated in the Committee’s survey noted several key elements of the writing process that should be maintained when moving a writing course online: writing as a social process, peer review and feedback, and revision. Therefore, Warnock advises instructors, especially those new to OWI, to focus on what they do best and feel most comfortable doing in the traditional classroom first (p. 167). Then, consider how those practices might translate or port over to the online classroom. The key to successful translations, or “migrations,” is the instructor’s willingness to be creative and open to new adaptations of instruction meant for online delivery (p. 52). Principle 6, Hewett writes, supports the understanding that as writing programs continue to seek creative ways to provide OWI, such as through Massive Open Online Courses (MOOCs), should also be subject to the same level of support and analysis to ensure student success as any other more traditional online modality or face-to-face course design (p. 57-58). The authors and committee focus on the need for writing instructors to make curricular or course design decisions about OWCs rather than administrators or technology specialists (p. 175).

With the Committee’s emphasis on focusing on what works in the traditional classroom first, the TPC field has been eager to strengthen its understanding of how current practices may be adapted to meet the needs of the online learner. As a response to the call for emerging scholarship in online TPC pedagogy, two volumes of collective research dedicated to online pedagogy in TPC were published in 2005 and a follow-up in 2013 (Eds. Cargile Cook and Grant-Davie). In the 2005 volume, scholarship explored online TPC pedagogy in such areas as understanding the new role of the instructor (Coppola, 2005), the adapted use of technology (Rickly and Carter, 2005; Breuch, 2005), and assessing the
effectiveness of online TPC programs (Rubens and Southard, 2005; Cargile Cook & Grant-Davie, 2005). Nearly a decade later, as our understanding and insights into online technical and professional writing instruction evolved, so did the emphasis of research. In the second volume of scholarship devoted online TPC research, we see an increased emphasis on course design (Tillery & Nagelhout, 2013; Dutkiewicz, Holder and Sneath, 2013; Meloncon and Arduser, 2013) and the call to reinvent course material for the online learner (Cason and Jenkins, 2013; Tesdell, 2013). Instructors were asked to review their materials not simply to drive the use of technology. Instead, instructors were called to review their course materials to guide “informed practice” decisions in pedagogy. However, there has yet to be an exploration in the most widely-used area of online TPC pedagogy: the impact of feedback in the online TPC course environment. While influential feedback studies do exist within the TPC field (Still and Koerber, 2009; Cho, Schunn and Charney, 2006), they have explored student interpretation and use of feedback in a traditional classroom. They have not quantitatively evaluated the impact of instructor feedback delivery on student performance in the online TPC course environment.

As was noted earlier in the review of literature regarding TPC learning outcomes, traditional TPC classrooms are built on outcomes which place workplace preparedness as a central concern, including rhetorical proficiency, abstraction, social proficiency, experimentation and critical system thinking. When these outcomes are laid over Bloom’s learning domains and Vygotsky’s theory of social learning, we see a strong alignment with the two higher level domains in which students build knowledge: the understanding and applying category with Vygotsky’s need for social knowledge creation. In these two Bloom’s learning domains, learners begin to comprehend meaning, translate knowledge, and apply concepts. Learning at these levels, when in conversation with Vygotsky’s learning theory of knowledge as a social activity, places TPC coursework and its use of feedback as important opportunities for students to build complex knowledge concepts in a social constructivism learning environment. Therefore, traditional TPC course outcomes and the practice of using feedback as a social learning tool
meets outcomes that align well with highly recognized and influential learning theory and cognitive development course design.

As online pedagogy scholarship suggests, we start with the guiding principles of traditional, face-to-face TPC classroom pedagogy as a foundation for effective online TPC course design. This approach, being mindful of the difficulties in online learning, presents an opportunity to use the concepts of literacies from TPC curricular scholarship (Meloncon and Henschel, 2014; Cook, 2002) with cognitive learning theory scholarship (Bloom, 1954; Chyung & Stepich, 2003; Gilbert & Dabbagh, 2005; Smith, Smith & Boone, 2000) to develop course design. This superimposing of theories offers an insight to the need for quantitative research bridging the gaps between cognitive learning theory in the online environment and TPC learning outcomes. Through student performance data, this dissertation seeks to provide insights into whether or not current online TPC service course pedagogy provides cognitive and social learning opportunities (that follow best practices in online course design) that match those taking place within the workplace without negatively affecting student success. Furthermore, this study aims to assist online instructors with time management issues in suggesting instructor-student interactions that are meaningful through usable feedback.

In order to objectively determine student performance using this method of feedback, this study used numeric rubrics to assess student submissions. Rubrics have historically been used throughout academic research to assess the quality of programs, instructors and students. Therefore, it is helpful to review literature focused on the strengths and weaknesses of rubrics in assessment in order to assist in determining their effectiveness in this study.

**Rubrics and Assessment**

Instructors often use rubrics because they provide students with a clear delineation of grade distribution on assignments. For writing courses, rubrics can help to quantify or objectify what is often seen as subjective assessment. This study used rubrics as a way to equalize outside reviewer assessment of the
student submissions. Chapter 5 discusses the uses of rubrics in this study in more detail. Rubrics in academic research and assessment, though, have long played an important role.

In the late 1970s, the term “assessment” emerged as we use it today to refer to activities such as testing, examining, and grading (Heywood, 2000). Over time, assessment came to also apply to the evaluation of institutions, programs, and instructors. The current funding-strapped environment of higher education has also increasingly tied assessment to budget models; so much so, that assessment within higher education is now not always received as a positive motivator among academics.

Regardless of the reaction it receives from those within higher education, assessment, in its many forms, is here to stay. To begin our discussion of assessment, we will look to Palomba and Banta’s (1999) definition: “the systematic collection, review, and use of information about educational programs for the purpose of improving student learning and development.” Ultimately, this dissertation study roots itself in the underlying principles of assessment: to use data in order to improve the learning and development of online TPC students. In the end, the goal of this study is to assess the effectiveness of collective feedback versus individual feedback for online TPC writing students.

How do we effectively evaluate the impacts of the two methods of feedback delivery? The answer to this question lies in using rubrics to assess student performance. Because rubric has been defined in a variety of ways within higher education, for the purposes of this study, we will use Reddy and Andrade’s (2010) definition of rubric, “a document that articulates the expectations for an assignment by listing the criteria or what counts, and describing levels of quality from excellent to poor” (435). Reddy and Andrade performed a thorough historical review of literature on rubrics within higher education, breaking down their review into four main categories: “instructor perceptions of rubric use, the effect of rubrics on learning or academic performances, the use of rubrics as instructional and programme assessments, and studies of validity and reliability” (p. 438). For the purposes of this
dissertation study, we will focus on literature devoted to the use of rubrics as instructional assessment tools and the validity and reliability of these tools. Reddy and Andrade highlight five studies (Knight, 2006; Song, 2006; Powell, 2001; Dunbar, Brooks, and Kubicka-Miller, 2006; Petkov and Petkova, 2006) which use rubrics as “instructional illuminators,” that is, tools that can “inform the process of making improvements to courses and instructions” (p. 441). In each of these studies, researchers used rubrics as consistent evaluators of student achievement of defined learning outcomes and skills. Based on their evaluations, the rubrics helped to uncover areas of improvement for programmatic and course instruction.

Reddy and Andrade point out, however, that there is a lack of scholarship on the validity of rubrics within higher education; however, we will explore literature which focuses on their reliability. Reddy and Andrade’s review finds that many studies point to two important areas of consideration in the use of reliable rubric assessment: consensus and consistency (p. 441). In order to minimize errors in inter-rater reliability, a well-designed rubric addresses consensus among what is considered important and consistency in rater response. There are studies that note the pitfalls of reliability in rubrics as assessment; however, these weaknesses can be addressed through thorough rater training and consensus scoring. Ultimately, with careful design and consideration of potential weaknesses rubrics as assessment of student performance can be effective ways to determine overall achievement of defined outcomes or skills.

**The Intersection and Gaps**

With this wealth of literature devoted to the disciplines this study places into conversation—composition studies, TPC, online pedagogy, and assessment—it is helpful to return to those studies that highlight the specific gaps in research which this study fulfills.

Let us first return to the field of composition. Smith’s study on the emergence of the “genre of the end comment” begs the questions of why and how are we providing feedback to students.
Additionally, how usable is the feedback instructors are providing? Smith calls faculty to consider their goals in commenting on students’ papers because only in first understanding the nature of our comments can we improve their effectiveness. Smith’s study analyzed the end comments of 300 randomly selected papers from first-year composition and rhetoric courses at universities of various sizes. After reading all of the comments multiple times, Smith identified three genres in end comments: judging, reader response, and coaching. Within each of these genres, instructors return again and again to the same construction, tones, and topics of the messages. Additionally, all three of these genres place the onus on the student to interpret and make corrections. That is, instructors rely heavily on a student’s ability to correctly interpret and apply the message and instructions within a comment. Anecdotally and within research, we know that this is not often the case for students. When confused or unsure about the instructor’s message, they decide to either ignore the comment altogether or incorrectly attempt a fix.

Smith argues that in order for feedback to really be useful to students, we must engage with comments that meet the specific needs of the rhetorical situation we find ourselves in. In the case of the TPC service classroom, instructors must provide feedback that is specific, clear, and helps students to understand the concepts and practices of writing in a technical field. If, on the other hand, students receive formulaic feedback, albeit individual, as faculty we are no longer providing a useful tool for students. We are simply following a formula that is both safe and comfortable.

So, how do instructors provide usable feedback to students? In order to define usability within TPC courses, we focus on our ability to provide students with opportunities to hone their skills and prepare them for the workplace.

With a clear definition of what we need instructor feedback to do to prepare TPC students for the workplace, we must now ask how we write feedback that is usable to for students in helping them
achieve the defined TPC service course outcomes. To understand how students use feedback, we turn to the work of Still and Koerber (2010). Their work seeks to understand student engagement with instructor feedback through the lens of usability testing from TPC. In such studies, designers and writers ask readers to engage with content and provide commentary on its usefulness—its inherent ability to be understood and applied. In this study's case, the content was instructor feedback and the commentary provided insights on how students interact with feedback and which comments are most helpful to students. In contrast with many studies before it, this particular study framed the usefulness of comments within the student perspective, rather than from the perceived usefulness from the instructor's position. From this user-centered approach to student-feedback engagement, we learn precisely how students view comments and feedback and how they prioritize attending to instructor comments.

Specifically, Still and Koerber sought to understand whether or not students remember comments from assignment to assignment; the amount of feedback that is useful to students; how well students interpret feedback; whether or not students transfer lessons learned from feedback; and whether or not students find feedback satisfactory to improving their writing. To answer these questions, Still and Koerber surveyed 54 students from four sections of a service TPC course taught by the same instructor. From this group, Still and Koerber selected a sample of 12 students who submitted a memo assignment and received written feedback from the instructor. The feedback included in-text notes addressing both micro- and macro-level issues. In addition to the textual comments, the instructor also provided a rubric with comments addressing each category within the rubric. The focus group was asked to engage with the commentary within an environment that mimicked how they would interact with the feedback if revising outside of the study. Students were given two hours to review the comments electronically while attempting to revise their assignment. During the study, students were
asked to think aloud while moving through the revision process. Their comments were recorded and evaluated later to determine themes in usability.

The pre-study surveys indicated that students relied more on broader instructions from lectures and readings to guide their writing than they did on more individualized comments. Analysis of the commentary itself revealed that students struggle to understand particular grammatical terminology that instructors commonly include in feedback, such as “awk,” “verb tense,” and “tone.” Furthermore, students revealed that particular symbols and shorthand that instructors use present frustration, including circled words, underlined phrases, and “=”. Most importantly post-test surveys revealed that students seek feedback that helps them to improve their writing “as efficiently as possible” (220).

Ultimately, while instructors believe that students ignore comments on writing, this study reveals that students are not ignoring comments; rather they are using time to address comments that they can use, understand, and interpret as opposed to “wasting” time on comments they cannot. Still and Koerber suggest that to create usable comments, instructors should avoid using unfamiliar terminology for students, ensure comments are legible, avoid using ambiguous circles and lines to highlight content, and distribute comments throughout papers (even on sections that work well). Further they suggest paying attention to the placement of comments, seeking consistency in placement. Finally, and particularly applicable to this dissertation study, Still and Koerber suggest that comments offer solutions rather than simply pointing out problems.

Based on the usability findings of Still & Koerber, and in alignment with the outcomes Meloncon and Henschel define for the service TPC course, we turn to usable feedback as a way to prepare students for workplace practices. Blythe et. all (2014) call for TPC courses to prepare students for workplace practices by incorporating collaborative writing that engages students with technology and genres they will likely encounter in the field. Included in Meloncon and Henschel’s defining skills for TPC courses are
both practice and theoretical skills that prepare writers to not only engage with tools but to also engage with other writers and a critical, rhetorical analysis of content and context.

With usable feedback in hand, we turn to the other purpose of providing online students with comments on their writing, which is feedback that serves as engagement between instructor and student and is important to the online course environment. In the online course, instructors struggle to mimic the learning environment of a face-to-face classroom, often falling short and feeling unsure of how to “convert” such practices. To recreate the regular, verbal interactions faculty have with students in a traditional classroom, many faculty turn to providing in-depth feedback to students through email, discussion board posts, and assignment feedback.

Peirce and Dewey first developed the idea of a community of inquiry, an environment that creates provides for meaningful learning because of the presence of three important presences: cognitive, social and teacher. Garrison, Anderson and Archer (2001) later expanded its application to the online learning environment. When these three components are present are the right levels, students are engaged with the course content, their peers and the instructor. Cognitive presence provides opportunities for students to engage in critical thinking and development with the course content. Social presence creates an atmosphere where students feel connected to their peers and supported to engage in open discussion. Finally, teacher presence refers to an instructor’s involvement in a course through course design and organization, implementing activities within the course, and serving as subject matter expert in content delivery. These same ideas are stressed in the OWI Principles and Practices (2013) and the follow-up volume (Hewett & DePew, 2015, see particularly Ch. 3, 8, 13 and 14). Anderson (2008) defines instructor feedback as one of the options for creating teacher presence in a course as it can lead to a dialogue between student and instructor and between student and content. If viewed as a methodology to creating instructor presence within a course—one element of the triad for creating an effective community of inquiry—feedback plays a large role in student success in an online course.
The line between teacher presence and social presence can often blur as teachers frequently ask students to share experience or offer insights through peer review and discussion boards. Therefore, Richardson and Swan (2003) sought to better understand the role of social presence in an online learning environment. Using a modified social presence scale developed by Gunawardena and Zittle (1997), Richardson and Swan surveyed over 300 students who completed online courses in the Empire State College system. Their results indicated that there is significant correlation between a student’s perceived social presence and the overall satisfaction with the course. Additionally, their study results indicate that there exists a direct correlation between a student’s perceived social presence, of instructor and peers, and their perceived learning in the courses. Finally, an important finding of this particular study indicates that there is also a strong correlation between a student’s perceived social presence in particular activities, again of instructor and/or peers, and their perceived learning in those activities. And while these findings are important to this dissertation study as they support the call for a strong instructor presence in the course as it contributes to social presence (a second arm of three elements of the community of inquiry model), the study did not isolate the role of instructor presence alone in the courses. Social presence in this study combined together that of instructor, peer, and student, making it difficult to pinpoint how influential the role of instructor alone is in determining student success in the online learning environment. Yet, even without a quantitative definition of its impact, we know that a teacher’s role in a course and his or her ability to create meaningful discourse with students throughout a course through timely and consistent feedback is important to overall performance and satisfaction in an online course.

What we do not know, however, is whether or not the form of feedback affects the student’s performance in a course. Gallien and Oomen-Early (2008) studied the effects of collective versus individualized feedback for 84 students in four undergraduate online health courses. Course sections were randomly assigned to provide students with collective or individualized feedback. The collective
feedback sections received feedback via one document that was posted to discussion boards and emailed directly to students. The individual feedback sections received personalized feedback on each assignment. At the end of the term, the course sections collective scores were averaged to determine final performance in the course. Additionally, after the course, the authors gathered qualitative responses from 71 of the 84 participating students related to perceived performance and satisfaction.

Quantitatively, results indicated that the students who received individualized feedback performed better overall than students who received individualized feedback ($M = .85, SD = .02$ versus $M = .77, SD = .03$). However, qualitatively, results indicated that students did not feel any more connected to the instructor if they received personalized feedback over collective feedback. Additionally, survey results indicated that there was not a large difference in the perceived quality of the feedback if received individually or collectively. While this study opens the door to further research in elearning and feedback impact and effectiveness in the online course, studies like the one performed in this dissertation, it does not provide insights into the quantitative impact of feedback on individual assignments, something particularly important to online writing courses. Using an overall average of final grade performance does not account for external factors that may affect student performance in an online course. Final grades often take into account objective scoring practices and the influence of assessments that do not receive feedback (participation, quizzes, etc.). Therefore, while Gallien and Ooman-Early provide a foundation for additional research, the weaknesses provide opportunities for studies such as the one proposed in this paper to fill voids in current feedback usability and impact studies within the TPC field.

**III. Why we need to revise practices**

As I prepared for this study, I also realized a gap of scholarship existed among online learning theory, OWI pedagogy, and TPC feedback studies. Specifically, there seemed a lack of research devoted to
whether or not the individualized or collective feedback in online TPC service courses impacted student performance. Furthermore, TPC scholarship lacked feedback from the field on whether or not classroom feedback and revision processes aligned with those in the workplace. My own experience as an adjunct online instructor struggling to manage time spent on feedback with my other duties as a graduate student and full-time administrator provided an opportunity to determine whether or not this time spent was first necessary for student success. Secondly, my experience as a professional technical writer begged the question of whether or not my classroom practices involving feedback and revision practices were the same practices as I used as writer in the field. Therefore, the central purpose of this study was to determine whether or not individualized versus collective feedback affected student performance in the online TPC service course and whether or not collective feedback better mimicked workplace practices.

Having reviewed scholarship from TPC and composition studies, in conjunction with that of online pedagogy, it is clear that feedback historically plays an essential role within online TPC instruction which has largely relied on its pedagogical practices from composition studies to incorporate feedback into the writing and revision process. However, because TPC as a field also seeks to remain relevant as a service course that prepares students for professional practice, the role and use of feedback within the academic classroom must be part of the research conversation. A broader exploration of the role of feedback within a service course means considering its overall purpose; that is, does the current use of feedback and revision within the academic TPC classroom truly prepare students for professional writing practices? Furthermore, could instructors reframe the delivery of feedback to mimic a genre and process students would likely encounter in the workplace, thereby further preparing them to be successful workplace writers?

The limitations of individualized feedback that will be discussed later in this section, coupled with the knowledge that these academic writing practices were not in alignment with current workplace
practices, led to the exploration of alternative feedback methodologies. The question of whether or not usable feedback could be provided to students collectively in a manner that exemplified workplace practices compelled the pursuit of research on the use of Feedback Files on a larger scale. Ultimately, I wanted to know could feedback be re-contextualized as a learning activity within an online class that would not only serve as an effective, meaningful, and efficient interaction between instructor and student but also as a strategy to prepare students to become practitioners?

A student writing process that mimics that of professional writing does not introduce students to individualized feedback. Rather the process engages students in collaborative writing that invokes tools like style guides and collectively written documents to illustrate how a student’s writing must meet the needs of the organization under which they are given permission to author content. The writing classroom that simulates the workplace would use the revision process to coach students through a self and collective rhetorical analysis of their own writing to determine shortcomings. A classroom writing process employing professional strategies would provide feedback in such a way that it prepares students to critique their own writing based on more generalized feedback, rather red-lining drafts with a close edit for both mechanics and content. This method of providing feedback simply does not exist outside of professional writing and editing positions.

Field Study Asynchronous Interviews
To answer these questions, this study conducted asynchronous interviews (St. Amant & Meloncon, 2016) with twelve professionals in the TPC field. As St. Amant and Meloncon note, this method of surveying was used because it allowed professionals to contribute their feedback at a time that was convenient for them. According to St. Amant and Meloncon, asynchronous interviews are defined as one-on-one qualitative instruments that are “delivered to participants through some available technology (such as email or third party tools for questionnaire distribution)” (p. 8). I used this survey method because I did not have direct access to a survey pool of practitioners in person. I was reaching
out and sharing the questions over social media in order to attract a wide range of experiences and expertise. I also wanted the participants to be able to participate in the study at a time and place that was convenient for them. Asynchronous interviews met all of these challenges while providing an opportunity for deep engagements with the questions.

Participants were made aware of the research through a variety of social media outlets, including LinkedIn, Twitter, and Facebook. The survey specifically targeted professionals in the fields of academic technology, engineering, accounting, software development, the military, and others who were not trained as academic writers or whose title was not “Writer” or “Editor.” Participants received no benefit from participating in the survey. The survey (See Appendix A) was delivered online through the Qualtrics survey tool and included ten total questions. All of the feedback questions were open-ended and allowed participants an unlimited response length. There were nine open-ended questions and one multiple choice question. The one multiple choice question asked participants to indicate which genres they used on a daily basis in their positions and also allowed a free-response “Other” option. The questions sought to gain insights into three main areas of workplace writing: the feedback and revision practice; the workplace writing process as it aligns with the academic writing process; and workplace genres (Cunningham and Stewart, 2012). Based on the number of types of questions, I anticipated that the interview would take approximately 15 to 20 minutes to complete. Because of the snowball effect of social media, there was no way to determine response rates.

Over the course of three months, I collected responses via the survey tool and reviewed them after I had collected twelve responses. The resulting responses indicated that there was a disconnect between academic classroom writing practices and those taking place in the workplace.
Results and Discussion
Responses to the questions provided insights into current workplace practices in technical fields and their relationship to academic practices. The next several sections will break down the interview response results by question and discuss their implications to this study.

What is your current position (title)?
Interviewees represented five technical fields: information technology, engineering, business, computer science, and air traffic control. Nearly half of the interviewees represented Information Technology (42%); 25% represented the Accounting/Business/Finance field; and the remaining interviewees worked in fields such as Engineering (17%), Air Traffic Control (8%), and Computer Science (8%) (Figure 3). Position titles of the participants included “Director,” “Technologist,” “Administrator,” and “Engineer.”

![Figure 3. Field representation of asynchronous interview participants (N=12)](image)

These job titles are relevant to this study as they represent the variety of positions practitioners hold within TPC fields. As noted earlier, TPC programs often rely on contingent faculty who are also
practitioners. These positions, therefore, also represent the variety of positions contingent faculty may hold while also teaching in a part-time status in a TPC program. Interestingly, despite the varied positions of the respondents, consistent themes emerged from their responses.

What kind of writing do you perform on a regular basis?
Figure 4 reflects the types of texts that participants indicated they wrote on a regular basis in the workplace. Respondents could select as many of the text options provided as possible and could also include additional options not available by checking “Other” and writing in their own response. The responses were varied. Email was the most often selected option, followed by Instructions/Manuals, Presentations, and Information Reports. Interestingly, two of the next closest three responses included mobile communication: text messaging (33%) and instant messaging (33%). Results from this small interview pool align closely with two studies of practitioners in TPC fields. Cunningham and Stewart (2011) also found that correspondence (email), reports, and manuals were among the top four tasks professionals reported spending time on. Their study focused on the practices of engineering professionals, a similar population as was targeted with these interviews. My results also aligned with those of Blythe et.al’s (2014) workplace study survey. Figure 4 below reflects that Emails and Manuals are the top two responses in this survey as they are in the Blythe et. al survey. Additionally, Presentations is also among the top four responses in my interviews as it was in their survey. This consistency in responses across early, recent and current surveys of practitioners in the TPC field supports the validity of these interview responses as an accurate representation of current technical field workplace practices.
We learned from the responses that email is consistently one of the most prevalent forms of communication used within the workplace from Cunningham and Stewart’s research in 2011, to Blythe et. al’s study in 2014, to these interviews in 2016. The heavy emphasis on the use of email in the writing process is interesting to this study as this is not typically the process by which instructors share information or drafts with their students. Because online learning largely relies on learning management systems to mediate student-instructor interactions, there is currently little in the way of training
students how to use emails to share or write collaboratively. Therefore, TPC service course instructors should be considering ways to a structured use of email as a learning tool in the writing process. As students prepare to become effective practitioners, learning the rhetorical strategies around email as a collaboration tool could be integrated into online collective writing processes.

**What is the writing process you engage in on a regular basis?**
Knowing the participants professional fields, positions, and kinds of writing performed on a regular basis, we asked participants about their writing practices. As this was the focus of the remaining interview questions, participants were asked to be as detailed as possible. When asked what was involved in their writing process, participants responded most that their process included writing emails to internal and external audiences (42%). “Collaborative” was the next most noted response (25%), followed by “Individual/Alone” (17%). Previous studies exploring TPC workplace practices have also revealed similar results (Rainey, Turner & Dayton, 2005; Debs, 1991; Allen & Benninghoff, 2004; Blythe, Curran & Lauer, 2014). Collaborative writing in the TPC curriculum has become a common practice to recognize the importance of students developing this skill. However, email and other mediated collaboration tools like Confluence (a tool cited specifically in our interviews), Box or SharePoint are tools less commonly seen within TPC writing classrooms. Further integration of mediated collaboration could more strongly prepare students for collaborative writing in the workplace.

**What kind of feedback, if any, do you receive on writing conducted at work?**
Participants were then asked to indicate what kind of feedback they received in the workplace.

Responses to the forms of feedback received were evenly divided. Two responses indicated the revision/feedback process was among peers and self-motivated. Two additional responses indicated they received feedback from their supervisors before sending out content. And two responses indicated the feedback came in the form of collective writing and collaboration. The variety of these responses indicates to us that the consistent practice of individualized feedback in the classroom is not necessarily
what students will encounter in the workplace. In fact, were it not for those who seek out one-on-one feedback, this individual-level attention to writing does not appear to be what many encounter as practitioners. Additionally, nearly 25% of the responses indicated that they only received “corrections” rather than feedback. That is, even when writers receive feedback it is not to engage in a dialogue with the writer. Feedback is simply used to provide corrections.

How do you remember being provided feedback as a writing student? We then shifted the focus of our questions to asking participants to remember back to their experiences as student writers. Because of pool of interviewees ranged from retirees to new graduates, the responses varied in their level of detail. However, we did uncover some valuable data. We asked participants whether or not they remembered the kinds of feedback they received as students in the classroom. Two of the participants did not recall receiving feedback from instructors. However, most responses (30%) indicated that the feedback was positive and helpful. Other comments included receiving feedback multiple times. Others indicated that the feedback was less beneficial noting it was “common sense” and “scribbling in the margins,” or simply “a grade on the paper and maybe a comment.” We found these responses valuable because of those that cited specific memories of feedback from their instructors, it was overall not positive. Comments with negative overtones like “scribbling” and “common sense” indicate to us that rather than leaving lasting impressions of positive learning experience, individualized instructor feedback seems to be remembered as a necessary function that was less helpful than intended.

Does your writing process at work closely align with the writing processes in the classroom? Finally, continuing the discussion of the academic experience, participants were asked whether or not their workplace writing practices and feedback aligned with their writing process in the classroom. Two-thirds of the respondents indicated that their classroom writing practices did not align with their workplace writing practices. One participant noted that their workplace practices are a “less formal
process” than what was experienced in the classroom. Another who answered no indicated that writing for the classroom tended to be “arranged in a logical and persuasive manner” but that the workplace writing tended to be “bullet-point driven snippets of information.” Of those that answered yes, their workplace writing practices did align with those in the classroom, they cited government documentation which requires “multiple drafts collecting feedback each time” and “positive voice” as the two factors reminiscent of academic writing.

What we find most insightful from these interviews as it pertains to this dissertation study is the collective response from participants that the academic writing process does not align with the revision and feedback process within the workplace. This is an indicator of two important points. First, if we want to reframe the use of feedback in the revision classroom process, we can do so without fear of interrupting the writing process that students are learning in order to create transferrable writing skills. In fact, to the second point, replacing our current individualized process with one that involves a more collaborative approach, and perhaps even a web-based documentation approach, could prove more beneficial to students as they prepare to write as professionals. Respondents indicated that workplace writing tended to be collaborative and involved little one-on-one feedback like that provided in most TPC classrooms today. Therefore, such a change to a more collective feedback process would assist students in relying less on specific comments from one reader and more on their ability to assess their own writing. Preparing students to become independent writers with the ability to rhetorically analyze their own text for weaknesses and strengths provides them with skills they will directly use in the workplace.

While this pilot set of interviews provides some important data points about current practice, interesting insights around these points, and opportunities for further discussion, it is certainly not a definitive data set that represents the true breadth of TPC workplace practices. The data points when
combined with personal experience and anecdotal corroboration from other TPC service course instructors warranted considering new pedagogical approaches to feedback and revision.

**The change I propose**

With this knowledge of current workplace practices that seem to conflict with current TPC writing classroom practices, this dissertation answers the call for TPC scholarship to update its online pedagogical approaches to remain relevant as a preparation course (Dannel, 2000) and as a field that is adaptable to the online environment. Because online pedagogy also relies on the use of feedback as a way for instructors to engage with students and create a sense of community, an opportunity exists for TPC to become a leader in scholarship that adapts longstanding practices to better serve the online student and instructor.

This dissertation proposes replacing the use of individualized feedback within the online TPC service course with collective feedback delivered through what is called in this study a “Feedback File.” Feedback Files pull together into one document the most common errors instructors see repeated in student draft submissions. Feedback Files (See Appendix B) are the compilation of the comments that instructors write over and over again in the margins of student drafts. Feedback Files typically include anonymized examples from student work, detailed explanations of the issue shown, and the corrections of such issues. Instructors are then able to use Feedback Files for particular assignments as starting points for the revision process for each assignment. For example, an instructor may notice that in an instructions/process writing assignment that students miss the point of starting each process step with an action verb (use of imperative). In a Feedback File, an instructor would create an entry like that in Figure 5 in the Feedback File.
The instructor would then highlight the issue in the student writing and enter a comment “See Feedback File #6” as shown in figure 6 below.

Students would then reference the Feedback File provided by the instructor within the LMS. Students would be able to review the error example, the explanation, and the revision and apply this to their own writing. Because the Feedback Files include common errors seen in each assignment, instructors need only to collect examples from the current term’s student work to update the Feedback File term over term. If instructors see additional errors they would like to include in the Feedback File, they can easily be adapted and expanded.
Instructors post and use the Feedback File during the draft revision stages of the writing process. The Feedback File is used during these stages because they inherently allow students the opportunity to revise their work. Feedback File are not used in the final grading stage because once in the workplace, practitioners submit work to supervisors or external clients and do not receive any feedback on the content. Therefore, to provide students with such detailed information at the end of the writing process would not allow them to apply the information or further engage with the content moving forward. And, as Kramer-Simpson (2012) found in a feedback study exploring how students use instructor feedback her interviews with instructors, “teachers provided comments on graded drafts only because...students didn’t seem to pay attention to commentary on pre-graded drafts” (p. 52). If students are poised and ready to receive feedback during the drafting stage more than in the final grading stage, it is logical that instructors would provide the most comprehensive feedback at this stage.

Feedback Files also resolve many of the limitations of individualized feedback. One such limitation is that of physical space in marginal comments. Marginal comments, left either through tracking tools in word processors or as hand-written comments, leave little room to provide usable comments that are detailed and explicit. In response, instructors often rely on shorthand or abbreviated comments, resulting in cryptic messages that students regularly simply ignore rather than trying to decipher the comments and address them in the revision process (Carless, 2006). Marginal comments can also lead to vague feedback, including comments such as “?” or “awk”, that students find themselves unable to interpret and use (Higgins, Hartley & Skelton, 2002; Hattie and Gan, 2011). Knowing that students prefer comments that are clear and directive (Still and Koerber, 2009), individualized comments seems to contradict what students perceive as usable information that they can and will apply to future drafts.

In contrast, the unlimited length, space and organization of a Feedback File offer the flexibility that allows instructors to provide detailed examples and explanations of the issues within the student
drafts. Students can be referred to the file to review the issue, see an example, and read an explanation of the correction. Feedback Files can be as lengthy as an instructor needs, as they are built based on the common revisions the instructor wishes to share with the class as a whole. Rather than choosing to provide only certain comments to avoid cognitive student overload (Moreno, 2004), instructors have the flexibility to determine their own length of a Feedback File as it fits their needs for the course. An additional benefit of the Feedback File as it relates to space and detail is that the Feedback File allows for any visuals to be included in the explanation or examples. This is simply not possible if instructors provide individual, marginal comments.

A large limitation of providing individualized comments, however, is time. While many instructors understand the importance of providing individual, detailed and meaningful feedback in online courses, this practice places sizeable stress on an instructor’s ability to comment on a regular basis within a short timeframe. When online instructors teach several sections, many of which can be accelerated (such as half terms, summer terms, limited terms, and on the quarter system) resulting in even less time to return comments, this creates a challenging situation in which the theoretical collides with the praxis of implementing such pedagogy.

If feedback is conceptualized as a social learning activity rather than a simple interaction, Meloncon and Henschel’s skills development table helps to determine if this use of feedback falls within the necessary learning activities needed to meet the aims of the TPC service course. Through the lens of viewing feedback as a learning activity, I believe that feedback can be used to meet these defined outcomes while preparing TPC students for workplace practice. Collective Feedback Files provide an opportunity for students to meet several of the conceptual and practical outcomes Henshel and Meloncon outline: rhetorical proficiency, specifically user analysis, writing, and editing; social proficiency, specifically collaboration and communication; experimentation, specifically problem-solving thinking and self-evaluation; and system thinking, specifically critical thinking. Feedback Files ask
students to critically think through their own papers and apply editing tactics after reviewing overall expectations. Conversely, individualized feedback is perceived as presenting quick “fixes” to without asking students to critically analyze their own writing to determine areas of improvement. As a collaborative writing opportunity, Feedback Files engage students in the process of pulling together samples from the class’s collective writing in order to apply each other’s strengths and weaknesses to each student’s own document. In this way, writing becomes a much more collective, collaborative effort, where students interact with their own document as well as those of their peers. When instructors build Feedback Files through this method, students are able to view writing as a collective process which enables writer’s to tap into the experiences and knowledge of their peers on their “team.” Just as in the workplace, this collective approach to writing in the classroom allows students to pool together resources and prepares them for writing as a collaborative process rather than an individualized act.

Collective Feedback Files can also assist students in learning to adapt their writing to the practices they will enact as professionals in the field, to assume the writer role as a professional rather than as a student. The files teach students how to assess their own writing and become more rhetorically proficient in identifying areas of improvement and highlighting points of revision. If TPC services courses aim to develop a literacy of document and contextual analysis in its students, learning activities should ask students to perform such analyses of their own work. Feedback Files ask instructors and students to consider the writing process outside of the classroom, beyond being “concretely connected to academic communicative practices” (Dannel, 2000). These “authentic activities” (Wilson, 1993) are further supported by Dannel’s (2011) study that explored the online critique of student work and its implications on students developing relational systems within the workplace. Feedback that creates authentic opportunities for students is an activity that “places learning and knowledge within real-world situations in which they are actually used rather than within constructed educational settings
that are disconnected from real-world practice” (p. 25). Thus, she writes, instructors have become interested in creating learning activities that are more illustrative of real-world practice. Dannel’s research asks TPC instructors to consider their commitment to professional preparation if the activities they ask students to engage in promote the development of practices and relational systems that do not exist outside the academic classroom.

Given the data received from the field study asynchronous interviews, there is a sense that feedback and revision are largely independent activities or wholly collaborative—written online and shared online—as a team. While many instructors ask students to engage in an analysis of their peers’ texts, they often do not include such an analysis of the student’s own texts. Feedback comes in the form of individual, yet sometimes cryptic messages that students can either “fix” or choose to ignore. However, the field interview data reflects that there does not seem to be a relational system in which a workplace writer receives one-on-one feedback. However, delivering collective feedback through a Feedback File asks students to analyze their own documents while armed with areas of revision that include descriptions, examples, and explanations. Revision through this method becomes an individual act asking students to develop their skills as their own critics, activities that better replicate workplace practice.

Ultimately, this study answers Smith’s call for critical consideration of usable and valuable feedback within TPC and further asks the field to reconsider its long-standing reliance on composition’s traditional use of feedback. This study proposes that collective feedback not only assists in developing key skills for TPC students, it also provides an opportunity for them to engage in processes that align more strongly with workplace practices (Paretti, 2006, 2008), creating an opening to build directly transferrable skills. Using collective feedback attempts to address the issue of creating two distinct contexts for students: academic versus professional, real-world. By merging the two contexts into one, the simulated workplace, TPC service courses can begin to assist students in directly transferring
knowledge from the classroom to professional practice (Burnett, . This study posits that student performance within online TPC service courses is either neutrally or positively affected by the use of collective feedback. Furthermore, this study aims to better align feedback strategies within the TPC classroom with the field.

IV. Methodology
The previous chapter highlights the need to explore alternative pedagogical strategies relating to feedback and revision in the online TPC service course. However, while the study design has reached a stage that can withstand scrutiny related to reliability, rigor, validity, and trustworthiness—all characteristics of a sound research study design—reaching that point involved many informal discussions and teacher-initiated classroom studies, a formal pilot study, and a formal larger study. In this chapter, I will describe each of these phases while also providing additional details about the study’s methods. This study has been approved by the University of Cincinnati’s Institutional Review Board, study ID #2014-7594 (Principal Investigator Lisa Meloncon).

Background
The need for such a study derived from several conversations with colleagues surrounding whether or not students used instructor feedback that teachers spent hours providing led to questioning why instructors continued to devote such time to a system that seemed perpetually broken. If, as it seemed, students were not reading instructor feedback and the delivery method did not affect student performance, why were instructors allocating so much time to writing individualized comments rather than seeking a better solution? Did a better solution exist?

In response to these questions, I turned to documents that a fellow colleague and I were using to provide feedback in TPC service courses, “debriefing documents” or “Feedback Files.” We began using these documents to meet several challenges of individualized feedback: 1) we questioned whether or
not students were making substantive changes to their drafts based on feedback provided; 2) we sought out efficiencies in our teaching to assist with time management; 3) we knew that, in the field, writers rarely received red-lined commentary from collaborators during the drafting and revision stage; and 4) they allowed instructors to allocate more time to classroom activities of revision, that is, instructors were able to spend more meaningful time with student writing, discussing how to improve it, and other course content. We believed that Feedback Files helped students to learn how to evaluate their own document drafts for writing issues and apply course concepts to their work.

The wealth of literature reviewed in Chapter 2 devoted to feedback and how students engage with it, use it, or decide not to use it, illustrates the ongoing struggle writing instructors have with providing feedback to students only to learn students have not used it. My colleagues and I had shared countless stories of the frustrations of comparing a rough draft to a final draft only to see very few if any substantial changes made. Term after term, assignment after assignment, we were spending hours reading and commenting only to find it going unnoticed on the student side. What was meant to be a dialogic exchange of ideas between instructor and student felt more like a one-sided relationship where one person talks and the other refuses to listen. We wanted to find a solution that would meet both the instructor’s and student’s needs. We wanted to provide feedback that students would use.

While student usability was certainly a primary concern, we also struggled with our own ability to provide usable, detailed feedback in a timely manner. Many TPC service course instructors either teach a full load of courses (varying between 3 or 4 courses a term) while also expected to research (either as a graduate student or full-time faculty member), or are working practitioners managing a full-time career. There simply is not enough time to provide the depth of feedback we want to provide if we continued to provide it on an individual basis. I heard from instructors time and again that they had resorted to copying and pasting marginal comments that were common in order to at least address the larger issues. However, still, the time it took to copy and paste each of these comments over and over
again on the 20-30 submissions they received of each assignment was more time-consuming that they wanted it to be. And, even though they were copying and pasting comments, they felt they couldn’t be as detailed as they wanted to be in the space a marginal comment allows. The inefficiency and ineffectiveness made instructors feel frustrated and powerless over their own process yet tied to it without any alternatives.

Despite these frustrations, we wanted to engage students with feedback to teach them that writing was a process. We also wanted to teach them what the writing process would be when they became practitioners. However, as active writers in the field of technical communication, and with the understanding that the TPC service course largely serves to prepare students for professional practice, we questioned whether or not our current pedagogy of individualized feedback really prepared students for the writing process they would encounter as professional writers in the field. Shared, anecdotal experiences revealed that in fact the writing process in the workplace was vastly different from activities in the TPC classroom. Professional writers often write collaboratively, and they receive feedback with general directives rather than line-by-line edits and comments in the margins. Rarely do technical writers receive feedback from editors, subject matter experts, or collaborators in the style emulated in the classroom that uses individualized feedback. Therefore, we believed that if we continued to provide students with individualized feedback, we were in fact doing them a disservice in the TPC course. We were essentially reinforcing an engagement with feedback they would likely not encounter once they became professionals. Therefore, we were driven to ensure the strategies we were using in the classroom could be directly transferred to the professions, and therefore believed that using the Feedback File to learn how to rhetorically analyze one’s own text and determine corrective actions better aligned with our course goal of preparing students to be effective practitioners.

After using the collective method of Feedback Files for several years and sharing the concept with colleagues informally, we were consistently asked if there was a difference in student performance
when using collective feedback rather than individual. An important question, but one we had not measured and, therefore, had no data-driven response to. Anecdotally, we believed there to be no negative difference in student performance. Thus, we set out to determine if collective feedback negatively impacted students. We were not concerned if it was necessarily better than individual feedback. Pedagogy is unique and as I will discuss in the Chapter 6, Challenges to Implementation, it may not be a method that works for everyone. But, that also does not necessarily mean either strategy is a better approach. Furthermore, the study was designed to determine if such a change could be implemented without negative impacts, would it also encourage students to produce a text that at least met the minimal requirements for audience needs and rhetorical purpose? The use of a Feedback File is not to perfect a text. It is meant to illustrate and explain the largest issues so that students can identify them and address them in their own writing. Only repeated, line-by-line editorial reviews can perfect a text, and that simply does not occur in most TPC field workplaces—unless the practitioners are writers or editors. However, the TPC service course is not meant to produce professional writers and editors. Its aim is to prepare students to write effectively in the workplace. Sometimes this means minimally meeting the rhetorical requirements of a text and genre suffices.

With these beliefs in mind, we still lacked quantitative data to support such hypotheses. While we believed from experience that our students seemed to engage more with the collective feedback on a cognitive level (as opposed to “fixing” only superficial errors in individualized comments), we needed empirical evidence to determine if there was in fact such an impact on student performance. Thus, we set out to design a study that would allow us to compare student performance based on how they received and used feedback. To test our hypothesis that there was no negative impact on student performance when provided collective feedback over individual feedback, we needed to assess student performance using both feedback methodologies.
The larger study used a mixed methods study design approach to assess the impact of feedback strategies on student performance in online TPC service courses across three institutions and asynchronous interviews of the participating instructors to determine their ability and experience in enacting such a change. In short, participating instructors taught two sections of the same TPC service course. During the rough draft stage of pre-determined assignments, they used the common practice in writing instruction of providing individualized feedback to one course section (control group). To the other section (test group), instructors provided students with collective feedback via a “Feedback File,” which collectively addressed the key issues the instructors identified in the student drafts from the test section. Test section students were directed to review the Feedback File and apply the revisions indicated to their own drafts. Students then completed the writing process, applying the feedback, whether individual or collectives, to their rough drafts before submitting a final version for evaluation. I then asked participating faculty to submit samples from both the control and test groups for review by outside instructors within the TPC field. I encouraged faculty to be neutral in their selections so that they represented students at all levels within the course. Analyzing the artifacts using a detailed rubric, outside reviewers assessed the drafts and assigned a final score. I then reviewed the scores from the outside reviewers and performance data from the included course sections to determine if the method of feedback delivery affected student performance on the selected assignments. This study used methods that were honed and adapted based on results from an initial pilot study. The adaptations were made to address external variables within the first study that affected the reliability of the data.

**The Pilot Study**

Before launching the larger study for this dissertation, I, along with a co-researcher, developed a smaller pilot study. The pilot study included analyzing the student performance scores of two sections of the TPC service course, Technical and Scientific Communication, which were taught at an R1 institution.
Initially, three instructors participated in the pilot study; however, two were unable to complete the study due to challenges in enacting the pedagogy of collective feedback and collecting artifacts. Professor 1 and 2 were female, full-time tenure-track instructors who had been teaching the TPC service course for many years. However, because they did not complete the pilot study, more about them is discussed in Chapter 6 exploring the challenges of implementing collective feedback. Their inability to effectively implement the Feedback File method also lent to revising approaches to implementing the study and training faculty on how to use the Feedback File in their classes. This will be discussed in the next section on the Larger Study design and challenges.

The remaining participating instructor in the pilot study taught technical writing courses over the course of two terms, summer and spring. The summer section served as the test section, in which students only received collective feedback via the Feedback File on rough drafts of assignment submission. The students in the spring section received individual feedback on all rough draft assignment submission. The results of this initial pilot study impacted the design of the subsequent larger study and the direction of this research moving forward. In order the better understand and interpret the data that emerged from the pilot study, it is beneficial to further detail the context of the TPC service course sections involved and the backgrounds of the reviewers.

The test section used in this pilot was a condensed, accelerated term course, meaning an average 16-week course was taught over four weeks. The course used Blackboard as the learning management system; however, the course instructor used Google Docs and Google Groups to share file drafts. The instructor for the term was a graduate student at the institution in the rhetoric and composition program, with professional writing experience and over three years of teaching experience at the college level.
The control section of the course was taught during the spring term over a full 16-week period, in a traditional classroom. The spring term also used Blackboard as the learning management system to submit drafts and final assignments; however, it did not use any Google products within the course unless on an individual student basis at their preference.

There were two major summative assessments used in the pilot study, the proposal and the process assignment. As mentioned in Chapter 2, these assignments are representative of standard assessments used in the TPC service course. Both sections used a rough draft, feedback, revision process on the writing assignments. Students submitted rough drafts of particular assignments through the learning management system or Google docs. The instructor then reviewed the drafts and provided feedback, either collectively via a Feedback File for the test section or individually in the control section. Students were then asked to apply the feedback to a final revision of the assignment submitted through the learning management system. Both courses provided the same amount of time for revision on the assignments. Students in the test section were notified at the beginning of the term that they would receive feedback in this manner through both a syllabus statement and an instructor introduction to the course. Students in both sections were unaware that they were participating in a study as the focus of this study was on the impact and effectiveness of the instructor pedagogy rather than the student performance. After collecting the final submissions on the assignments, the instructor selected samples from the work to submit to outside reviewers who assessed the final submissions using the pre-created study rubrics. The results of the outside review of the pilot study are detailed in the Results chapter.

The Larger Study
Knowing further research was necessary, I embarked on a second, larger study. I largely used the same study design as the pilot study with three notable exceptions:

- Course modality
- Course length
- **Student behaviors**

The decision to adjust the research study design was driven by a greater understanding of the questions the study was trying to answer and the variables affecting student performance. From the results of the pilot, discussed later in detail in Chapter 5, I better understood that we needed to eliminate as many extraneous research variables as possible; therefore, the sections needed to be delivered in the same term and in the same modality and needed to compare the performance of similar students. Additional potential variables that were mitigated included different syllabi, different assignments, instructor perceptions and bias (although there is no way to eliminate all variables for the instructors since they are human actors in a network involving other human actors).

The movement to two online sections also matched my growing interest in online education and a field-wide need to understand the commenting structures for online TPC service courses. In fact, since research has shown that online courses take more time (Worley and Tesdell, 2009) and involve all information mitigated through writing, which increases cognitive loads, the necessity to find more streamlined ways to comment that students would use became paramount.

**Changes and Modifications from the Pilot Study**
Fundamentally, the pilot study and the larger study design did not change. However, some slight modifications were made to address the challenges (briefly mentioned above) that instructors had in the study participation and implementation.

I first addressed the issue of course modality. Because the pilot study involved one section taught online and one section taught face-to-face, we needed to create consistency across the sections. The pilot study results indicated an impact from modality on student performance, which will be discussed in detail in Chapter 5. The impact of this unforeseen variable influenced our decision to ensure that course sections were taught in the same modality in any future studies.
I also addressed the inconsistency in term length in the larger study design. All course sections were full-term length courses delivered in the same term. While research in modality has been widely explored and offered insights into the study, there is less scholarship available comparing student performance in accelerated coursework as compared to traditional full-length courses. Research that does exist focuses on the adult student population served by accelerated courses (Kasworm, 2001; Grant and Thornton, 2007; Wlodkowski and Westover, 1999; Wlodowski, 2003). Overall, research indicates that student perception of learning experience is either neutral or positive in accelerated learning formats. However, because most accelerated summer programs are designed for the adult learner, the summer section used in the pilot study became somewhat of an outlier, as all students in the section were traditional undergraduate students. While term length and student performance in the TPC course presents an opportunity for further investigation and will be discussed later in Chapter 7, I eliminated this variable in the larger study by adjusting the design to only include standard, full-term courses.

The pilot study results also made me question whether or not I am my co-researcher in the pilot study were attempting to compare scores from students who may have different study behaviors and motivation levels. If we compared all students equally, we assumed that all students used and implemented instructor feedback at the same level of interest, accuracy and correctness. However, we know this to not be the case. Some students are over-achieving students who put their best effort into every assignment. Some students are average and participate at average levels across the board. There are also students who participate at minimal levels, putting forth little effort throughout the term. How could we know that we were comparing students of equal motivation levels? Essentially, were we comparing like students or we were attempting to compare an A-student submission in a control section to a C-student submission in a test section? A C-student may be a C-student regardless of the kind of
feedback he or she received. Therefore, in order to address this variable, I asked instructors in the larger study to submit a sample of students at each grade level.

The development of the larger study also addressed other weaknesses of the pilot study, including the delivery of the assignments and the consistency of the feedback. As mentioned earlier, I limited feedback assessment to two major, widely used assignments in the TPC service course: the process/instructions assignment and the technical proposal. As noted in the literature review from Chapter 2 and the feedback received from the field in Chapter 3, these genres are used on regular basis in TPC fields. These summative assessments are not only consistent across curricula and representative of workplace practice, they are prescriptive documents ensuring that student submissions would have some level of consistency in format and content. Any faculty teaching the TPC course would be familiar with these assignments (or close variations). In turn, I would not have the issue of teaching participating instructors how to implement such an assignment because they would already have some comfort level with these, limiting the variation in how students would engage with the genre.

Another challenge to this study was creating a consistency in the feedback students would receive. To address inconsistencies in the feedback that students would receive from the three different participating instructors, I provided them with sample Feedback Files to use as references for their own Feedback Files. The files included 10-15 significant points of revision based on a review of all rough draft student submissions. Each entry included an example from student work of an area of concern along with an explanation of correction (see Appendix B). When providing feedback to the students, instructors would then reference the items on the list in the Feedback File. For instance, an instructor may have included as the fourth item in the Feedback File, “4. Use imperative at the beginning of every direction.” Then, the faculty would provide a more detailed explanation of what he or she meant by the imperative. Then, the instructors would provide an example that was written incorrectly to give students a guide of what to look for in their own writing. The entry on the Feedback File would also then
include a corrected version of the student example. Therefore, rather than trying to write a detailed comment in the margins regarding the use of imperatives in instructional writing on each and every student draft or copying and pasting the same comment from draft to draft, instructors would instead highlight the error area, comment “See Feedback File #4” (Figure 7), and move onto the next issues in the student’s paper and continue leading the student back to the Feedback File for details on the issues within the draft.

**Figure 7.** Sample instructor comments directing students to a feedback file.

However, instructors were encouraged to deliver and explain the Feedback File within the classroom to assist students in working with such a document. When recruiting instructors to participate in the study, I shared examples of the Feedback File and discussed how they would integrate this into the rough draft stage of their assignments. I discussed options for sharing such a document (posting in a centralized place within the LMS, sharing via email, or discussing as a class via a discussion board). I discouraged instructors using a synchronous delivery method as this would create an additional variable
to the study and student engagement that may affect the ability to compare the various sections across the study. Again, because this was an element of pedagogy, though, I needed instructors to feel comfortable with their own delivery method and the options available.

The Larger Study Design
Instructors voluntarily participated in this study and were invited to participate based on their ability to teach two sections of the same courses in one academic term. Through a variety of professional networking conferences and meetings, including the Society of Technical Communicators and the Conference on College Composition and Communication, instructors were made aware of the opportunity to participate in the study. When an instructor reached out regarding interest in participating, I scheduled a web-based orientation call to discuss the study in detail. After the call, participants were provided with several items:

- A one-page Study Overview document (See Appendix C) which outlined the purpose of the study, feedback pedagogy to be used in each section, the collection of artifacts, and the study follow-up
- A sample Feedback File
- A syllabus statement regarding the use of a Feedback File in the test section
- The rubric used to assess student submissions after final grading
- A Participation Agreement form as agreement to participate in the study

The larger study identified three instructors teaching the TPC service course at three four-year institutions. Participating instructors were required to teach two online sections of the same service course in which they used the same written assessments (the process/instruction document, the workplace memo, or the technical proposal). The goal for the instructor recruitment for this larger study was to include faculty who represented the diversity of the institutions and courses in which the TPC service course is offered. Instructors who participated in this study were full-time instructors who
possessed varied experience in online instruction. However, their academic backgrounds and research interests were all grounded within the TPC field. This ensured their familiarity with the assignments and standard writing process currently used in most TPC classrooms.

The participating instructors in the larger study represented a variety of institutions. Instructor 1 was a tenured faculty member at a public, four-year, large, primarily nonresidential institution located in the Ohio Valley region with an approximate enrollment of 15,000 students. The service course, Technical and Scientific Writing, is offered within the Department of English in the College of Arts and Sciences. The Technical and Scientific Writing course is offered as an optional course within the Professional Writing and Creative Writing minor curricula within the English Department. It is also a required support course of the Computer Information Technology major curriculum, and an option fulfilling the “Professional Skills” requirement in the Communication Studies major, both offered out of the College of Informatics. This 3-credit hour course is offered both online and face-to-face on a regular basis. In the course catalog, the course is described as “Principles and techniques of technical writing, including proposals, lab reports, job applications, graphics and feasibility studies. Recommended for students in sciences, public administration, social services, industry, and health and computer fields. Prepares students for cooperative writing internships in industries or agencies.”

The second participating instructor, Instructor 2, represents a public, four-year, doctoral university in the Southern Midwest region with an enrollment of approximately 12,000 students. The Rhetoric and Writing course “Technical Writing” is offered out of the department of Rhetoric and Writing in the College of Social Sciences and Communication. The course is described as an “intensive instruction in the theory and practice of technical communication.” The 3-credit hour course description lists among its learning outcomes “understanding audience,” “establishing a clear purpose,” “acquiring a sense of profession” and “developing strategies for successfully producing individual and collaborative documents.” The course is offered face-to-face and online on a regular basis as part of fully online
degree programs and the Professional and Technical Writing on-site major. The course is also offered as an option to fulfilling certain information technology requirements in degree programs such as the Bachelor of Science in e-Commerce, the Bachelor of Science in Nursing, and the Bachelor of Science in Engineering Technology.

Finally, the third instructor in this study, Instructor 3, represents a public, four-year, doctoral university with an enrollment of nearly 30,000 located in the Midwest region institution. The service course, “Principles of Technical Writing” is offered as part of a four-course Business and Technical Writing curriculum out of the Department of English in the College of Arts and Sciences. The objectives of these courses are described as developing “writing skills so that students are able to create effective reports and documents for professional settings and to communication effectively with other professionals and customers.”

Table 1 below compares the basic demographics and experience represented by the participating instructors.

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Highest Degree</th>
<th>Years Teaching Fully Online</th>
<th>Type of Institution</th>
<th>Gender</th>
<th>Type of Employment (Rank)</th>
</tr>
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<tbody>
<tr>
<td>Instructor 1</td>
<td>PhD</td>
<td>&gt;10 years</td>
<td>M1</td>
<td>Male</td>
<td>Tenured (Professor)</td>
</tr>
<tr>
<td>Instructor 2</td>
<td>MA</td>
<td>&lt;1 year</td>
<td>R3</td>
<td>Female</td>
<td>Non-Tenure Track (Sr. Instructor)</td>
</tr>
<tr>
<td>Instructor 3</td>
<td>PhD</td>
<td>&gt;5 years</td>
<td>R2</td>
<td>Female</td>
<td>Non-Tenure Track (Assoc. Lecturer)</td>
</tr>
</tbody>
</table>

Instructor 1 has been teaching TPC service courses for over 25 years. He is a tenured professor at the institution and a member of the faculty in the graduate program. His interest in participating in the
study was motivated by the potential study outcomes and the frustration with student response to individualized comments. He had no previous experience with providing collective feedback in any writing course whether online or face-to-face. Instructor 1 had been teaching online for over 10 years.

Instructor 2 had never taught a fully online course before participating in this study. She was a full-time, non-tenure track Senior Instructor at her institution. She retired after the spring term participating in this study. While she had never taught fully online courses before, she had previously taught hybrid courses and had taken a professional development course offered by her institution on online course design. When she completed the course, she was the only instructor who did not have any experience with their institution’s LMS. Therefore, she had to also learn the technology she would be teaching with in addition to learning about teaching online. Her experience is similar to that of others who are new to OWI. However, she sought out opportunities to include multimedia learning elements (videos, tutorials, and animations) in her TPC service courses and composition courses.

Instructor 3 holds the rank of Associate Lecturer in English. She teaches many of the TPC service courses within the department and is a Master Reviewer and certified Face-to-Face Facilitator for Quality Matters. With research interests in online pedagogy, she also serves on the NCTE’s Committee for Effective Practices for Online Writing Instruction (OWI) and is an editor for the OWI’s Open Resource.

Instructors were directed to treat one of their two sections as control group. To the students in this section, instructors provided individualized comments on student rough drafts on one of the agreed upon assignments (instructions, memo or proposal). Once instructors returned the feedback to the students and provided time for students to revise the drafts, the instructors collected final drafts of the assignments. In the test sections, students were provided feedback on their rough draft assignments via a Feedback File. Instructors were asked to highlight areas of concern on the student draft. In the comments, instructors would direct students to the appropriate entry on the Feedback File. The
Feedback File would contain an incorrect example, the rationale/explanation of the correction, and an example of the corrected issue. In the test sections, instructors would only comment on student rough drafts in the included assignments using this method. No additional individual comments were to be provided to students during the rough draft stage. Instructors had the ability to deliver and explain the feedback in a manner that fit with their pedagogy, pairing the Feedback File with audio or video recordings to explain the issues within the Feedback File, for example. Once students had the opportunity to revise the rough drafts, instructors would collect final drafts of the assignments. Instructors then selected submissions from each section and submitted them to outside reviewers for a final scoring review.

To determine the impact of feedback delivery, I needed to assess if there was a difference in the grades students received on final drafts of their assignments based on the feedback they received. To evaluate student performance objectively, I used three outside reviewers who were instructors in the TPC field and also equally familiar with the assignments and genres. The reviewers evaluated the samples submitted by the participating instructors using the same rubric used by the instructor in their class—a detailed, numerical rubric specific to each assignment that addressed the student learning outcomes for the assessments. I used three reviewers to account for some variables in the study design. First, I understood that grading within writing instruction can be subjective. While I used numeric rubrics that I developed to determine scoring to account for some of this subjectivity, individual instructors interpret whether or not students achieve the outcomes in the various areas. There is no way to account for this completely. However, I believed that using three reviewers and averaging their scoring addressed the issue of inter-rater reliability and subjectivity in grading. After reviewing the results, I was confident in our methodology when I found that very few outliers in the scoring existed. The outside reviewers in many cases assessed the submissions the same and gave them exactly matching scores. This will be discussed in further detail in Chapter 5.
Table 2. Outside Reviewer Demographic Information

<table>
<thead>
<tr>
<th>Rater</th>
<th>Highest Degree</th>
<th>Years Teaching</th>
<th>Type of Institution</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (PI)</td>
<td>PhD</td>
<td>&gt;10 years</td>
<td>R1</td>
<td>Female</td>
</tr>
<tr>
<td>2</td>
<td>MA</td>
<td>&gt;10 years</td>
<td>R1</td>
<td>Female</td>
</tr>
<tr>
<td>3 (Linh)</td>
<td>PhD</td>
<td>&gt;10 years</td>
<td>R2</td>
<td>Female</td>
</tr>
</tbody>
</table>

Table 2 above displays the demographics of the outside reviewers. They represent a variety of research institution levels. They are all credentialed in the area of TPC and have many years of experience teaching the TPC service course and the particular assignments used in this study.

Submissions were coded, removing all identifying information including student name or section. This allowed the outside reviewers to remain objective in their assessments of the drafts and unable to determine which students received individual or collective feedback. As the purpose of this study was to determine if there was any impact on student performance based on the how feedback was provided, it was important that reviewers reviewed all of the submissions through the same, neutral lens.

Two standard assignments were used for this study: the process/instructions assignment and the proposal assignment. Each of the participating instructors had already implemented some version of these basic assignments within their courses, which prevented any additional pedagogical challenges presented by the addition of a potentially “new” assignment.

Process/Instruction assignments that were submitted for analysis were evaluated using a numeric rubric to assess how well a submission met the determined outcomes for the assignment (See Appendix D). The rubric for the process/instruction assignment included assessment of six areas: Title (5 points), Introduction (10 points), Organization (25 points), Precision and Accuracy (25 points), Visual Additions (25 points), and Conventions (10 points). The Title area evaluated writing ranging from clear
and well-connected titles to no title. The Introduction area evaluated drafts ranging from stating the main aspect of the task to no clear introduction. Organization, which addressed methods and sequencing, evaluated ranging from logical order and keeps interest of reader to details in no logical order and disorganized. Next the rubric assessed a writer’s Precision and Accuracy. Submissions earning high scores possessed descriptions and steps that were precisely described and accurate. Submissions considered deficient in this area included many inaccuracies and descriptions or steps that were not clear. In addition to textual-based assessments, the rubric for this assignment reviewed the Visual Additions. In this area, assigned 25 points, submissions were evaluated based on the included diagrams or illustrations. Submissions that were considered “A” work included visual elements that were accurately and clearly labeled and helpful to the reader. Submission that failed to included visuals or illustrations received 0 points. Finally, as a central learning outcome to technical writing courses does focus on technical writing skills, this rubric included a Conventions area that assigned 10 points to assessing the grammatical and technical accuracy of the submission.

The proposal rubric used five criteria to evaluate student submissions: Content (40 points), Organization (20 points), Audience (10 points), Style (15 points), and Mechanics (15 points) (See Appendix F). In reviewing for Content, evaluators determined whether or not writers provided all of the information necessary for readers to understand the scope of the proposal. This area also included criteria for how well the writer offered a clear description of the project and supported the ideas and assertions. And finally, the content of the proposals needed to make a persuasive case for the approval of the proposed project. In the area of Organization, the rubric identified three major areas. First, the proposals were evaluated based on their use of a general, hierarchical structure (overview, introduction, costs/benefits, conclusions, etc.). Next, the Organization area was used to evaluate whether or not the writer adequately progressed the reader logically through the ideas within the proposal. And finally, in reviewing for organization, the rubric included criteria for how coherently a writer presented the ideas.
Next, the rubric included an area assessing Audience. In this category, reviewers analyzed how well a writer clearly defined the audience and how effectively the writer wrote the proposal to meet the needs and potential questions of the identified audience. Next, as in the memorandum rubric, the final two criteria assessed Style and Mechanics. In these areas, the proposals were evaluated for an awareness of stylistic choices (rhythm, sentence structure, voice, development) and grammatical correctness.

Instructors submitted two student drafts from each grade level (A, B, C, D, F as applicable) for one assignment (either proposal or process) from each section (control and test). If instructors had more than one student scoring in each of the grade levels, they selected two student submissions from each section. Again, I encouraged instructors to be as neutral as possible when selecting the papers for submission. They then compiled the submissions and sent them via email to the PI of the study, who blinded them and coordinated the raters’ review. As the final reviewer of the artifacts trying to assess any negative impact on student performance, I did not receive any individual scores from the three raters, nor did I see any of the information identifying which artifacts were from test or control sections.

Using the three rubrics detailed above, reviewers assessed the samples submitted by the instructors. The reviewers scored all of the submissions using the rubrics to determine if some of the assignments performed better than others. Then, I evaluated the responses based on the groups into which they fell (test or control).

After completing the study, the participating instructors completed an asynchronous interview recounting their experience participating in the study. There were 14 questions included in the post-study interview that were divided into three areas: 1) pre-study, 2) study execution, and 3) post-study participation review (See Appendix G). While many questions provided Likert scale responses, instructors were permitted to include any additional comments for each question. The answers were submitted to me and reviewed for themes from the faculty perspective in participating in a study that involved pedagogical change. As instructors who expressed interest in participating in this study
expressed concern over adopting such a change, I believed this additional element of the survey would provide valuable insights into what participating instructors actually experienced during the study. I believe that these responses may also assist in recruiting additional instructors in future iterations of this study.

In summary, the final study was designed to assess the impact of collective versus individual feedback in TPC service courses and asked faculty who taught multiple sections of the same TPC service course to use one as a test section and one as a control section. In the test section, faculty would use individualized feedback methods, and in the control, faculty would use collective feedback. Then, outside reviewers would compare the student submissions in the two sections to determine how well each section performed. An unanticipated challenge to this study that emerged from the pilot study was the challenges that participating instructors faced when trying to implement such a change to their pedagogy. The limited amount of usable data from the pilot study that resulted from instructor difficulty showed us that, for some, the concept of moving away from individualized feedback toward collective feedback was very intimidating. Several who were approached to participate in the larger study were concerned with student reaction to such feedback. Instructors frequently cited course reviews as being of particular importance to them. They feared that collective feedback may be interpreted by students as less hands-on, one-on-one instruction. Instructors noted that they often received high marks and specific comments that their students received helpful feedback, and they were hesitant to change their practices if this would be reflected negatively on end-of-term reviews. Because I had not and did not intend at this time to survey students on their experience with collective feedback, I could not address the concerns with student reviews.

While the larger study design was adjusted to account for challenges we faced in the pilot study design, I recognize that there are additional weaknesses of this study design and areas to continue improving and strengthening the study design.
The most notable weakness of this study was the size. While I believe the sample size of assignments used in the larger study here (a total of 43 student submissions over six sections from three instructors) provides a large enough sample to draw some conclusions, I understand that this is ultimately an early version of the study, a small representation of student work in the TPC service course in institutions across the country. However, this weakness is a reflection of the need for additional, larger-scale studies that can be done within online TPC instruction and OWI in general. These opportunities for further research will be discussed in more depth in Chapter 7. However, briefly, with a larger sample size, I believe we can draw more substantial conclusions about the impact of collective feedback on student performance.

Another weakness of this study was the variety of the implementation of the collective feedback in each test section. While I encouraged instructors and provided examples of how they could implement the Feedback File, I did not require instructors to use any one methodology for implementing collective feedback in their OWI. The primary reason for this was that because I faced such substantial anxiety from instructors during the recruitment for and implementation of this study in simply asking them to move away from individualized commenting, I feared that also dictating their pedagogy at a hands-on level would intimidate them beyond the point of willingness to participate. Yet because of this element of flexibility, I realize that I cannot say for certain how the three instructors in the larger study used the file in their online classrooms. Given the range of their online teaching experience, I recognize that this variable may have an impact on student performance. While data analytics from LMSs may provide insights into how often students use and access the data, the reality is that even these numbers do not provide windows into how students use the files after the instructor has introduced them. In the end, these weaknesses represent opportunities for future research that will be explored more in Chapter 7.
V. Results/Discussion

The Pilot Study

Surface-level interpretation of the performance data from the two sections would seem to indicate that collective feedback has a negative impact on student performance, given the differences in the scores.

The results of the outside reviewers of the two assignments, the proposal and the process, do reflect differences in student performance as indicated in Table 3 below. The test section (collective feedback) average score on the proposal assignment was a 76.83%, as compared to the actual class average on the assignment of 69.1%. The average score on the process assignment was 82.66%, as compared to the actual class average of 74.3%.

The control section scores as determined by the outside reviewers were slightly higher in each area. The spring term proposal assignment received an average reviewer score of 88.22%, as compared to the 89.4% actual class average. The process assignment received an average score from the reviewers of 86.57%, as compared to the actual class average of 89.0%. Comparing these results, the data from the outside reviewers reflects a 12 percentage-point difference in the proposal scores of the test group (collective feedback) versus the control group (individual feedback) and a 4 percentage-point difference in the process scores of the test group (collective feedback) to the control group (individual feedback).

Table 3. Outside Reviewer Average Scores for Each Assignment by Term

<table>
<thead>
<tr>
<th>Term</th>
<th>Proposal</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>88.22% (class actual 89.4% avg)</td>
<td>86.57% (class actual 89.0% avg)</td>
</tr>
<tr>
<td>Summer</td>
<td>76.83% (class actual 69.1% avg)</td>
<td>82.66% (class actual 74.3% avg)</td>
</tr>
</tbody>
</table>
However, I believe two variables at play in the pilot study prevent such an obvious interpretation: course modality and accelerated format. When placed within the context of these variables, the data indicates that collective feedback did not negatively impact student performance. In fact, given the distinct and powerful influences of course modality and term length, the data indicates that collective feedback may have in fact contributed to student success.

One area influenced by these variables that the data brought to light was grade distribution. Table 4 below displays the grade final grade distribution for the test section of the pilot study.

<table>
<thead>
<tr>
<th>Number of Students Receiving Grade</th>
<th>Grade percentage</th>
<th>Equivalent Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&gt;90.0%</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>80.0%-89.9%</td>
<td>B</td>
</tr>
<tr>
<td>4</td>
<td>70.0%-79.9%</td>
<td>C</td>
</tr>
<tr>
<td>1</td>
<td>60.0%-69.9%</td>
<td>D</td>
</tr>
<tr>
<td>1</td>
<td>&lt;59.9%</td>
<td>F</td>
</tr>
</tbody>
</table>

Of these 15 students who completed the course, one student received a final grade above 90.0% (A-level grade); eight students received grades between 89.9% and 80.0% (B-level grades); four students received grades between 79.9% and 70.0% (C-level grades); one student received a grade between 69.9% and 60.0% (D-level grade); and one student received a final grade below 59.9% (F-level grades).

The overall final grade average for the class was 77.35% with a standard deviation of 0.188.

In contrast, Table 5 below displays the final grade distribution of the 20 students who completed the control section (which used individualized feedback). Of these 20 students, 10 students received a final grade above 90.0% (A-level grades); 9 students received grades between 89.9% and 80.0% (B-level grades); one student received grades between 79.9% and 70.0% (C-level grades); no students received grades between 69.9% and 60.0% (D-level grades); and no students received final grades below 59.9%
(F-level grades). The overall final grade average for the class was 88.07% with a standard deviation of 5.18.

Table 5. Pilot Study Control Section Actual Final Grade Results

<table>
<thead>
<tr>
<th>Number of Students Receiving Grade</th>
<th>Grade Percentage</th>
<th>Equivalent Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>&gt;90.0%</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>80.0%-89.9%</td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>70.0%-79.9%</td>
<td>C</td>
</tr>
<tr>
<td>0</td>
<td>60.0%-69.9%</td>
<td>D</td>
</tr>
<tr>
<td>0</td>
<td>&lt;59.9%</td>
<td>F</td>
</tr>
</tbody>
</table>

Our results, and the distribution of grades across levels, are consistent with other data comparing OWI student performance to that of face-to-face course delivery. Data has shown that students in online courses consistently perform lower than their face-to-face counterparts (Ali and Franklin, 2001; Spitzer, 2001; Soles, 2001; Smith, 1994; Sapp and Simon, 2005). However, one study that explored the effects of writing course modality on student performance is of particular interest to the results of this pilot study. Sapp and Simon’s study offers acutely valuable insights into my results as their study compared the performance of students in two commonly offered undergraduate writing courses: first-year composition and business writing (a course that typically falls within the scope of the TPC service course). Researchers discovered that among the four courses they reviewed, there was a nearly 30% attrition rate of the online students, as defined by either not completing the course as scheduled, failing the course, or withdrawing from the course. In my pilot study, the summer online course had an attrition rate, as defined by Sapp and Simon’s study, of also exactly 30%. The face-to-face control section performance in our pilot study also paralleled Sapp and Simon’s results. Just as they found no students in the face-to-face writing course who did not complete the course, our spring section only had one student withdrawal and no student failures or dropouts. Overall final grades in the control section (face-
to-face) averaged 88.07% as compared to the test section (online) final grade average of 65.74, a gap of over 20%. Students in the control section outscored their peers by more than 20% on the individual assignments, as well.

Therefore, we believe the pilot study results indicate differences in performance that correlate with modality as opposed to a negative impact from collective feedback. Generally speaking, students in OWI seem to struggle more to complete successfully than do students completing the same writing course face-to-face. The similarity between the pilot study data and the Sapp and Simon study data indicates to us that course modality is a distinct variable in determining student performance in an OWC.

Table 6 below reflects the actual average scores students received on the two assignments in each section. In the test section, the average score on the proposal assignment was 69.13% (SD 30.45). The large standard deviation in this average reflects two 0.00% grades received for this assignment. The process assignment grades averaged 74.33% (SD 23.58). Again, this large standard deviation reflects one 0.00% grade received on this assignment. Throughout the term, six students did not participate in the rough draft phase of the writing process, meaning students did not receive any feedback on their rough draft directing them to the Feedback File or how to improve their draft.

Table 6. Pilot Study Summer Term Actual Assignment Performance

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Class Average (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal</td>
<td>69.13% (30.45)</td>
</tr>
<tr>
<td>Process</td>
<td>74.33% (23.58)</td>
</tr>
</tbody>
</table>

Table 7 below reflects the actual scores from the control section on the two assignments. The average score on the proposal assignment was 89.4% (SD 8.92). The smaller standard deviation in this section and assignment reflects only one student receiving a score below 70% and no students scoring a
0% on the assignment. The average process assignment grade was 89.0% (SD 5.43). Again, this standard deviation reflects only one score below 75% and no students scoring 0% on the assignment. Throughout the term, four students did not participate in the rough draft phase of the writing process on either the proposal or the process assignment, meaning students did not receive any individual feedback on their rough draft.

Table 7. Pilot Study Spring Term Actual Assignment Performance

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Class Average (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal</td>
<td>89.4% (8.92)</td>
</tr>
<tr>
<td>Process</td>
<td>89.0% (5.43)</td>
</tr>
</tbody>
</table>

These results indicated to us that we may not be comparing students of consistent performance levels. When we pulled out students who did not participate in the complete revision processes, we saw an impact on the performance data reflected in Table 8.

Table 8. Score Averages after Accounting for Participation Level

<table>
<thead>
<tr>
<th>Section (Feedback Method)</th>
<th>Proposal</th>
<th>Process</th>
<th>Class Final Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Individual)</td>
<td>87.5%</td>
<td>84.4%</td>
<td>89.69%</td>
</tr>
<tr>
<td>Test (Collective)</td>
<td>82.7%</td>
<td>83.2%</td>
<td>86.6%</td>
</tr>
</tbody>
</table>

After removing from the actual assignment scores of those who did not participate completely in writing process, we found that the average scores between the test and control sections were actually much closer. When comparing scores that represented equal student participation levels in the course, the difference between the average scores on the proposal assignment was only 3 percentage points between the two sections. On the process assignment the difference in the average score was less than 1%. Therefore, when we removed the variable of student participation level, we found the disparity between the scores on the assignments narrowed even further. This indicates that when comparing
students with like behaviors (willingness to participate, course motivation, assignment completion), we found no evidence that the feedback methodology negatively impacts student performance.

Therefore, after accounting for the variables within the two sections, we believe the data in our pilot study does not indicate a negative impact of the feedback methodology. Rather, we believe that this study’s data, in light of previous research, shows that collective feedback may in fact assisted the test section students who participated completely in the draft and revision process in passing the course.

While this pilot study appeared to support our hypothesis that feedback methodology did not negatively impact student performance, additional variables and its limited size made me realize I needed more developed research in order to discern a more definitive correlation.

The Larger Study
The results from the larger study provide more insight into the effect of feedback on student performance in online TPC service courses. In this section, I will review the results in detail and discuss their implications.

After the instructors completed the study, they submitted their results to the PI for coding and review. Before discussing the specific results from the three instructors, the results from the overall scoring provide valuable information that addresses one of the elements in the design study: rater reliability. It was noted in Chapter 4 that inter-rater reliability would be addressed by averaging the scores of the three raters. The overall scoring results show that inter-rater reliability was not a major issue. Of the 44 reviews, there were only 11 reviews where the differential between scoring among the three reviewers was more than 5 points. The largest gap was an 18-point difference on an F-Grade level student submission. The original instructor score on the student submission was a 48%. One reviewer scored the submission with a 50% and another scored the submission at 68%. While there was this
instance of a difference in the scoring, there were also 10 instances where all three raters gave student submissions the identical score. Among the remaining scores, most reviewer scores were within 4 points of each other. This overall consistency of the scoring among the raters lead me to believe that by averaging their scores, I accounted for the differences in the scoring.

With a data-supported confidence in the reviewer scoring, I will now review the results from the individual instructors and the insights they provide. Instructor 1 submitted 12 instruction assignment student submissions from the two sections: six submissions from the test section (collective feedback) and six submissions from the control section (individualized feedback). Every student wrote instructions for the same process and submitted rough drafts to the instructor for review. Instructor 1 provided grades that were distributed equally among three grade levels, A, B and C (2 submissions per grade level). The outside reviewer results are listed in Table 9 below.

Table 9. Instructor 1 Score Results Comparison from Reviewers

<table>
<thead>
<tr>
<th>Section (Feedback Method)</th>
<th>A-Grade Level Reviewer Avg. (Actual Avg.)</th>
<th>B-Grade Level Reviewer Avg. (Actual Avg.)</th>
<th>C-Grade Level Reviewer Avg. (Actual Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Individual)</td>
<td>84.3% (95%)</td>
<td>74% (85%)</td>
<td>75% (75%)</td>
</tr>
<tr>
<td>Test (Collective)</td>
<td>94% (95%)</td>
<td>81% (85%)</td>
<td>81% (75%)</td>
</tr>
</tbody>
</table>

The results from Instructor 1’s reviews indicate that, based on the averages of the outside reviewer scores, the test sections which received collective feedback performed better at all grade levels than their peers who received individual feedback commenting. In the A-grade level, the test section reviewers scored the submissions as 10 percentage points higher; the B-grade level scored 7 percentage points higher, and the C-grade level scored 6 percentage points higher. These results are important because while the study set out to determine if collective feedback had a negative impact on student
performance, the outside reviewer scores of this instructor seem to indicate that the collective feedback actually had a positive impact on student performance and may have assisted in them performing better.

Instructor 2 submitted 13 student drafts of an informal internal proposal that included a cover letter memo. The grade distribution of for Instructor 2 was not equal across grade levels. One reason for this was that Instructor 2 struggled with the study implementation and returned hard copy drafts to her students, meaning she was unable to submit drafts to the outside reviewers for assessment. Of the assignments submitted, there were 6 A-grade level submissions (3 from the test section and 3 from the control section), 6 from the B-grade level (4 from the test section and 2 from the control section), and 1 C-grade level submission. Because there was only one submission from the C-grade level, it was excluded from the score comparison. Table 10 below details the outside reviewer scores comparing the student performance in the two sections.

<table>
<thead>
<tr>
<th>Section (Feedback Method)</th>
<th>A-Grade Level Reviewer Avg. (Actual Avg.)</th>
<th>B-Grade Level Reviewer Avg. (Actual Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Individual)</td>
<td>93.1% (92.7%)</td>
<td>74.5% (79.75%)</td>
</tr>
<tr>
<td>Test (Collective)</td>
<td>94% (95%)</td>
<td>79.175% (84%)</td>
</tr>
</tbody>
</table>

The reviewer scores from Instructor 2 also indicate that students who received the collective feedback received outside reviewer scores that were higher than their peers who received individual comments. In this case, the difference between the scores was not as large as those from Instructor 1. Those in the test section A-grade level score 0.9 percentage points higher than the students in the control sections, and the B-grade level students in the test section scored approximately 5 percentage points higher than
those in the control section. Based on the data from Instructor 2, I also see that collective feedback may have actually positively impacted student performance.

Instructor 3 submitted 18 proposal student drafts for outsider review. Of those 18 drafts, there were 4 A-grade level submissions (2 from the test section and 2 from the control section); 3 B-grade level submissions (3 from the test section and 1 from the control section), 4 C-grade level submissions (2 from the test section and 2 from the control section. The results from the outside reviews are displayed below in Table 11.

<table>
<thead>
<tr>
<th>Section (Feedback Method)</th>
<th>A-Grade Level Reviewer Avg. (Actual Avg.)</th>
<th>B-Grade Level Reviewer Avg. (Actual Avg.)</th>
<th>C-Grade Level Reviewer Avg. (Actual Avg.)</th>
<th>D-Grade Level Reviewer Avg. (Actual Avg.)</th>
<th>E-Grade Level Reviewer Avg. (Actual Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Individual)</td>
<td>87.85% (94.5%)</td>
<td>74% (84%)</td>
<td>80% (77.5%)</td>
<td>71.15% (65%)</td>
<td>55.5% (51.5%)</td>
</tr>
<tr>
<td>Test (Collective)</td>
<td>89.5% (90%)</td>
<td>89.8% (85%)</td>
<td>85% (74%)</td>
<td>69.5% (66.5%)</td>
<td>66.3% (38%)</td>
</tr>
</tbody>
</table>

The results from the outside reviews for Instructor 3 indicate similar results to those from the other instructors. In all by one grade level (D-grade level) student submissions in the test section (collective feedback) scored higher than the submissions in the control section (individual comments). The differences in the scores ranged from 1.65 percentage points (A-grade level) to 15.8 percentage points (B-grade level). As these score results align with the results from the other instructor’s scores, I believe that not only does collective feedback not present a negative impact, it rather positively impacts student performance. I believe this to be the result of several factors. First, and one of the main reasons I began using Feedback Files, Feedback Files allow instructors to provide detailed examples of the problems or issues students encounter in the assignment. This extra information, that is not typically included in individual comments, assists students in applying the concepts to their writing. Secondly, I believe
Feedback Files allow students to reference the information multiple times as they revise their drafts. I believe these extra elements of the Feedback File make collective feedback a more usable tool for students to use when revising their work.

Interestingly, however, the data indicates that the individual instructors scored the control sections (individual feedback) higher than their peers in the test sections in all but two grade levels, B-grade level and D-grade level. Given the overall consistency of our outside reviewer scores, I question whether or not the instructors had some internal bias against the sections using collective feedback. Knowing that the instructors approached the use of collective feedback with some hesitancy and given their responses on the post-survey interviews that they struggled with letting go of individualized commenting, the data reflects that they may have graded the collective feedback sections with that concern in mind, questioning its effectiveness.

VI. Faculty Challenges
Both the pilot study and the larger study revealed some challenges faculty faced when implementing collective feedback via Feedback Files in their TPC courses. When we considered conducting a collective feedback study, we initially only questioned what kind of impact this pedagogical shift might have on students. However, during the recruitment phases of both studies, instructors expressed initial interest in participating and were curious about its outcomes, but they also repeatedly expressed concern about the time and effort it would take to implement such a change. After hearing troublesome statements from the instructors about challenges to implementing a change and the reactions students would have (what they would write on end-of-term reviews), I started to wonder what kind of impact this would have in the instructors themselves. Therefore, I asked all professors who participated in either the pilot study or the larger study, whether completed or not, to participate in a post-study asynchronous
interview (See Appendix G) regarding the study experience. The interview questions asked instructors to share any insights regarding the study in several areas:

- Challenges implementing the Feedback File
- Time to provide collective feedback versus individual feedback
- Impressions on student engagement with the Feedback Files
- Likelihood of continuing to use the Feedback File or collective feedback

I hoped that these questions would lend insights to three major challenges faculty faced when participating in this study: implementing collective feedback, concerns over student evaluations, and an inability to move away from individualized feedback. This chapter will discuss these challenges in detail.

**Implementing collective feedback**

One professor from the pilot study who did not complete the study is an Assistant Professor at the pilot study’s R1 institution. She teaches a variety of courses within the scope of the TPC service course, including Technical and Scientific Writing and Business Writing. She also advises students within the Rhetoric and Professional Writing program. Before attempting to participate in the pilot study (and in the post-study survey), the professor noted that she believed her feedback was important to students and that students cited its usefulness specifically on her end-of-term reviews. So, while her participation in the study was motivated by an interest in the study’s outcomes, she cited two main concerns in participating in the study: lower scores on her course reviews and an execution of the adjustment to pedagogy. Ultimately, the challenge of implementing collective feedback created issues so considerable they prevented the professor from completing the study.

This professor’s approach to feedback prior to the pilot study included collecting common errors on student papers that she would explain to the class upon returning the drafts to the students, a document similar to a Feedback File. However, the instructor also provided individualized comments to
her students in addition to sharing this document. This document was shared in the learning management system for students to reference later. Essentially, the instructor provided both individualized and collective feedback to her students on each assignment. Given her tendency to use both individual and collective feedback in the revision process, we wanted to ensure the professor understood that the study required her to no longer provide detailed, individualized comments. During the recruitment stage, my co-researcher and I in the pilot study sat down with the professor and discussed the use of the feedback file and the revised rough draft process, the comments to provide to students while using the file, and how to use the rubric in the final assessment. At that time, the instructor expressed a deep anxiety to no longer providing individual comments on her papers. And, again, she mentioned student reviews as a considerable concern.

To implement collective feedback for the study, the professor compiled the common issues in the Feedback File (as she had typically done), but struggled to not also provide detailed feedback. This compulsion to provide individualized feedback led the professor to also completing the final assessment rubric for each student’s rough draft. The combination of these two elements caused the professor to spend more than four hours on the feedback process, equal to the amount of time she had been spending providing individual comments to students without using the rubric. Because of the challenge to implementing the collective feedback method used in this study, the professor stopped using the Feedback File for her test section and reverted back to her original process. Ultimately, the challenge of implementing such a change in her pedagogy prevented her from fully participating in the study.

A second instructor attempted to participate in the pilot study but was unable to complete it. She frequently teaches courses that fall within the scope of the TPC service course as part of the Rhetoric and Professional Writing (RPW) track and has served on the RPW curriculum committee as well as advising RPW students at the pilot study’s institution. She was motivated to participate in the study because of an interest in the study outcomes combined with her frustration with student response to
individualized feedback. As a full-time instructor, she was also curious about time management of OWI. She cited similar concerns to participating in the study: lower scores on end-of-term reviews, an unfamiliarity with collective feedback and the pedagogy of such methodology, and a lack of student experience with collective feedback. She did believe, though, going into the study that her students did correct their drafts based on the individualized feedback she had been providing. This instructor’s conflicting beliefs, that she was both frustrated with students not using the feedback yet believed they were helpful, are further explored later in the challenge of moving away from individualized commenting.

Several factors prevented us from being able to include her data in the pilot study results. First, she allowed her students to “opt-in” to participation in the study and to receive collective feedback. This prevented a true randomization of the sample as student preference and learning attributes would have been additional variables to the performances scores. Additionally, she did not use any electronic submissions throughout the term, so we were unable to remove student information and instructor comments from final versions to prevent the outside reviewers from seeing any revealing information on the student submissions and thereby creating potential bias in the reviews.

The challenges to implementing the collective feedback methodology from these two instructor experiences provided some insight into how well instructors respond to adjustments in their pedagogy. How can we better prepare faculty to make adjustments, or at least address anxieties related to change? How can we move faculty into their zone of proximal development (Vygotsky) yet provide them with the support tools they need to learn an alternative pedagogical process? These questions and potential solutions will be discussed in Chapter 7 as we explore the implications of this study.

**Moving away from individualized feedback**
The anxiety instructors expressed with moving away from individualized commenting is worthy of a focused discussion because it was a specific inhibitor to both the recruitment and implementation
phases of this study, and, as the data indicates, perhaps also to the evaluation phase. While the data
reflects that feedback delivery method had no negative impact on student performance (and instead
may have improved performance), individualized commenting remains deeply engrained in the
instructors I worked with.

Both professors from the pilot study noted that they anticipated struggles moving away from
the individualized commenting they were accustomed to. The post-study responses provided valuable
insights in this regard. One noted that her students had mixed responses to the collective feedback and
that they commented that “they didn’t feel like they received enough feedback on their writing.” Yet,
she also noted that she saw evidence of students using the comments and rubrics to improve their
drafts. However, her participation in the study came to a halt because she was simply unable to let go of
the individual commenting she had been providing. She believed that a combination of collective and
individualized feedback would better suit her pedagogy—the same pedagogy she used before
participating the study—despite its time-consuming nature.

We saw this same hesitation to move away from individualized commenting in the second
instructor in the pilot study, as well. The second instructor also indicated that she wanted to continue to
provide individualized feedback to those who wanted to receive it, yet she indicated that individualized
commenting took her longer than the collective commenting, that she was frustrated with student
response and use of individualized comments, and that she agreed that students responded well to
receiving collective feedback. Despite knowing that collective feedback saved her time and that students
seemed to respond well to it, her post-study comments indicated that she liked the concept of collective
feedback and will adapt it “while LIGHTLY commenting on individual papers.” Again, this hesitancy to let
go of a long-standing practice paralyzed some instructors and inhibited others from being open to the
possibility of another approach.
This inability to relinquish individualized feedback also emerged in the larger study. Instructor 1 from the larger study also noted specifically in his post-study review that “the one issue I had was the extent of the individual comments I provided within the drafts.” Further he writes, “I’m not sure if it was past practice or habit, but I often felt the need to provide more substantive descriptions of the issues and the way to address them within the draft as opposed to directing students to the guidelines.” Additionally, Instructor 2 from the larger study noted, “I think that for the letter of application [assignment] in my tech writing class, I would like to provide individualized feedback since that assignment is of a more personal nature.” These comments support the notion that the real difficulty in implementing this kind of change in pedagogy is not an element of the student response and use of the feedback but is rather an element of the teacher’s reliance on traditional, long-standing practices.

Along those same lines, Instructor 3 from the larger study noted in her post-study review that she was hesitant to give up individualized comments not necessarily because she believed the feedback to be more valuable, but she was concerned that the students perceived individualized comments as more valuable. She wrote that, “a few students thought I was de-personalizing them since they had received personal comments on previous drafts.” Yet, she also agreed that students responded well to receiving collective feedback via Feedback Files in the test section and further noted that students “liked the ‘quickness’ of the feedback form since they could scan it and identify big issues.” Student reviews from the pilot study evaluations also indicated a positive response to collective feedback. All students ranked “The instructor gave meaningful, timely feedback” as either a 4 or 5 on a 5-point scale (5 being the highest score). Specific comments relating to feedback included, “Timely response that answered my questions,” and “showing alternative, examples, and having the class work amplified my personal skills.” The contrast between how instructors believe students will react to collective feedback and their actual responses, in addition to finding data that seemed to reflect a harsher grading on test sections overall, indicates to us that instructors may be projecting onto their students their own uncertainty about
collective feedback and hesitancy to give up individualized commenting. It is not as much the students who have the negative reaction to the collective feedback back method as it is the instructors themselves.

**Student Evaluations**

However, this concern about student reaction and its appearance on course evaluations is also important to this study. Both professors from the pilot study noted that negative student response on course reviews made them hesitant to participate. We know that for many instructors who are not yet tenured or who are contingent faculty, this concern is a sincere one (Meloncon and England, 2011). The potential for a negative course evaluation weighs heavily in the decision to adopt new or alternative teaching strategies because for the unstable faculty position in the end, regardless of pedagogical motivation or justification, if changes in the classroom result in negative course reviews, it could mean non-renewal of contracts or an inability to obtain promotion.

My experience as a new full-time instructor aligns with these same concerns. During my first year as a new non-tenure track, non-renewable faculty, I attempted to work with my students outside of the institutional LMS because I wanted to give students experience with collaboration tools they would engage with as practitioners, something an LMS is not. However, my first term course evaluations reflected student frustration with being asked to work with a new tool. Therefore, I altered my pedagogy to use the LMS students were most familiar with to prevent any future negative feedback in my second term evaluations. I knew that an element of my contract renewal process was a review of my evaluations. As a contract faculty member, I did not possess the job security to challenge my students even though, pedagogically, I knew the course activities and tools to be sound. My story, and the concern the two professors of the pilot study shared, is a common one, but not one I had explored beyond anecdotal fears.
Thus, I turned to the wealth of literature concerning student evaluations over the years to understand more about their perceived and actual validity. Scholarship exploring student evaluations reveals fluctuating themes. Early uses of evaluations and their interpreted reliability placed students in power positions (Calkins and Micari, 2010; Marsh, 1984; Centra, 1993). Given the early sense of validity and reliability, student evaluations quickly earned an intimidating prominence in the decision-making process of both instructors and administrators. Instructors began to fear them, and administrators began to rely on them. They viewed them as “objective,” numerical results that were helpful tools in determining contract renewals, promotion, and tenure.

Current conversations regarding course evaluations have changed, however. Stark and Freishtat (2014) warned that while student evaluations appear to have an “air of objectivity,” low response rates which create bias and inconsistencies in personal interpretation of scale ranking prevent them from being objective tools. Additionally, the authors caution administrators and instructors against using student evaluations to assess whether or not pedagogy is effective. Rather these tools should be used to assess areas where students are qualified to make judgements—course experience, level of enthusiasm for the topic, and instructor clarity. Recent articles within Inside Higher Education further disparage the student evaluation in similar areas, citing their low response rates (Flaherty, 2015) and bias against females and minorities (Flaherty, 2016). Simpson and Siguaw (2001) noted that while evaluations may have been initially implemented as a feedback tool for the instructor to gauge and improve teaching effectiveness, they have become a measurement by which teacher measure themselves and others. Teachers now teach to perform rather than adjusting their pedagogy in the reverse based on feedback they receive on their evaluations (Spooren, 2012). We saw evidence of this need to perform well on evaluations and the fear of not doing so having a marked impact the instructors’ willingness to participate in this study. The need to address these institutional pressures to perform and the use of
evaluations will be discussed in further detail in Chapter 7 as we explore implications of the larger study and its findings.

**VII. Implications/Next Steps**
As we have reviewed the results of the larger study and interpreted their meaning, it is helpful to refocus on the purposes of this study and what the results mean to those ends. This study set out to determine if collective feedback had a negative impact on student performance. There was no expectation to prove whether one form of feedback was better than the other, or whether or not collective feedback would positively impact student performance. However, now seeing that the results of the pilot study revealed there was no negative impact in combination with the results of the larger study that seem to show the Feedback File had a positive impact on student performance, additional questions are raised by the results. This chapter will further discuss the implications of this study and the opportunities for future research.

**Implications**
We do believe there are several important conclusions of this feedback study based on the data complied:

- Collective feedback is a viable alternative to providing feedback to students in OWI without impacting student performance.

- Instructor reluctance to move away from individual feedback indicates the current state of teaching and pedagogical process, impacting the way teachers are trained and the current emphasis on composition’s reliance on individualized commenting strategies.

- This study shifts pedagogical practice in the TPC service course toward a stronger alignment with workplace practice.
• This study opens the door to integrated studies around feedback and transfer to better understand the usefulness of feedback and invoking a writer’s own revision process in a way that can actually be transferred across courses (from freshman composition to technical writing).

• Feedback Files have the potential to create more meaningful interactions with the instructor and through additional discussions.

• Collective feedback can create efficiencies in OWI allowing instructors to reallocate time to other areas of instruction.

• This study provides insights into the complexities of the difficult yet necessary process of research study design to ensure the study produces valid and reliable data.

One conclusion of this study was its indication that, despite instructor anxiety and the challenges to implement, collective feedback does not negatively impact student performance. In fact, the data indicated that the opposite may be true. The outside reviewer scores seem to indicate that students in the test sections performed better overall than their peers in the controls sections. This supports collective feedback is a viable alternative to the individualized commenting that has become a central feedback strategy in TPC service course revision processes.

Yet, even with this data in hand, it is clear that instructors are reluctant to let go of long-standing, deeply engrained pedagogy. By and large, TPC instructors are trained to teach as graduate students with practices based in composition pedagogy. There is little to no training on how to teach the TPC service course at the basic level of teaching a writing process that mimics the workplace. Therefore, the anxieties presented by the faculty who have participated in this study (and those who opted not to) represent the current state of pedagogy in the TPC service field. The unwillingness to step outside of the individualized commenting comfort zone tells us that as a field, TPC may need to explore how future
instructors are trained. It may be beneficial to provide additional opportunities for faculty development through teaching and learning professional development programs that explore alternative pedagogies in writing instruction. Such exploration of pedagogy strategies have been offered under the umbrella of multi-modal teaching, collaborative learning, and flipped instruction. Yet, there has been little in the way of exploring alternative ways of teaching the revision process since the process-centered movement in composition studies.

Additionally, the initial results from the field interviews indicate that current feedback strategies in the academic classroom do not align with workplace writing processes. While the Feedback File makes a shift toward a stronger alignment, this study reveals that additional research is needed to better understand how writers use feedback in the field. Initially we limited participants to the field interviews to those who were not professional writers and editors. However, given that the results from the professional practitioners show the need to adjust pedagogies to mimic workplace practices, there is an interest in also exploring the practices of professional writers. Are the practices used in the writing classroom in alignment with those particular positions? Future iterations of the field interviews should include perspectives from those who have been professional trained to write to ensure alignment exists and to create opportunities for direct transfer from classroom to office. Likewise, adjusting academic feedback strategies to match those in the workplace allows instructors with professional experience to serve as experts in their field guiding students through the methods they will use as practitioners themselves. If the instructor, now in an expert role, uses feedback to assist students through an apprenticeship model approach to learning writing strategies (Hattie & Gan, 2003), this reframes feedback as not only a tool for revision, but as a training opportunity for students to create skills directly applicable to workplace practice. Further research that recontextualizes feedback in the TPC service course would prove beneficial to the TPC field at large as it assists in ensuring classroom practice prepares students for their roles as professionals.
However, because TPC and composition studies share a pedagogical history, further research into the use of collective feedback should address future developments in both areas. There would be distinct benefits to an integrated approach to understanding how the revision process may be adapted and the ability for students to the transfer skills from composition to the TPC service course would only strengthen pedagogy further. While there is feedback scholarship within TPC and feedback literature within composition studies, there has been little to date that explores the intersection of the two fields. However, knowing that students move from composition to the TPC service course, it would be helpful for both fields to better understand the implications writing pedagogy has on the professional student’s future writing practices. Moreover, as WAC and OWI seek to better understand how pedagogy plays out in the online sphere, an interdisciplinary approach to feedback studies can only enhance the development of best practices in OWI and TPC instruction.

The use of collective feedback within OWI, specifically, presents additional opportunities for further research:

- Using Feedback Files to create teacher presence in OWCs through meaningful interactions
- Using Feedback Files to create efficiencies in OWI allowing instructors to reallocate time to other areas of course design and delivery

As noted in Chapter 2, instructor presence within an online course is recognized as a large part of the learning network necessary to create an effective online learning environment (Moore, 1993). As online writing instructors consider ways to develop a presence that is supportive and engaged, they turn to feedback because of its dialogic nature as a way to engage in a conversation with their students. However, this tool only works as a discussion if both actors participate. If students do not find the feedback useful, individualized comments (that are typically provided) become an exercise in futility rather than a means to create instructor presence.
Therefore, this study calls OWI teachers to reconsider feedback within their online courses as more than a tool to create one-on-one dialogue. The data from this study, in addition to the student comments from the pilot study, indicate that students respond well to Feedback Files. In fact, the higher scores on written assignments in the test sections may indicate a higher level of engagement with the file. These results raise questions for further research into how and when OWI students engage with collective feedback. If students engage with the Feedback File differently than they do with individualized comments, how can instructors use that information to engage with students and to engage students with the content? How online writing instructors deliver the feedback presents additional questions. Would the use of synchronous delivery or multi-modal elements such as audio or video paired with delivery impact student performance? Could instructors use collective feedback to create opportunities for group or instructor-driven conversations engaging students further with the course content? While the results of this study provide a justification for using collective feedback in OWI, they also create more questions for future research as it relates to online pedagogy.

Further research devoted to OWI and the use of collective feedback would also provide additional insights into the efficiencies collective feedback creates in the online classroom. Anecdotally, online instructors reveal that while the perception is that teaching online takes less time, the reality is that to effectively teach online, instructors often spend hours building content, reviewing student work, and communicating with students through email, phone, and online meetings. And while these areas are time consuming, the task of providing instructor feedback often consumes the majority of an instructor’s daily activities. Because online instructors see individualized feedback as a way of creating a connection between student and instructor, there is a perceived pressure to deliver feedback that is lengthy and detailed. The apparent need for such feedback presented itself in our post-study instructor surveys, as well. This level of commenting is a laborious process. Gallien and Ooman-Early’s study found that it took instructors approximately twice as long (3 hours and 15 minutes) to prepare and deliver
individualized feedback as it did to prepare collective feedback (1 hour and 43 minutes). Several of the
faculty who participated in these studies echoed those same blocks of time devoted to providing
individualized comments, often citing four or more hours as the amount of time necessary to deliver
individualized comments for one class. Just as the instructors in Gallien and Ooman-Early’s study found
instructors could nearly cut their commenting time in half using collective feedback, the instructors in
the both the pilot and larger studies also expressed saving time. The efficiency collective feedback can
create in OWI is one of the most important implications of this study. Essentially, if online instructors
consistently employed Feedback Files to deliver feedback, they would gain back time that could be
reallocated to course content development and delivery. For example, instructors could use that time to
create presence in the course through activities, multimedia content, or even additional mini lectures—
delivering content through modes that students value more heavily in understanding assignments over
instructor feedback, as noted in Chapter 2. Bowden (unpublished ms) found in her study of 47 students
among 13 different sections of first-year composition courses that while students appeared to ignore
instructor comments between drafts, they were in fact processing the comments and determining what
to address and not address based on their ability to interpret meaning. Therefore, she encourages
instructors to build time into courses for discussion of feedback. With time saved from collective
feedback, online writing instructors could create such opportunities to discuss the Feedback Files
through discussion boards or synchronous meetings. An increasing number of instructors across
disciplines are tasked with folding online instruction into their teaching portfolios. Thus, the ability to
gain time through efficient course management and creative OWI pedagogies and, in turn, the ability to
create more meaningful interactions with students will become all the more important to future
scholarship.

While this study provided insights into the role and potential of feedback within the online TPC
service course, it also highlighted the challenges of designing studies that produce valid and reliable
data. This study began with a frustration—one common across writing instruction. Certainly there has been a wealth of research devoted to understanding why instructors spend so much time writing individualized comments only to find the same issues left untouched in a student’s final draft. Yet despite what these studies have shown us about why students choose to use feedback and how they use it, the TPC field’s reliance on individualized comments remained unchanged. Our belief that there was a better way led us to testing an alternative strategy in collective feedback. We believed students used these files in more meaningful ways which led to improved performance overall, and we believed this strategy better aligned with our experiences as practitioners. These beliefs based on anecdotal data created interest from other instructors sharing the same struggles. Thus we set out to find more substantiated, data-driven answers to whether or not collective feedback affected student performance, but at the beginning we did not necessarily know what questions to ask. So we initially designed the pilot study to give us a foundational snapshot on which to base future research. Based on the challenges we faced in instructor recruitment and study implementation, I realized there was more work to be done on the study design. The results from pilot study presented questions about the impact of term length and modality, two factors we had not initially accounted for. In essence, we were left with more questions than answers.

So, I designed a second larger study, having adjusted to account for the first set of challenges. And, as the data revealed, there are additional questions. How could participants be better prepared to implement such a pedagogical change like collective feedback? Could instructor pedagogy be more prescribed to equalize feedback delivery without scaring away the participants completely? Should the field interview participant pool be expanded to include professional writers in addition to TPC practitioners? Would these insights be valuable to the implementation of feedback in OWI? Would the use of LMS data analytics assist in understanding how and when students engage with collective feedback? How, if at all, does the use collective feedback present itself on student evaluations? Would a
more formalized study directed at assessing student evaluations in courses that use collective feedback help instructor willingness to engage in alternative pedagogies? As these questions and others reveal, this study provides only a glimpse into the potential for collective feedback in OWI. Therefore, this study serves as a mere starting point for further investigation into the role collective feedback may have in the development of OWI best practices.
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Appendix A
Field Professional Writing Practices Feedback Study

Q2 Thank you for participating in this study focused on professional writing practices. Please complete the questions below to help us gain a better understanding of how professionals in technical fields write and work with feedback. This survey is part of a larger study focused on preparing technical and professional communication students for workplace writing practices. Your participation is completely anonymous and voluntary. This study has been declared as non-human subjects research. Should you have any questions regarding this study, please contact the Meredith Singleton, the Principle Investigator, at singlemn@ucmail.uc.edu or (859) 240-2165.

Q6 Please explain the writing process you engage in on a regular basis (i.e. collaborative online, collaborative in-person, writing to direct supervisor, solitary writing, etc.)?

Q7 Does the process include a drafting stage during which you receive feedback from an individual or collaborators?

Q8 What kind of feedback, if any, do you receive on writing conducted at work?

Q9 Are you aware of an organizational style to which your writing must conform?

Q10 How do you remember being provided feedback as a writing student?

Q11 Does your writing process as work closely align with the writing processes in the classroom?
Q5 In your position, what kind of writing do you perform on a regular basis? Please check all that apply:

- Email (1)
- Instructions/Manuals (2)
- Web sites (3)
- Presentations (4)
- Definitions (5)
- Texting (6)
- Blogs (7)
- Grants/Proposals (8)
- Promotional material (9)
- Instant Messaging (10)
- Newsletters (11)
- Fiction (12)
- Infographics (13)
- Press releases (14)
- Usability Materials (15)
- Resumes/Cover letters (16)
- Info Reports (17)
- Research papers (18)
- Other (19) ________________

Q1 Professional field of practice (i.e. engineering, information technology, accounting, business, etc.):

Q3 Current position (title):

Q4 Please explain the work you perform on a daily basis (job activities):
Appendix B
Sample Process Writing Feedback File

1. Be sure instructions are clear and match visuals.

In this example, and importantly in instructions for any kind of software, screen shots need to reflect the step the user is taking. Here we see the instructions tell readers one task but the image not reflecting it.

2. Use an accurate title.

We see in this example that the title doesn’t actually reflect the process. The title says we’ll build a space, but what the text really describes is using Autodesk to build a space template.

**Creating a 3 story 30000 sqft office space**
The software that we will be using today is Autodesk Revit, this is a three dimensional modeling software in which architects, mechanical, electrical, plumbing, and other professionals use when modeling for buildings. For this specific space we will be focusing on the architectural side of modeling.

First we will need to open Revit, assuming that Revit is already installed on the machine that one will be using. When opening Revit one will first come to a screen that shows Families and Projects. For this we will be using The Architectural Template. After clicking on The Architectural Template one will come to the modeling screen.

The screen shown below will be the home screen.  
1) This is the ribbon, here we will access anything that needs to be modeled  
2) Is the properties, default it shows the properties of the screen being displayed in 4.  
   a. When a something is selected (wall, floor, door, or etc.) it will display the properties of that.  
3) Is the project browser, where one can navigate the views created within the project.  
4) Is the modeling window, here is where one will work inside the views here.
3. Include a tools/parts list and any warnings up front.

This example uses a nice tools list and parts list. But, don’t forget your articles (a, an, the, etc.). See the title. These are important in technical writing.

![Warning: Ni-Cad individual cells may have been shipped “dry”! Please verify cells are filled with the proper electrolyte (Potassium Hydroxide) before connecting the completed battery sets to the engine or to a battery charger or both. Batteries will be destroyed if connected prior to filling.]

**Tools Required:**
- M8 Socket
- Socket Wrench or Impact w/ Extension

**Parts Required:**
- (40) Ni-Cad Battery Cells
- (36) Connector Plates
- (72) M8 Bolts
- (72) M8 Wave Washers
- (2) Battery Jumper Cables

4. Don’t combine too much into one step.

We see in the example below that in this one step that there are actually two pieces of information that need to be separated out. If in a step you have text that implies two different screenshots (like we have here), those notes need to be separate.

Also, be sure to use action verbs at the beginning!
5) To use tools to create a program, you either right click on the Front Panel or Block Panel and a Controls dialogue box will open.

This dialogue box will have all of your controls (strings, graphs, creating an array, etc.) If you open the dialogue box in the Block Panel, many more options will be available because the controls needed for mathematical calculations are going to be on the block panel.

5. Use numeric steps.

We see in this example that the process is written as paragraph text. What you need to do for this assignment is create a numbered process for the reader to follow.
Moving on to the fun part about Taekwondo, the kicking! For me I am right handed so I will be explaining this from my perspective with kicking with my right leg, so if you are left handed just reverse everything. The first kick that I am going to teach you is front kick. This is the first kick that you learn because it is one of the easiest. First off you want to be in fighting stance, you want to point your left shoulder at your target. Make your hands into fists and put them up as if you were boxing. Now with your left arm bent so your left hand is resting just in front of your jaw and your right arm is bent as well, while your right hand slightly below your chin and in front of your chest. Based on the reference point of your target being in front of your left shoulder, you want your feet pointing to the at a forty-five degree angle from the center of your body towards your target. Next make sure your knees are bent and you have your weight on the ball of your toes. Now to start the actual kick, pivot your left foot forty-five degrees to the left of your target. Then pick up your right leg in a motion towards your target, make sure your knee is bent as if you are trying to bring your right knee to your chest. This is called cocking your leg. Before throwing the kick you want to make sure that you have pivoted your left foot all the way and that your head is directly over your left foot. While you are kicking, you still have to protect your body so make sure that your hands are still in front of you. Now on your right leg, pull your toes back towards the ceiling and snap your leg at the target while extending your hip towards the target to ensure all of your power generated goes into the target. During the kick you have to hit the target with the ball of your foot to keep your toes from being jammed. Congratulations, you just throw your first kick in Taekwondo! Now go to one of my favorite kicks, round house kick.
Basic use of the Vermeer BC1000xl Brush Chipper

The BC1000xl Brush Chipper is used to aid in tree removal by chipping brush and tree limbs in to more manageable pieces. It is very important to understand how to correctly operate and feed brush into the chipper, as well as the risks and precautions that should be taken before attempting to use the chipper. This document will cover starting the chipper, the feeding brush and limbs into the chipper, and will include warnings and safety tips throughout in bold lettering.

Before learning more about the operation of the chipper, it is necessary to familiarize oneself with a few key parts of the chipper. Starting on the left side of the image below, one can see a triangular section that seems to stick out from the rest of the chipper. This is known as the “hood” and is where brush and limbs may be fed into chipper. Above the hood there is a red colored bar that forms an upside down “U” over top and down the left and right side of the chipper, this is the “Feed Control Bar.” Just passed the feed control bar there is a black area which contains the machines gauges and key ignition, the “Control Panel.” Moving further towards the front of the chipper, the “chute” is seen sticking out over the chippers main body. Just below this on the main body of the chipper is a lever. This is the “Cutter Engage/Throttle Lever.” Moving all the way to the front of the chipper one finds the trailer hitch.

To begin, you will have to ensure that the chipper is located in a safe area of operation. The chipper should be on ground that either level or has a very gentle grade. The wheels of the chipper should be secured by chocks and the chipper should be securely attached to a vehicle equipped to carry the chips. It is important to note that the chipper should not be under or near any tree that is being removed. Falling limbs can damage the chipper and/or cause injury to the operator. Other safety precautions should be taken by operators of the chipper.
To complete this process you then select each device you want to unhide the cross references from.

**Update signal and destination boxes:**

Signal and destination boxes in AutoCAD are important because they link each page together. In essence if two wires are connected but cannot be displayed on one page a source will be attached to the end of one wire, and a destination will be attached on the beginning of the next wire.

This is an easy process in AutoCAD electrical and can be done by right clicking on a wire to add a source or destination or by editing the source and destination box that is already present on the drawing.

In this case I will be modifying the source and destination boxes that are already present on my drawings.

Select the source box you wish to link to a destination. Next, type in a unique label that you will use to tie the source, and destination together with.
6. Don’t take shortcuts. Give readers the examples that would help them.

We see in this example that the writer mentions what will happen to the file, but he or she doesn’t show and example shot to give readers some reference. Process documentation, especially if you’re writing for a reader who many have little experience with the tool or process, needs to be thorough. Otherwise, the documentation becomes useless and creates more frustration.
Similarly to how play functions, all built in effects of audacity, when selected, will only have an effect on the highlighted area.

5) Select the effect that you want to add to this portion of audio.
   a. On the upper toolbar, select “Effect”

   b. Then select the appropriate effect.
   c. Depending on the effect selected, a menu may pop up for you to further create the effect.

Once the effect has been selected and applied, the waveform will change its shape to reflect the edited sound.

6) Export the File edited audio file as an MP3.
   a. On the upper toolbar, select “File”
   b. Then select “Export”
   c. Browse to the appropriate location you want to save the file

7. Watch spelling and capitalization.

In this example, spelling can get in the way of understanding the document. Here, because the user is unfamiliar with the tools, he or she might think a “chin” is a part not identified in the parts image. Spelling is crucial.
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Secondly, watch the use of capitalization in titles. In the subtitle (not shown) the writer writes: “The tuning of an SRAM rear derailleur”. Here you need capitalization throughout the title--initial caps (capped first letter of each word) except for articles and prepositions.

8. Watch organization. Place important information up front and additional information at the back.

In this example we see a terminology list. These are helpful, but in this case, we don’t need the list first in order to perform the functions. So, move these as additional items to the back. Or, integrate them into the instructions as you go along as tips.
9. Don’t overcomplicate just to take up space.

In this example, we have a process that is really just a few steps drawn out into 6 sections with substeps in between. Technical writing is not a place where you can fluff your material to fit a requirement. Readers will see through this immediately. The font here is way too large. The images are overpowering. The process you describe needs to be clear, yes, but avoid overcomplicating or drawing out the process just to make something longer.
Table of Contents

• Section 1 – Item Overview
  – Screw gun
  – Screws and bits
  – Sheet Metal

• Section 2 – Preparing Items for Use

• Section 3 – Installing Metal Siding/ Roofing/Trim

• Section 4 – Troubleshooting

• Section 5 – Safety Precautions

• Section 6 - Index
10. Make sure your steps are actually action steps and are written clearly.

Here we see the first step isn’t really something the reader needs to do. And, it’s awkwardly written and hard to understand. In this kind of documentation, clear and precise writing is key. Instead here you would write:

Step 1. Know the basic functions and buttons on your iPhone.
- A PC or Mac computer with iTunes installed
- The cable connector that comes with the device when purchased

- Your apple id and password
- An internet connection and/or WiFi connection

3. Before choosing to restore your device you will need to create a backup. This can be done one of two ways, on your computer in iTunes or in iCloud.
   (Note: iCloud is a service that is offered thru Apple on all current iPhones, this is located in the Settings> iCloud menu of your iPhone. To use iCloud you will also need a WiFi connection.)

4. To back up your phone to iCloud click on storage and backup, then choose to back up now. If the option is not available then check that iCloud backup is turned on. This is located above the backup now option in iCloud.
Appendix C
Feedback Study Overview

Study Question:
Does collective versus individual feedback on rough draft submission affect the final grade?

Background:
Instructors have consistently questioned whether or not students use the feedback provided on written assessments. Usability studies have explored the effects of feedback content and student perceived usefulness of individual feedback. However, technical and professional communication (TPC) scholars have not yet quantifiably studied whether or not the method of feedback delivery directly affects the grades students receive on written assessments. This study will attempt to determine if collective versus individual feedback directly impacts a student’s final grade on a written assessment. Implications for online instructors could mean the ability to reallocate time spent on providing feedback to other areas of course design and engagement.

Implementation:
To implement this study into your course, you will adjust your method of feedback delivery for one of two TPC courses you are teaching.

Test Course:
For this course, students will complete assignments that use a detailed rubric for final grading. Students will write a rough draft of the assignment and submit it to you, the instructor, for review. Rather than providing individual feedback, you will provide feedback by creating a Feedback File. This file, a Word document, will be created from a list of issues that you believe students need to address before submitting their final draft. Typically, these files contain 8-10 items, but create them to address the areas you believe important. List the issues, provide a written explanation, and include a sample of error with revision.

Once the file is created, you will direct students to the document and the specific item that they need to review for their final draft. For example, you may list as issue number one “Memo formatting”. If a student has an issue with the format of his or her memo, then you would highlight the issue on the student’s paper, and enter a comment reading, “See Feedback File #1.” You will continue to comment in this way for all rough drafts.

In delivering the Feedback File to students, you will post the file in a centralized area and direct students to review the file.

Students may ask specific questions regarding their papers after feedback is provided, but in the test course, please avoid specific, individualized comments on rough drafts.

Final draft effectiveness will be assessed using the rubric provided to students.

Control Course:
The control course will provide specific, individualized comments to students on their own rough draft submissions. This is the traditional method of providing feedback to students and should be used consistently on the assignments used for this study.

Final draft effectiveness will be assessed using the rubric provided to students.
# Appendix D

## Process Grading Rubric

<table>
<thead>
<tr>
<th>Technical Writing: Process Assignment Grading Rubric</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title (5 points)</strong></td>
<td>The title is clear, well connected to the task, and interesting.</td>
<td>The title is clear and well connected to the task.</td>
<td>The title is present but is not well connected to the task.</td>
<td>There is no title.</td>
</tr>
<tr>
<td><strong>Introduction (10 points)</strong></td>
<td>The introduction is inviting, states the main aspect of the task, and encourages the reader to complete the task or understand the process.</td>
<td>The introduction clearly states the main aspect of the task but does not particularly engage the reader.</td>
<td>The introduction is neither well connected to the task nor is it particularly inviting to the reader.</td>
<td>There is no clear introduction of the main aspect of the task.</td>
</tr>
<tr>
<td><strong>Organization Methods and sequencing. (25 points)</strong></td>
<td>Details are placed in a logical order and the way they are presented effectively keeps the interest of the reader.</td>
<td>Details are placed in a logical order, but the way they are presented sometimes makes the writing less interesting.</td>
<td>Some details are not in a logical or expected order and this distracts the reader.</td>
<td>Many details are not in a logical order. The writing is disorganized.</td>
</tr>
<tr>
<td><strong>Precision and Accuracy (25 points)</strong></td>
<td>All descriptions and steps are precisely described and accurate.</td>
<td>All descriptions and steps are accurate and most are precisely described.</td>
<td>Some descriptions and steps are precisely described and accurate.</td>
<td>There are many inaccuracies and the descriptions are not clear.</td>
</tr>
<tr>
<td><strong>Visual additions Diagrams; illustrations (25 points)</strong></td>
<td>The writer includes an accurately and clearly labeled diagram or illustration to help the reader follow the steps.</td>
<td>The writer includes a diagram or illustration to help the reader, but some labels are unclear or missing.</td>
<td>The writer includes a diagram or illustration, but there are no labels and the connection to the piece is unclear.</td>
<td>There is no diagram or illustration included.</td>
</tr>
<tr>
<td><strong>Conventions Grammar, spelling, capitalization, punctuation, and usage. (10 points)</strong></td>
<td>All conventions are used at a high standard. Complete sentences are used.</td>
<td>Conventions are used at a satisfactory level. Complete sentences are used.</td>
<td>Conventions are sometimes followed. There are incomplete or run-on sentences.</td>
<td>There are frequent convention errors. Sentence fragments and run-ons occur frequently.</td>
</tr>
</tbody>
</table>

**Feedback:**
Appendix E

Policy Memo Grading Rubric

The following rubric reflects this assignment’s priorities — the highest priority is content, the lowest priority is mechanics.

<table>
<thead>
<tr>
<th>Category</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction: 10 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is included.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides orientation for the reader and context.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>• Provides a preview of the topic.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion: 10 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is included.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides summary of the main points.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides any relevant contact information or follow-up instructions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Content: 25 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides research and analysis for the option selected.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Gives clear reasoning, evidence or examples to support assertions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Makes conclusions or recommendations that follow from evidence and reasoning.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides information that affects employees currently and any future effects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organization: 15 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Follows general memo structure, improvises as needed and appropriate;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides subheadings and internal organization scheme to organize memo;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Presents the concepts in each section of the memo logically.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audience: 15 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Writes to a specific audience;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Answers the reader’s needs;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Considers the reader’s obligations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Style: 15 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reflects development and transition among sections and ideas;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Develops paragraphs completely;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides clear and logical sentence transitions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mechanics: 10 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is free of grammatical, technical and structural errors.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F

Proposal Grading Rubric

The following rubric reflects this assignment’s priorities — the highest priority is content, the lowest priority is mechanics. A check mark in a given box indicates how well the document addresses the criteria listed in each category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content: 40 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides all information required to understand the context and scope of the project;</td>
<td></td>
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</tr>
<tr>
<td>• Offers a clear description of the project and supports ideas and assertions;</td>
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<td></td>
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<tr>
<td>• Makes a persuasive case for why the project deserves funding.</td>
<td></td>
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</tr>
<tr>
<td><strong>Organization: 20 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Uses general format and sections outlined for basic project proposal (overview, introduction, cost/benefits, conclusion, etc.);</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>• Progresses logically and gives transition to ideas;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Presents related ideas coherently.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audience: 10 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Writes to a clearly defined audience;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Understands the reader’s needs;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Considers the reader’s obligations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Style: 15 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reflects an awareness of style choices (rhythm, sentence structure, voice, development).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mechanics: 15 points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Gives full attention to grammar and to proper presentation.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G
Faculty Feedback Study Participation Survey Questions:

Pre-study Questions:

1. What motivated you to participate in this study?
   - Interest in study outcomes
   - Frustration with student response to individualized comments
   - Prior experience with collective feedback methodologies
   - Curiosity about time management in online course instruction
   - Other: _______________________________

2. What hesitations or concerns, if any, did you have when considering whether or not to participate in this study?
   - Lower scoring on course reviews
   - Unfamiliarity with collective feedback
   - Executing an adjustment to pedagogy
   - Lack of student experience with collective feedback
   - Others: _______________________________

3. In your experience, students corrected their rough drafts based on individualized feedback you have provided in the past.
   
   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

Study Execution Questions:

1. Did you provide a statement to your students in your syllabus explaining how you would provide collective feedback? If so, what was the statement?
   Y/N
   Comments:

2. What was your methodology to providing comments to students on the rough draft stage before participating in this study?
   Comments:

3. Had you ever provided collective feedback to students on written assignments before participating in this study? If so, please provide a detailed explanation of your process
   Y/N
4. Did you experience any difficulties in providing collective feedback to students in your test section? If so, please explain in detail.
   Comments:

5. How long did it take you to provide the collective feedback?
   0-1hr per assignment       1-2hrs per assignment       3-4hrs per assignment
   More than 4 hrs

6. Comparing the time it took to provide collective feedback, please select a response:
   Collective feedback took significantly longer
   Collective feedback took slightly longer
   Collective feedback took the same amount of time to provide as individualized commenting
   Individualized commenting takes slightly longer
   Individualized commenting takes significantly longer

7. Did you experience any challenges or difficulties in producing the feedback files? Please include any additional comments/details for this question in the comments box.
   o Building the feedback files
   o Adjusting pedagogy for providing feedback files
   o Not providing additional comments
   o Helping students understand the feedback
   o Other: ______________________________

8. Please indicate your response to this statement: Students responded well to receiving collective feedback via feedback files in the test section?
   Strongly Agree    Agree    No change in response    Disagree
   Strongly Disagree

   Please provide any explanations to your selection above:

Post-Study Participation Review Questions:

1. Did you receive any comments from students on course reviews related specifically to feedback?
   Y/N
   Comments:

2. Would you continue to employ collective feedback methodologies in your writing courses?
   Why or why not?
   Y/N
Comments:

3. Looking back, is there any additional information that could have been provided to make your participation in this study easier?